Schoolcraft College®

SCHOOLCRAFT COLLEGE

2024-2025 CATALOG

Schoolcraft College®

2024-2025 Compiled Catalog PDF

The Mission

Schoolcraft is a comprehensive, open door, community-based college. The mission of the College is to provide a transformational learning experience designed to increase the capacity of individuals and groups to achieve intellectual, social, and economic goals.

The Vision

The College wishes to be a first-choice provider of educational services, a competent organization, functioning with integrity, behaving strategically, and providing value beyond expectations.

College Values

- We recognize that students are our reason for existence and that student success is paramount to our mission.
- We pledge to follow ethical practices in the classroom, boardroom, business operations, and all other areas of the College.
- We value diversity in our students, staff, and programming.
- We are committed to having a positive intellectual, social, and economic impact on the communities we serve.
- We strive to achieve leadership in academics, management practices, employee relations, and institutional innovation.
- We strive to maintain a supportive, cordial, and aesthetically pleasing environment for our students, staff, and community.
- We encourage lifelong learning for our students and staff by providing the most current programs, utilizing the most effective instructional delivery methods.
- We believe that higher education should be accessible to the greatest number of our constituents.

Schoolcraft College provides this document for information purposes only. Its contents do not constitute a contract between this institution and prospective or enrolled students. The information contained in this document reflects the current curricula of the college as of 5/03/2024, which is maintained and updated as needed digitally at www.catalog.schoolcraft.edu. This information is subject to change at any time by action of the Board of Trustees or the administration.

Visit www.catalog.schoolcraft.edu for the most current information. All courses (and programs) are not offered each semester/term. Students should work with their academic advisor regularly to develop an educational plan of study that will best meet their needs and educational goals.

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Schoolcraft College®

2024-2025 Credential Year

Degree Graduation Requirements

Earning Your Schoolcraft College Degree or Certificate

Schoolcraft College offers 5 types of credit-bearing credentials:

Schoolcraft College offers multiple levels of credentials (certificates or degrees) that allow a student to get the right skills and knowledge that prepare them to either begin or advance in a career or transfer into a bachelor's degree.

- Skills Certificate (CRT): 16 - 21 credit hours.
- Certificate (1YC): 24 - 48 credit hours.
- Associate degree (AA, AAS, etc.): 60-78 minimum credit hours
- Post Associate Certificate (PAC): 9 - 20 credit hours.
- Bachelor's Degree (BS, BA, BAS): Minimum 120 credits

How are these credentials earned?

- Students earn credentials (degrees and certificates) by completing courses required in a specific program of study.
- Each course in the program of study is worth a certain amount of credit hours, also known as credits.
    - Credits are based on the number of hours of required meeting times for the class or the number of competencies that are achieved. (Learn more about credit and contact hours at Schoolcraft College.)
- Students can also transfer credits from prior coursework, advanced placement exams, and prior learning credit.
    - Learn more about transferring credits at Transfer In - Schoolcraft to U - Schoolcraft College.
    - Have prior work experience? Learn more about receiving prior learning credits for college-level learning from non-college sources at Prior Learning Credits - Student Records - Schoolcraft College.

Most credentials are considered "stackable" as one credential might lead to the next credential. For example, students may choose to complete courses towards the Accounting Skills Certificate, then the Accounting 1 Year Certificate, before completing an associate degree in Accounting.

Some credentials may also qualify for an articulation agreement. Schoolcraft's students may be eligible to "stack" their credentials to a 4-year degree. Schoolcraft College has signed over 40 articulation agreements (special transfer agreements), which allow students a clearer pathway to a bachelor's degree at a four-year college or university. Learn more about transfer opportunities and articulation agreements at Transfer Out - Schoolcraft to U - Schoolcraft College.

IMPORTANT: Always work with your academic advisor when selecting your program of study.

Associate and Bachelor Degree Requirements

Associate and bachelor's degree programs have special requirements. Below is information regarding the different degree requirements.

The Associate of Applied Science degree (AAS) will lead students to a career opportunity. The specific requirements are detailed in each of the AAS programs.

Students may also use the Associate of General Students (AGS) to increase their career options.

To meet the needs of transfer students, the Associate of Arts (AA), Business Administration (ABA), Engineering (AE), Fine Arts (AFA), General Studies (AGS), and Science (AS) degrees include:

1. A set of Liberal Arts courses in math, science, humanities, social science, and English or other courses.
2. A specific set of courses in a Major Area of Study; and
3. Courses that fulfill Schoolcraft College's General Education requirements.

All three of these components will be necessary to graduate. Certain degrees also require the completion of General Elective courses.

Two primary types of courses may be used towards fulfilling credentials such as certificate, associate, or bachelor's degrees at Schoolcraft College: liberal arts, and occupational. Applied liberal arts or occupational courses may not account for more than 15 credits in a transfer degree.

Schoolcraft College offers one bachelor's degree option, using the requirements of the Bachelor of Science degree.

Graduation Requirements

Per Board Policy 2210, graduation from Schoolcraft College is recognized by the awarding of the following credentials: a bachelor's degree, an associate degree, a certificate, a skills certificate, or a post-associate certificate.

A student applying for graduation must comply with one of the following guidelines:

1. Complete credential requirements from the current catalog, ***or.***
2. Complete credential requirements from the previous five years of catalog offerings. Any exception to this procedure must be approved in writing by the Chief Academic Officer.

Certificate Requirements

STUDENTS WHO WISH TO BECOME CANDIDATES FOR A CERTIFICATE MUST MEET THE FOLLOWING REQUIREMENTS:

1. Submit requested official transcripts from all previously attended institutions.
2. File an appropriate notice with the Registrar or Records Office at the beginning of the semester or session in which the student plans to finish the course work.
3. Earn a minimum grade-point average of 2.0 unless a higher cumulative grade point is stipulated by the specific program.
4. Complete the specific requirements of a certificate curriculum listed in the catalog.
5. At least half of the credit hours applied to the certificate must be earned at Schoolcraft College.
6. All courses applied to the certificate must be at the 100 level or above.

SPECIFIC CERTIFICATE REQUIREMENTS

Students who intend to complete a specific certificate program must elect to follow the appropriate certificate program curricula listed in the catalog used to meet graduation requirements.

Associate Degree Requirements

STUDENTS WHO WISH TO BECOME CANDIDATES FOR AN ASSOCIATE DEGREE MUST MEET THE FOLLOWING REQUIREMENTS:

1. Submit requested official transcripts from all previously attended institutions.
2. File an appropriate notice with the Registrar or Records Office at the beginning of the semester or session in which they plan to finish course work.
3. Fulfill the core ability, Schoolcraft College general education requirements, and degree requirements as listed in the catalog to be used for graduation.
4. Complete a minimum of 60 semester hours of credit and meet the specific minimum credit hours of a career or transfer curriculum.
5. Earn a minimum of 15 semester hours of credit at the 100 level or higher at Schoolcraft College.
6. Obtain a minimum cumulative grade-point average of 2.0 unless a higher cumulative grade-point is stipulated by the specific program.
7. Earn six (6) semester hours of credit in English Communication. Students completing a transfer associate degree are recommended to earn six (6) semester hours of credit in English Communication following the Michigan Transfer Agreement requirement.
8. All courses applied to the degree must be at the 100 level or higher.

SPECIFIC PROGRAM REQUIREMENTS

Students who intend to complete a specific associate degree program must elect to follow the appropriate program and degree curricula listed in the catalog used to meet graduation requirements.

Bachelor Degree Requirements

STUDENTS WHO WISH TO BECOME CANDIDATES FOR A BACHELOR'S DEGREE MUST MEET THE FOLLOWING REQUIREMENTS:

1. Submit requested official transcripts from all previously attended institutions.

2. File an appropriate notice with the Registrar or Records Office at the beginning of the semester or session in which they plan to finish course work.
3. Fulfill the core ability, Schoolcraft College general education requirements, and degree requirements as listed in the catalog to be used for graduation.
4. Complete a minimum of 120 semester hours of credit and meet the specific minimum credit hours of a career curriculum.
5. Earn a minimum of 30 semester hours of credit at the 100 level or higher at Schoolcraft College.
6. Obtain a minimum cumulative grade-point average of 2.0 unless a higher cumulative grade-point is stipulated by the specific program.
7. All courses applied to the degree must be at the 100 level or higher.

SPECIFIC PROGRAM REQUIREMENTS

Students who intend to complete a specific bachelor's degree program must elect to follow the appropriate program and degree curricula listed in the catalog used to meet graduation requirements.

Schoolcraft College®

2024-2025 Credential Year

Associate of Applied Science (AAS) Degree

Schoolcraft program code varies based on the specific AAS degree program.

At Schoolcraft College, students can choose from a wide range of Associate of Applied Science (AAS) degree programs, each with a unique occupational focus and program code. These programs include a set of occupational courses that help students develop the necessary skills for their chosen career, as well as liberal arts courses that provide a well-rounded education. With an AAS degree, students will be equipped to pursue employment opportunities in their field of interest. You can find specific program requirements, from Accounting to Welding, on the Programs by Degree catalog page.

To explore transfer options, it is recommended that students meet with an academic advisor.

General Education Requirements

Students who complete the requirements below will have completed all of Schoolcraft College Core Abilities and a minimum of 16 credit hours of associate-level Schoolcraft General Education requirements in English Communication, humanities, mathematics, natural sciences, and social sciences. All courses that apply to this degree must be at the 100- through 400-level with an overall minimum grade point average (GPA) of 2.0 unless a higher cumulative grade-point is stipulated by the specific program.

Degree Requirements

English Communication (minimum 6 credits)

Complete a minimum of two English communication courses within a set of courses from the options below.

Option 1: Select two courses in composition from this list:

- ENG 101, ENG 102, ENG 221

Option 2: Select one course in composition from this list:

- ENG 101, ENG 102, ENG 221

AND Select one course in communication arts from this list:

- COMA 103, COMA 200, COMA 202, COMA 212, COMA 213, COMA 215, COMA 240

Option 3: Select one of the following combinations:

- ENG 100 & ENG 106; *or* ENG 100 & ENG 116*; or* ENG 101 & ENG 106; *or* ENG 101 & ENG 107; *or* ENG 101 & ENG 116

Humanities (minimum 1 credit)

- Complete a minimum of one Humanities course in Art, Communication Arts, English (Literature), Foreign Language, History, Humanities, Music, Philosophy, or Theatre

Mathematics (minimum 3 credits)

- Complete a minimum of one Mathematics course.

Natural Science (minimum 3 credits)

- Complete a minimum of one Natural Science course in Biology, Chemistry, Earth and Environmental Science, Geography, Nutrition and Food Science, or Physics

Social Science (minimum 3 credits)

- Complete a minimum of one Social Science course in Anthropology, Economics, Geography, History, Political Science, Psychology, or Sociology

Major Area of Study

- Complete a minimum of 16-44 credit hours in a major concentration area which are identified and listed in the program requirements and are specific or supportive of the occupational goals.

Total Credits: 60

PLEASE NOTE: Students may not use the same History course to satisfy both the humanities and social sciences requirements. Additionally, students may not use the same Communication Arts course to satisfy both the humanities and English Communication requirements. Only certain Geography courses can be used for a natural science or social science course.

Three (3) types of courses may be used toward fulfilling associate degrees at Schoolcraft College: liberal arts, applied liberal arts, and occupational. While applied liberal arts courses provide immediate skill-building opportunities, their transferability should be discussed with an academic advisor. Students can check www.mitransfer.org to verify the transferability of their courses.

Schoolcraft College®

2024-2025 Credential Year

Associate of Arts (AA) Degree

Schoolcraft program code # AA.00042

The Associate of Arts (AA) Degree is specifically designed for students who intend to transfer to a four-year college or university. It requires students to complete a diverse range of liberal arts courses in areas such as English Communication, humanities, mathematics, natural sciences, and social sciences. These courses help meet transfer requirements toward a bachelor's degree. Students select courses within this degree that meet the eligibility criteria for the Michigan Transfer Agreement (MTA), fulfilling both the General Education and Core Ability requirements and the Associate of Arts degree requirements.

General Education Requirements

Students who complete the requirements below will have met the Schoolcraft General Education requirements and be eligible to complete the Michigan Transfer Agreement (30 credits.) All courses that apply to this degree must be at the 100- through 400-level with an overall minimum grade point average (GPA) of 2.0.

Degree Requirements

English Communication (minimum 6 credits)

Complete a minimum of one English composition course from the list below:

- Take ENG 101, ENG 102, or ENG 221

Complete a second English composition course or a communication arts course from the list below:

- Take ENG 101, ENG 102, ENG 221, COMA 103, COMA 200, COMA 202, COMA 212, COMA 213, or COMA 240

Humanities (minimum 4 credits)

- Complete a minimum of two courses from different Humanities disciplines from the MTA list such as Art, Communication Arts, English (Literature), Foreign Language, History, Humanities, Music, Philosophy, or Theatre, excluding performance or studio classes.

Mathematics (minimum 3 credits)

Complete a minimum of one Mathematics course from the MTA list:

- MATH 111 - Applications - Utility of Math ***Credits: 4***
- MATH 119 - Trigonometry ***Credits: 3***
- MATH 122 - Elementary Statistics ***Credits: 4***
- MATH 126 - College Algebra ***Credits: 4***
- MATH 129 - Precalculus ***Credits: 5***
- MATH 135 - Finite Mathematics ***Credits: 4***
- MATH 145 - Calculus for Business and Social Science ***Credits: 4***
- MATH 150 - Calculus with Analytic Geometry 1 ***Credits: 5***
- MATH 151 - Calculus with Analytic Geometry 2 ***Credits: 5***
- MATH 230 - Linear Algebra ***Credits: 4***
- MATH 240 - Calculus with Analytic Geometry 3 ***Credits: 5***
- MATH 252 - Differential Equations ***Credits: 5***

Natural Science (minimum 7 credits)

- Complete a minimum of two courses from different Natural Science disciplines from the MTA list such as Biology, Chemistry, Earth and Environmental Science, Geography, or Physics. One course must be a lab science course.

Social Sciences (minimum 6 credits)

- Complete a minimum of two courses from different Social Science disciplines from the MTA list such as Anthropology, Economics, Geography, History, Political Science, Psychology, or Sociology

Major Area of Study

- Complete an additional 34 credits of courses not previously taken that satisfy transfer and academic goals and requirements.
    - Students may take up to 15 credits of occupational or applied liberal arts courses toward the Associate of Arts degree. Not all occupational courses will transfer to another college or university. Consult transfer and articulation guides.
    - View the 2024/2025 Michigan Transfer Agreement Guide for a complete list of transferrable courses that also meet the MTA requirements.

Total Credits: 60

PLEASE NOTE: Students may not use the same History course to satisfy both the humanities and social sciences requirements. Additionally, students may not use the same Communication Arts course to satisfy both the humanities and English communication requirements. Only certain Geography courses can be used for a natural science or social science course.

- Upon finishing the MTA requirements, students will have fulfilled the general education requirements for an Associate of Arts degree at Schoolcraft College. To receive the MTA endorsement, students must request it by sending an email to screcord@schoolcraft.edu after their courses are completed and final grades are posted. The email should include the student's name and Schoolcraft ID number.
- It's worth noting that although students can transfer in credit towards MTA, they must complete at least one credit of MTA applicable coursework at Schoolcraft to receive the endorsement. Occupational credit is not eligible. Additionally, achieving a minimum grade of 2.0 is required for each course that's used to fulfill the Michigan Transfer Agreement.

Transfer Opportunities

For those seeking a bachelor's, master's, or doctoral degree, Schoolcraft College is a fantastic starting point. Whether you already have a transfer destination/program in mind or are still figuring out your major, Schoolcraft College can help you explore a range of transfer options at Schoolcraft Transfer to U.

If you complete your associate degree before transferring to a 4-year college or university, you can save a lot of money on tuition. To find out how much you can save, use our tuition comparison calculator. You can also speak with your advisor to learn how to maximize your savings through a transfer or articulation agreement.

Schoolcraft College®

2024-2025 Credential Year

Associate of Business Administration (ABA) Degree

Schoolcraft program code #ABA.00401

The Associate of Business Administration (ABA) degree is for students who plan to transfer to a four-year college or university program. It provides the framework for four-year college degrees in, but not limited to, the following majors: Accounting, Business Administration, Computer Information Systems, Finance, Human Resource Management, International Business, Management, and Marketing.

Students can complete a broad distribution of liberal arts courses in the English, Humanities, Mathematics, Natural Sciences, and Social Sciences distribution areas to meet transfer requirements toward a baccalaureate degree with an intended focus on business and related fields.

General Education Requirements

Students who complete the requirements below will have completed all of Schoolcraft College Core Abilities and a minimum of 16 credit hours of associate-level Schoolcraft General Education requirements in English Communication, humanities, mathematics, natural sciences, and social sciences. All courses that apply to this degree must be at the 100- through 400 level with an overall minimum grade point average (GPA) of 2.0.

Degree Requirements

English Communication (minimum 6 credits)

Complete a minimum of one English composition course from the list below:

- Take ENG 101, ENG 102, or ENG 221

Complete a second English composition course or a communication arts course from the list below:

- Take ENG 101, ENG 102, ENG 221, COMA 103, COMA 200, COMA 202, COMA 212, COMA 213, or COMA 240

Humanities (minimum 4 credits)

- Complete a minimum of two Humanities courses from two different disciplines in Art, Communication Arts, English (Literature), Foreign Language, History, Humanities, Music, Philosophy, or Theatre

Mathematics (minimum 3 credits)

Complete a minimum of one Mathematics course from Schoolcraft's approved Michigan Transfer Agreement (MTA) course list.

- Recommended: MATH 122 - Elementary Statistics ***Credits: 4***

Natural Sciences (minimum 7 credits)

- Complete a minimum of two Natural Science courses from two different disciplines in Biology, Chemistry, Earth and Environmental Science, Geography, Nutrition and Food Science, or Physics. One course must be a lab course.

Social Sciences (minimum 11 credits)

Complete a minimum of two Social Science courses from two different disciplines in Anthropology, Geography, History, Political Science, Psychology, or Sociology

- ***Required:*** ECON 201 - Principles of Macroeconomics ***Credits: 4***
- ***and*** ECON 202 - Principles of Microeconomics ***Credits: 4***
- Recommended: POLS 105 - Survey of American Government ***Credits: 3***

Major Area of Study (11 credit hours)

- ACCT 201 - Principles of Accounting 1 ***Credits: 4***
- ACCT 202 - Principles of Accounting 2 ***Credits: 4***
- BUS 101 - Introduction to Business ***Credits: 3***

General Electives (18 Credits)

Complete an additional 18 credit hours in courses not previously taken that satisfy transfer and academic goals and requirements.

Recommended:

- BUS 207 - Business Law 1 ***Credits: 3***
- CIS 115 - Introduction to Computer Based Systems ***Credits: 3***
- CIS 120 - Software Applications ***Credits: 3***

Students may take up to 15 credits of occupational or applied liberal arts courses toward the Associate of Business Administration degree. Not all occupational courses will transfer to another college or university. Consult transfer and articulation guides.

Total Credits: 60

PLEASE NOTE: Students may not use the same History course to satisfy both the humanities and social sciences requirements. Additionally, students may not use the same Communication Arts course to satisfy both the humanities and English communication requirements. Only certain geography courses can be used for a natural science or social science course.

Three (3) types of courses may be used toward fulfilling associate degrees at Schoolcraft College: liberal arts, applied liberal arts, and occupational. While applied liberal arts courses provide immediate skill-building opportunities, their transferability should be discussed with an academic advisor. Students can check www.mitransfer.org to verify the transferability of their courses.

Transfer Opportunities

For those seeking a bachelor's, master's, or doctoral degree, Schoolcraft College is a fantastic starting point. Whether you already have a transfer destination/program in mind or are still figuring out your major, Schoolcraft College can help you explore a range of transfer options at Schoolcraft Transfer to U.

If you complete your associate degree before transferring to a 4-year college or university, you can save a lot of money on tuition. To find out how much you can save, use our tuition comparison calculator. You can also speak with your advisor to learn how to maximize your savings through a transfer or articulation agreement.

Schoolcraft College®

2024-2025 Credential Year

Associate of Engineering (AE) Degree

Schoolcraft program code # AE.00039

Schoolcraft's Associate of Engineering degree is designed for students pursuing a bachelor's degree in engineering. Students establish a strong academic foundation in mathematics and science and complete courses to fulfill general education requirements before moving on to a bachelor's degree program at another college or university.

- Civil, chemical, computer systems, electrical, environmental, industrial, and mechanical engineering are among the most popular bachelor's degrees, although there are more than 25 recognized specialties.
- Schoolcraft's degree can prepare the student for transfer into any engineering specialty.
- The specific courses required will be determined by the destination college or university or the student's intended major.
- Students must work with an academic advisor to ensure that their courses transfer.

Not all courses are offered each semester. Students should work with an academic advisor to develop their schedule. Number of credits may vary depending on the course selection.

General Education Requirements

Students who complete the requirements below will have completed all of Schoolcraft College Core Abilities and a minimum of 16 credit hours of associate-level Schoolcraft General Education requirements in English Communication, humanities, mathematics, natural sciences, and social sciences. All courses that apply to this degree must be at the 100- through 400 level with an overall minimum grade point average (GPA) of 2.0.

Degree Requirements

English Communication (minimum 6 credits)

Complete a minimum of one English composition course from the list below:

- Take ENG 101, ENG 102, *or* ENG 221

Complete a second English composition course or a communication arts course from the list below:

- Take ENG 101, ENG 102, ENG 221, COMA 103, COMA 200, COMA 202, COMA 212, COMA 213, *or* COMA 240

OR

- Take a technical writing course: ENG 116

Please note: ENG 116 does meet the requirements for the Michigan Transfer Agreement. Check the requirements of the intended transfer institution.

Humanities (minimum 4 credits)

- Complete a minimum of two Humanities courses from two different disciplines in Art, Communication Arts, English (Literature), Foreign Language, History, Humanities, Music, Philosophy, or Theatre

Mathematics (minimum 20 credits)

Complete a minimum of one Mathematics course from Schoolcraft's approved Michigan Transfer Agreement (MTA) course list to complete General Education requirements. The following MATH courses are required for the Associate of Engineering Degree:

- MATH 150 - Calculus with Analytic Geometry 1 ***Credits: 5***
- MATH 151 - Calculus with Analytic Geometry 2 ***Credits: 5***
- MATH 240 - Calculus with Analytic Geometry 3 ***Credits: 5***
- MATH 252 - Differential Equations ***Credits: 5***

Natural Science (minimum 14 credits)

Complete a minimum of two Natural Science courses from two different disciplines in Biology, Chemistry, Earth, Geography, Nutrition and Food Science, or Physics to complete General Education requirements. One must be a lab science course. The following courses are required for the Associate of Engineering Degree:

- CHEM 111 - General Chemistry 1 ***Credits: 4***
- PHYS 211 - Physics for Scientists and Engineers 1 ***Credits: 5***
- PHYS 212 - Physics for Scientists and Engineers 2 ***Credits: 5***

Social Sciences (minimum 6 credits)

Complete a minimum of two Social Science courses from two different disciplines in Anthropology, Economics, Geography, History, Political Science, Psychology, or Sociology to complete General Education requirements. ECON 201 or ECON 202 are required for the Associate of Engineering Degree:

- ECON 201 - Principles of Macroeconomics ***Credits: 4***
- ***OR*** ECON 202 - Principles of Microeconomics ***Credits: 4***

Major Area of Study / General Electives (10 credit hours)

Complete an additional 10 credit hours in liberal arts or occupational courses not previously taken that satisfy transfer and academic goals and requirements.

Recommended:

- ENGR 201 - Statics ***Credits: 3***
- ENGR 202 - Mechanics of Materials ***Credits: 3***
- ENGR 203 - Dynamics ***Credits: 4***

Students may take up to 15 credits of occupational or applied liberal arts courses toward the Associate of Engineering degree. Not all occupational courses will transfer to another college or university. Consult transfer and articulation guides.

Total Credits: 60

PLEASE NOTE: Students may not use the same History course to satisfy both the humanities and social sciences requirements. Additionally, students may not use the same Communication Arts course to satisfy both the humanities and English communication requirements. Only certain geography courses can be used for a natural science or social science course.

Three (3) types of courses may be used toward fulfilling associate degrees at Schoolcraft College: liberal arts, applied liberal arts, and occupational. While applied liberal arts courses provide immediate skill-building opportunities, their transferability should be discussed with an academic advisor. Students can check www.mitransfer.org to verify the transferability of their courses.

Transfer Opportunities

For those seeking a bachelor's, master's, or doctoral degree, Schoolcraft College is a fantastic starting point. Whether you already have a transfer destination/program in mind or are still figuring out your major, Schoolcraft College can help you explore a range of transfer options at Schoolcraft Transfer to U.

If you complete your associate degree before transferring to a 4-year college or university, you can save a lot of money on tuition. To find out how much you can save, use our tuition comparison calculator. You can also speak with your advisor to learn how to maximize your savings through a transfer or articulation agreement.

Schoolcraft College®

2024-2025 Credential Year

Associate of Fine Arts (AFA) Degree

Schoolcraft program code: #AFA.00402

Schoolcraft's Associate of Fine Arts (AFA) degree is designed for students pursuing a bachelor's degree in any fine arts field. Students establish a strong academic foundation in art and complete courses to fulfill general education requirements before transferring to a bachelor's degree program at another college or university. The AFA allows students to focus on a particular discipline within the fine arts, including art, music, creative writing, literature, theater, or humanities.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

General Education Requirements

Students who complete the requirements below will have completed all of Schoolcraft College Core Abilities and a minimum of 16 credit hours of associate-level Schoolcraft General Education requirements in English Communication, humanities, mathematics, natural sciences, and social sciences. All courses that apply to this degree must be at the 100- through 400 level with an overall minimum grade point average (GPA) of 2.0.

Degree Requirements

English Communication (minimum 6 credits)

Complete a minimum of one English composition course from the list below:

- Take ENG 101, ENG 102, or ENG 221

Complete a second English composition course or a communication arts course from the list below:

- Take ENG 101, ENG 102, ENG 221, COMA 103, COMA 200, COMA 202, COMA 212, COMA 213, or COMA 240

Humanities (minimum 4 credits)

- Complete a minimum of two Humanities courses from two different disciplines in Art, Communication Arts, English (Literature), Foreign Language, History, Humanities, Music, Philosophy, or Theatre

Mathematics (minimum 3 credits)

- Complete a minimum of one Mathematics course from Schoolcraft's approved Michigan Transfer Agreement (MTA) course list.

Natural Science (minimum 7 credits)

- Complete a minimum of two Natural Science courses from two different disciplines in Biology, Chemistry, Earth and Environmental Science, Geography, Nutrition and Food Science, or Physics. One course must be a lab course.

Social Science (minimum 6 credits)

- Complete a minimum of two Social Science courses from two different disciplines in Anthropology, Economics, Geography, History, Political Science, Psychology, or Sociology.

Major Area of Study (18 credit hours)

Minimum 18 credit hours selected from any of the following liberal arts areas: ART, HUM, MUSIC, THEA, and ENG (Creative Writing or Literature only). These courses also may be used to meet the Humanities requirement of this degree as long as students complete a total of 22 credit hours from two different disciplines.

Schoolcraft College recommends students complete a specific track as specified below while referring to the transfer institution's requirements:

Art Track:

The following ***ART*** courses are recommended in addition to courses in various art media that satisfy transfer and academic goals and requirements:

- ART 115 - Art History 1 ***Credits: 4***
- ART 116 - Art History 2 ***Credits: 4***
- ART 120 - Drawing: Theory and Elements ***Credits: 3***
- ART 121 - 2D Design: Elements and Principles of Two-Dimensional Design ***Credits: 3***
- ART 122 - 3D Design: Elements and Principles of Three-Dimensional Design ***Credits: 3***
- ART 201 - Art Appreciation ***Credits: 3***
- ART 248 - Portfolio Preparation ***Credits: 1***

Creative Writing Track:

The following ***ENG*** courses are recommended in addition to courses in literature that satisfy transfer and academic goals and requirements:

- ENG 120 - Introduction to Literary Studies ***Credits: 3***
- ENG 205 - Creative Writing 1 ***Credits: 3***
- ENG 206 - Creative Writing 2 ***Credits: 3***
- ENG 243 - Introduction to Literature - Short Fiction ***Credits: 3***
- ENG 244 - Introduction to Literature - Poetry ***Credits: 3***
- ENG 246 - Introduction to Literature - Novel ***Credits: 3***
- ENG 248 - Introduction to Literature - Shakespeare ***Credits: 3***
- ENG 280 - The Nature of Language ***Credits: 3***

Humanities Track:

The following ***HUM*** courses are recommended in addition to courses in the history, appreciation, and culture of music and art that satisfy transfer and academic goals and requirements:

- HUM 151 - World Masterpieces (Prehistory-1400) ***Credits: 3***
- HUM 152 - World Masterpieces (1400-Present) ***Credits: 3***
- HUM 190 - Individual Humanism - An Honors Colloquium ***Credits: 3***
- HUM 210 - The Art of Being Human ***Credits: 3***
- HUM 212 - Mass Media and Popular Culture ***Credits: 3***
- HUM 215 - Humanities through the Arts ***Credits: 3***

Music History/Culture Track:

The following ***MUSIC*** courses are recommended in addition to courses in music history and culture that satisfy transfer and academic goals and requirements:

- MUSIC 105 - Music Appreciation ***Credits: 3***
- MUSIC 149 - Popular Music Culture in America ***Credits: 3***
- MUSIC 153 - Music Theory 1 ***Credits: 3***
- MUSIC 154 - Music Theory 2 ***Credits: 3***
- MUSIC 155 - History of Broadway ***Credits: 3***
- MUSIC 160 - Introduction to World Music ***Credits: 3***
- MUSIC 164 - Music History 1 - 17th and 18th Centuries ***Credits: 3***
- MUSIC 165 - Music History 2 - 19th and 20th Centuries ***Credits: 3***

Music Performance Track:

The following core ***MUSIC*** performance courses are recommended in addition to select applied performance courses in piano, voice, instrumental, and ensemble that satisfy transfer and academic goals and requirements:

- MUSIC 121 - Class Piano 1 ***Credits: 2***
- MUSIC 137 - Sight Singing and Ear Training 1 ***Credits: 2***
- MUSIC 138 - Sight Singing and Ear Training 2 ***Credits: 2***
- MUSIC 153 - Music Theory 1 ***Credits: 3***
- MUSIC 154 - Music Theory 2 ***Credits: 3***

Theater Track:

The following ***THEA*** and ***ENG*** courses are recommended in addition to courses in theater and literature that satisfy transfer and academic goals and requirements:

- THEA 101 - Introduction to Theatre ***Credits: 3***
- THEA 210 - Acting 1 - Theory and Elements ***Credits: 3***
- THEA 211 - Acting 2 - Theory and Elements ***Credits: 3***
- THEA 231 - History of Theatre 1 ***Credits: 3***
- THEA 232 - History of Theatre 2 ***Credits: 3***
- THEA 241 - Oral Interpretation of Literature ***Credits: 3***
- ENG 200 - Introduction to Film ***Credits: 4***
- ENG 244 - Introduction to Literature - Poetry ***Credits: 3***
- ENG 248 - Introduction to Literature - Shakespeare ***Credits: 3***

General Electives (16 Credits)

- Complete an additional 16 credit hours in courses not previously taken that satisfy transfer and academic goals and requirements.
    - Students may take up to 15 credits of occupational or applied liberal arts courses toward the Associate of Fine Arts degree. Not all occupational courses will transfer to another college or university. Consult transfer and articulation guides.

Total Credits: 60

PLEASE NOTE: Students may not use the same History course to satisfy both the humanities and social sciences requirements. Additionally, students may not use the same Communication Arts course to satisfy both the humanities and English communication requirements. Only certain geography courses can be used for a natural science or social science course.

Three (3) types of courses may be used toward fulfilling associate degrees at Schoolcraft College: liberal arts, applied liberal arts, and occupational. While applied liberal arts courses provide immediate skill-building opportunities, their transferability should be discussed with an academic advisor. Students can check www.mitransfer.org to verify the transferability of their courses.

Transfer Opportunities

For those seeking a bachelor's, master's, or doctoral degree, Schoolcraft College is a fantastic starting point. Whether you already have a transfer destination/program in mind or are still figuring out your major, Schoolcraft College can help you explore a range of transfer options at Schoolcraft Transfer to U.

If you complete your associate degree before transferring to a 4-year college or university, you can save a lot of money on tuition. To find out how much you can save, use our tuition comparison calculator. You can also speak with your advisor to learn how to maximize your savings through a transfer or articulation agreement.

Schoolcraft College®

2024-2025 Credential Year

Associate of General Studies (AGS) Degree

Schoolcraft program code #AGS.00042

The Associate of General Studies degree (AGS) is for students who wish to earn an associate degree and want to transfer to a college or university through an occupational or individualized program of study. Students complete a broad set of liberal arts courses in English Communication, humanities, mathematics, natural sciences, and social sciences areas, as well as any distribution of occupational or applied areas of studies. This may include the completion of a set of occupational courses that satisfy the development of occupational skills.

General Education Requirements

Students who complete the requirements below will have completed all of Schoolcraft College Core Abilities and a minimum of 16 credit hours of associate-level Schoolcraft General Education requirements in English Communication, humanities, mathematics, natural sciences, and social sciences. All courses that apply to this degree must be at the 100- through 400-level with an overall minimum grade point average (GPA) of 2.0.

Degree Requirements

English Communication (minimum 6 credits)

Complete a minimum of two English communication courses within a set of courses.

Option 1: Select two courses in composition from this list:

- ENG 101, ENG 102, ENG 221

Option 2: Select one course in composition from this list:

- ENG 101, ENG 102, ENG 221

AND select one course in communication arts from this list:

- COMA 103, COMA 200, COMA 202, COMA 212, COMA 213, COMA 215, COMA 240

Option 3: Select one of the following combinations:

- ENG 100 & ENG 106; *or* ENG 100 & ENG 116; *or* ENG 101 & ENG 106; *or* ENG 101 & ENG 107; *or* ENG 101 & ENG 116

Humanities (minimum 4 credits)

- Complete a minimum of two Humanities courses in Art, Communication Arts, English (Literature), Foreign Language, History, Humanities, Music, Philosophy, or Theatre.

Mathematics (minimum 3 credits)

- Complete a minimum of one Mathematics course.

Natural Science (minimum 7 credits)

- Complete a minimum of two Natural Science courses in Biology, Chemistry, Earth, Geography, Nutrition and Food Science, or Physics.

Social Science (minimum 6 credits)

- Complete a minimum of two Social Science courses in Anthropology, Economics, Geography, History, Political Science, Psychology, or Sociology.

Major Area of Study / General Electives (34 credit hours)

- Complete a minimum of 34 credit hours in any group of courses that are specific or supportive of occupational and academic goals.

Total Credits: 60

PLEASE NOTE: Students may not use the same History course to satisfy both the humanities and social sciences requirements. Additionally, students may not use the same Communication Arts course to satisfy both the humanities and English Communication requirements. Only certain geography courses can be used for a natural science or social science course.

Three (3) types of courses may be used toward fulfilling associate degrees at Schoolcraft College: liberal arts, applied liberal arts, and occupational. While applied liberal arts courses provide immediate skill-building opportunities, their transferability should be discussed with an academic advisor. Students can check www.mitransfer.org to verify the transferability of their courses.

Schoolcraft College®

2024-2025 Credential Year

Associate of Science (AS) Degree

Schoolcraft program code # AS.00042

The Associate of Science (AS) degree is tailored to students who intend to transfer to a four-year college or university and pursue a major in natural or physical sciences, mathematics, or prepare for professional fields like medicine, dentistry, engineering, environmental science, or natural resources. This degree program also allows students to choose courses that satisfy the Michigan Transfer Agreement (MTA) eligibility criteria, fulfilling both the General Education and Core Ability requirements and the Associate of Science degree requirements.

General Education Requirements

Students who complete the requirements below will have met the Schoolcraft General Education requirements and be eligible to complete the Michigan Transfer Agreement (30 credits.) All courses that apply to this degree must be at the 100- through 400-level with an overall minimum grade point average (GPA) of 2.0.

Degree Requirements

English Communication (minimum 6 credits)

- Complete a minimum of one English composition course from the list below:
  - Take ENG 101, ENG 102, or ENG 221
- Complete a second English composition course or a communications art course from the list below:
  - Take ENG 101, ENG 102, ENG 221, COMA 103, COMA 200, COMA 202, COMA 212, COMA 213, or COMA 240

Humanities (minimum 4 credits)

- Complete a minimum of two courses from different Humanities disciplines from the MTA list such as Art, Communication Arts, English (Literature), Foreign Language, History, Humanities, Music, Philosophy, or Theatre, excluding performance or studio classes.

Mathematics and Natural Sciences (minimum 20 credits)

- Complete a minimum of one Mathematics course from the MTA list.
- Complete a minimum of two courses from different Natural Science disciplines from the MTA list such as Biology, Chemistry, Earth, Geography, Nutrition and Food Science, or Physics. One course must be a lab science course.

Social Sciences (minimum 6 credits)

- Complete a minimum of two courses from different Social Science disciplines from the MTA list such as Anthropology, Economics, Geography, History, Political Science, Psychology, or Sociology.

Major Area of Study

- Complete an additional 24 credits minimum of liberal arts courses not previously taken that satisfy transfer and academic goals and requirements.
  - Students may take up to 15 credits of occupational courses toward their degree. Not all occupational courses will transfer to another college or university. Consult transfer and articulation guides.

Total Credits: 60

PLEASE NOTE: Students may not use the same History course to satisfy both the humanities and social sciences requirements. Additionally, students may not use the same Communication Arts course to satisfy both the humanities and English communication requirements. Only certain Geography courses can be used for a natural science or social science course.

- Upon finishing the MTA requirements, students will have fulfilled the general education requirements for an Associate of Science degree at Schoolcraft College. To receive the MTA endorsement, students must request it by sending an email to screcord@schoolcraft.edu after their courses are completed and final grades are posted. The email should include the student's name and Schoolcraft ID number.
- It's worth noting that although students can transfer in credit towards MTA, they must complete at least one credit of MTA applicable coursework at Schoolcraft to receive the endorsement. Occupational credit is not eligible. Additionally, achieving a minimum grade of 2.0 is required for each course that's used to fulfill the Michigan Transfer Agreement.

Transfer Opportunities

For those seeking a bachelor's, master's, or doctoral degree, Schoolcraft College is a fantastic starting point. Whether you already have a transfer destination/program in mind or are still figuring out your major, Schoolcraft College can help you explore a range of transfer options at Schoolcraft Transfer to U.

If you complete your associate degree before transferring to a 4-year college or university, you can save a lot of money on tuition. To find out how much you can save, use our tuition comparison calculator. You can also speak with your advisor to learn how to maximize your savings through a transfer or articulation agreement.

Schoolcraft College®

2024-2025 Credential Year

Bachelor of Science (BS) Degree

Schoolcraft College currently offers the Bachelor of Science in Culinary and Dietary Operations Management, program code # BS.00397. Please see the specific program requirements for the Culinary and Dietary Operations Management BS Degree.

By obtaining a Bachelor of Science (BS) degree, students will be prepared to seek employment in their chosen career field. Students complete a broad distribution of courses in the English, humanities, mathematics, natural sciences, and social sciences distribution areas, as well as occupational, technical, and specialization courses that satisfy the development of a specialist skillset.

General Education Requirements

Students who complete the requirements below will have completed all of Schoolcraft College Core Abilities and a minimum of 30 credit hours of bachelor-level Schoolcraft General Education requirements in English Communication, humanities, mathematics, natural sciences, and social sciences. The Michigan Transfer Agreement (MTA) may also be used to fulfill the Schoolcraft College General Education requirements.

All courses that apply to this degree must be at the 100- through 400 level with an overall minimum grade point average (GPA) of 2.0 unless a higher-grade point is stipulated by the specific program. A minimum of 30 credits must be at the 300- or 400 level.

Degree Requirements

English Communication (minimum 6 credits)

Complete a minimum of one English composition course from the list below:

- Select ENG 101, ENG 102, or ENG 221

Complete a second English composition course or communication arts course from the list below:

- Select ENG 101, ENG 102, ENG 221, COMA 103, COMA 200, COMA 202, COMA 212, COMA 213, or COMA 240

Humanities (minimum 4 credits)

- Complete a minimum of two Humanities courses from two different disciplines in Art, Communication Arts, English (Literature), Foreign Language, History, Humanities, Music, Philosophy, or Theatre.

Mathematics and Natural Sciences (minimum 20 credits)

- Complete a minimum of one Mathematics course from Schoolcraft's approved Michigan Transfer Agreement (MTA) course list.
- Complete a minimum of two Natural Science courses from two different disciplines in Biology, Chemistry, Earth and Environmental Science, Geography, Nutrition and Food Science, or Physics. One course must be a lab course.

Social Science (minimum 6 credits)

- Complete a minimum of two Social Science courses from two different disciplines in Anthropology, Economics, Geography, History, Political Science, Psychology, or Sociology.

Major Area of Study (30 credits)

- Complete a minimum of 30 credit hours in a major specialization concentration area identified and listed in the program requirements which are specific or supportive of the occupational and academic goals.

General Electives (54 Credits)

- Complete a minimum of 54 credit hours in liberal arts, technical, or specialization courses not previously taken that satisfy career and academic goals and requirements.

Total Credits: 120

PLEASE NOTE: Students may not use the same History course to satisfy both the humanities and social sciences requirements. Additionally, students may not use the same Communication Arts course to satisfy both the humanities and English communication requirements. Only certain geography courses can be used for a natural science or social science course.

Three (3) types of courses may be used toward fulfilling associate degrees at Schoolcraft College: liberal arts, applied liberal arts, and occupational. While applied liberal arts courses provide immediate skill-building opportunities, their transferability should be discussed with an academic advisor. Students can check www.mitransfer.org to verify the transferability of their courses.

Schoolcraft College®

2024-2025 Credential Year

General Education Requirements and Core Abilities

Meeting General Education Requirements and Core Abilities

General Education

General education requirements address the knowledge, intellectual concepts, and attitudes associated with being an educated and well-rounded person. These courses are a required part of any associate degree or bachelor's degree offered at any college or university. Students must take the minimum courses that meet Schoolcraft's General Education requirements. In addition to those courses that are identified as general education, Schoolcraft College also offers numerous courses in dozens of subject areas, including liberal arts, sciences, and specific occupational areas. As a part of a quality initiative, Schoolcraft's liberal arts courses are used to assess students' general education preparation.

The general education distribution areas are:

- English Communication
- Humanities
- Mathematics
- Natural Sciences
- Social Sciences

Click here to download the 2024/2025 Schoolcraft College General Education and Michigan Transfer Agreement Requirements, including a list of courses that can be used to fulfill Schoolcraft College General Education Requirements.

Click to view more information about Schoolcraft College's General Education and Michigan Transfer Agreement Requirements for Associate and Bachelor Level Degrees.

Core Abilities

Colleges, universities, and employers want students who possess abilities that go beyond a particular discipline. Schoolcraft College has identified these broad outcomes or skills, called Core Abilities, as the institutional learning outcomes. The outcomes include the ability to:

- Communicate effectively.
- Demonstrate creative and critical thinking.
- Use technology effectively.
- Use mathematics.
- Manage information.
- Work cooperatively.
- Act professionally.
- Demonstrate social and cultural awareness.

Every Schoolcraft graduate with an associate or bachelor's degree is expected to achieve these outcomes. At least one of the Core Abilities is addressed and assessed within every course. Every associate and bachelor's degree program has all eight Core Ability expectations integrated into the overall program design.

For more information on Core Abilities, please visit the Institutional Level Assessment website.

Using MTA to Fulfill General Education Requirements

The Michigan Transfer Agreement (MTA) makes it easier for students to transfer their general education courses earned at Schoolcraft to participating four-year institutions in the State of Michigan and gives students more flexibility in the selection of courses they can take to satisfy the general education requirements. Schoolcraft accepts the requirements of the Michigan Transfer Agreement as fulfilling Schoolcraft's General Education requirements.

Please visit our Schoolcraft to U website to see the specific course requirements to complete the Michigan Transfer Agreement (MTA.)

Click here to download the 2024/2025 Michigan Transfer Agreement (MTA) Guide including a list of all MTA eligible courses.

Board Policies

Schoolcraft College defines the requirements for Core Abilities and General Education in Board Policy 1020. Graduation requirements are defined in Board Policy 2210.

For more information, please visit the Schoolcraft College Policies and Procedures website.

Schoolcraft College®

2024-2025 Credential Year

General Education and Michigan Transfer Agreement Requirements

General Education

General education requirements address the knowledge, intellectual concepts, and attitudes associated with being an educated and well-rounded person. These courses are a required part of any associate degree or bachelor's degree offered at any college or university. Students must take the minimum courses that meet Schoolcraft's General Education requirements. In addition to those courses that are identified as general education, Schoolcraft College also offers numerous courses in dozens of subject areas, including liberal arts, sciences, and specific occupational areas. As a part of a quality initiative, Schoolcraft's liberal arts courses are used to assess students' general education preparation.

♦ = Courses that fulfill only the Schoolcraft College general education requirements and do not meet the Michigan Transfer Agreement (MTA) requirements. Consult your advisor for additional information.

Schoolcraft College Associate Degree General Education Requirements

Distribution Area	***Course Requirements***
English Communication: 6 credit hours	Select any approved MTA course combination for English Composition/Communication ***Or*** Schoolcraft General Education • Select one course in composition: ENG 100♦, ENG 101, ENG 102, or ENG 221 • and a second composition or writing course: ENG 106♦, ENG 107♦, ENG 116♦, or ENG 221 ***Or*** English Composition/OR Communication • Select one course in composition: ENG 100♦, ENG 101, ENG 102, or ENG 221 • and a second course in communication: COMA 103, COMA 200, COMA 202, COMA 212, COMA 213, COMA 215♦, or COMA 240
Humanities: 1 to 4 credit hours	Select a minimum of one course
Mathematics: 3 to 5 credit hours	Select a minimum of one course
Natural Sciences: 3 to 5 credit hours	Select a minimum of one course
Social Sciences: 3 to 4 credit hours	Select a minimum of one course
Total Credits: minimum 16 credit hours	***Required for Associate of Applied Science, Associate of Business Administration, Associate of Engineering, Associate of Fine Arts, and Associate of General Studies***
Total Credits: minimum 24 credit hours	***Required for Associate of Arts and Associate of Science Degrees***

Schoolcraft College Bachelor Degree General Education Requirements

Distribution Area	Course Requirements
English Composition: 3 credit hours	Select one course: ENG 101, ENG 102, or ENG 221
English Composition or Communications: 3 credit hours	Select a second course in English Composition: ENG 101, ENG 102, or ENG 221 ***Or*** Select a course in Communications*: COMA 103, COMA 200, COMA 202, COMA 212, COMA 213, or COMA 240 *Please note: A COMA course taken to satisfy the Communications requirement cannot also be used to satisfy the Humanities requirement.
Humanities: 4 credit hours	Select two courses from two different disciplines
Mathematics: 3 to 5 credit hours	Select at least one MTA math course
Natural Sciences: 7 to 9 credit hours	Select two courses, with one course containing a lab, from two different disciplines
Social Sciences: 6 credit hours	Select two courses from two different disciplines
Total Credits: Minimum of 30 credit hours required	Electives may be chosen from Schoolcraft General Education courses or MTA courses

Michigan Transfer Agreement (MTA) Requirements

Fulfill the Michigan Transfer Agreement (MTA)

The MTA makes it easier for students to transfer their general education courses earned at community colleges like Schoolcraft to participating four-year institutions in the State of Michigan and gives students more flexibility in the selection of courses they can take to satisfy the general education requirements.

(Only these courses or a combination of courses may be used to satisfy the final requirement for MTA math or English communication.)

Distribution Area	Course Requirements
English Composition: 3 credit hours	Select one course: ENG 101, ENG 102, *or* ENG 221
English Composition or Communications: 3 credit hours	Select a second course in English Composition: ENG 101, ENG 102, or ENG 221 ***Or*** Select a course in Communications*: COMA 103, COMA 200, COMA 202, COMA 212, COMA 213, or COMA 240 *Please note: A COMA course taken to satisfy the Communications requirement cannot also be used to satisfy the Humanities requirement.
Humanities: 4 to 8 credit hours	Select two MTA courses from two different disciplines
Mathematics: 3 to 5 credit hours	Select at least one from the following: College Algebra, Statistics, Quantitative Reasoning (a.k.a. Everyday or Liberal Arts Mathematics), or an advanced level course in any of these areas
Natural Sciences: 7 to 9 credit hours	Select two MTA science courses, with one course containing a lab, from two different disciplines
Social Sciences: 6 to 8 credit hours	Select two MTA courses from two different disciplines
Total Credits: Minimum of 30 credit hours required	Electives may be selected from MTA courses

Courses and Credentials at Schoolcraft College

Two primary types of courses may be used towards fulfilling credentials such as certificate, associate, or bachelor's degrees at Schoolcraft College. The nature, goals, and use of each course determine the type of course and how it applies toward each credential at Schoolcraft College or transfer institutions. The two types of courses include occupational and liberal arts courses.

1. ***Occupational Courses*** - Occupational courses have a direct career relationship and focus on developing the necessary knowledge and skills to enter the workforce within the chosen field of study-e.g., ACCT 103, EMT 115, MFG 211, WELD 120. Occupational courses may or may not transfer to another institution. The course description in the catalog will indicate if the course is an occupational course. No SC occupational course may be used toward SC General Education (SCGE) or to meet the requirements for the Michigan Transfer Agreement (MTA).
2. ***Liberal Arts Courses*** - Liberal Arts courses provide general knowledge and theory in English communication, humanities, natural sciences, mathematics, and social sciences areas. Liberal Arts courses may fall into three categories:
    - Applied Liberal Arts - Courses that are focused on building particular skills through the practice and application of talents or concepts-e.g., ART 248, ENG 205, CAB 102, THEA 204, MUSIC 114, COLLS 105. Applied Liberal Arts courses typically do not transfer to other institutions. A subset of these courses may be used toward meeting the requirements for SCGE. The course description in the catalog will indicate if the course is an applied liberal arts course.
    - Liberal Arts used for Schoolcraft College General Education (SCGE) - Courses that are theory-based or application-based and offer a wide distribution of experiences to students across multiple disciplines-e.g., ENG 100, PSYCH 153, HIST 138, MATH 106. These courses may or may not transfer to another institution. Liberal Arts courses that do not transfer are typically applied in nature, such as MATH 106. Liberal Arts courses that are intended to transfer are typically theory-based. The course description will indicate if the course fulfills a general education component -e.g., PSYCH 153.
    - Liberal Arts Courses Used for Transfer - Courses that are theory-based and offer a wide distribution of experiences to students across multiple disciplines-e.g., PSYCH 153, BIOL 101, ECON 201, ART 120, MATH 111. These courses are a sub-set of the Liberal Arts used for SCGE which meet both SCGE and the requirements for the Michigan Transfer Agreement (MTA). The MTA-identified courses that are intended to meet the general education requirements at transfer institutions are identified in the course description. Information about the MTA requirements may be found at https://www.mitransfer.org/michigan-transfer-agreement.

**Credentials - documentation of satisfactory completion of courses that result in a nationally recognized acknowledgment of learning and skills. Schoolcraft College offers skills certificate, certificate, associate, and bachelor's degree credentials.*

Liberal Arts Courses Fulfilling Schoolcraft College General Education and/or Michigan Transfer Agreement (MTA) Requirements

Liberal Arts courses will typically transfer to another institution. They provide general knowledge and theory in the arts, language and communication, humanities, natural sciences, math, and social sciences. Transferability of courses should be discussed with your academic advisor and may depend on the receiving institution. Consult transfer guides and the Michigan Transfer Network (https://www.mitransfer.org/search-courses.) Review the list below of specific disciplines and course numbers within each distribution area that meets the requirements for Schoolcraft General Education (SCGE) and the Michigan Transfer Agreement (MTA).

♦ = Courses that fulfill only the Schoolcraft College general education requirements and do not meet the Michigan Transfer Agreement (MTA) requirements. Consult your advisor for additional information.

English Communication

Michigan Transfer Agreement ***English Composition/Communication***	Two courses in composition: ENG 101, ENG 102, ENG 221 Or One course in composition ***and*** one course in communication arts from this list: COMA 103, COMA 200, COMA 202, COMA 212, COMA 213, COMA 240 *Please note: Only these courses or a combination of courses may be used to satisfy the final requirement for MTA English Communications.*
Schoolcraft General Education ***English Communication***	Select any approved MTA course combinations for English Composition/Communication. OR Select one course in composition: ENG 100♦, ENG 101, ENG 102, or ENG 221 and a second composition or writing course: ENG 106♦, ENG 107♦, ENG 116♦, or ENG 221 OR Select one course in composition: ENG 100♦, ENG 101, ENG 102, or ENG 221 and a second course in communication from this list: COMA 103, COMA 200, COMA 202, COMA 212, COMA 213, COMA 215♦, COMA 240

Humanities

Arabic	ARB 101, ARB 102, ARB 201, ARB 202
Art	ART 113♦, ART 115, ART 116, ART 117, ART 120, ART 121, ART 122, ART 127, ART 128, ART 133, ART 134, ART 201, ART 216♦, ART 221, ART 222, ART 228, ART 231, ART 233, ART 234, ART 235, ART 246, ART 247
Chinese	CHIN 101, CHIN 102
Communication	COMA 103, COMA 105, COMA 200, COMA 202, COMA 212, COMA 213, COMA 215♦, COMA 230, COMA 240 *Please note: Students may not use the same Communication Arts course to satisfy both the humanities and English communication requirement.*
French	FR 101, FR 102, FR 201, FR 202
German	GER 101, GER 102, GER 201, GER 202
History	HIST 134, HIST 137, HIST 138, HIST 141, HIST 151, HIST 152, HIST 153, HIST 230 *Please note: Students may not use the same History course to satisfy both the humanities and social science requirement.*
Humanities	HUM 106, HUM 151, HUM 152, HUM 190, HUM 210, HUM 212, HUM 215
Italian	ITAL 101, ITAL 102
Literature	ENG 120, ENG 170, ENG 200, ENG 203, ENG 205, ENG 206, ENG 243, ENG 244, ENG 245, ENG 246, ENG 248, ENG 251, ENG 252, ENG 275, ENG 280

Music	MUSIC 104, MUSIC 105, MUSIC 107♦, MUSIC 149, MUSIC 153, MUSIC 154, MUSIC 155, MUSIC 160, MUSIC 164, MUSIC 165, MUSIC 250, MUSIC 252
Philosophy	PHIL 243, PHIL 247, PHIL 257, PHIL 265, PHIL 277
Spanish	SPAN 101, SPAN 102, SPAN 201, SPAN 202
Theater	THEA 101, THEA 210, THEA 211, THEA 231, THEA 232, THEA 241

Mathematics

Mathematics	MATH 101♦, MATH 102♦, MATH 105♦, MATH 106♦, MATH 111, MATH 113♦, MATH 119, MATH 122, MATH 126, MATH 129, MATH 135, MATH 145, MATH 150, MATH 151, MATH 230, MATH 240, MATH 252

Natural Sciences (All lab courses are underlined.)

Biology	BIOL 100, BIOL 101, BIOL 103, BIOL 104, BIOL 105, BIOL 107, BIOL 114, BIOL 115, BIOL 120, BIOL 130, BIOL 140, BIOL 236, BIOL 237, BIOL 238, BIOL 243
Chemistry	CHEM 100♦, CHEM 104, CHEM 111, CHEM 117, CHEM 120, CHEM 213, CHEM 214
Earth & Environmental Science	EARTH 110, EARTH 120, EARTH 140, EARTH 200, EARTH 235, EARTH 240, EARTH 250 *Please note: If a student previously took Geology or Geography courses as a Science, please talk to an advisor. Some EARTH classes are equivalent to either GEOL or GEOG in a previous catalog year. Equated courses cannot count as different subjects.*
Geography	GEOG 212 *Please note: Only certain Geography courses can be used to fulfill the natural science requirement.*
Nutrition & Food Science	NFS 320♦, NFS 360♦, NFS 440♦
Physics	PHYS 104, PHYS 123, PHYS 181, PHYS 182, PHYS 211, PHYS 212

Social Sciences

Anthropology	ANTH 112, ANTH 117, ANTH 120, ANTH 201, ANTH 211, ANTH 214, ANTH 220, ANTH 230, ANTH 290
Economics	ECON 103, ECON 201, ECON 202
Geography	GEOG 133 *Please note: Only certain Geography courses can be used to fulfill the social science requirement.*
History	HIST 134, HIST 137, HIST 138, HIST 141, HIST 151, HIST 152, HIST 153, HIST 230 *Please note: Students may not use the same History course to satisfy both the humanities and social science requirement.*
Political Science	POLS 105, POLS 109, POLS 205, POLS 207, POLS 209, POLS 298
Psychology	PSYCH 153, PSYCH 201, PSYCH 205, PSYCH 206, PSYCH 207, PSYCH 209, PSYCH 213, PSYCH 219, PSYCH 229, PSYCH 239, PSYCH 249, PSYCH 252
Sociology	SOC 201, SOC 205, SOC 209, SOC 210, SOC 211, SOC 220, SOC 290

All courses on this list qualify to be used toward meeting Schoolcraft College General Education requirements and are part of a liberal arts distribution of learning.

2024-2025 Credential Year

Accounting

Virtually every business and organization need someone to manage their financials. Schoolcraft's accounting program will prepare you for a career as a bookkeeper or accountant with courses that cover the principles of accounting, income tax preparation, payroll, and current accounting software. The accounting program offers three options for specialization:

- Accounting associate of applied science degree: Earning this associate degree is a first step towards a career in accounting and also prepares the student to transfer to a four-year college or university to earn a bachelor's degree.
- Accounting certificate: This certificate program takes approximately three semesters to complete and prepares students for a position as an entry-level bookkeeper.
- Accounting for small business skills certificate: This program is a good option for anyone interested in working at a small business as an entry-level bookkeeper or to enhance their potential for small-business management.

Credentials

- Accounting AAS Degree
- Accounting Certificate
- Accounting for Small Business Skills Certificate

Accounting AAS Degree

Schoolcraft program code # AAS.00005

The accounting program is designed to familiarize students with the work and challenges facing accountants. The program provides training for those planning to seek a career in accounting. Students who satisfactorily complete all college and program requirements qualify for an associate of applied science degree.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. The number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **ACCT 201 - Principles of Accounting 1** ***Credits: 4***
- **CIS 120 - Software Applications** ***Credits: 3***
- **ENG 101 - English Composition 1** ***Credits: 3***
- Mathematics - Credits: 3-5 - Select General Education Mathematics course.
  Recommended:
  - **MATH 101 - Business Mathematics** ***Credits: 3***
  - ***OR*** **MATH 113 - Intermediate Algebra for College Students** ***Credits: 4***

TOTAL CREDITS: 13-14

Winter Semester

- **ACCT 202 - Principles of Accounting 2** ***Credits: 4***
- **CIS 180 - Spreadsheet Applications - Current Software** ***Credits: 3***
- **ACCT 263 - Computerized Accounting Using QuickBooks** ***Credits: 3***
- **ECON 201 - Principles of Macroeconomics** ***Credits: 4***

TOTAL CREDITS: 14

Spring/Summer Session

- Humanities - Credits: 3-4 - Select General Education Humanities course.
- Recommended: **COMA 103 - Fundamentals of Speech** ***Credits: 3***
- English Communication - Credits: 3 - Select second General Education English Communication course.
  Recommended:
  - **ENG 106 - Business English** ***Credits: 3***
  - ***OR*** **ENG 116 - Technical Writing** ***Credits: 3***
  - ***OR*** **ENG 102 - English Composition 2** ***Credits: 3***

TOTAL CREDITS: 6-7

SECOND YEAR

Fall Semester

- **ACCT 221 - Intermediate Accounting 1** ***Credits: 4***
- **ACCT 226 - Cost Accounting** ***Credits: 4***
- **BUS 207 - Business Law 1** ***Credits: 3***
- Elective - Select one:
  - **ACCT 262 - Payroll Accounting** ***Credits: 3***
  - **BUS 101 - Introduction to Business** ***Credits: 3***
  - **ECON 202 - Principles of Microeconomics** ***Credits: 4***

Accounting AAS Degree (continued)

TOTAL CREDITS: 14-15

Winter Semester

- **ACCT 222 - Intermediate Accounting 2** ***Credits: 4***
- Natural Science - Select a General Education Science Course ***Credits: 4***
- Elective - Select four tax credit hours from list:
    - **ACCT 238 - Federal Tax Accounting *Credits: 4***
- ***OR***
    - **ACCT 138 - Income Tax Preparation *Credits: 2***
    - ***AND*** **ACCT 139 - Michigan Taxes *Credits: 2***
- Elective - Select one:
    - **ACCT 206 - Accounting Internship** ***Credits: 3***
    - **BUS 202 - Business Ethics** ***Credits: 3***
    - **BUS 240 - International Business** ***Credits: 3***
    - **CNT 115 - Cybersecurity Fundamentals** ***Credits: 3***
    - **PSYCH 153 - Human Relations** ***Credits: 3***
    - **POLS 209 - International Relations** ***Credits: 3***
    - **PHIL 247 - Logic** ***Credits: 4***
    - **SOC 201 - Principles of Sociology** ***Credits: 3***

TOTAL CREDITS: 14-17

PROGRAM TOTAL: 61-68 CREDITS

Accounting Certificate

Schoolcraft program code #1YC.00001

The accounting program is designed to familiarize students with the work and challenges facing accountants. This certificate program prepares the student for a job as an entry-level bookkeeper within an accounting department or firm. Students who successfully complete all program courses qualify for a certificate of program completion.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **ACCT 201 - Principles of Accounting 1** ***Credits: 4***
- **CIS 120 - Software Applications** ***Credits: 3***
- **ENG 101 - English Composition 1** ***Credits: 3***
- Mathematics - Credits: 3-5 Select General Education Mathematics course.
  Recommended:
  - **MATH 101 - Business Mathematics** ***Credits: 3***
  - ***OR*** **MATH 113 - Intermediate Algebra for College Students** ***Credits: 4***
  - ***OR*** **MATH 126 - College Algebra** ***Credits: 4***

TOTAL CREDITS: 13-15

Winter Semester

- **ACCT 202 - Principles of Accounting 2** ***Credits: 4***
- **BUS 207 - Business Law 1** ***Credits: 3***
- **ACCT 263 - Computerized Accounting Using QuickBooks** ***Credits: 3***
- Elective - Select four tax credit hours from list:
  - **ACCT 238 - Federal Tax Accounting** ***Credits: 4***
- **OR**
  - **ACCT 138 - Income Tax Preparation** ***Credits: 2***
  - ***AND*** **ACCT 139 - Michigan Taxes** ***Credits: 2***

TOTAL CREDITS: 14

SECOND YEAR

Fall Semester

- **ACCT 262 - Payroll Accounting** ***Credits: 3***
- Humanities - Credits: 3-4 - Select General Education Humanities course.
  - Recommended: **COMA 103 - Fundamentals of Speech** ***Credits: 3***

TOTAL CREDITS: 6-7

PROGRAM TOTAL: 33-36 CREDITS

Accounting for Small Business Skills Certificate

Schoolcraft program code # CRT.00365

The accounting program is designed to familiarize students with the work and challenges facing accountants. This certificate program is designed for those: who seek entry-level bookkeeping positions in specialized areas; who seek a credential in order to receive pay raises, promotions, or benefits from employees; or who currently own or are starting a small business.

Students who satisfactorily complete the program requirements qualify for a certificate of program completion. All program required courses must have been completed with a grade of 2.0 or better.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **ACCT 201 - Principles of Accounting 1** ***Credits: 4***
- **CIS 120 - Software Applications** ***Credits: 3***

TOTAL CREDITS: 7

Winter Semester

- **ACCT 263 - Computerized Accounting Using QuickBooks** ***Credits: 3***
- Elective - Select four tax credit hours from list:
  - **ACCT 238 - Federal Tax Accounting** ***Credits: 4***
- ***OR***
  - ***A*CCT 138 - Income Tax Preparation** ***Credits: 2***
  - ***AND*** **ACCT 139 - Michigan Taxes** ***Credits: 2***

TOTAL CREDITS: 7

SECOND YEAR

Fall Semester

- Elective - Select one:
  - **CIS 180 - Spreadsheet Applications - Current Software** ***Credits: 3***
  - **ACCT 262 - Payroll Accounting** ***Credits: 3***

TOTAL CREDITS: 3

PROGRAM TOTAL: 17 CREDITS

2024-2025 Credential Year

Allied Health Education

This one-credit course provides a comprehensive overview of the healthcare industry to help students make decisions about which area to concentrate their studies. The extensive exploration of current issues and trends in healthcare, including the emergence and use of technology in the field, provides students with a distinctive advantage when preparing to enter the workforce.

Courses

- AHE 101 - Introduction to Healthcare

2024-2025 Credential Year

Anthropology

Anthropology courses provide students with an understanding of other cultures and an opportunity to study humankind around the world and throughout the ages. Schoolcraft offers courses in archeology, world religions, Native American traditions, linguistics, cultural diversity, and prehistoric cultures that could lead to careers as a crime scene investigator, teacher, museum curator, or archeologist. In addition, students can:

- Participate in lab work that includes working directly with skeletal material, fossil casts, and stone tool replicas.
- Get involved with campus events like the Multicultural Fair and Global Roundtables.

Courses

- ANTH 112 - Introduction to Anthropology
- ANTH 117 - Introduction to Archaeology
- ANTH 120 - Introduction to Biological Anthropology
- ANTH 201 - Cultural Anthropology
- ANTH 211 - Myth, Magic, World Religions
- ANTH 214 - Native American Traditions
- ANTH 220 - Environmental Anthropology
- ANTH 230 - Medical Anthropology
- ANTH 290 - The Individual and Community - An Honors Capstone

Schoolcraft College®

2024-2025 Credential Year

Art

Schoolcraft's Art department offers options for individuals interested in the field of art whether they seek to transfer to a four-year university to continue their art studies or if they prefer to immediately begin their career as an artist.

- Individuals interested in managing their career in the fine arts industry can pursue an Art Entrepreneurship Certificate in order to build the essential art and business skills to be successful in today's art world.
    - All credits in this Art Entrepreneurship Certificate can be applied toward an Associate Degree of General Studies (AGS).
- Students planning to transfer to a four-year university can work toward an Associate of Fine Arts (AFA) degree with an emphasis in art.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. The number of credits may vary depending on the course selection.

Credentials

- Art Entrepreneurship Certificate
- Associate of Fine Arts Degree - Art Track
- Associate of General Studies using Art Entrepreneurship Certificate

MiTransfer Pathway

- MiTransfer Pathway - Art

Art Entrepreneurship Certificate

Schoolcraft program code # 1YC.00245

The Art Entrepreneurship Certificate is designed for students who would like to manage their own careers in the art world. This program includes a variety of courses in art, graphic design, general business, and accounting to help students develop foundational skills necessary to be successful in today's competitive art world. This curriculum is designed for students who would like to start their career in the art world, as well as for those students who are already working in the industry but would like to improve their opportunities for success.

Students who satisfactorily complete the program requirements qualify for a certificate of program completion.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. The number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **ART 150 - Introduction to Fine Arts Entrepreneurship** ***Credits: 3***
- **CGT 109 - Design Concepts and Technology** ***Credits: 3***
- **ENG 101 - English Composition 1** ***Credits: 3***
- **BUS 103 - Organizing a Small Business** ***Credits: 3***
- ART - Select one:
  - **ART 121 - 2D Design: Elements and Principles of Two-Dimensional Design** ***Credits: 3***
  - **ART 122 - 3D Design: Elements and Principles of Three-Dimensional Design** ***Credits: 3***

TOTAL CREDITS: 15

WINTER SEMESTER

- **CGT 166 - Photography** ***Credits: 3***
- **BUS 122 - Advertising** ***Credits: 3***
- **BUS 104 - Operating a Small Business** ***Credits: 3***
- Select one ART course not previously taken ***Credits: 3-4***

Total Credits: 12-13

SPRING SEMESTER

- Accounting - Select one:
- **ACCT 103 - Introduction to Accounting** ***Credits: 4***
- **ACCT 201 - Principles of Accounting 1** ***Credits: 4***

Total Credits: 4

PROGRAM TOTAL: 31-32 CREDITS

Associate of Fine Arts Degree - Art Track

Schoolcraft program code #AFA.00402

Schoolcraft's Associate of Fine Arts (AFA) degree is designed for students who intend to pursue a bachelor's degree in any fine arts field. It allows the student to establish a strong academic foundation in arts and complete courses to fulfill general education requirements-all before transferring to a bachelor's degree program at another college or university. The AFA allows students to focus on a particular discipline within the fine arts, including art. Students interested in other areas of fine arts could substitute courses in music, creative writing, literature, theater, or humanities. See the degree requirements or talk to an academic advisor for details.

All courses must be completed with a minimum overall grade point average of 2.0 or better.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- English Communication - Select first General Education English Communication course* ***Credits: 3***
- Mathematics - Select first General Education Mathematics course* ***Credits: 4-5***
- Humanities - Select first General Education Humanities course* ***Credits: 3***
- Major Area of Study - Select liberal arts courses from ART, HUM, MUSIC, THEA, and ENG (Creative Writing or Literature courses only.) * See list below for recommended ART courses. ***Credits: 3***

For recommended courses in other areas of the fine arts, see the degree requirements or talk with your academic advisor.

TOTAL CREDITS: 13-14

Winter Semester

- English Communication - Select second General Education English Communication course* Credits***: 3***
- Social Science - Select first General Education Social Science course * ***Credits: 3***
- Humanities - Select second General Education Humanities course* Credits ***1***
- Major Area of Study - Select liberal arts courses from ART, HUM, MUSIC, THEA, and ENG (Creative Writing or Literature courses only). * See list below for recommended art courses. ***Credits: 6***

For recommended courses in other areas of the fine arts, see the degree requirements or talk with your academic advisor.

TOTAL CREDITS: 13

Spring/Summer Session

- Natural Science - Select first General Education Science course* ***Credits: 3***
- Social Science - Select second General Education Social Science course * ***Credits: 3***

TOTAL CREDITS: 6

SECOND YEAR

Fall Semester

- Natural Science - Select second General Education Science course* ***Credits: 4***
- Major Area of Study - Select liberal arts courses from ART, HUM, MUSIC, THEA, and ENG (Creative Writing or Literature courses only). * See list below for recommended art courses. ***Credits: 6***

For recommended courses in other areas of the fine arts, see the degree requirements or talk with your academic advisor.

- Electives - Select liberal arts or occupational courses that satisfy transfer and academic goals. * ***Credits: 3***

TOTAL CREDITS: 13

Associates of Fine Art Degree – Art Track (continued)

Winter Semester

- Major Area of Study - Select liberal arts courses from ART, HUM, MUSIC, THEA, and ENG (Creative Writing or Literature courses only). * See list below for recommended art courses. ***Credits: 3***

For recommended courses in other areas of the fine arts, see the degree requirements or talk with your academic advisor.

- Electives - Select liberal arts or occupational courses that satisfy transfer and academic goals to reach minimum 60 credits total. * ***Credits: 12***

TOTAL CREDITS: 15

PROGRAM TOTAL: 60-61 CREDITS

*Please check Schoolcraft General Education and transfer institution program requirements to determine course options.

AFA Art Track - Recommended Courses*

- **ART 115 - Art History 1** ***Credits: 4***
- **ART 116 - Art History 2** ***Credits: 4***
- **ART 120 - Drawing: Theory and Elements** ***Credits: 3***
- **ART 121 - 2D Design: Elements and Principles of Two-Dimensional Design** ***Credits: 3***
- **ART 122 - 3D Design: Elements and Principles of Three-Dimensional Design** ***Credits: 3***
- **ART 201 - Art Appreciation** ***Credits: 3***
- **ART 248 - Portfolio Preparation** ***Credits: 1***

Associate of General Studies using Art Entrepreneurship Certificate

Schoolcraft program code #AGS.00042

The Art Entrepreneurship Certificate provides foundational skills for managing a career in the art field.

Any student wishing to pursue an associate degree can apply all 31-32 credits from the Art Entrepreneurship Certificate toward an Associate of General Studies (AGS) degree. Depending on the desired career path, discuss other options for an associate degree with an academic advisor.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. The number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **ART 150 - Introduction to Fine Arts Entrepreneurship** ***Credits: 3***
- **CGT 109 - Design Concepts and Technology** ***Credits: 3***
- **ENG 101 - English Composition 1** ***Credits: 3***
- **BUS 103 - Organizing a Small Business** ***Credits: 3***
- ART - Select one:
    - **ART 121 - 2D Design: Elements and Principles of Two-Dimensional Design** ***Credits: 3***
    - **ART 122 - 3D Design: Elements and Principles of Three-Dimensional Design** ***Credits: 3***

TOTAL CREDITS: 15

Winter Semester

- **CGT 166 - Photography** ***Credits: 3***
- **BUS 122 - Advertising** ***Credits: 3***
- **BUS 104 - Operating a Small Business** ***Credits: 3***
- Select one ART course not previously taken ***Credits: 3-4***

TOTAL CREDITS: 12-13

Spring Semester

- Accounting - Select one:
- **ACCT 103 - Introduction to Accounting** ***Credits: 4***
- **ACCT 201 - Principles of Accounting 1** ***Credits: 4***

TOTAL CREDITS: 4

SECOND YEAR

Fall Semester

- Natural Science - Select General Education Science course* Credits ***3-5***
- Social Science - Select General Education Social Science course* Credits ***3-4***
- English Communication - Select second General Education English Communication course* Credits ***3***
- Mathematics - Select General Education Mathematics course* Credits ***3-5***

TOTAL CREDITS: 12-17

Winter Semester

- Natural Science - Select General Education Science course* Credits ***3-5***
- Humanities - Select Humanities course other than ART Credits ***1-4***
- Social Science - Select General Education Social Science course* ***Credits 3-4***
- Electives - Select courses supportive of occupational and academic goals ***Credits 5***

TOTAL CREDITS: 12-18

Associates of General Studies using Art Entrepreneurship Certificate (continued)

Spring Semester

- Electives - Select courses supportive of occupational and academic goals to reach a minimum of 60 credits total
  Credits: 5

TOTAL CREDITS: 5

PROGRAM TOTAL: 60-72 CREDITS

*Please check Schoolcraft General Education requirements to determine course options.

MiTransfer Pathway - Art

Community colleges and universities in Michigan have simplified the transfer process by developing Transfer Pathways. These pathways build on the Michigan Transfer Agreement (MTA), which makes it easier for students to transfer their general education courses taken at Schoolcraft to participating four-year schools.

MITRANSFER PATHWAY COURSES

The following courses at Schoolcraft College are guaranteed to transfer to art programs of participating institutions.

- **ART 115 - Art History 1** ***Credits: 4***
- **ART 116 - Art History 2** ***Credits: 4***
- **ART 120 - Drawing: Theory and Elements** ***Credits: 3***
- **ART 121 - 2D Design: Elements and Principles of Two-Dimensional Design** ***Credits: 3***
- **ART 122 - 3D Design: Elements and Principles of Three-Dimensional Design** ***Credits: 3***

STUDIO ART COURSES

It is recommended that students complete two studio art courses in two different mediums. Studio art courses should be selected on consultation with a faculty advisor based on the students' major, concentration, or focus. These courses may transfer as part of the associate degree but may not transfer as course-to-course equivalencies.

SCHOOLCRAFT COLLEGE DEGREE REQUIREMENTS

Students may earn an associate degree at Schoolcraft! By taking the MiTransfer Pathways courses and completing MTA, students just need to complete the remaining electives to get to 60 credits to earn the following degrees:

- Associate of Arts (AA) Degree
- Associate of Fine Arts (AFA) Degree

Note that these remaining courses to receive your associate degree may not be accepted for transfer by universities participating in the agreement.

TRANSFER INSTITUTION DEGREE REQUIREMENTS

Learn more about the transfer institution degree requirements by meeting with one of our academic advisors who can help you understand the transfer guides and agreements.

Andrews University	Finlandia University	
Central Michigan University	Michigan State University	Spring Arbor University
College for Creative Studies	Northern Michigan University	University of Michigan-Flint
Concordia University Ann Arbor	Oakland University	Wayne State University
Eastern Michigan University	Saginaw Valley State University	Western Michigan University
Ferris State University	Siena Heights University	

2024-2025 Credential Year

Biology

Schoolcraft offers courses in biology, conservation, health education, human anatomy, natural resources, microbiology and nutrition. Students can learn in state-of-the-art facilities at the Biomedical Technology Center on campus, including the Anatomy and Physiology Lab, the Cellular and Molecular Biology Lab, and the Imaging and Analysis Lab, which houses Schoolcraft's Scanning Electron Microscope.

Students can also get valuable lab experience with DNA biotechnology equipment, protocols, field research, and the use of plastinated cadavers and organs.

MiTransfer Pathway

- MiTransfer Pathway - Biology

Courses

- BIOL 100 - Introduction to Biology
- BIOL 101 - General Biology
- BIOL 103 - Health Education
- BIOL 104 - Conservation and Natural Resources
- BIOL 105 - Basic Human Anatomy and Physiology
- BIOL 107 - Introduction to Microbiology
- BIOL 114 - Basic Human Nutrition
- BIOL 115 - Nutrition
- BIOL 120 - Principles of Biology 1
- BIOL 130 - Principles of Biology 2
- BIOL 140 - Scanning Electron Microscopy
- BIOL 236 - Human Anatomy and Physiology
- BIOL 237 - Principles of Human Anatomy and Physiology 1
- BIOL 238 - Principles of Human Anatomy and Physiology 2
- BIOL 243 - Microbiology

MiTransfer Pathway - Biology

Community colleges and universities in Michigan have simplified the transfer process by developing Transfer Pathways. These pathways build on the Michigan Transfer Agreement (MTA), which makes it easier for students to transfer their general education courses taken at Schoolcraft to participating four-year schools.

MITRANSFER PATHWAY COURSES

The following courses at Schoolcraft College are guaranteed to transfer to biology programs of participating institutions.

- **BIOL 130 - Principles of Biology 2** ***Credits: 5***
- **BIOL 120 - Principles of Biology 1** ***Credits: 5***
- **CHEM 111 - General Chemistry 1** ***Credits: 4***
- **CHEM 117 - General Chemistry 2 and Qualitative Analysis** ***Credits: 5***
- **CHEM 213 - Organic Chemistry 1** ***Credits: 5***
- **CHEM 214 - Organic Chemistry 2** ***Credits: 5***

SCHOOLCRAFT COLLEGE DEGREE REQUIREMENTS

Students may earn an associate degree at Schoolcraft! By taking the MiTransfer Pathways courses and completing MTA, students need to complete the remaining electives to get to 60 credits to earn the following degree:

- Associate of Science (AS) Degree

Note that these remaining courses to receive your associate degree may not be accepted for transfer by universities participating in the agreement.

TRANSFER INSTITUTION DEGREE REQUIREMENTS

Learn more about the transfer institution degree requirements by meeting with one of our academic advisors who can help you understand the transfer guides and agreements.

Andrews University	Finlandia University	
Central Michigan University	Grand Valley State University	Saginaw Valley State University
Concordia University Ann Arbor	Lawrence Technological University	Siena Heights University
Cornerstone University	Michigan Technological University	Spring Arbor University
Davenport University	Northern Michigan University	University of Detroit Mercy
Eastern Michigan University	Oakland University	University of Michigan-Dearborn
Ferris State University	Rochester University	

Schoolcraft College®

2024-2025 Credential Year

Biomedical Engineering Technology

The biomedical engineering technology programs prepare students to work on sophisticated medical equipment (equipment used for diagnosing, treating, monitoring, and direct care of patients) in a healthcare setting. Schoolcraft offers two educational options and additional experience opportunities in this exciting field:

- An associate of applied science degree teaches students to maintain and repair medical electronic equipment in hospitals, labs, and industries engaged in manufacturing and selling these products.
- The biomedical applications post-associate certificate is for individuals already working in the field who want to advance their career opportunities by providing additional knowledge and skills needed to meet the demands of the rapidly changing biomedical field.

A state-of-the-art lab enables students to learn first-hand about troubleshooting equipment and designing prototypes. In addition, a two-semester-long internship provides additional hands-on field training in one of the area's hospitals or medical equipment service vendors. Students must complete internships to be eligible to fulfill program requirements.

Credentials

- Biomedical Applications Post-Associate Certificate
- Biomedical Engineering Technologist AAS Degree

Selective Admissions: Program Application Information

- Biomedical Engineering Technology Program Application Information

Biomedical Applications Post-Associate Certificate

Schoolcraft program code # PAC.00178

This post-associate certificate in biomedical applications is designed to provide working professionals who have experience and/or training in biomedical engineering opportunities to study new technologies and innovations.

Completion of this program will enhance a professional's ability to meet the demands of rapidly changing technologies in the biomedical field. These courses are also intended to meet requirements for current and future professional certification.

Prior to admission to this program, students must have completed a minimum of an accredited associate degree in biomedical engineering technology. The post-associate certificate is awarded upon successful completion of 16 credit hours.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Number of credits may vary depending on the course selection.

Courses can be taken through independent study. Students may choose an applicable 200-level elective.

PROGRAM COURSES

A STUDENT IS REQUIRED TO CHOOSE THE TWO COURSES LISTED BELOW

- **CIS 171 - Introduction to Networking** ***Credits: 3***
- **CNT 130 - Computer Hardware and Troubleshooting** ***Credits: 3***

A STUDENT MAY CHOOSE FROM ANY OF THE COURSES LISTED BELOW

- **BUS 220 - Organizational Behavior** ***Credits: 3***
- **CIS 172 - Network Security Fundamentals** ***Credits: 3***
- **CIS 178 - Technical Microsoft Windows** ***Credits: 3***
- **CIS 250 - Systems Development and Design** ***Credits: 4***
- **CIS 251 - IT Project Management** ***Credits: 3***
- **CIS 273 - TCP/IP and Network Architectures** ***Credits: 3***
- **CNT 115 - Cybersecurity Fundamentals** ***Credits: 3***
- **CNT 173 - Wireless Local Area Networks** ***Credits: 3***
- **CNT 179 - Physical Networking** ***Credits: 3***
- **CNT 210 - CCNA Networking 1** ***Credits: 4***
- **ELECT 144 - Introduction to Microcontrollers** ***Credits: 3***
- **QM 107 - Quality Planning and Team Building** ***Credits: 3***

Biomedical Engineering Technologist AAS Degree

Schoolcraft program code #AAS.0P128/AAS.00128

The biomedical engineering technologist (BMET) program is designed to develop technicians able to maintain and service medical electronic equipment in hospitals, pathological and hematological laboratories, and industries engaged in the manufacture and sale of medical electronic equipment. The program is divided into two components. The first year (three semesters) culminates in an electronic technology certificate. For candidates to be eligible to apply for the second year of the program they must meet the following qualifications:

1. Have an overall GPA of 2.5.
2. Achieve a minimum GPA of 2.5 in each electronics course.
3. Achieve a minimum GPA of 3.0 in BIOL 105 - Basic Human Anatomy and Physiology.

Candidates who have met these conditions must be approved by the BMET Internship Coordinator before registering in BMET 116, BMET 204, BMET 256, or BMET 257. Due to the limited availability of worksites, candidates who have met these conditions will be prioritized for admission into the BMET sequence based on the following elements: BMET application date, overall GPA, and position in the sequence of program courses. Students must complete internships to be eligible to fulfill program requirements. Students who satisfactorily complete all college and program requirements qualify for an associate of applied science degree.

This program requires students to complete a specific list of requirements before being officially admitted into the program. Students are listed in a pre-program code while the application requirements are being met. The full program start date and implementation of the program code may be dependent on space availability. Requirements are listed online at https://www.schoolcraft.edu/admissions/apply-to-sc/students-with-selective-admissions/ ***or the*** Biomedical Engineering Technology Program Application Information catalog page***. Contact the*** Admissions and Welcome Center ***at 734-462-4426 or*** admissions@schoolcraft.edu ***to complete an application.***

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

ADMISSION PREREQUISITES

*These courses must be completed before admission to the Biomedical Engineering Technology AAS program. Students must achieve a 3.0 or higher in BIOL 105 and 2.5 or higher in ELECT 131, ELECT 137, ELECT 138, ELECT 139, HIT 100, and CIS 171 for acceptance.

FIRST YEAR

Fall Semester

- **BIOL 105 - Basic Human Anatomy and Physiology** ***Credits: 4*** *
- **ELECT 131 - Basic Measurement and Reporting Skills** ***Credits: 3*** *
- **ELECT 137 - DC Circuits and Mathematical Modeling** ***Credits: 5*** *
- English Communication - Credits: 3 - Select first General Education English Communication course.
    - Recommended: **ENG 101 - English Composition 1** ***Credits: 3***

TOTAL CREDITS: 15

Winter Semester

- **ELECT 138 - AC Circuits and Mathematical Modeling** ***Credits: 5*** *
- **ELECT 139 - Diodes and Transistors** ***Credits: 3*** *
- **CIS 171 - Introduction to Networking** ***Credits: 3*** *
- **HIT 100 - Introduction to Medical Terminology** ***Credits: 2*** *

TOTAL CREDITS: 13

Spring/Summer Session

- **CNT 173 - Wireless Local Area Networks** ***Credits: 3***
- **CNT 115 - Cybersecurity Fundamentals** ***Credits: 3***

TOTAL CREDITS: 6

Biomedical Engineering Technologist AAS Degree (continued)

ADMISSION TO THE BIOMEDICAL PROGRAM INTERNSHIP SEQUENCE

SECOND YEAR

Fall Semester

- **BMET 116 - Biomedical Instrumentation Terminology and Safety 1** ***Credits: 3***
- Mathematics - Credits: 3-5 - Select General Education Mathematics course.
    - Recommended: **MATH 102 - Technical Mathematics** ***Credits: 4***
    - OR **MATH 113 - Intermediate Algebra for College Students** ***Credits: 4*** or higher mathematics course.
- Social Science - Credits: 3-4 - Select General Education Social Science course.
- Recommended: **PSYCH 153 - Human Relations** ***Credits: 3***
- English Communication - Credits: 3 - Select second General Education English Communication course.
    Recommended:
    - **ENG 102 - English Composition 2** ***Credits: 3***
    - OR **ENG 116 - Technical Writing** ***Credits: 3***

TOTAL CREDITS: 12-15

Winter Semester

- **BMET 204 - Biomedical Instrumentation Terminology and Safety 2** ***Credits: 4***
- **BMET 256 - Biomedical Equipment Internship 1** ***Credits: 3***
- Electives - Select elective course. ***Credits: 3-4***
    - ***See Elective List Below***
- Humanities - Credits: 1-4 - Select General Education Humanities course.
    - Recommended: **COMA 103 - Fundamentals of Speech** ***Credits: 3***

TOTAL CREDITS: 11-15

Spring/Summer Semester

- **BMET 257 - Biomedical Equipment Internship 2** ***Credits: 3***

TOTAL CREDITS: 3

PROGRAM TOTAL: 60-67 CREDITS

Electives

- **CIS 172 - Network Security Fundamentals** ***Credits: 3***
- **CIS 251 - IT Project Management** ***Credits: 3***
- **CNT 130 - Computer Hardware and Troubleshooting** ***Credits: 3***
- **CNT 179 - Physical Networking** ***Credits: 3***
- **ELECT 144 - Introduction to Microcontrollers** ***Credits: 3***
- **ELECT 215 - Operational Amplifiers and Linear Integrated Circuits** ***Credits: 4***
- **ELECT 218 - AC/DC Motors** ***Credits: 3***
- **ELECT 219 - Digital Logic Circuits** ***Credits: 4***
- **ELECT 228 - Electronic Troubleshooting** ***Credits: 3***
- **MECH 101 - Introduction to Mechatronics** ***Credits: 3***

Schoolcraft College®

2024-2025 Credential Year

Biomedical Engineering Technology Program Application Information

The Biomedical Engineering Technology (BMET) Program will prepare the student to maintain and repair medical equipment in hospitals, labs, and industry. A Biomedical Engineering Technician tests, adjusts, and repairs biomedical or electromechanical equipment used in medical therapy, diagnosis, and research. Please note the following:

- Biomedical Engineering Technology courses are offered primarily at the MEC- Manufacturing and Engineering Center in the evenings.
- The Biomedical Technology program requires that students complete two internships. Both internships take place off-campus and require a minimum of twenty-four (24) hours each week.
- Students who satisfactorily complete all program/college requirements qualify for an Associate of Applied Science Degree.
- The BMET Program meets the educational requirement for graduates seeking certification by the Board of Examiners for Biomedical Equipment Technicians, operating under the direction of the United States Certification Commissions (USCC) and the Advancing Safety in Health Technology (AAMI) Credentials Institute.

To view the complete program description and a sample schedule of courses, view the Biomedical Engineering Technologist AAS Degree catalog page.

APPLICATION REQUIREMENTS

The Biomedical Engineering Technology (BMET) Program requires students to complete a specific list of requirements before being officially admitted into the program. Students are listed in a pre-program code while the requirements are being met. The full program start date and implementation of the program code may be dependent on space availability. To be admitted to the program the student must complete the following:

1. Apply to Schoolcraft College	Apply to Schoolcraft College online at www.schoolcraft.edu.
2. Transcripts	It is recommended you request official undergraduate transcripts from all colleges and universities previously attended. Transcripts must be sent directly from the issuing college or university to Schoolcraft College. To confirm that transcripts have been received, contact the Answer Center at 734-462-4426.
3. Academic Advising and Assessment	This program requires minimum assessment levels or coursework in the areas of math, reading, and writing. Students should have placement scores (Computer Placement Test, ACT, or SAT) submitted before meeting with an academic advisor. Students with prior college-level work or a degree may be exempt from placement testing. The Computer Placement Test (CPT) is taken in the Testing Center. ACT or SAT scores must be less than three years old. Contact the Academic Advising at 734-462-4429 to make an appointment.
4. College Prerequisite Coursework	NOTE: The entrance requirements have changed. Please contact Advising for guidance. eadvise@schoolcraft.edu. • Complete BIOL 105 - Basic Human Anatomy and Physiology with a grade of 3.0 or better. • Complete ELECT 131 - Basic Measurement and Reporting Skills with a grade of 2.5 or better. • Complete ELECT 137 - DC Circuits and Mathematical Modeling with a grade of 2.5 or better. • Complete ELECT 138 - AC Circuits and Mathematical Modeling with a grade of 2.5 or better. • Complete ELECT 139 - Diodes and Transistors with a grade of 2.5 or better. • Complete CIS 171 - Introduction to Networking with a grade of 2.5 or better. • Complete HIT 100 - Introduction to Medical Terminology with a grade of 2.5 or better. Time Limits: All Electronic transfer courses and Schoolcraft College Electronic courses completed over 5 years before program application require testing for credit.

5. Cumulative GPA	Attain a cumulative grade point average at Schoolcraft College of 2.5 or better.
6. Apply to the Biomedical Engineering Technology Program	Meet with a Schoolcraft academic advisor. Completion of all sections of the application with signatures from an academic advisor is required to be accepted into the Biomedical Engineering Technology Program. Submit the Biomedical Engineering Restricted Enrollment Form to the Registration Center.

OPEN/SUPPORTING COURSES

Admission to the Biomedical Engineering Technology Program is not necessary to register for the courses listed below.

The following courses are open to all Schoolcraft students who have met the course prerequisite.

- ENG 101 - English Composition 1
- ENG 102 - English Composition 2 ***or*** ENG 116 - Technical Writing
- ***Humanities -*** See online Catalog for General Education Humanities
  - (COMA 103 - Fundamentals of Speech Recommended)
- MATH 102 - Technical Mathematics
- ***Social Sciences -*** See online Catalog for Social Sciences Options
  - (PSYCH 153 - Human Relations Recommended)
- ***2 Electives -*** See online Catalog for BMET Program Elective

REGISTRATION PROCEDURE

After acceptance into the Biomedical Engineering Technology Program, BMET students require official authorization to register for BMET courses. Additional detailed information is available from the Occupational Programs Office (734-462-7020), located in the Manufacturing and Engineering Center (MEC), Room 200. An authorization to register is only issued upon completion of the following requirement:

- ***Maintain a cumulative grade point average of 2.5 or better.***

INTERNSHIP REQUIREMENT

Based on the location of your internship some or all of the following may be required:

1. Some internship sites may require physical exams and/or drug tests prior to selection for an internship. Physical and test expires after 12 months. Drug screens may need to be repeated throughout the program as required by internship locations. Marijuana use is prohibited.
2. Reference Check.
3. Photo ID- Original and photocopy of your valid Driver's License or State ID or other photo ID, if neither is available.
4. Immunization- Documentation of Measles, Mumps, and Rubella (MMR) Immunization (if you were born after 1956), documentation of negative TB test within the past six months or a recent chest X-ray, and a Health/Medical Insurance card (if applicable). If needed, a TB test will be provided at the time of the interview. Covid-19 Vaccination or other vaccinations as required by federal, state, or clinical agency guidelines. NOTE: Subject to permitted internship site medical/religious exemptions.

Please note: Individuals who have a felony conviction in their past are likely to have difficulty securing employment in the Biomedical Technology field.

Biomedical Engineering Technology Program Application Information (continued)

ESTIMATE OF TUITION AND FEES

BIOMEDICAL ENGINEERING TECHNOLOGY			
2024-2025			
Program Credit Hours - 63			
	Resident	*Non-Resident*	*Out of State*
Tuition:	$ 8,757.00	$ 12,600.00	$ 17,004.00
Registration Fees: ($44 per semester)	$ 176.00	$ 176.00	$ 176.00
Service Fees: ($9 per credit hour)	$ 567.00	$ 567.00	$ 567.00
Instructional Equipment Fees: ($11 per credit hour)	$ 693.00	$ 693.00	$ 693.00
Infrastructure Fees: ($9 per credit hour)	$ 567.00	$ 567.00	$ 567.00
Course and Learning Management Fees: ($12 per class)	$ 228.00	$ 228.00	$ 228.00
Lab Fees: (varies according to individual class)	$ 370.00	$ 370.00	$ 370.00
Excess Contact Hour Fees: (varies according to individual class)	$ -	$ -	$ -
Total	$ 11,358.00	$ 15,201.00	$ 19,605.00
The above figures are based on 2024-2025 rates and are subject to change. A Resident student is one whose legal residence is in the school District of Clarenceville, Garden City, Livonia, Northville, Plymouth-Canton, or parts of Novi. All other students are Non-Residents.			

PLEASE NOTE:

Requirements for admission to the Biomedical Engineering Technology Program are subject to change at any time.

Ready to get started! Download the Biomedical Engineering Technology Student Checklist to get on track.	**Student Checklist**
Ready to apply? Download the Application Form and schedule a meeting with your Advisor.	**Application Form**

Please contact the Admissions and Welcome Center for updates on any applicable changes.

Phone: 734-462-4683
Fax: 734-462-4552
Email: admissions@schoolcraft.edu
Web: www.schoolcraft.edu

It is the policy of Schoolcraft College that no person shall, on the basis of race, color, national origin, gender, age, marital status, creed, or handicap, be excluded from participating in, be denied benefits of, or be subject to discrimination during any program or activity or in employment.

2024-2025 Credential Year

Brewing and Distillation Technology

The Brewing and Distillation Technology Certificate offered by Schoolcraft College provides detailed knowledge that can help jumpstart a career in craft beverage or brewing operations or provide the needed background for an entrepreneur who is considering opening a brewpub or microbrewery. The curriculum has been designed with direct input from brewing professionals and owners of breweries, brewpubs, and distilleries in order to meet industry talent needs and to address the issues faced by aspiring entrepreneurs in this growing industry. The course of study focuses on the vital aspects of the beer and distilled spirits industry, including business, brewing science, operations, product finishing and packaging, draught systems management, beer history, and customer service.

Credentials

- Associate of General Studies using Brewing and Distillation Technology Certificate
- Brewing and Distillation Technology Certificate

Associate of General Studies using Brewing and Distillation Technology Certificate

Schoolcraft program code # AGS.00042

This program is intended for those who are interested in starting a career in brewing, expanding their current brewing knowledge and practice, or considering opening a brewpub or microbrewery. The curriculum has been designed with direct input and participation by brewing professionals, owners of breweries, brewpubs, and distillers. The program is designed by craft beverage professionals to meet industry needs, and also addresses potential issues faced by entrepreneurs aspiring to startup a microbrewery or brewpub in Michigan. The course of study introduces the science, operation, business, finishing, packaging and service of beer and distilled spirits, and prepares the student to pursue employment in a wide variety of positions in a craft beverage operation.

Any student wishing to pursue an associate degree can apply all 25 credits from the Brewing and Distillation Technology Certificate toward an Associate of General Studies (AGS) degree. Depending on the desired career path, discuss options for an associate degree with an academic advisor.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **BDT 101 - Brewing Science** ***Credits: 4***
- **BDT 121 - Beer Styles and Flavor Evaluation** ***Credits: 3***
- **BDT 110 - Brewhouse Operations and Technology** ***Credits: 4***
- **BDT 140 - Marketing and Operations Management** ***Credits: 2***
- English Communication - Select first General Education English Communication Course ***Credits: 3*** *

TOTAL CREDITS: 16

Winter Semester

- **BDT 210 - Cellaring, Packaging and Quality Management** ***Credits: 4***
- **BDT 220 - Advanced Brewing and Distillation** ***Credits: 4***
- **BDT 231 - Craft Beer Management and Service** ***Credits: 4***
- English Communication - Select second General Education English Communication Course ***Credits: 3*** *

TOTAL CREDITS: 15

SECOND YEAR

Fall Semester

- Humanities - Select General Education Humanities Course ***Credits: 3*** *
- Mathematics - Select General Education Mathematics Course ***Credits: 3*** *
- Natural Science - Select General Education Science Course ***Credits: 4*** *
- Social Science - Select General Education Social Science Course ***Credits: 3*** *
- Electives - Select courses supportive of occupational and academic goals ***Credits: 3***

TOTAL CREDITS: 16

Winter Semester

- Humanities - Select General Education Humanities Course ***Credits: 1*** *
- Natural Science - Select General Education Science Course ***Credits: 3*** *
- Social Science - Select General Education Social Science Course ***Credits: 3*** *
- Electives - Select courses supportive of occupational and academic goals ***Credits: 6***

TOTAL CREDITS: 13

PROGRAM TOTAL: 60 CREDITS

* Please check Schoolcraft General Education requirements to determine course options.

Brewing and Distillation Technology Certificate

Schoolcraft program code # 1YC.00084

This program is intended for those who are interested in starting a career in brewing, expanding their current brewing knowledge and practice, or considering opening a brewpub or microbrewery. The curriculum has been designed with direct input and participation by brewing professionals, owners of breweries and brewpubs and distillers. The program is designed by craft beverage professionals to meet industry needs, and also addresses potential issues faced by entrepreneurs aspiring to startup a microbrewery or brewpub in Michigan. The course of study introduces the science, operation, business, finishing, packaging and service of beer and distilled spirits, and prepares the student to pursue employment in a wide variety of positions in a craft beverage operation.

Students who satisfactorily complete the program requirements qualify for a certificate of program completion.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **BDT 101 - Brewing Science** ***Credits: 4***
- **BDT 121 - Beer Styles and Flavor Evaluation** ***Credits: 3***
- **BDT 110 - Brewhouse Operations and Technology** ***Credits: 4***
- **BDT 140 - Marketing and Operations Management** ***Credits: 2***

TOTAL CREDITS: 13

Winter Semester

- **BDT 210 - Cellaring, Packaging and Quality Management** ***Credits: 4***
- **BDT 220 - Advanced Brewing and Distillation** ***Credits: 4***
- **BDT 231 - Craft Beer Management and Service** ***Credits: 4***

TOTAL CREDITS: 12

PROGRAM TOTAL: 25 CREDITS

Schoolcraft College®

2024-2025 Credential Year

Business

Schoolcraft's business program prepares students for a variety of positions in the corporate world or to run their own business and lays the foundation to transfer to a four-year college or university to earn a bachelor's degree.

There are three associate of applied science degrees (AAS) and two certificate options available in business:

- Business General degree: This general degree program provides a good basis to qualify students for several entry-level jobs.
- Marketing and Applied Management degree: Marketing and sales are the lifeblood of any business, and this program gives students a well-rounded business background to prepare them to manage and market a company's products or services.
- Small Business for Entrepreneurs degree: The program is designed for those who own and/or operate a small business or plan to start their own company. The curriculum combines general business, liberal arts, and elective course options to give the student a diversified background that is vital in today's small-business environment.
- Business-Basic Certificate: This certificate program provides students with a well-rounded introduction to the business world, including courses in accounting, economics, and the basics of business. It prepares them for the pursuit of an associate degree or for various job opportunities.
- Small Business for Entrepreneurs Certificate: Completion of this certificate program will prepare students for the unique challenges entrepreneurs and small business owners routinely deal with in today's highly competitive business world.

Schoolcraft College also offers an Associate of Business Administration Degree.

- Associate of Business Administration (ABA) Degree - The associate of business administration (ABA) transfer degree is for students who plan to transfer to a four-year college or university program. The ABA degree provides the framework for four-year college degrees in, but not limited to, the following majors: Accounting, Business Administration, Computer Information Systems, Finance, Human Resource Management, International Business, Management, and Marketing. Schoolcraft students may complete the degree by following the requirements specified by the transfer institution and Schoolcraft College (SC).

Credentials

- Associate of Business Administration Degree
- Business - Basic Certificate
- Business - General AAS Degree
- Business - Marketing and Applied Management AAS Degree
- Business - Small Business for Entrepreneurs AAS Degree
- Business - Small Business for Entrepreneurs Certificate

MiTransfer Pathway

- MiTransfer Pathway - Business

Associate of Business Administration Degree

Schoolcraft program code #ABA.00401

The Associate of Business Administration (ABA) degree is for students who plan to transfer to a four-year college or university program. It provides the framework for four-year college degrees in, but not limited to, the following majors: Accounting, Business Administration, Computer Information Systems, Finance, Human Resource Management, International Business, Management, and Marketing.

Students can complete a broad distribution of liberal arts courses in the English, Humanities, Mathematics, Natural Sciences, and Social Sciences distribution areas to meet transfer requirements toward a baccalaureate degree with an intended focus on business and related fields.

General Education Requirements

Students who complete the requirements below will have completed all of Schoolcraft College Core Abilities and a minimum of 16 credit hours of associate-level Schoolcraft General Education requirements in English Communication, humanities, mathematics, natural sciences, and social sciences. All courses that apply to this degree must be at the 100- through 400 level with an overall minimum grade point average (GPA) of 2.0.

Degree Requirements

English Communication (minimum 6 credits)

Complete a minimum of one English composition course from the list below:

- Take ENG 101, ENG 102, or ENG 221

Complete a second English composition course or a communication arts course from the list below:

- Take ENG 101, ENG 102, ENG 221, COMA 103, COMA 200, COMA 202, COMA 212, COMA 213, or COMA 240

Humanities (minimum 4 credits)

- Complete a minimum of two Humanities courses from two different disciplines in Art, Communication Arts, English (Literature), Foreign Language, History, Humanities, Music, Philosophy, or Theatre

Mathematics (minimum 3 credits)

Complete a minimum of one Mathematics course from Schoolcraft's approved Michigan Transfer Agreement (MTA) course list.

- Recommended: MATH 122 - Elementary Statistics ***Credits: 4***

Natural Sciences (minimum 7 credits)

- Complete a minimum of two Natural Science courses from two different disciplines in Biology, Chemistry, Earth and Environmental Science, Geography, Nutrition and Food Science, or Physics. One course must be a lab course.

Social Sciences (minimum 11 credits)

Complete a minimum of two Social Science courses from two different disciplines in Anthropology, Geography, History, Political Science, Psychology, or Sociology

- ***Required:*** ECON 201 - Principles of Macroeconomics ***Credits: 4***
- ***and*** ECON 202 - Principles of Microeconomics ***Credits: 4***
- Recommended: POLS 105 - Survey of American Government ***Credits: 3***

Major Area of Study (11 credit hours)

- ACCT 201 - Principles of Accounting 1 ***Credits: 4***
- ACCT 202 - Principles of Accounting 2 ***Credits: 4***
- BUS 101 - Introduction to Business ***Credits: 3***

General Electives (18 Credits)

Complete an additional 18 credit hours in courses not previously taken that satisfy transfer and academic goals and requirements.

Recommended:

- BUS 207 - Business Law 1 ***Credits: 3***
- CIS 115 - Introduction to Computer Based Systems ***Credits: 3***
- CIS 120 - Software Applications ***Credits: 3***

Students may take up to 15 credits of occupational or applied liberal arts courses toward the Associate of Business Administration degree. Not all occupational courses will transfer to another college or university. Consult transfer and articulation guides.

Total Credits: 60

PLEASE NOTE: Students may not use the same History course to satisfy both the humanities and social sciences requirements. Additionally, students may not use the same Communication Arts course to satisfy both the humanities and English communication requirements. Only certain geography courses can be used for a natural science or social science course.

Three (3) types of courses may be used toward fulfilling associate degrees at Schoolcraft College: liberal arts, applied liberal arts, and occupational. While applied liberal arts courses provide immediate skill-building opportunities, their transferability should be discussed with an academic advisor. Students can check www.mitransfer.org to verify the transferability of their courses.

Transfer Opportunities

For those seeking a bachelor's, master's, or doctoral degree, Schoolcraft College is a fantastic starting point. Whether you already have a transfer destination/program in mind or are still figuring out your major, Schoolcraft College can help you explore a range of transfer options at Schoolcraft Transfer to U.

If you complete your associate degree before transferring to a 4-year college or university, you can save a lot of money on tuition. To find out how much you can save, use our tuition comparison calculator. You can also speak with your advisor to learn how to maximize your savings through a transfer or articulation agreement.

Business - Basic Certificate

Schoolcraft program code #1YC.00002

The basic business program introduces students to accounting, economics and the basics of business. Completion of the program positions the student for pursuit of an associate degree or for transition into the business community.

Students who satisfactorily complete the program requirements qualify for a certificate of program completion.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **BUS 101 - Introduction to Business** ***Credits: 3***
- **ENG 101 - English Composition 1** ***Credits: 3***
- **BUS 220 - Organizational Behavior** ***Credits: 3***
- Mathematics: Credits 3-5 - Select General Education Mathematics course
    - Recommended: **MATH 101 - Business Mathematics** ***Credits: 3***
- Humanities: Credits 1-4 - Select General Education Humanities course
    - Recommended: **COMA 103 - Fundamentals of Speech** ***Credits: 3***

TOTAL CREDITS: 13-18

Winter Semester

- **ENG 102 - English Composition 2** ***Credits: 3***
- **ECON 201 - Principles of Macroeconomics** ***Credits: 4***
- Accounting - Select one:
    - **ACCT 103 - Introduction to Accounting** ***Credits: 4***
    - **ACCT 201 - Principles of Accounting 1** ***Credits: 4***
- Social Science: Credits: 3-4 - Select General Education Social Science course.
    - Recommended: **PSYCH 153 - Human Relations** ***Credits: 3***

TOTAL CREDITS: 14-15

Spring Session

- **BUS 202 - Business Ethics** ***Credits: 3***

TOTAL CREDITS: 3

PROGRAM TOTAL: 30-36 CREDITS

Business - General AAS Degree

Schoolcraft program code # AAS.00008

The general business program is intended to provide students with a balanced curriculum composed of liberal arts, general business, and technical skills to develop a unified awareness of the activities and operational setting of a business. The program is intended to lay a foundation for a variety of entry-level positions in business that may ultimately lead to specialized study in some area of management training.

Students who satisfactorily complete all college and program requirements qualify for an associate of applied science degree.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **BUS 101 - Introduction to Business** ***Credits: 3***
- **BUS 122 - Advertising** ***Credits: 3***
- **ENG 101 - English Composition 1** ***Credits: 3***
- Humanities - Credits: 1-4 - Select General Education Humanities course.
    - Recommended: **COMA 103 - Fundamentals of Speech** ***Credits: 3***
- Mathematics - Credits: 3-5 - Select General Education Mathematics course.
    - Recommended: **MATH 101 - Business Mathematics** ***Credits: 3***

TOTAL CREDITS: 13-18

Winter Semester

- **BUS 120 - Strategic Selling** ***Credits: 3***
- **ENG 102 - English Composition 2** ***Credits: 3***
- Natural Science - Select General Education Science Course ***Credits: 4***
- Accounting - Select one:
    - **ACCT 103 - Introduction to Accounting** ***Credits: 4***
    - **ACCT 201 - Principles of Accounting 1** ***Credits: 4***
- Social Science - Credits: 3-4 - Select General Education Social Science course.
    - Recommended: **PSYCH 153 - Human Relations** ***Credits: 3***

TOTAL CREDITS: 16-19

SECOND YEAR

Fall Semester

- **BUS 217 - Business Management** ***Credits: 3***
- **BUS 220 - Organizational Behavior** ***Credits: 3***
- **ECON 201 - Principles of Macroeconomics** ***Credits: 4***
- **BUS 202 - Business Ethics** ***Credits: 3***
- **BUS 240 - International Business** ***Credits: 3***

TOTAL CREDITS: 16

Winter Semester

- **BUS 204 - Personal Finance** ***Credits: 3***
- **BUS 207 - Business Law 1** ***Credits: 3***
- **BUS 215 - E-Commerce** ***Credits: 3***
- **BUS 226 - Principles of Marketing** ***Credits: 3***
- Electives - See list ***Credits: 3-4***

TOTAL CREDITS: 15-16

PROGRAM TOTAL: 60-69 CREDITS

Business General AAS Degree (continued)

ELECTIVES

- **BUS 103 - Organizing a Small Business** *Credits: 3*
- **BUS 104 - Operating a Small Business** *Credits: 3*
- **BUS 116 - Project Management** *Credits: 3*
- **BUS 123 - Consumer Behavior** *Credits: 3*
- **BUS 208 - Business Law 2** *Credits: 3*
- **BUS 230 - Human Resource Management** *Credits: 3*
- **BUS 292 - Business Internship** *Credits: 3*
- **CIS 120 - Software Applications** *Credits: 3*
- **CIS 180 - Spreadsheet Applications - Current Software** *Credits: 3*
- **ENG 116 - Technical Writing** *Credits: 3*
- **MATH 122 - Elementary Statistics** *Credits: 4*

Business - Marketing and Applied Management AAS Degree

Schoolcraft program code # AAS.00009

The Schoolcraft College marketing and applied management program produces well-trained individuals who work in the distribution of goods and services. These individuals serve the customer and represent the company to the consumer. Therefore, graduates must be able to think, communicate and apply knowledge of business.

Career opportunities are available in occupations ranging from buying and selling to distribution management. Students who satisfactorily complete all college and program requirements qualify for an associate of applied science degree.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **BUS 101 - Introduction to Business** ***Credits: 3***
- **BUS 122 - Advertising** ***Credits: 3***
- **BUS 123 - Consumer Behavior** ***Credits: 3***
- **ENG 101 - English Composition 1** ***Credits: 3***
- Accounting - Select one:
    - **ACCT 103 - Introduction to Accounting** ***Credits: 4***
    - **ACCT 201 - Principles of Accounting 1** ***Credits: 4***

TOTAL CREDITS: 16

Winter Semester

- **BUS 120 - Strategic Selling** ***Credits: 3***
- **ENG 102 - English Composition 2** ***Credits: 3***
- Natural Science - Select General Education Science Course ***Credits: 4***
- Mathematics - Credits: 3-5 - Select General Education Mathematics course.
    - Recommended: **MATH 101 - Business Mathematics** ***Credits: 3***
- Social Science: Credits: 3-4 - Select General Education Social Science course.
    - Recommended: **PSYCH 153 - Human Relations** ***Credits: 3***

TOTAL CREDITS: 15-20

SECOND YEAR

Fall Semester

- **BUS 217 - Business Management** ***Credits: 3***
- **BUS 220 - Organizational Behavior** ***Credits: 3***
- **BUS 240 - International Business** ***Credits: 3***
- **ECON 201 - Principles of Macroeconomics** ***Credits: 4***
- Humanities: Credits 1-4 - Select General Education Humanities course
    - Recommended **HUM 106 - Introduction to Art and Music** ***Credits: 1***

TOTAL CREDITS: 14-17

Winter Semester

- **BUS 226 - Principles of Marketing** ***Credits: 3***
- **BUS 202 - Business Ethics** ***Credits: 3***
- **BUS 204 - Personal Finance** ***Credits: 3***
- **BUS 215 - E-Commerce** ***Credits: 3***
- Electives - See list ***Credits: 4-6***

Business Marketing and Applied Management AAS Degree (continued)

TOTAL CREDITS: 16-18

PROGRAM TOTAL: 61-71 CREDITS

ELECTIVES

- **BUS 103 - Organizing a Small Business** ***Credits: 3***
- **BUS 104 - Operating a Small Business** ***Credits: 3***
- **BUS 116 - Project Management** ***Credits: 3***
- **BUS 207 - Business Law 1** ***Credits: 3***
- **BUS 208 - Business Law 2** ***Credits: 3***
- **BUS 230 - Human Resource Management** ***Credits: 3***
- **BUS 292 - Business Internship** ***Credits: 3***
- **CIS 120 - Software Applications** ***Credits: 3***
- **CIS 180 - Spreadsheet Applications - Current Software** ***Credits: 3***
- **COMA 103 - Fundamentals of Speech** ***Credits: 3***
- **ENG 116 - Technical Writing** ***Credits: 3***
- **MATH 122 - Elementary Statistics** ***Credits: 4***

Business - Small Business for Entrepreneurs AAS Degree

Schoolcraft program code # AAS.00011

The small business for entrepreneur's curriculum offers a well-balanced program of liberal arts courses, general business subjects, electives, and the necessary training to meet the challenge of today's highly competitive business world. The small business for entrepreneur's curriculum is designed for those who already own and operate a small business, who are contemplating starting their own small business, or who seek employment opportunities as managers in small business.

Students who satisfactorily complete all college and program requirements qualify for an associate of applied science degree.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **BUS 101 - Introduction to Business** ***Credits: 3***
- **BUS 103 - Organizing a Small Business** ***Credits: 3***
- **BUS 122 - Advertising** ***Credits: 3***
- **ENG 101 - English Composition 1** ***Credits: 3***
- Mathematics - Credits: 3-5 - Select General Education Mathematics course.
    - Recommended: **MATH 101 - Business Mathematics** ***Credits: 3***

TOTAL CREDITS: 15-17

Winter Semester

- **BUS 104 - Operating a Small Business** ***Credits: 3***
- **ENG 102 - English Composition 2** ***Credits: 3***
- Natural Science - Select General Education Science Course ***Credits: 3-5***
- **BUS 120 - Strategic Selling** ***Credits: 3***
- Accounting - Select one:
    - **ACCT 103 - Introduction to Accounting** ***Credits: 4***
    - **ACCT 201 - Principles of Accounting 1** ***Credits: 4***

TOTAL CREDITS: 16-18

SECOND YEAR

Fall Semester

- **BUS 204 - Personal Finance** ***Credits: 3***
- **BUS 220 - Organizational Behavior** ***Credits: 3***
- **BUS 202 - Business Ethics** ***Credits: 3***
- **BUS 215 - E-Commerce** ***Credits: 3***
- Elective - See list ***Credits: 3***
- Humanities: Credits 1-4 - Select General Education Humanities course
    - Recommended: **HUM 106 - Introduction to Art and Music** ***Credits: 1***

TOTAL CREDITS: 16-19

Winter Semester

- **BUS 207 - Business Law 1** ***Credits: 3***
- **BUS 226 - Principles of Marketing** ***Credits: 3***
- **BUS 230 - Human Resource Management** ***Credits: 3***
- Elective - See list ***Credits: 2-4***
- Social Science - Credits: 3-4 - Select General Education Social Science course.
    - Recommended: **PSYCH 153 - Human Relations** ***Credits: 3***

TOTAL CREDITS: 14-17

Business – Small Business for Entrepreneurs AAS Degree (continued)

PROGRAM TOTAL: 61-71 CREDITS

ELECTIVES

- **ACCT 138 - Income Tax Preparation** ***Credits: 2***
- **ACCT 263 - Computerized Accounting Using QuickBooks** ***Credits: 3***
- **BUS 123 - Consumer Behavior** ***Credits: 3***
- **BUS 208 - Business Law 2** ***Credits: 3***
- **BUS 217 - Business Management** ***Credits: 3***
- **BUS 240 - International Business** ***Credits: 3***
- **BUS 292 - Business Internship** ***Credits: 3***
- **CIS 120 - Software Applications** ***Credits: 3***
- **ECON 201 - Principles of Macroeconomics** ***Credits: 4***
- **ENG 116 - Technical Writing** ***Credits: 3***

Business - Small Business for Entrepreneurs Certificate

Schoolcraft program code # 1YC.00213

The small business for entrepreneur's certificate is for individuals considering starting a small business, those who already own a business or students who seek employment opportunities managing a small business. The coursework prepares learners for the unique challenges small business owners and entrepreneurs routinely deal with in today's highly competitive business world.

Students who satisfactorily complete the program requirements qualify for a certificate of program completion.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **BUS 103 - Organizing a Small Business** ***Credits: 3***
- **ENG 101 - English Composition 1** ***Credits: 3***
- **BUS 220 - Organizational Behavior** ***Credits: 3***
- Accounting - Select one:
    - **ACCT 103 - Introduction to Accounting** ***Credits: 4***
    - **ACCT 201 - Principles of Accounting 1** ***Credits: 4***

TOTAL CREDITS: 13

Winter Semester

- **BUS 104 - Operating a Small Business** ***Credits: 3***
- **BUS 122 - Advertising** ***Credits: 3***
- **ENG 102 - English Composition 2** ***Credits: 3***
- Elective - See list ***Credits: 2-3***
- Social Science: Credits: 3-4 - Select General Education Social Science course.
    - Recommended: **PSYCH 153 - Human Relations** ***Credits: 3***

TOTAL CREDITS: 14-16

Spring Session

- **BUS 202 - Business Ethics** ***Credits: 3***

TOTAL CREDITS: 3

PROGRAM TOTAL: 30-32 CREDITS

ELECTIVES

- **ACCT 138 - Income Tax Preparation** ***Credits: 2***
- **ACCT 263 - Computerized Accounting Using QuickBooks** ***Credits: 3***
- **BUS 120 - Strategic Selling** ***Credits: 3***
- **BUS 123 - Consumer Behavior** ***Credits: 3***
- **BUS 215 - E-Commerce** ***Credits: 3***

MiTransfer Pathway - Business

Community colleges and universities in Michigan have simplified the transfer process by developing Transfer Pathways. These pathways build on the Michigan Transfer Agreement (MTA), which makes it easier for students to transfer their general education courses taken at Schoolcraft to participating four-year schools.

MITRANSFER PATHWAY COURSES

The following courses at Schoolcraft College are guaranteed to transfer to business programs of participating institutions.

- **ACCT 201 - Principles of Accounting 1** ***Credits: 4***
- **ACCT 202 - Principles of Accounting 2** ***Credits: 4***
- **BUS 207 - Business Law 1** ***Credits: 3***
- **ECON 201 - Principles of Macroeconomics** ***Credits: 4***
- **ECON 202 - Principles of Microeconomics** ***Credits: 4***

SCHOOLCRAFT COLLEGE DEGREE REQUIREMENTS

Students may earn an associate degree at Schoolcraft! By taking the MiTransfer Pathways courses and completing MTA, students need to complete the remaining electives to get to 60 credits to earn the following degree:

- Associate of Business Administration (ABA) Degree

Note that these remaining courses to receive your associate degree may not be accepted for transfer by universities participating in the agreement.

TRANSFER INSTITUTION DEGREE REQUIREMENTS

Learn more about the transfer institution degree requirements by meeting with one of our academic advisors who can help you understand the transfer guides and agreements.

Andrews University
Baker College
Central Michigan University
Concordia University Ann Arbor
Cornerstone University
Davenport University
Eastern Michigan University
Ferris State University
Finlandia University
Grand Valley State University
Kettering University
Lawrence Technological University
Michigan Technological University
Northern Michigan University
Northwood University
Oakland University
Rochester University
Saginaw Valley State University
Siena Heights University
Spring Arbor University
University of Detroit Mercy
University of Michigan-Dearborn
University of Michigan-Flint
Walsh College
Wayne State University
Western Michigan University

Schoolcraft College®

2024-2025 Credential Year

Business Information Technology

Business is becoming more complex every day due to the high-tech hardware and software used behind the scenes. If you enjoy staying current on the latest technological advances and finding the right technology to meet business needs, you can find a niche in this fast-growing field.

Information technology (IT) professionals help organizations in virtually every industry to determine the best use of automated systems to reach their goals.

This field requires analytical and problem-solving skills, technical expertise and the ability to juggle projects while meeting deadlines and quality standards. Excellent communication skills are also essential.

Today's employers are looking for people who have a sound business background combined with the ability to develop or manage business computer systems. The widespread use of computers in all areas of business has generated new positions and expanded opportunities. The associate of applied science degree program sets the stage for transfer to a four-year college or school. The certificate program provides students with an overview of business and computer systems and results in a certificate of program completion.

Credentials

- Business Information Technology AAS Degree
- Business Information Technology Certificate

Business Information Technology AAS Degree

Schoolcraft College program code # AAS.00277

The business information technology program is designed to meet the growing needs of industry for a new category of information technology professional. Today's employers increasingly request graduates who have a sound business background combined with the ability to develop or manage business computer systems.

This is a fast-growing field with continual changes in hardware, software and procedures. The widespread use of computers in all areas of businesses has generated new positions and expanded opportunities in information technology. Effective use of technology enables businesses to serve customers better, access more information, and be more flexible in responding to business changes and increase employee productivity.

Students who satisfactorily complete all college and program requirements qualify for an associate of applied science degree.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **ENG 101 - English Composition 1** ***Credits: 3***
- **BUS 101 - Introduction to Business** ***Credits: 3***
- **CNT 115 - Cybersecurity Fundamentals** ***Credits: 3***
- **CIS 120 - Software Applications** ***Credits: 3***
- CIS/CNT Elective - Select CIS/CNT course from list ***Credits: 2-4***

TOTAL CREDITS: 14-16

Winter Semester

- English Communication - Select second General Education English Communication course. ***Credits: 3***
- **BUS 217 - Business Management** ***Credits: 3***
- **CIS 129 - Introduction to Programming Logic** ***Credits: 3***
- **CIS 225 - Database Management Systems** ***Credits: 3***
- Mathematics - Credits: 3-5 - Select a General Education Mathematics course, MATH 113 or above.
    - Recommended: **MATH 122 - Elementary Statistics** ***Credits: 4***

TOTAL CREDITS: 15-17

Spring/Summer Session

- Social Science - Select General Education Social Science course. ***Credits: 3-4***
- Humanities - Select General Education Humanities course. ***Credits: 1-4***

TOTAL CREDITS: 4-8

SECOND YEAR

Fall Semester

- **BUS 220 - Organizational Behavior** ***Credits: 3***
- **CIS 250 - Systems Development and Design** ***Credits: 4***
- CIS/CNT Elective - Select CIS/CNT course from list ***Credits: 2-3***
- Natural Science - Select General Education Science Course ***Credits: 3-5***

TOTAL CREDITS: 12-15

Winter Semester

- **CIS 251 - IT Project Management** ***Credits: 3***
- **ACCT 201 - Principles of Accounting 1** ***Credits: 4***
- Electives - See list ***Credits: 8***

TOTAL CREDITS: 15

Business Information Technology AAS Degree (continued)

PROGRAM TOTAL: 60-71 CREDITS

ELECTIVES

- **BUS 202 - Business Ethics** *Credits: 3*
- **BUS 207 - Business Law 1** *Credits: 3*
- **BUS 208 - Business Law 2** *Credits: 3*
- **BUS 215 - E-Commerce** *Credits: 3*
- **BUS 226 - Principles of Marketing** *Credits: 3*
- **BUS 230 - Human Resource Management** *Credits: 3*
- **CIS 122 - Microsoft Outlook** *Credits: 2*
- **CIS 170 - Microsoft Windows** *Credits: 3*
- **CIS 171 - Introduction to Networking** *Credits: 3*
- **CIS 178 - Technical Microsoft Windows** *Credits: 3*
- **CIS 180 - Spreadsheet Applications - Current Software** *Credits: 3*
- **CIS 185 - Introduction to HTML** *Credits: 3*
- **CIS 211 - Introduction to C++** *Credits: 2*
- **CIS 215 - Advanced Software Applications** *Credits: 3*
- **CIS 221 - Advanced C++** *Credits: 2*
- **CIS 223 - Introduction to C#** *Credits: 3*
- **CIS 255 - Introduction to Linux** *Credits: 3*
- **CIS 274 - Advanced Linux** *Credits: 3*
- **CIS 290 - Object-Oriented Programming with Java** *Credits: 3*
- **CNT 130 - Computer Hardware and Troubleshooting** *Credits: 3*
- **CNT 133 - Computer Software and Troubleshooting** *Credits: 3*
- **CNT 210 - CCNA Networking 1** *Credits: 4*
- **CNT 250 - Server Administration 1** *Credits: 3*
- **ECON 201 - Principles of Macroeconomics** *Credits: 4*

Business Information Technology Certificate

Schoolcraft program code # 1YC.00242

The business information technology program is designed to meet the growing needs of industry for a new category of information technology professional.

Today's employers increasingly request graduates who have a sound business background combined with the ability to develop or manage business computer systems.

This is a fast-growing field with continual changes in hardware, software and procedures. The widespread use of computers in all areas of business has generated new positions and expanded opportunities in Information Technology. Effective use of technology enables businesses to serve customers better, access more information, be more flexible in responding to business changes and increase employee productivity. This certificate is designed to provide students with an overview of business and computer systems.

Students who satisfactorily complete the program requirements qualify for a certificate of program completion.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **BUS 101 - Introduction to Business** ***Credits: 3***
- **CIS 120 - Software Applications** ***Credits: 3***
- **CIS 129 - Introduction to Programming Logic** ***Credits: 3***
- **CNT 115 - Cybersecurity Fundamentals** ***Credits: 3***
- **ENG 101 - English Composition 1** ***Credits: 3***

TOTAL CREDITS: 15

Winter Semester

- **ACCT 201 - Principles of Accounting 1** ***Credits: 4***
- **CIS 251 - IT Project Management** ***Credits: 3***
- **BUS 220 - Organizational Behavior** ***Credits: 3***
- **CIS 250 - Systems Development and Design** ***Credits: 4***

TOTAL CREDITS: 14

Spring Session

- **BUS 217 - Business Management** ***Credits: 3***
- Elective - See list ***Credits: 2-4***

TOTAL CREDITS: 5-7

PROGRAM TOTAL: 34-36 CREDITS

ELECTIVES

- **BUS 207 - Business Law 1** ***Credits: 3***
- **BUS 208 - Business Law 2** ***Credits: 3***
- **BUS 215 - E-Commerce** ***Credits: 3***
- **BUS 226 - Principles of Marketing** ***Credits: 3***
- **CIS 122 - Microsoft Outlook** ***Credits: 2***
- **CIS 170 - Microsoft Windows** ***Credits: 3***
- **CIS 171 - Introduction to Networking** ***Credits: 3***
- **CIS 178 - Technical Microsoft Windows** ***Credits: 3***

Business Information Technology Certificate (continued)

- **CIS 180 - Spreadsheet Applications - Current Software** ***Credits: 3***
- **CIS 185 - Introduction to HTML** ***Credits: 3***
- **CIS 211 - Introduction to C++** ***Credits: 2***
- **CIS 215 - Advanced Software Applications** ***Credits: 3***
- **CIS 221 - Advanced C++** ***Credits: 2***
- **CIS 223 - Introduction to C#** ***Credits: 3***
- **CIS 225 - Database Management Systems** ***Credits: 3***
- **CIS 255 - Introduction to Linux** ***Credits: 3***
- **CIS 274 - Advanced Linux** ***Credits: 3***
- **CIS 290 - Object-Oriented Programming with Java** ***Credits: 3***
- **CNT 130 - Computer Hardware and Troubleshooting** ***Credits: 3***
- **CNT 133 - Computer Software and Troubleshooting** ***Credits: 3***
- **CNT 210 - CCNA Networking 1** ***Credits: 4***
- **CNT 250 - Server Administration 1** ***Credits: 3***

Schoolcraft College®

2024-2025 Credential Year

Chemistry

Schoolcraft offers courses in chemistry, organic chemistry, biochemistry, and food chemistry, and students learn in state-of-the-art chemistry labs, which include chemical preparation areas and balance and instrument rooms. Students also have access to lab instrumentation, including gas chromatography, infrared and UV-visible spectroscopy, and in-lab computers for experimental data acquisition.

There is currently no certificate or degree program offered in Chemistry. Some or all of the courses listed below may be required/recommended or applied toward a certificate or degree program in another area of study. These courses may also be taken for personal or professional interest or for transfer to a four-year college or university.

Courses

- CHEM 100 - Introduction to the Chemistry of Food for Culinary Arts
- CHEM 104 - Fundamentals of Chemistry
- CHEM 111 - General Chemistry 1
- CHEM 117 - General Chemistry 2 and Qualitative Analysis
- CHEM 120 - Organic and Biochemistry
- CHEM 213 - Organic Chemistry 1
- CHEM 214 - Organic Chemistry 2

2024-2025 Credential Year

Communication Arts

The ability to communicate effectively can improve students' chances to succeed in both work and life. Schoolcraft offers a variety of communication courses to provide them the opportunity to become better communicators, including argumentation and persuasion, communication for leaders, interpersonal communications, mass communications, and speech.

For more information about potential credential options in this area review the Associate of Arts (General Degree Requirements).

MiTransfer Pathway

- MiTransfer Pathway - Communications

Courses

- COMA 103 - Fundamentals of Speech
- COMA 105 - Introduction to Communication Studies
- COMA 200 - Interpersonal Communications
- COMA 202 - Small Group Communication
- COMA 212 - Organizational Communication
- COMA 213 - Argumentation and Debate
- COMA 215 - Introduction to Public Relations
- COMA 230 - Introduction to Mass Communication
- COMA 240 - Intercultural Communication
- COMA 294 - Directed Study in Communication Arts

MiTransfer Pathway - Communications

Community colleges and universities in Michigan have simplified the transfer process by developing Transfer Pathways. These pathways build on the Michigan Transfer Agreement (MTA), which makes it easier for students to transfer their general education courses taken at Schoolcraft to participating four-year schools.

MITRANSFER PATHWAY COURSES

The following courses at Schoolcraft College are guaranteed to transfer to communication programs of participating institutions.

- **COMA 103 - Fundamentals of Speech** ***Credits: 3***
- **COMA 200 - Interpersonal Communications** ***Credits: 3***
- **COMA 202 - Small Group Communication** ***Credits: 3***

SCHOOLCRAFT COLLEGE DEGREE REQUIREMENTS

Students may earn an associate degree at Schoolcraft! By taking the MiTransfer Pathways courses and completing MTA, students need to complete the remaining electives to get to 60 credits to earn the following degree:

- Associate of Arts (AA) Degree
- Associate of General Studies (AGS) Degree

Note that these remaining courses to receive your associate degree may not be accepted for transfer by universities participating in the agreement.

TRANSFER INSTITUTION DEGREE REQUIREMENTS

Learn more about the transfer institution degree requirements by meeting with one of our ***academic advisors*** who can help you understand the transfer guides and agreements.

Alma College
Andrews University
Aquinas College
Central Michigan University
Cleary University
Concordia University Ann Arbor
Cornerstone University
Eastern Michigan University
Ferris State University
Grand Valley State University
Michigan State University
Michigan Technological University
Northern Michigan University
Oakland University
Saginaw Valley State University
Spring Arbor University
University of Detroit Mercy
University of Michigan-Dearborn
University of Michigan-Flint
Western Michigan University

2024-2025 Credential Year

Computer Aided Design

Schoolcraft College in Livonia offers an associate degree in mechanical design. Our program is designed to prepare students for immediate employment utilizing multiple CAD (Computer Aided Design) software packages. A person can choose to enhance their knowledge in CAD and Manufacturing with the Skills Certificate or the Certificate. In the degree program, 2D Drawing and 3D Modeling software is utilized, and design practice is demonstrated for gears, cams, fasteners, jigs, and fixtures. Dimension & Tolerance is according to the ASME Y14.5 Standard.

Credentials

- Computer Aided Design: Mechanical Design AAS Degree
- Computer Aided Design: Mechanical Design Certificate
- Computer Aided Design: Mechanical Design Skills Certificate

Computer Aided Design: Mechanical Design AAS Degree

Schoolcraft program code # AAS.00258

Computer-Aided Design (CAD) is the process of creating 3D Virtual Models of components and assemblies, and 2D drawings that fully describe the product. The Mechanical Designer, while using a wide variety of CAD software, develops the product and creates drawings following standardized practices through International and company-related standards. This program provides learning opportunities in multiple CAD software packages, drawing creation following ASME standards, tool and machine design, dimension & tolerance per the ASME Y14.5 standard, and introduction to part creation through Manufacturing. Graduates can find employment in design and engineering-related activities, in the areas of transportation, aerospace, medical technology, power transmission, and defense.

Students who satisfactorily complete all college and program requirements qualify for an associate of applied science degree.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **CAD 120 - Mechanical Blueprint Reading with Sketching** ***Credits: 3***
- **MET 103 - Introduction to Materials Science** ***Credits: 3***
- **MATH 102 - Technical Mathematics** ***Credits: 4***
- Elective - Select one:
  - **BUS 116 - Project Management** ***Credits: 3***
  - **ENGR 100 - Introduction to Engineering and Technology** ***Credits: 3***
- Humanities - Select General Education Humanities course:
  - Recommended: **COMA 103 - Fundamentals of Speech** ***Credits: 3***

TOTAL CREDITS: 14-17

Winter Semester

- **CAD 140 - AutoCAD - 2D Application** ***Credits: 4***
- **MFG 102 - Basic Machining Processes** ***Credits: 3***
- Elective - Select two:
  - **CAD 210 - CATIA - 3D and 2D Applications** ***Credits: 4***
  - **CAD 220 - SolidWorks - 3D and 2D Applications** ***Credits: 4***
  - **CAD 230 - NX - 3D and 2D Applications** ***Credits: 4***

TOTAL CREDITS: 15

Spring/Summer Session

- **CAD 130 - Geometric Dimensioning and Tolerance** ***Credits: 3***
- English - Select first General Education English Communication course.
  Recommended:
  - **ENG 100 - Communication Skills** ***Credits: 3***
  - **ENG 101 - English Composition 1** ***Credits: 3***

TOTAL CREDITS: 6

SECOND YEAR

Fall Semester

- **CAD 270 - Machine Elements and Design** ***Credits: 4***
- **MFG 105 - Manufacturing Processes** ***Credits: 4***
- **QM 107 - Quality Planning and Team Building** ***Credits: 3***
- English - Select second General Education English Communication courses.
  - Recommended: **ENG 116 - Technical Writing** ***Credits: 3***

TOTAL CREDITS: 14

Computer Aided Design: Mechanical Design AAS Degree (continued)

Winter Semester

- **PHYS 123 - Applied Physics** ***Credits: 5***
- **CAD 275 - Tool, Die and Fixture Design** ***Credits: 4***
- Elective - Select one:
    - **CAD 280 - CAD Capstone Project** ***Credits: 3***
    - **CAD 291 - Computer Aided Design Internship** ***Credits: 3***
- Social Science - Select General Education Social Science course.
    - Recommended: **PSYCH 153 - Human Relations** ***Credits: 3***

TOTAL CREDITS: 15-16

PROGRAM TOTAL: 64-68 CREDITS

Computer Aided Design: Mechanical Design Certificate

Schoolcraft program code # 1YC.00248

Computer-Aided Design (CAD) is the process of creating 3D Virtual Models of components and assemblies, and 2D drawings that fully describe the product. The Mechanical Designer, while using a wide variety of CAD software, develops/refines the product and creates drawings following standardized practices through International and company related standards. This program provides learning opportunities in multiple CAD software packages, drawing creation following ASME standards and Dimension & Tolerance per the ASME Y14.5 standard. Graduates can find entry level employment in design and engineering related activities, in the areas of transportation, aerospace, medical technology, power transmission, and defense.

Students who satisfactorily complete the program requirements qualify for a certificate of program completion.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **CAD 120 - Mechanical Blueprint Reading with Sketching** ***Credits: 3***
- **MET 103 - Introduction to Materials Science** ***Credits: 3***
- **MFG 102 - Basic Machining Processes** ***Credits: 3***
- **MATH 102 - Technical Mathematics** ***Credits: 4***
- **QM 107 - Quality Planning and Team Building** ***Credits: 3***

TOTAL CREDITS: 16

Winter Semester

- **CAD 140 - AutoCAD - 2D Application** ***Credits: 4***
- **CAD 130 - Geometric Dimensioning and Tolerance** ***Credits: 3***
- **MFG 105 - Manufacturing Processes** ***Credits: 4***
- Elective - Select one:
  - **CAD 210 - CATIA - 3D and 2D Applications** ***Credits: 4***
  - **CAD 220 - SolidWorks - 3D and 2D Applications** ***Credits: 4***
  - **CAD 230 - NX - 3D and 2D Applications** ***Credits: 4***

TOTAL CREDITS: 15

PROGRAM TOTAL: 31 CREDITS

Computer Aided Design: Mechanical Design Skills Certificate

Schoolcraft program code # CRT.00238

Computer-Aided Design (CAD) is the process of creating 3D Virtual Models of components & assemblies, and 2D drawings that fully describe the product. The CAD operator, while using a wide variety of CAD software packages, refines the product and creates drawings following standardized practices through International and company related Standards. This certificate provides learning opportunities in CAD software, drawing creation following ASME standards and Dimension & Tolerance per the ASME Y14.5 standard. Graduates can find entry level employment in design and engineering related activities in the areas of transportation, aerospace, medical technology, power transmission & defense.

Students who satisfactorily complete the program requirements qualify for a certificate of program completion.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **CAD 120 - Mechanical Blueprint Reading with Sketching** ***Credits: 3***
- **MFG 102 - Basic Machining Processes** ***Credits: 3***
- **MATH 102 - Technical Mathematics** ***Credits: 4***

TOTAL CREDITS: 10

Winter Semester

- **CAD 130 - Geometric Dimensioning and Tolerance** ***Credits: 3***
- Elective - Select one:
  - **CAD 140 - AutoCAD - 2D Application** ***Credits: 4***
  - **CAD 210 - CATIA - 3D and 2D Applications** ***Credits: 4***
  - **CAD 220 - SolidWorks - 3D and 2D Applications** ***Credits: 4***
  - **CAD 230 - NX - 3D and 2D Applications** ***Credits: 4***

TOTAL CREDITS: 7

PROGRAM TOTAL: 17 CREDITS

Schoolcraft College®

2024-2025 Credential Year

Computer Graphics Technology

The merger of art and computer technology is the basis of the program options available for students interested in a career in the expanding fields of graphic design and computer graphics. Students learn how to use professional-level software, hardware, and peripherals, and to apply the principles of design, typography, and color theory to the creation of effective print- and electronic-based visual communication. The computer graphics technology tracks prepare students for a career in the fields of 3D and video graphics, UI/UX or digital arts, leading to either a certificate or an associate of applied science degree. Instruction in the programs expands on the skills achieved in the foundation skills certificate or equivalent experience. The certificate programs provide students with the opportunity to expand their design and application skills for a specific career within the graphic design and computer graphics industry and learn the principles of design to create professional-level visual communications and how to apply software, hardware, and peripherals.

In addition to the skills and knowledge students acquire in the certificate programs, the degree programs include coursework that meets the general education requirements for a Schoolcraft associate of applied science (AAS) degree. The degree programs' capstone classes expand the students' creative and practical skills.

It is highly recommended that students meet with faculty for advice in selecting their electives. The foundation skills certificate or equivalent skills must be achieved before starting one of the specialty track certificates or AAS programs.

Computer Graphics Technology Certificate Specialty Tracks

The computer graphics technology specialty tracks leading to a certificate expand on the skills achieved in the foundation skills certificate or equivalent experience. These certificates give students the opportunity to expand their design and application skills for a specific career within the graphic design and computer graphics industry. The foundation skills certificate or equivalent skills must be achieved before starting one of the specialty track certificate programs. Classes with no prerequisite can be taken before starting the program.

Computer Graphics Technology AAS Degree Specialty Tracks

The computer graphics technology programs prepare students for a career in the fields of 3D and video graphics, UI/UX or digital arts. As in the certificate program, students learn how to use the principles of design, typography, and color theory to create professional-level visual communications and how to apply software, hardware, and peripherals to meet these goals. In addition to the certificate skills, the associate degree tracks include coursework that meets the general education requirements for a Schoolcraft associate of applied science (AAS) degree. The program's capstone classes expand the students' creative and practical skills. It is highly recommended that students meet with faculty for advice in selecting their electives. The foundation skills certificates or equivalent skills must be achieved before starting one of the specialty tracks AAS degrees. Classes with no prerequisite can be taken before starting the program.

Credentials

- Computer Graphics Technology: 3D and Video Graphics AAS Degree
- Computer Graphics Technology: 3D and Video Graphics Certificate
- Computer Graphics Technology: Foundation Skills Certificate
- Computer Graphics Technology: Graphic Arts AAS Degree
- Computer Graphics Technology: Graphic Arts Certificate
- Computer Graphics Technology: Post-Associate Certificate
- Computer Graphics Technology: UI/UX AAS Degree
- Computer Graphics Technology: UI/UX Certificate

Computer Graphics Technology: 3D and Video Graphics AAS Degree

Schoolcraft program code # AAS.00032

Similar to the 3D and Video Graphics Certificate, this degree prepares students for a career combining the skills of three-dimensional imaging and video production. In addition, it includes capstone courses that develop creative and practical skills beyond what is taught in the certificate program, as well as coursework that meets the general education requirements for a Schoolcraft associate of applied science (AAS) degree. The degree strengthens the student's position in the profession and gives the student an academic credential with a higher standing.

Students who satisfactorily complete all college and program requirements qualify for an associate of applied science degree. Students wishing to pursue a post-associate certificate must have a computer graphics technology associate degree or equivalent professional experience.

Not all courses are offered each semester. Students should work with an academic advisor or CGT faculty to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **CGT 166 - Photography** ***Credits: 3***
- **CGT 168 - Storyboarding** ***Credits: 3***
- **CGT 215 - Motion Graphics 1-After Effects** ***Credits: 3***
- **CGT 254 - 3D Animation - Advanced Models and Textures** ***Credits: 3***
- Mathematics - Credits: 3-5 - Select General Education Mathematics course.
  Recommended:
  - **MATH 101 - Business Mathematics** ***Credits: 3***
  - OR **MATH 111 - Applications - Utility of Math** ***Credits: 4***

TOTAL CREDITS: 15-17

Winter Semester

- **ENG 101 - English Composition 1** ***Credits: 3***
- Humanities - Select General Education Humanities course. ***Credits: 3-4***
- **CGT 208 - Digital Video Production** ***Credits: 3***
- **CGT 246 - Motion Graphics 2 - After Effects** ***Credits: 3***
- **CGT 252 - 3D Animation - Animating** ***Credits: 3***

TOTAL CREDITS: 15

SECOND YEAR

Fall Semester

- **COMA 103 - Fundamentals of Speech** ***Credits: 3***
- Natural Science - Select General Education Science course. ***Credits: 3-5***
- **CGT 158 - Sound Design** ***Credits: 3***
- **CGT 226 - Digital Imaging 2 - Photoshop** ***Credits: 3***
- **CGT 244 - History of Animation** ***Credits: 3***

TOTAL CREDITS: 15-17

Winter Semester

- **CGT 210 - Visual Effects Production** ***Credits: 3***
- **BUS 103 - Organizing a Small Business** ***Credits: 3***
- **CGT 256 - Portfolio 3D - Reel Development** ***Credits: 3***
- Social Science - Credits: 3-4 - Select General Education Social Science course.
  - Recommended: **PSYCH 153 - Human Relations** ***Credits: 3***
- Capstone - Select one:
  - **CGT 250 - Practical Application** ***Credits: 3***
  - **CGT 271 - Computer Graphics Technology Internship** ***Credits: 3*** *

- **CGT 298 - Honors Studies** ***Credits: 3*** ***

TOTAL CREDITS: 15-16

PROGRAM TOTAL: 60-66 CREDITS

*These classes are offered as independent learning. Contact CGT faculty.

Computer Graphics Technology: 3D and Video Graphics Certificate

Schoolcraft program code # 1YC.00132

This certificate prepares students for a career combining the skills of three-dimensional imaging and video production. With the industry's expansion of computer graphics imaging (CGI), these skills will allow the students to create 3D objects and composite videos with special effects and motion graphics. It creates the opportunity to develop simulations, engineering and architectural visualization for advertising and marketing projects.

Students who satisfactorily complete the program requirements qualify for a certificate of program completion.

Not all courses are offered each semester. Students should work with an academic advisor or Computer Graphics Technology (CGT) faculty to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **CGT 166 - Photography** ***Credits: 3***
- **CGT 168 - Storyboarding** ***Credits: 3***
- **CGT 215 - Motion Graphics 1-After Effects** ***Credits: 3***
- **CGT 226 - Digital Imaging 2 - Photoshop** ***Credits: 3***
- **CGT 254 - 3D Animation - Advanced Models and Textures** ***Credits: 3***

TOTAL CREDITS: 15

Winter Semester

- **CGT 208 - Digital Video Production** ***Credits: 3***
- **CGT 210 - Visual Effects Production** ***Credits: 3***
- **CGT 246 - Motion Graphics 2 - After Effects** ***Credits: 3***
- **CGT 252 - 3D Animation - Animating** ***Credits: 3***
- **CGT 256 - Portfolio 3D - Reel Development** ***Credits: 3***

TOTAL CREDITS: 15

PROGRAM TOTAL: 30 CREDITS

Computer Graphics Technology: Foundation Skills Certificate

Schoolcraft Program code # CRT.00364

The foundation skills certificate provides students with basic design and application skills for a career in the fields of graphic design and computer graphics. These skills are required for entry into any of the computer graphics technology certificate tracks.

Students who satisfactorily complete all college and program requirements qualify for a certificate of completion. Note: Schoolcraft has articulation agreements with some high schools and career/technical centers which allow for credits earned to be applied toward a specific Schoolcraft certificate or associate degree. In addition, students may have some non-instructional life experiences that make them eligible for credit. Students should work with an academic advisor to explore their options for transfer and work life credit.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **CGT 109 - Design Concepts and Technology** ***Credits: 3***
- **CGT 123 - Illustration - Illustrator** ***Credits: 3***
- **CGT 125 - Digital Imaging 1 - Photoshop** ***Credits: 3***
- **CGT 127 - Publishing - InDesign** ***Credits: 3***
- **HUM 106 - Introduction to Art and Music** ***Credits: 1***
- Track Option - Select one:
    - **CGT 247 - 3D Animation - Introduction** ***Credits: 3***
    - **CGT 134 - Interactive Design UI/UX Overview** ***Credits: 3***
    - **ART 120 - Drawing: Theory and Elements** ***Credits: 3***

TOTAL CREDITS: 16

PROGRAM TOTAL: 16 CREDITS

Computer Graphics Technology: Graphic Arts AAS Degree

Schoolcraft program code # AAS.00028

Similar to the graphic arts certificate, this program teaches students how to blend traditional art techniques with skill using professional graphic design software to create illustrative, fine art and graphic media, preparing students for a wide range of jobs within the design industry. In addition, it includes capstone courses that develop creative and practical skills beyond what is taught in the certificate program, as well as coursework that meets the general education requirements for a Schoolcraft associate of applied science (AAS) degree. The degree strengthens the student's position in the profession and gives the student an academic credential with a higher standing.

Students who satisfactorily complete all college and program requirements qualify for an associate of applied science degree. Students wishing to pursue a post-associate certificate must have a computer graphics technology associate degree or equivalent professional experience.

Not all courses are offered each semester. Students should work with an academic advisor or Computer Graphics Technology (CGT) faculty to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **ENG 101 - English Composition 1** ***Credits: 3***
- **ART 128 - The Human Figure in Art 1: Theory and Elements** ***Credits: 3***
- **CGT 134 - Interactive Design UI/UX Overview** ***Credits: 3***
- **CGT 161 - History of Graphic Design** ***Credits: 3***
- Mathematics - Credits: 3-5 - Select General Education Mathematics course.
  Recommended:
  - **MATH 101 - Business Mathematics** ***Credits: 3***
  - OR **MATH 111 - Applications - Utility of Math** ***Credits: 4***

TOTAL CREDITS: 15-16

Winter Semester

- **COMA 103 - Fundamentals of Speech** ***Credits: 3***
- **BUS 122 - Advertising** ***Credits: 3***
- **ART 228 - The Human Figure in Art 2: Theory and Elements** ***Credits: 3***
- **CGT 166 - Photography** ***Credits: 3***
- **CGT 226 - Digital Imaging 2 - Photoshop** ***Credits: 3***

TOTAL CREDITS: 15

SECOND YEAR

Fall Semester

- Natural Science - Select General Education Science course. ***Credits: 3-5***
- Humanities - Select General Education Humanities course. ***Credits: 3-4***
- **ART 246 - Sculpture 1: Theory and Elements** ***Credits: 3***
- Elective: Select any ART or CGT course. ***Credits: 3***
- **CGT 149 - Typography** ***Credits: 3***

TOTAL CREDITS: 15-18

Winter Semester

- **CGT 231 - Electronic Publishing** ***Credits: 3***
- **BUS 103 - Organizing a Small Business** ***Credits: 3***
- **CGT 257 - Portfolio Preparation** ***Credits: 3***
- Social Science - Credits: 3-4 - Select General Education Social Science course.
  - Recommended: **PSYCH 153 - Human Relations** ***Credits: 3***
- Capstone - Select one:

- **CGT 250 - Practical Application** ***Credits: 3***
- **CGT 271 - Computer Graphics Technology Internship** ***Credits: 3*** *
- **CGT 298 - Honors Studies** ***Credits: 3*** *

TOTAL CREDITS: 15-16

PROGRAM TOTAL: 60-66 CREDITS

*These classes are offered as independent learning. Contact CGT faculty.

Computer Graphics Technology: Graphic Arts Certificate

Schoolcraft program code # 1YC.00136

This program teaches students how to blend traditional art techniques with skill using professional graphic design software to create illustrative, fine art and graphic media. By including instruction in color, type, image structure, production planning and marketing, the program prepares students for a wide range of jobs within the design industry.

Students who satisfactorily complete the program requirements qualify for a certificate of program completion.

Not all courses are offered each semester. Students should work with an academic advisor or CGT faculty to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **ART 128 - The Human Figure in Art 1: Theory and Elements** ***Credits: 3***
- **CGT 134 - Interactive Design UI/UX Overview** ***Credits: 3***
- **CGT 161 - History of Graphic Design** ***Credits: 3***
- **CGT 166 - Photography** ***Credits: 3***
- **CGT 226 - Digital Imaging 2 - Photoshop** ***Credits: 3***

TOTAL CREDITS: 15

Winter Semester

- **ART 228 - The Human Figure in Art 2: Theory and Elements** ***Credits: 3***
- **CGT 149 - Typography** ***Credits: 3***
- **CGT 231 - Electronic Publishing** ***Credits: 3***
- **CGT 257 - Portfolio Preparation** ***Credits: 3***
- Elective - Credits: 3 - Select one course:
  - **BUS 103 - Organizing a Small Business** ***Credits: 3***
  - Or a course in CGT or ART

TOTAL CREDITS: 15

PROGRAM TOTAL: 30 CREDITS

Computer Graphics Technology: Post-Associate Certificate

Schoolcraft program code #PAC.00181

The post-associate certificate is for those students who have a degree in computer graphics and/or are working in the profession and wish to add an additional area of specialty to their portfolio. Students should take a combination of six courses based on the specific area of study. It is highly recommended that Computer Graphics Technology (CGT) faculty be consulted when selecting courses. Students can assemble courses to develop expertise in 3D animation, video graphics, web design, UI/UX, publishing or graphic design. Prerequisite and co-requisite requirements must be honored.

The post-associate certificate is awarded upon successful completion of 16 credits (exact number may vary slightly due to credit value of course.)

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Number of credits may vary depending on the course selection.

COMPUTER GRAPHICS TECHNOLOGY: POST-ASSOCIATE CERTIFICATE

- **ART 115 - Art History 1** ***Credits: 4***
- **ART 116 - Art History 2** ***Credits: 4***
- **ART 120 - Drawing: Theory and Elements** ***Credits: 3***
- **ART 128 - The Human Figure in Art 1: Theory and Elements** ***Credits: 3***
- **ART 246 - Sculpture 1: Theory and Elements** ***Credits: 3***
- **CGT 134 - Interactive Design UI/UX Overview** ***Credits: 3***
- **CGT 136 - Interactive 1 UI Design** ***Credits: 3***
- **CGT 141 - Interactive Animation 2 UI Design** ***Credits: 3***
- **CGT 149 - Typography** ***Credits: 3***
- **CGT 158 - Sound Design** ***Credits: 3***
- **CGT 163 - Interactive 1 UX Solutions** ***Credits: 3***
- **CGT 166 - Photography** ***Credits: 3***
- **CGT 168 - Storyboarding** ***Credits: 3***
- **CGT 208 - Digital Video Production** ***Credits: 3***
- **CGT 210 - Visual Effects Production** ***Credits: 3***
- **CGT 212 - Interactive Animation 2 UX Solutions** ***Credits: 3***
- **CGT 213 - Interactive Animation 3 UI/UX** ***Credits: 3***
- **CGT 215 - Motion Graphics 1-After Effects** ***Credits: 3***
- **CGT 226 - Digital Imaging 2 - Photoshop** ***Credits: 3***
- **CGT 231 - Electronic Publishing** ***Credits: 3***
- **CGT 234 - Interactive Design 4 UI/UX** ***Credits: 3***
- **CGT 244 - History of Animation** ***Credits: 3***
- **CGT 246 - Motion Graphics 2 - After Effects** ***Credits: 3***
- **CGT 247 - 3D Animation - Introduction** ***Credits: 3***
- **CGT 252 - 3D Animation - Animating** ***Credits: 3***
- **CGT 254 - 3D Animation - Advanced Models and Textures** ***Credits: 3***

PROGRAM TOTAL: 16-18 CREDITS

Computer Graphics Technology: UI/UX AAS Degree

Schoolcraft program code # AAS.00031

Similar to the User Interface/User Experience certificate, this degree provides students with the web development, technical programming, and graphic design skills necessary to build web and multimedia sites with UI/UX in mind. In addition, it includes capstone courses that develop creative and practical skills beyond what is taught in the certificate program, as well as coursework that meets the general education requirements for a Schoolcraft associate of applied science (AAS) degree. The degree strengthens the student's position in the profession and gives the student an academic credential with a higher standing.

Students who satisfactorily complete all college and program requirements qualify for an associate of applied science degree. Students wishing to pursue a post-associate certificate must have a computer graphics technology associate degree or equivalent professional experience.

Not all courses are offered each semester. Students should work with an academic advisor or Computer Graphics Technology (CGT) faculty to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **ENG 101 - English Composition 1** ***Credits: 3***
- **CGT 136 - Interactive 1 UI Design** ***Credits: 3***
- **CGT 149 - Typography** ***Credits: 3***
- **CGT 163 - Interactive 1 UX Solutions** ***Credits: 3***
- Mathematics - Credits: 3-5 - Select General Education Mathematics course.
  Recommended:
  - **MATH 101 - Business Mathematics** ***Credits: 3***
  - OR **MATH 111 - Applications - Utility of Math** ***Credits: 4***

TOTAL CREDITS: 15-17

Winter Semester

- **COMA 103 - Fundamentals of Speech** ***Credits: 3***
- **CGT 141 - Interactive Animation 2 UI Design** ***Credits: 3***
- **CGT 161 - History of Graphic Design** ***Credits: 3***
- **CGT 168 - Storyboarding** ***Credits: 3***
- **CGT 212 - Interactive Animation 2 UX Solutions** ***Credits: 3***

TOTAL CREDITS: 15

SECOND YEAR

Fall Semester

- Natural Science - Select General Education Science course. ***Credits: 3-5***
- Humanities - Select General Education Humanities course. ***Credits: 3-4***
- **CGT 213 - Interactive Animation 3 UI/UX** ***Credits: 3***
- **CGT 226 - Digital Imaging 2 - Photoshop** ***Credits: 3***
- **PSYCH 201 - Introductory Psychology** ***Credits: 4***

TOTAL CREDITS: 16-19

Computer Graphics Technology: UI/UX AAS Degree (continued)

Winter Semester

- **BUS 122 - Advertising** ***Credits: 3***
- **CGT 234 - Interactive Design 4 UI/UX** ***Credits: 3***
- **PSYCH 249 - Educational Psychology** ***Credits: 3***
- **CGT 257 - Portfolio Preparation** ***Credits: 3***
- Capstone - Select one:
    - **CGT 250 - Practical Application** ***Credits: 3***
    - **CGT 271 - Computer Graphics Technology Internship** ***Credits: 3*** *
    - **CGT 298 - Honors Studies** ***Credits: 3*** *

TOTAL CREDITS: 15

PROGRAM TOTAL: 61-66 CREDITS

*These classes are offered as independent learning. Contact CGT faculty.

Computer Graphics Technology: UI/UX Certificate

Schoolcraft program code # 1YC.00131

Computer Graphics Technology Certificate Specialty Tracks

The computer graphics technology specialty tracks leading to a certificate expand on the skills achieved in the Computer Graphics Technology: Foundation Skills Certificate or equivalent experience. These certificates give students the opportunity to expand their design and application skills for a specific career within the graphic design and computer graphics industry. The foundation skills certificate or equivalent skills must be achieved before starting one of the specialties.

This certificate provides students with the web development, technical programming, and graphic design skills necessary to build web and multimedia sites with the User Interface and User Experience in mind. The focus is on developing a skill set that enables students to stay in-step with constantly evolving requirements and standards in the UI/UX industry.

Students who satisfactorily complete the program requirements qualify for a certificate of program completion.

Not all courses are offered each semester. Students should work with an academic advisor or Computer Graphic Technology (CGT) faculty to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **CGT 136 - Interactive 1 UI Design** ***Credits: 3***
- **CGT 149 - Typography** ***Credits: 3***
- **CGT 163 - Interactive 1 UX Solutions** ***Credits: 3***
- **CGT 168 - Storyboarding** ***Credits: 3***
- **PSYCH 201 - Introductory Psychology** ***Credits: 4***

TOTAL CREDITS: 16

WINTER SEMESTER

- **CGT 141 - Interactive Animation 2 UI Design** ***Credits: 3***
- **CGT 161 - History of Graphic Design** ***Credits: 3***
- **CGT 212 - Interactive Animation 2 UX Solutions** ***Credits: 3***
- **CGT 226 - Digital Imaging 2 - Photoshop** ***Credits: 3***
- **PSYCH 249 - Educational Psychology** ***Credits: 3***

TOTAL CREDITS: 15

PROGRAM TOTAL: 31 CREDITS

Schoolcraft College®

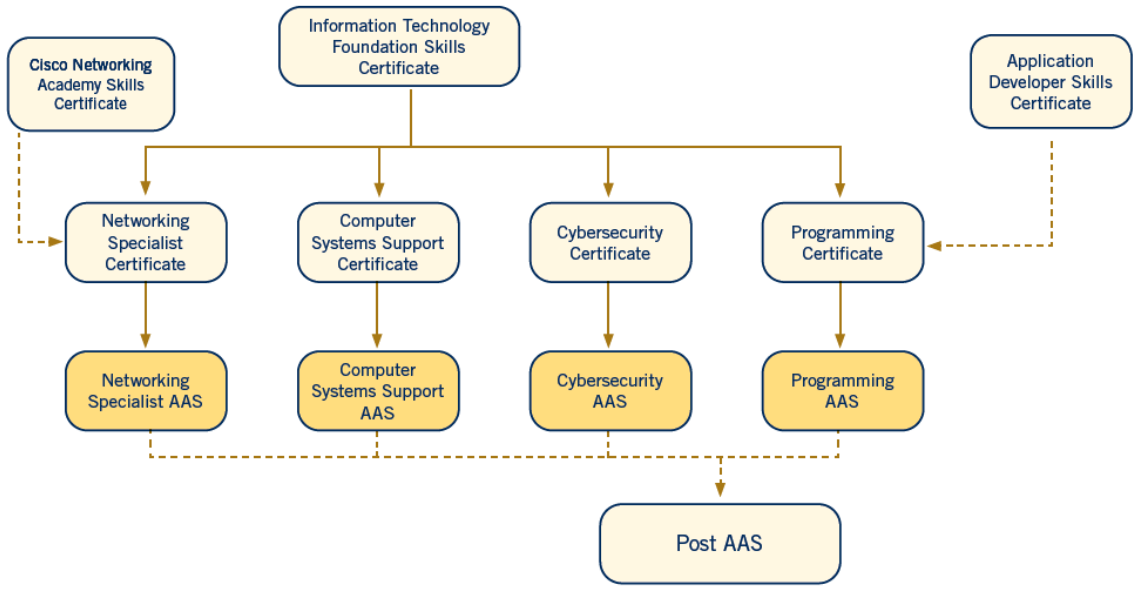
2024-2025 Credential Year

Computer Information Systems

If you are interested in learning more about computer basics or technology or preparing for a career in an emerging technology field, Schoolcraft's Computer Information Systems programs have what you need. We offer four associate of applied science degrees and eight certificates that will help you enhance your skills and prepare for a career in computer systems support, networking, cybersecurity, or programming. Explore the diagram of our educational options below to chart your path:

Computer Information Systems

If you are interested in learning more about computer basics or technology, or preparing for a career in an emerging technology field, Schoolcraft's Computer Information Systems programs have what you need. We offer four Associate of Applied Science (AAS) degrees and eight certificates that will help you enhance your skills and prepare for a career in computer systems support, networking, programming, or web development.



Foundation

- ***Information Technology Foundation Skills Certificate:*** This certificate program is designed for students who are new to computers and information technology looking to become more knowledgeable before choosing a specific path to pursue in the field. Students at any level of computer familiarity will gain fundamental computer knowledge and skills before having the opportunity to choose courses providing a path forward into several certificate and degree programs.

Networking

- ***Cisco and Network Technology Skills Certificate:*** This certificate program is designed to provide students with a focused understanding of network fundamentals and relevant industry skills while working with network equipment and the latest networking technologies in preparation for achieving the Cisco Certified Network Associate (CCNA) and other industry certifications.
- ***Networking Specialist Certificate:*** This certificate provides students with an understanding of network fundamentals and technologies necessary to support networks and network technologies in the demanding information technology field. Students will gain proficiency working with network equipment such as

routers and switches, servers, and modern operating systems, and explore advanced topics such as cloud technology and cybersecurity. For students looking to jump-start their current IT career, several industry certifications are covered and include Network+, Security+, Cloud+, Linux+, and CCNA.

- ***Networking Specialist AAS Degree:*** Networks form the basis of nearly all of the technologies used in the field of information technology. This program prepares students for an entry-level position in network support where one is expected to not only master networking technologies but understand how they integrate with and support business operations. Students will gain proficiency working with network equipment such as routers and switches, servers, and modern operating systems, and explore advanced topics such as cloud technology and cybersecurity. This program also covers several industry certifications important to starting a networking career including Network+, Security+, Cloud+, Linux+, and CCNA.

Computer Systems Support

- ***Computer Systems Support Certificate:*** This certificate program provides students with the fundamental knowledge and skills required for an entry-level role in the rapidly evolving field of information technology. Students will learn the basics of computer hardware, software, and user support, as well as explore advanced areas of networking and cybersecurity vital to today's organizations. This program also covers several industry certifications important to starting a career in information technology including A+, Networking+, (and others depending on chosen electives).
- ***Computer Systems Support AAS Degree:*** In a world dominated by cloud networking and data breaches, supporting computer systems and users is more challenging than ever before. This degree program prepares students for entry-level positions in information technology support where a wide range of technical skills and knowledge are not only requested by employers but also required. Students will learn how to support the latest computer hardware and software technologies, support users in a business environment, and explore the wider field of IT including networking and cybersecurity. This program also covers several industry certifications important to starting a career in information technology including A+, Networking+, (and others such as Security+ or Cisco certification depending on chosen electives).

Cybersecurity

- ***Cybersecurity Certificate:*** This certificate provides students with a firm foundation of technologies and knowledge required to enter the exciting cybersecurity field. Students will gain proficiency with network equipment, operating systems, and security software, as well as skills necessary for configuring and analyzing secure systems. This program also covers several industry certifications including Security+, Linux+, Cisco certification, and Microsoft Windows Server.
- ***Cybersecurity AAS Degree:*** Cybersecurity is becoming increasingly important as more organizations seek to protect their networks, software, and information from potential threats. This program is designed for students who plan to enter this rapidly advancing field and provides a firm foundation of technical skills and knowledge required to thrive in modern business environments. Students will gain proficiency with network equipment, operating systems, and security software, as well as skills necessary for configuring and analyzing secure systems. Several industry certifications are covered, including Security+, Linux+, Cisco certification, and Microsoft Windows Server.

Programming

- ***Application Developer Skills Certificate:*** The Microsoft .NET framework is a common environment for building, deploying, and running applications in the Windows environment. This certificate is designed to introduce the student to the top four programming languages along with an introduction to Networking. The student will use the new Visual Studio.NET, which is a common development environment for the new .NET Framework. The .NET Framework provides a feature-rich application execution environment, simplified development, and easy integration between a number of different development languages.
- ***Programming Certificate:*** This certificate program introduces students to the operating system, concepts of programming logic, programming language, and software applications. During or after the first year of this certificate program, students may choose to earn one of the computer information system associate degrees, provided all degree requirements are fulfilled.
- ***Programming AAS Degree:*** This degree offers students a schedule of core computer courses and electives to prepare them for a position as an entry-level programmer. Students will learn how a computer programmer analyzes problems and writes step-by-step instructions to enable a computer system to process data efficiently.

Post-Associate

- ***Post-Associate Certificate:*** Designed for working professionals who have earned an associate degree in applied science and have experience and/ or training in the computer field, it provides insight into the latest computer technology and will enhance their ability to meet the needs of the fast-changing computer information systems environment.

Students who possess current external certification in any of the following should contact OccupationalPrograms@schoolcraft.edu to determine if they are eligible to earn Schoolcraft College credit: CompTIA Network+, CompTIA Security+, CompTIA A+, CompTIA Cloud+, Cisco Certified Entry Network Technician (CCENT), Cisco Certified Network Associate (CCNA), Cisco Certified Network Associate (CCNA) Cyber Ops certification, or Cisco Certified CyberOps Associate.

Credentials

- Computer Information Systems: Application Developer Skills Certificate
- Computer Information Systems: Cisco and Network Technology Skills Certificate
- Computer Information Systems: Computer Systems Support AAS Degree
- Computer Information Systems: Computer Systems Support Certificate
- Computer Information Systems: Cybersecurity AAS Degree
- Computer Information Systems: Cybersecurity Certificate
- Computer Information Systems: Information Technology Foundation Skills Certificate
- Computer Information Systems: Networking Specialist AAS Degree
- Computer Information Systems: Networking Specialist Certificate
- Computer Information Systems: Post Associate Certificate
- Computer Information Systems: Programming AAS Degree
- Computer Information Systems: Programming Certificate

Computer Information Systems: Application Developer Skills Certificate

Schoolcraft program code # CRT.00366

The Microsoft .NET framework is a common environment for building, deploying, and running web services and web applications in the Windows environment. This certificate is designed to introduce the student to the top four programming languages used in software development today. The student will use the new Visual Studio.NET, which is a common development environment for the new .NET Framework. The .NET Framework provides a feature-rich application execution environment, simplified development, and easy integration between a number of different development languages.

Students who satisfactorily complete the program requirements qualify for a certificate of program completion. All program required courses must have been completed with a grade of 2.0 or better.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **CIS 129 - Introduction to Programming Logic** ***Credits: 3***
- **CNT 115 - Cybersecurity Fundamentals** ***Credits: 3***

TOTAL CREDITS: 6

Winter Semester

Select two courses.

- **CIS 171 - Introduction to Networking** ***Credits: 3***
- **CIS 211 - Introduction to C++** ***Credits: 2***
- **CIS 223 - Introduction to C#** ***Credits: 3***
- **CIS 238 - JavaScript** ***Credits: 3***
- **CIS 290 - Object-Oriented Programming with Java** ***Credits: 3***

TOTAL CREDITS: 5-6

Spring Semester

Select two courses not previously taken.

- **CIS 171 - Introduction to Networking** ***Credits: 3***
- **CIS 211 - Introduction to C++** ***Credits: 2***
- **CIS 223 - Introduction to C#** ***Credits: 3***
- **CIS 238 - JavaScript** ***Credits: 3***
- **CIS 290 - Object-Oriented Programming with Java** ***Credits: 3***

TOTAL CREDITS: 5-6

PROGRAM TOTAL: 17-18 CREDITS

NOTE: There is only one two credit course option, making the total credits 17-18.

Computer Information Systems: Cisco and Network Technology Skills Certificate

Schoolcraft program code # CRT.00329

This fast-paced certificate is geared towards working professionals who have experience and/or training in the computer field, or for someone with exposure to technology, that is serious about obtaining Cisco and relevant networking industry certifications. This curriculum provides students with a focused understanding of network fundamentals, proficiency working with network equipment and the latest networking technologies. Specific topics and skills covered are based on the latest Cisco Certified Networking Associate exam objectives and topics relevant to industry certification in the networking field. Completion of this Skills Certificate positions the student to continue on to the Networking Specialist Certificate with many of the requirements already completed.

Students who satisfactorily complete the program requirements qualify for a certificate of program completion. All program required courses must have been completed with a grade of 2.0 or better.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **CNT 210 - CCNA Networking 1** ***Credits: 4*** *
- **CNT 220 - CCNA Networking 2** ***Credits: 4*** *

TOTAL CREDITS: 8

Winter Semester

- **CNT 230 - CCNA Networking 3** ***Credits: 4*** *
- Elective - Select Two
  - **CIS 172 - Network Security Fundamentals** ***Credits: 3***
  - **CIS 255 - Introduction to Linux** ***Credits: 3***
  - **CNT 176 - Cloud Network Technologies** ***Credits: 3***
  - **CNT 244 - Cybersecurity Operations** ***Credits: 3***

TOTAL CREDITS: 10

PROGRAM TOTAL: 18 CREDITS

*Completion of CNT 210, CNT 220 and CNT 230 will prepare the student to sit for the Cisco Certified Network Associate (CCNA) exam.

Computer Information Systems: Computer Systems Support AAS Degree

Schoolcraft program code # AAS.00014

This program builds on the Computer Systems Support certificate program to further prepare students for a career as a modern systems support technician. Students will enhance their technical skills, while also learning how to manage projects and develop systems solutions to business challenges.

Students who satisfactorily complete all college and program requirements qualify for an associate of applied science degree.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **CIS 120 - Software Applications** ***Credits: 3***
- **CNT 115 - Cybersecurity Fundamentals** ***Credits: 3***
- **CNT 130 - Computer Hardware and Troubleshooting** ***Credits: 3***
- **CNT 133 - Computer Software and Troubleshooting** ***Credits: 3***
- English Communication - Credits: 3 - Select first General Education English Communication course.
  Recommended:
  - **ENG 100 - Communication Skills** ***Credits: 3***
  - OR: **ENG 101 - English Composition 1** ***Credits: 3***

TOTAL CREDITS: 15

Winter Semester

- **CIS 171 - Introduction to Networking** ***Credits: 3***
- **CIS 215 - Advanced Software Applications** ***Credits: 3***
- **CNT 136 - Computer User Support** ***Credits: 3***
- English Communication - Credits: 3 - Select second General Education English Communication course.
  Recommended:
  - **ENG 102 - English Composition 2** ***Credits: 3***
  - OR: **ENG 106 - Business English** ***Credits: 3***
  - OR: **ENG 116 - Technical Writing** ***Credits: 3***
- Mathematics - Credits: 3-5 - Select General Education Mathematics course:
  Recommended:
  - **MATH 102 - Technical Mathematics** ***Credits: 4***
  - OR: **MATH 113 - Intermediate Algebra for College Students** ***Credits: 4***
  - OR: **MATH 126 - College Algebra** ***Credits: 4***

TOTAL CREDITS: 15-17

Spring Session

- Natural Science - General Education Science Course ***Credits 3-5***
- Social Science - Credits: 3-4 - Select General Education Social Science course.
  Recommended:
  - **POLS 105 - Survey of American Government** ***Credits: 3***
  - OR: **PSYCH 153 - Human Relations** ***Credits: 3***
  - OR: **PSYCH 201 - Introductory Psychology** ***Credits: 4***

TOTAL CREDITS: 6-9

Computer Information Systems: Computer Systems Support AAS Degree (continued)

SECOND YEAR

Fall Semester

- **CIS 180 - Spreadsheet Applications - Current Software** ***Credits: 3***
- **CIS 178 - Technical Microsoft Windows** ***Credits: 3***
- **CNT 179 - Physical Networking** ***Credits: 3***
- Humanities - Credits: 1-4 - Select General Education Humanities course.
  Recommended:
  - **COMA 103 - Fundamentals of Speech** ***Credits: 3***
  - OR: **HUM 106 - Introduction to Art and Music** ***Credits: 1***
- Elective - Select one:
  - **CIS 172 - Network Security Fundamentals** ***Credits: 3***
  - **CNT 173 - Wireless Local Area Networks** ***Credits: 3***
  - **CNT 210 - CCNA Networking 1** ***Credits: 4***
  - **CNT 220 - CCNA Networking 2** ***Credits: 4***

TOTAL CREDITS: 13-17

Winter Semester

- **CIS 250 - Systems Development and Design** ***Credits: 4***
- **CIS 251 - IT Project Management** ***Credits: 3***
- **CIS 255 - Introduction to Linux** ***Credits: 3***
- Elective Select from list (if not previously taken) ***Credits: 2-4***

TOTAL CREDITS: 12-14

PROGRAM TOTAL: 61-72 CREDITS

ELECTIVES

Select one course, not previously taken, from the list below:

- **CIS 122 - Microsoft Outlook** ***Credits: 2***
- **CIS 172 - Network Security Fundamentals** ***Credits: 3***
- **CIS 185 - Introduction to HTML** ***Credits: 3***
- **CIS 225 - Database Management Systems** ***Credits: 3***
- **CNT 173 - Wireless Local Area Networks** ***Credits: 3***
- **CNT 210 - CCNA Networking 1** ***Credits: 4***
- **CNT 220 - CCNA Networking 2** ***Credits: 4***

Computer Information Systems: Computer Systems Support Certificate

Schoolcraft program code # 1YC.00230

This program prepares students for their role as a modern systems support technician in businesses where they are expected be responsible for much more than just fixing computers. In addition to a firm basis in computer hardware and software skills, students will gain technical proficiency in operating systems, networking, and cybersecurity, while also learning how to communicate with and support users in a business environment.

Students who satisfactorily complete the program requirements qualify for a certificate of program completion. All program required courses must have been completed with a grade of 2.0 or better.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **CIS 120 - Software Applications** ***Credits: 3***
- **CNT 115 - Cybersecurity Fundamentals** ***Credits: 3***
- **CNT 179 - Physical Networking** ***Credits: 3***
- **CNT 130 - Computer Hardware and Troubleshooting** ***Credits: 3***
- **CNT 133 - Computer Software and Troubleshooting** ***Credits: 3***

TOTAL CREDITS: 15

Winter Semester

- **CIS 215 - Advanced Software Applications** ***Credits: 3***
- **CNT 136 - Computer User Support** ***Credits: 3***
- **CIS 171 - Introduction to Networking** ***Credits: 3***
- Elective - Select from list ***Credits: 3-4***
- Elective - Select one:
  - **CIS 178 - Technical Microsoft Windows** ***Credits: 3***
  - **CIS 255 - Introduction to Linux** ***Credits: 3***

TOTAL CREDITS: 15-16

Spring Session

- **CIS 180 - Spreadsheet Applications - Current Software** ***Credits: 3***

TOTAL CREDITS: 3

PROGRAM TOTAL: 33-34 CREDITS

ELECTIVES

- **CIS 172 - Network Security Fundamentals** ***Credits: 3***
- **CNT 173 - Wireless Local Area Networks** ***Credits: 3***
- **CNT 210 - CCNA Networking 1** ***Credits: 4***
- **CNT 220 - CCNA Networking 2** ***Credits: 4***

Computer Information Systems: Cybersecurity AAS Degree

Schoolcraft program code # AAS.00066

This program builds on the Cybersecurity certificate program to further develop the skills necessary for students to be successful in environments where business and technical requirements constantly evolve. In addition to the targeted cybersecurity curriculum of the certificate program, students will gain additional business and data analysis skills while also having the opportunity to further explore networking, systems management, or programming.

Students who satisfactorily complete all college and program requirements qualify for an associate of applied science degree.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **CNT 115 - Cybersecurity Fundamentals** ***Credits: 3***
- **CNT 210 - CCNA Networking 1** ***Credits: 4*** *
- **CNT 220 - CCNA Networking 2** ***Credits: 4*** *
- English Communication - Credits: 3 - Select first General Education English Communication course.
  Recommended:
  - **ENG 100 - Communication Skills** ***Credits: 3***
  - OR: **ENG 101 - English Composition 1** ***Credits: 3***

TOTAL CREDITS: 14

Winter Semester

- **CIS 129 - Introduction to Programming Logic** ***Credits: 3***
- **CIS 172 - Network Security Fundamentals** ***Credits: 3***
- **CNT 250 - Server Administration 1** ***Credits: 3***
- **CIS 255 - Introduction to Linux** ***Credits: 3***
- English Communication - Credits: 3 - Select second General Education English Communication course.
  Recommended:
  - **ENG 102 - English Composition 2** ***Credits: 3***
  - OR: **ENG 106 - Business English** ***Credits: 3***
  - OR: **ENG 116 - Technical Writing** ***Credits: 3***

TOTAL CREDITS: 15

Spring Session

- **CIS 180 - Spreadsheet Applications - Current Software** ***Credits: 3***
- Social Science - Credits: 3-4 - Select General Education Social Science course.
  Recommended:
  - **POLS 105 - Survey of American Government** ***Credits: 3***
  - OR: **PSYCH 153 - Human Relations** ***Credits: 3***
  - OR: **PSYCH 201 - Introductory Psychology** ***Credits: 4***

TOTAL CREDITS: 6-7

SECOND YEAR

Computer Information Systems: Cybersecurity AAS Degree (continued)

Fall Semester

- **CNT 262 - Perimeter Defense** ***Credits: 3***
- **CNT 180 - Ethical Hacking and System Defense** ***Credits: 3***
- Natural Science - Select General Education Science Course ***Credits: 3-4***
- Elective - Select one ***Credits: 2-3***
- Mathematics - Credits: 3-5 - Select General Education Mathematics course.
  Recommended:
  - **MATH 102 - Technical Mathematics** ***Credits: 4***
  - OR: **MATH 113 - Intermediate Algebra for College Students** ***Credits: 4***
  - OR: **MATH 126 - College Algebra** ***Credits: 4***

TOTAL CREDITS: 14-19

Winter Semester

- **CIS 250 - Systems Development and Design** ***Credits: 4***
- **CNT 260 - Information Assurance and Security** ***Credits: 3***
- Elective - Select one ***Credits: 2-5***
- Select One
  - **CNT 264 - Security Testing Methods** ***Credits: 3***
  - **CNT 244 - Cybersecurity Operations** ***Credits: 3***
- Humanities - Credits: 1-4 - Select General Education Humanities course.
  Recommended:
  - **COMA 103 - Fundamentals of Speech** ***Credits: 3***
  - OR: **HUM 106 - Introduction to Art and Music** ***Credits: 1***

TOTAL CREDITS: 13-19

PROGRAM TOTAL 62-74 CREDITS

**CNT 210 is a prerequisite to CNT 220. Students are encouraged to take the 7-week section of CNT 210 followed by the 7-week section of CNT 220 in the same semester. Students who do not follow this path could face additional semesters to degree completion.*

ELECTIVES

- **CIS 178 - Technical Microsoft Windows** ***Credits: 3***
- **CIS 211 - Introduction to C++** ***Credits: 2***
- **CIS 221 - Advanced C++** ***Credits: 2***
- **CIS 225 - Database Management Systems** ***Credits: 3***
- **CIS 238 - JavaScript** ***Credits: 3***
- **CIS 251 - IT Project Management** ***Credits: 3***
- **CIS 273 - TCP/IP and Network Architectures** ***Credits: 3***
- **CIS 274 - Advanced Linux** ***Credits: 3***
- **CIS 290 - Object-Oriented Programming with Java** ***Credits: 3***
- **CNT 176 - Cloud Network Technologies** ***Credits: 3***
- **CNT 253 - Server Administration 2** ***Credits: 3***
- **ELECT 180 - LabVIEW Programming CORE 1 and 2** ***Credits: 5***

Computer Information Systems: Cybersecurity Certificate

Schoolcraft program code # 1YC.00232

This program prepares students for the exciting and rapidly advancing Cybersecurity field. A thorough foundation is provided in networking and operating systems, while also covering advanced security topics including design, vulnerability and penetration testing, and defense technologies. All program required courses must have been completed with a grade of 2.0 or better.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **CNT 115 - Cybersecurity Fundamentals** ***Credits: 3***
- **CNT 210 - CCNA Networking 1** ***Credits: 4*** *
- **CNT 220 - CCNA Networking 2** ***Credits: 4*** *

TOTAL CREDITS: 11

Winter Semester

- **CIS 172 - Network Security Fundamentals** ***Credits: 3***
- **CNT 250 - Server Administration 1** ***Credits: 3***
- **CIS 255 - Introduction to Linux** ***Credits: 3***
- **CIS 129 - Introduction to Programming Logic** ***Credits: 3***

TOTAL CREDITS: 12

SECOND YEAR

Fall Semester

- **CNT 262 - Perimeter Defense** ***Credits: 3***
- **CNT 180 - Ethical Hacking and System Defense** ***Credits: 3***

TOTAL CREDITS: 6

Winter Semester

- **CNT 260 - Information Assurance and Security** ***Credits: 3***
- Select One
  - **CNT 264 - Security Testing Methods** ***Credits: 3***
  - **CNT 244 - Cybersecurity Operations** ***Credits: 3***

TOTAL CREDITS: 6

PROGRAM TOTAL: 35 CREDITS

**CNT 210 is a prerequisite to CNT 220. Students are encouraged to take the 7-week section of CNT 210 followed by the 7-week section of CNT 220 in the same semester. Students who do not follow this path could face additional semesters to degree completion.*

Computer Information Systems: Information Technology Foundation Skills Certificate

Schoolcraft program code # CRT.00328

This certificate program is designed for students who are new to computers and information technology looking to become more knowledgeable before choosing a specific path to pursue in the field.

Students at any level of computer familiarity will gain fundamental computer knowledge and skills before having the opportunity to choose courses providing a path forward into several certificate and degree programs. Students who satisfactorily complete the program requirements qualify for a certificate of program completion. All program required courses must have been completed with a grade of 2.0 or better.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **CIS 115 - Introduction to Computer Based Systems** ***Credits: 3***
- **CIS 120 - Software Applications** ***Credits: 3***
- Elective(s) Select from list ***Credits: 3-4***

TOTAL CREDITS: 9-10

Winter Semester

- **CNT 115 - Cybersecurity Fundamentals** ***Credits: 3***
- Elective(s) Select from list ***Credits: 4-5***

TOTAL CREDITS: 7-8

PROGRAM TOTAL: 16-18 CREDITS

ELECTIVES

- **CIS 122 - Microsoft Outlook** ***Credits: 2***
- **CIS 129 - Introduction to Programming Logic** ***Credits: 3***
- **CIS 171 - Introduction to Networking** ***Credits: 3***
- **CIS 172 - Network Security Fundamentals** ***Credits: 3***
- **CIS 178 - Technical Microsoft Windows** ***Credits: 3***
- **CIS 211 - Introduction to C++** ***Credits: 2***
- **CIS 255 - Introduction to Linux** ***Credits: 3***
- **CNT 133 - Computer Software and Troubleshooting** ***Credits: 3***
- **CNT 210 - CCNA Networking 1** ***Credits: 4***

Computer Information Systems: Networking Specialist AAS Degree

Schoolcraft program code # AAS.00007

This program builds on the Networking Specialist certificate program to further prepare students for a career in the challenging field of networking. In addition to the targeted curriculum of the certificate program, students will gain additional knowledge and skills necessary to design, integrate, and manage networking projects.

Students who satisfactorily complete all college and program requirements qualify for an associate of applied science degree.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **CNT 115 - Cybersecurity Fundamentals** ***Credits: 3***
- **CNT 210 - CCNA Networking 1** ***Credits: 4*** *
- **CNT 220 - CCNA Networking 2** ***Credits: 4*** *
- English Communication - Credits: 3 - Select first General Education English Communication course:
  Recommended:
  - **ENG 100 - Communication Skills** ***Credits: 3***
  - OR: **ENG 101 - English Composition 1** ***Credits: 3***

TOTAL CREDITS: 14

Winter Semester

- **CNT 230 - CCNA Networking 3** ***Credits: 4*** *
- English Communication - Credits: 3 - Select second General Education English Communication course:
  Recommended:
  - **ENG 102 - English Composition 2** ***Credits: 3***
  - OR: **ENG 106 - Business English** ***Credits: 3***
  - OR: **ENG 116 - Technical Writing** ***Credits: 3***
- Mathematics - Credits: 3-5 - Select General Education Mathematics course:
  Recommended:
  - **MATH 102 - Technical Mathematics** ***Credits: 4***
  - OR: **MATH 113 - Intermediate Algebra for College Students** ***Credits: 4***
  - OR: **MATH 126 - College Algebra** ***Credits: 4***
- Humanities - Credits: 1-4 - Select General Education Humanities course:
  Recommended:
  - **COMA 103 - Fundamentals of Speech** ***Credits: 3***
  - OR: **HUM 106 - Introduction to Art and Music** ***Credits: 1***

TOTAL CREDITS: 13-16

Spring Session

- Natural Science - General Education Science Course ***Credits: 3-4***
- Social Science - Credits: 3-4 - Select General Education Social Science course:
  Recommended:
  - **POLS 105 - Survey of American Government** ***Credits: 3***
  - OR: **PSYCH 153 - Human Relations** ***Credits: 3***
  - OR: **PSYCH 201 - Introductory Psychology** ***Credits: 4***

TOTAL CREDITS: 6-9

Computer Information Systems: Networking Specialist AAS Degree (continued)

SECOND YEAR

Fall Semester

- **CIS 172 - Network Security Fundamentals** ***Credits: 3***
- **CNT 173 - Wireless Local Area Networks** ***Credits: 3***
- **CNT 250 - Server Administration 1** ***Credits: 3***
- Elective - Select one:
    - **CIS 178 - Technical Microsoft Windows** ***Credits: 3***
    - **CIS 255 - Introduction to Linux** ***Credits: 3***

TOTAL CREDITS: 12

Winter Semester

- **CIS 250 - Systems Development and Design** ***Credits: 4***
- **CIS 251 - IT Project Management** ***Credits: 3***
- **CNT 176 - Cloud Network Technologies** ***Credits: 3***
- **CNT 293 - Network Design** ***Credits: 3***
- Elective - Select one not previously taken ***Credits: 3***

TOTAL CREDITS: 16

PROGRAM TOTAL: 61-67 CREDITS

*Completion of CNT 210, CNT 220 and CNT 230 will prepare the student to sit for the Cisco Certified Network Associate (CCNA) exam.

ELECTIVES

- **CIS 178 - Technical Microsoft Windows** ***Credits: 3***
- **CIS 225 - Database Management Systems** ***Credits: 3***
- **CIS 255 - Introduction to Linux** ***Credits: 3***
- **CIS 273 - TCP/IP and Network Architectures** ***Credits: 3***
- **CIS 274 - Advanced Linux** ***Credits: 3***
- **CNT 253 - Server Administration 2** ***Credits: 3***

Computer Information Systems: Networking Specialist Certificate

Schoolcraft program code # 1YC.00231

This program prepares students for the challenging field of networking where fundamental knowledge of networks underpins the ability to master rapidly advancing advancements that span nearly all technologies in use today. A thorough practical foundation is provided by the rigorous Cisco Academy, with additional courses in the specialized topics of server administration, cybersecurity, wireless, and cloud networking.

Students who satisfactorily complete the program requirements qualify for a certificate of program completion. All program required courses must have been completed with a grade of 2.0 or better.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **CNT 115 - Cybersecurity Fundamentals** ***Credits: 3***
- **CNT 210 - CCNA Networking 1** ***Credits: 4*** *
- **CNT 220 - CCNA Networking 2** ***Credits: 4*** *
- **CNT 250 - Server Administration 1** ***Credits: 3***
- Elective - Select one:
    - **CIS 178 - Technical Microsoft Windows** ***Credits: 3***
    - **CIS 255 - Introduction to Linux** ***Credits: 3***

TOTAL CREDITS: 17

Winter Semester

- **CNT 230 - CCNA Networking 3** ***Credits: 4*** *
- **CNT 173 - Wireless Local Area Networks** ***Credits: 3***
- **CNT 176 - Cloud Network Technologies** ***Credits: 3***
- **CIS 172 - Network Security Fundamentals** ***Credits: 3***

TOTAL CREDITS: 13

PROGRAM TOTAL: 30 CREDITS

*Completion of CNT 210, CNT 220 and CNT 230 will prepare the student to sit for the Cisco Certified Network Associate (CCNA) exam.

Computer Information Systems: Post Associate Certificate

Schoolcraft program code # PAC.00155

This post-associate certificate in computer science information systems is designed for working professionals who have experience and/or training in the computer field. This certificate will provide study in the newest technology and will enhance students' ability to meet the needs of the ever-changing computer information systems environment.

Prior to admission in this program, students must have already completed a minimum of an accredited associate degree in applied science. The post-associate certificate is awarded upon successful completion of 16 credit hours (exact number may vary slightly due to credit value of courses).

Many courses can be taken through independent study. Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Number of credits may vary depending on the course selection.

PROGRAM COURSES

- **CIS 172 - Network Security Fundamentals** ***Credits: 3***
- **CIS 178 - Technical Microsoft Windows** ***Credits: 3***
- **CIS 185 - Introduction to HTML** ***Credits: 3***
- **CIS 211 - Introduction to C++** ***Credits: 2***
- **CIS 221 - Advanced C++** ***Credits: 2***
- **CIS 223 - Introduction to C#** ***Credits: 3***
- **CIS 238 - JavaScript** ***Credits: 3***
- **CIS 250 - Systems Development and Design** ***Credits: 4***
- **CIS 251 - IT Project Management** ***Credits: 3***
- **CIS 255 - Introduction to Linux** ***Credits: 3***
- **CIS 274 - Advanced Linux** ***Credits: 3***
- **CIS 290 - Object-Oriented Programming with Java** ***Credits: 3***
- **CNT 176 - Cloud Network Technologies** ***Credits: 3***
- **CNT 210 - CCNA Networking 1** ***Credits: 4***
- **CNT 220 - CCNA Networking 2** ***Credits: 4***
- **CNT 130 - Computer Hardware and Troubleshooting** ***Credits: 3***
- **CNT 250 - Server Administration 1** ***Credits: 3***

Computer Information Systems: Programming AAS Degree

Schoolcraft program code # AAS.00012

As business and industry embrace new technology and procedures, the need for specially trained people accelerates. This program is designed to prepare the student for a position as an entry-level programmer. Students will learn to become proficient in following directions, analyzing problems, and writing step-by-step instructions so that the computer will efficiently process the data needed to solve these problems. Accuracy, persistence, patience, and the ability to communicate both orally and in writing are important characteristics a computer programmer should possess.

Students who satisfactorily complete all college and program requirements qualify for an associate of applied science degree.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **CIS 115 - Introduction to Computer Based Systems** ***Credits: 3***
- **CIS 129 - Introduction to Programming Logic** ***Credits: 3***
- Mathematics - Select one:
  - **MATH 113 - Intermediate Algebra for College Students** ***Credits: 4***
  - **MATH 126 - College Algebra** ***Credits: 4***
- Humanities - Credits: 3-4 - Select General Education Humanities course.
  - Recommended: **COMA 103 - Fundamentals of Speech** ***Credits: 3***
- English Communication - Credits: 3 - Select first General Education English Communication course.
  - Recommended: **ENG 101 - English Composition 1** ***Credits: 3***

TOTAL CREDITS: 16-17

Winter Semester

- **CIS 178 - Technical Microsoft Windows** ***Credits: 3***
- **CIS 225 - Database Management Systems** ***Credits: 3***
- Natural Science - General Education Science Course ***Credits: 4-5***
- **CNT 115 - Cybersecurity Fundamentals** ***Credits: 3***
- English Communication - Credits: 3 - Select second General Education English Communication course.
  - Recommended: **ENG 102 - English Composition 2** ***Credits: 3***

TOTAL CREDITS: 16-17

SECOND YEAR

Fall Semester

- **CIS 211 - Introduction to C++** ***Credits: 2***
- **CIS 223 - Introduction to C#** ***Credits: 3***
- **CIS 255 - Introduction to Linux** ***Credits: 3***
- Elective - Select from list ***Credits: 6***

TOTAL CREDITS: 14

Computer Information Systems: Programming AAS Degree (continued)

Winter Semester

- **CIS 250 - Systems Development and Design** ***Credits: 4***
- **CIS 290 - Object-Oriented Programming with Java** ***Credits: 3***
- **CIS 221 - Advanced C++** ***Credits: 2***
- Elective - Select from list ***Credits: 2-3***
- Social Science - Credits: 3-4 - Select General Education Social Science course.
  Recommended:
  - **POLS 105 - Survey of American Government** ***Credits: 3***
  - OR: **PSYCH 153 - Human Relations** ***Credits: 3***
  - OR: **PSYCH 201 - Introductory Psychology** ***Credits: 4***

TOTAL CREDITS: 14-16

PROGRAM TOTAL: 60-64 CREDITS

ELECTIVES

- **CIS 120 - Software Applications** ***Credits: 3***
- **CIS 122 - Microsoft Outlook** ***Credits: 2***
- **CIS 171 - Introduction to Networking** ***Credits: 3***
- **CIS 180 - Spreadsheet Applications - Current Software** ***Credits: 3***
- **CIS 238 - JavaScript** ***Credits: 3***
- **CIS 251 - IT Project Management** ***Credits: 3***

Computer Information Systems: Programming Certificate

Schoolcraft program code # 1YC.00004

The computer information systems certificate program introduces students to the operating system and concepts surrounding programming logic. In addition, students obtain a basic knowledge of software applications and programming languages.

Students may select one of the computer information systems associate degree programs at any time during or after the first year. However, all degree requirements must be fulfilled.

Students who satisfactorily complete the program requirements qualify for a certificate of program completion.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **CIS 115 - Introduction to Computer Based Systems** ***Credits: 3***
- **CIS 120 - Software Applications** ***Credits: 3***
- **CIS 129 - Introduction to Programming Logic** ***Credits: 3***
- **CNT 115 - Cybersecurity Fundamentals** ***Credits: 3***
- Mathematics - Select one:
    - **MATH 113 - Intermediate Algebra for College Students** ***Credits: 4***
    - **MATH 126 - College Algebra** ***Credits: 4***

TOTAL CREDITS: 16

Winter Semester

- **CIS 171 - Introduction to Networking** ***Credits: 3***
- **CIS 211 - Introduction to C++** ***Credits: 2***
- **CIS 225 - Database Management Systems** ***Credits: 3***
- Elective - Select 2 from list ***Credits: 6***

TOTAL CREDITS: 14

PROGRAM TOTAL: 30 CREDITS

ELECTIVES

- **CIS 223 - Introduction to C#** ***Credits: 3***
- **CIS 251 - IT Project Management** ***Credits: 3***
- **CIS 238 - JavaScript** ***Credits: 3***
- **CIS 290 - Object-Oriented Programming with Java** ***Credits: 3***

2024-2025 Credential Year

Cosmetology Management

The associate degree in cosmetology management program is designed for cosmetologists who are interested in managing a salon or starting their own business. It focuses on the essentials of organizing and operating a business, along with the communication and people skills needed to be successful as a salon manager or owner.

Credentials

- Cosmetology Management AAS Degree

Cosmetology Management AAS Degree

Schoolcraft program code #AAS.00010

This program is designed to give licensed, practicing cosmetologists an opportunity to develop special skills in business-related activities and to earn an associate degree of applied science from Schoolcraft College. Schoolcraft College will grant credit equal to 30 semester credit hours upon receipt of current and proper evidence of license based upon the standards of the State Board of Cosmetology.

Students who satisfactorily complete all college and program requirements qualify for an associate of applied science degree.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

ADMISSION PREREQUISITES

- Current Cosmetology License ***Credits: 30***

FIRST YEAR

Fall Semester

- **BUS 101 - Introduction to Business** ***Credits: 3***
- **BUS 103 - Organizing a Small Business** ***Credits: 3***
- **ENG 101 - English Composition 1** ***Credits: 3***
- Mathematics - Credits: 3-5 - Select General Education Mathematics course.
    - Recommended: **MATH 101 - Business Mathematics** ***Credits: 3***
- Social Science - Credits: 3-4 - Select General Education Social Science course.
    - Recommended: **PSYCH 153 - Human Relations** ***Credits: 3***

TOTAL CREDITS: 15-18

Winter Semester

- **ACCT 103 - Introduction to Accounting** ***Credits: 4***
- **BUS 104 - Operating a Small Business** ***Credits: 3***
- Humanities - Credits: 1-4 - Select General Education Humanities course.
    - Recommended: **COMA 103 - Fundamentals of Speech** ***Credits: 3***
- English Communication - Credits: 3 - Select General Education English Communication course.
    - Recommended: **ENG 116 - Technical Writing** ***Credits: 3***

TOTAL CREDITS: 11-14

Spring Session

- **CIS 115 - Introduction to Computer Based Systems** ***Credits: 3***
- Natural Science - Credits: 3-5 - Select General Education Natural Science course.
    - Recommended: **BIOL 101 - General Biology** ***Credits: 4***

TOTAL CREDITS: 6-8

TOTAL CREDITS: 32-40

CURRENT COSMETOLOGY LICENSE: 30 CREDITS

PROGRAM TOTAL: 62-70 CREDITS

Schoolcraft College®

2024-2025 Credential Year

Criminal Justice

Schoolcraft offers two criminal justice associate of applied science degrees to help prepare students for a career and quick advancement in this public safety field. The criminal justice AAS degree is geared toward working professionals in the field who are looking to enhance their on-the-job training with specialized criminal justice courses in communication, computing, health, and human relations. This degree also helps students develop the skills needed to investigate human behaviors and take the appropriate measures to ensure the safety of the society.

The second criminal justice AAS degree with the academy is aimed at students aspiring to law enforcement careers and who want police academy experience in addition to the academic credentials. After completing the academy, students will be eligible to take the Michigan Commission on Law Enforcement Standards (MCOLES) Certification Exam which is a prerequisite for law enforcement employment in Michigan.

Both degrees help students expand their knowledge of the criminal justice system, including criminal law, police field operations and criminal investigation. They will also gain an understanding of the sociological, psychological, biological and environmental factors that cause deviant or criminal behavior.

Students who want to pursue a career as a law enforcement officer should review the "Employment Standards for Michigan Law Enforcement Officers" at www.michigan.gov/mcoles prior to beginning this area of study to ensure they meet certain psychological and physical requirements.

Credentials

- Criminal Justice AAS Degree
- Criminal Justice AAS Degree with Academy
- MiTransfer Pathway - Criminal Justice

Criminal Justice AAS Degree

Schoolcraft program code # AAS.00086

The criminal justice system is a complex system of thousands of federal, state, and local agencies interconnected by the individuals that work in this field. Employment at any level in criminal justice requires an understanding of the sociological, psychological, biological, and environmental factors that may influence deviant or criminal behavior. Employees of the criminal justice system use developed skills to investigate human behaviors and take the appropriate measures to ensure the safety of society. The criminal justice associate of applied science degree program objectives assists existing employees of the criminal justice system and prepares students for full employment in this field. Students who satisfactorily complete all college and program requirements qualify for an associate of applied science degree.

For more information about certification please contact: Michigan Commission on Law Enforcement Standards (MCOLES) 106 W. Allegan Street, Suite #600, Lansing, MI 48933 517-322-1417 www.michigan.gov/mcoles.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **CJ 113 - Introduction to Criminal Justice System** ***Credits: 3***
- **CJ 102 - Organization and Administration of Law Enforcement Agencies** ***Credits: 3***
- **CJ 210 - Criminal Procedure** ***Credits: 3***
- Humanities - Credits: 3-4 - Select General Education Humanities course.
    - Recommended: **COMA 103 - Fundamentals of Speech** ***Credits: 3***
- English Communication - Credits: 3 - Select first General Education English Communication course.
    - Recommended: **ENG 101 - English Composition 1** ***Credits: 3***

TOTAL CREDITS: 15-16

Winter Semester

- **HS 202 - Introduction to Emergency Management** ***Credits: 3***
- **COR 110 - Introduction to Corrections** ***Credits: 3***
- **CJ 107 - Police Field Operations** ***Credits: 3***
- Social Science - Credits: 3-4 - Select one:
    - **PSYCH 153 - Human Relations** ***Credits: 3***
    - **PSYCH 201 - Introductory Psychology** ***Credits: 4***
- English Communication - Credits: 3 - Select second General Education English Communication course.
  Recommended:
    - **ENG 116 - Technical Writing** ***Credits: 3***
    - OR **ENG 102 - English Composition 2** ***Credits: 3***

TOTAL CREDITS: 15-16

SECOND YEAR

Fall Semester

- **CJ 209 - Basic Criminalistics** ***Credits: 3***
- **CJ 211 - Criminal Law** ***Credits: 3***
- Natural Science - Select General Education Science Course ***Credits: 3-5***
- Mathematics - Select General Education Mathematics Course ***Credits: 3-5***
- Elective - Any 100- or 200-level course not previously taken ***Credits: 3***

TOTAL CREDITS: 15-19

Criminal Justice AAS Degree (continued)

Winter Semester

- **CJ 201 - Criminal Investigation** ***Credits: 3***
- **CJ 212 - Criminology** ***Credits: 3***
- **CJ 221 - Juvenile Justice** ***Credits: 3***
- **SOC 201 - Principles of Sociology** ***Credits: 3***
- Social Science - Credits: 3-4 - Select General Education Social Science course not already taken.
    - Recommended: **POLS 105 - Survey of American Government** ***Credits: 3***

TOTAL CREDITS: 15-16

PROGRAM TOTAL: 60-67 CREDITS

PROGRAMS REQUIRING LICENSURE

Federal regulations require Schoolcraft College to publicly disclose, for each educational program designed to meet the educational requirements for a specific professional license or certification required for employment in an occupation (or advertised as meeting a requirement for employment), information about whether program completion would meet those requirements in a state. These public disclosure requirements apply to all programs, regardless of their modality (i.e., on-ground, online, and hybrid programs).

Please see the disclosure related to the educational requirements for professional licensure and certification.

Criminal Justice AAS Degree with Academy

Schoolcraft program code # AAS.00086

In this program, the criminal justice courses are restricted to students who are officially admitted to this program.

The criminal justice system is a highly specialized field. Law enforcement officers are employed by 40,000 local police agencies nationwide as well as county sheriffs' departments. Law enforcement officers must be prepared to interact with the public in a position of responsibility and authority. Knowledge of the criminal justice system, including criminal law, police field operations, criminal investigation and human relations enhances the professionalism of the criminal justice system.

Candidates for employment as law enforcement officers must be certified by the Michigan Commission on Law Enforcement Standards (MCOLES). After completing the Police Academy (CJ 287), students may become certifiable by passing the MCOLES Certification Exam. Certification is valid for one year. Pre-service students, who are not employed by a law enforcement agency, must complete 41 credit hours of course work for the associate degree before taking CJ 287.

Students who satisfactorily complete all college and program requirements qualify for an associate of applied science degree.

Becoming a law enforcement officer requires candidates to meet certain psychological and physical requirements. Please review "Employment Standards for Michigan Law Enforcement Officers" available at www.michigan.gov/mcoles prior to beginning this area of study.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **CJ 102 - Organization and Administration of Law Enforcement Agencies** ***Credits: 3***
- Natural Science - Select General Education Science Course ***Credits: 3-5***
- Humanities - Credits: 1-4 - Select General Education Humanities course.
    - Recommended: **COMA 103 - Fundamentals of Speech** ***Credits: 3***
- English Communication - Credits: 3 - Select first General Education English Communication course.
    - Recommended: **ENG 101 - English Composition 1** ***Credits: 3***

TOTAL CREDITS: 10-15

Winter Semester

- **COR 110 - Introduction to Corrections** ***Credits: 3***
- **CJ 211 - Criminal Law** ***Credits: 3***
- **CJ 210 - Criminal Procedure** ***Credits: 3***
- Social Science - Credits: 3-4 - Select one:
    - **PSYCH 153 - Human Relations** ***Credits: 3***
    - **PSYCH 201 - Introductory Psychology** ***Credits: 4***
- English Communication - Credits: 3 - Select second General Education English Communication course.
  Recommended:
    - **ENG 116 - Technical Writing** ***Credits: 3***
    - OR **ENG 102 - English Composition 2** ***Credits: 3***

TOTAL CREDITS: 15-16

SECOND YEAR

Criminal Justice AAS Degree with Academy (continued)

Fall Semester

- Mathematics - Select General Education Mathematics Course ***Credits: 3-5***
- **CJ 209 - Basic Criminalistics** ***Credits: 3***
- **CJ 212 - Criminology** ***Credits: 3***
- **CJ 221 - Juvenile Justice** ***Credits: 3***
- **SOC 201 - Principles of Sociology** ***Credits: 3***

TOTAL CREDITS: 15-17

Winter Semester

- **CJ 287 - Police Academy** ***Credits: 21 ****

TOTAL CREDITS: 21

PROGRAM TOTAL: 61-69 CREDITS

*CJ 287 requires a special admissions process. Contact the Public Safety Education office at 734-462-4306 for application requirements.

PROGRAMS REQUIRING LICENSURE

Federal regulations require Schoolcraft College to publicly disclose, for each educational program designed to meet the educational requirements for a specific professional license or certification required for employment in an occupation (or advertised as meeting a requirement for employment), information about whether program completion would meet those requirements in a state. These public disclosure requirements apply to all programs, regardless of their modality (i.e., on-ground, online, and hybrid programs).

Please see the disclosure related to the educational requirements for professional licensure and certification.

MiTransfer Pathway - Criminal Justice

Community colleges and universities in Michigan have simplified the transfer process by developing Transfer Pathways. These pathways build on the Michigan Transfer Agreement (MTA), which makes it easier for students to transfer their general education courses taken at Schoolcraft to participating four-year schools.

MITRANSFER PATHWAY COURSES

The following courses at Schoolcraft College are guaranteed to transfer to criminal justice programs of participating institutions.

- **CJ 113 - Introduction to Criminal Justice System** ***Credits: 3***
- **COR 110 - Introduction to Corrections** ***Credits: 3***
- **PSYCH 201 - Introductory Psychology** ***Credits: 4***
- **SOC 201 - Principles of Sociology** ***Credits: 3***

SCHOOLCRAFT COLLEGE DEGREE REQUIREMENTS

A student may earn an associate degree at Schoolcraft! By taking the MiTransfer Pathways courses and completing MTA, students need to complete the remaining electives to get to 60 credits to earn the following degrees:

- Criminal Justice AAS Degree
- Criminal Justice AAS Degree with Academy

Note that these remaining courses to receive your associate degree may not be accepted for transfer by universities participating in the agreement.

TRANSFER INSTITUTION DEGREE REQUIREMENTS

Learn more about the transfer institution degree requirements by meeting with one of our academic advisors who can help you understand the transfer guides and agreements.

Andrews University	Lake Superior State University	
Baker College	Madonna University	Spring Arbor University
Concordia University Ann Arbor	Michigan State University	University of Detroit Mercy
Eastern Michigan University	Northern Michigan University	University of Michigan-Dearborn
Ferris State University	Oakland University	University of Michigan-Flint
Finlandia University	Saginaw Valley State University	Wayne State University
Grand Valley State University	Siena Heights University	

2024-2025 Credential Year

Culinary and Dietary Operations Management

Culinary Baccalaureate Degree Program - BS

The Culinary and Dietary Operations Management Bachelor of Science degree is geared towards students with culinary experience who are interested in earning a degree that will prepare them for management positions in the food and nutrition industries. This program also combines business and science courses to broaden the student's knowledge base beyond culinary and improve their career opportunities.

This Bachelor of Science degree option is a "2 + 2" program that stipulates students must first achieve an associate degree in culinary arts from Schoolcraft College or another American Culinary Federation Education Foundation (ACFEF) accredited college prior to gaining admittance to the Culinary and Dietary Operations Management Bachelor of Science degree. Students must also complete all core ability and bachelor's degree general education and credential requirements in addition to completing required bachelor's degree courses. (Students should confer with their counselor or advisor to discuss these criteria and to make appropriate course selections.)

Professional-level American Culinary Federation (ACF) credentialed chefs interested in this program should contact the Culinary Department to explore their options.

Credentials

- Culinary and Dietary Operations Management BS Degree

Selective Admissions: Program Application Information

- Culinary and Dietary Operations Management Baccalaureate Program Application Information

Culinary and Dietary Operations Management BS Degree

Schoolcraft program code # BS.0P397/# BS.00397

The Bachelor of Science (BS) in Culinary and Dietary Operations Management Program is designed for experienced culinary students who are interested in pursuing a bachelor's degree that will lead them to management positions in the food and nutrition industry. This degree program combines business and science courses to provide the culinarian with knowledge and expertise in management, food science, and nutrition. Students entering the Culinary and Dietary Operations Management Baccalaureate Degree Program are preparing themselves for positions of increasing responsibility in culinary and dietary operations. Completion of the degree requirements will also help students prepare to successfully complete exams for the Certified Dietary Manager (CDM) credential from the Association of Nutrition and Food Service Professionals (ANFP), an important credential for students interested in food service operations.

Upon completion of the BS in Culinary and Dietary Operations Management Program, students will have demonstrated proficiency in the following areas:

- Application of new technology to food service operations and nutritional analysis.
- Physical resource management including space, equipment, inventory, labor, and overhead.
- Application of quantitative reasoning to food service operations.
- Sustainable agriculture and restaurant operations.
- Food and kitchen safety.
- Professionalism and leadership.
- Professional communication skills.
- Human resource operations.
- Interpretation of federal, state, and local laws as they apply to food service operations.
- Assess financial resources required for successful food service operations.

This program requires students to complete a specific list of requirements before being officially admitted into the program. Students are listed in a pre-program code while the application requirements are being met. The full program start date and implementation of the program code may be dependent on space availability. Requirements are listed online at https://www.schoolcraft.edu/admissions/apply-to-sc/students-with-selective-admissions or the Culinary and Dietary Operations Management Baccalaureate Program Application Information catalog page. Contact the Admissions and Welcome Center at 734-462-4426 or admission@schoolcraft.edu to complete an application.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

ADMISSION PREREQUISITE

- Prior ACFEF Culinary Degree ***Credits: 60 ****
- **CUL 303 - Culinary Program Practicals** ***Credits: 5***

Total Credits: 65

FIRST YEAR

Fall Semester

- **BUS 101 - Introduction to Business** ***Credits: 3***
- **BUS 220 - Organizational Behavior** ***Credits: 3***
- **BIOL 105 - Basic Human Anatomy and Physiology** ***Credits: 4***
- ACCT - Select one:
  - **ACCT 103 - Introduction to Accounting** ***Credits: 4***
  - **ACCT 201 - Principles of Accounting 1** ***Credits: 4***

TOTAL CREDITS: 14

Culinary and Dietary Operations Management BS Degree (continued)

Winter Semester

- **BUS 303 - Entrepreneurship 1** ***Credits: 3***
- Mathematics - Select any MTA approved Mathematics Course ***Credits: 4***
- **ACCT 330 - Managerial Accounting for a Food Service Operation** ***Credits: 3***
- **NFS 360 - Ensuring a Sustainable Food Supply** ***Credits: 3***
- Humanities - Select any General Education Humanities Course.
    - Recommended: **COMA 103 - Fundamentals of Speech** ***Credits: 3***

TOTAL CREDITS: 14-17

Spring/Summer Session

- **CUL 360 - Purchasing Control** ***Credits: 2***
- Chemistry - Select one:
    - **CHEM 104 - Fundamentals of Chemistry** ***Credits: 4***
    - **CHEM 111 - General Chemistry 1** ***Credits: 4***

TOTAL CREDITS: 6

SECOND YEAR

Fall Semester

- **CUL 350 - Food Safety Management** ***Credits: 3***
- **BUS 304 - Entrepreneurship 2** ***Credits: 3***
- **NFS 440 - Exploring Specialized Diets** ***Credits: 3***
- **CM 309 - Culinary Law** ***Credits: 3***
- Social Science - Select any General Education Social Science Course.
    - Recommended: **ECON 202 - Principles of Microeconomics** ***Credits: 4***

TOTAL CREDITS: 15-16

Winter Semester

- **BUS 426 - Marketing Strategies** ***Credits: 3***
- **FIN 420 - Financial Management** ***Credits: 3***
- **NFS 320 - Evolution of Dietary Needs throughout the Lifecycle** ***Credits: 3***
- **NFS 480 - Clinical Nutrition** ***Credits: 3***

TOTAL CREDITS: 12

Spring/Summer Session

- **NFS 491 - Clinical Nutrition Internship** ***Credits: 2*** **
- **CUL 495 - Culinary and Dietary Operations Capstone** ***Credits: 1***

TOTAL CREDITS: 3

Total 64-68 Credits

Admission Prerequisite 65 Credits

PROGRAM TOTAL: 129-133 CREDITS

*Professional-level American Culinary Federation Education Foundation (ACFEF) credentialed chefs interested in these programs may contact the Culinary Department to explore their options toward fulfilling the associate degree requirements using Prior Learning Credits. For more information about Prior Learning Credits, contact the Registrar.

**Students must begin NFS 491 within one year of completing NFS 480.

Institutional Requirements: Students must also complete all core ability, bachelor's degree general education, and credential requirements in addition to completing the required bachelor's degree courses. (Students should confer with their counselor or advisor to discuss these criteria and to make appropriate course selections.) In addition, students will complete 20 credits of mathematics and science, as required for the Bachelor of Science. All courses that apply to this degree must be at the 100- through 400-level with a minimum overall grade point average (GPA) of 2.0.

Schoolcraft College®

2024-2025 Credential Year

Culinary and Dietary Operations Management Baccalaureate Program Application Information

Schoolcraft College offers a bachelor's degree program to experienced culinary students who wish to further their education to obtain positions of higher responsibility in the food service or nutrition industries. This program will provide a blend of management, science, and nutrition courses, including experiential instruction under the guidance of a Registered Dietitian. This program also prepares students to test for the Certified Dietary Manager (CDM) credential.

CUL 303 CULINARY PROGRAM PRACTICAL

The CUL 303 course is designed to be a foundation to the culinary bachelor's degree program. In this course students will demonstrate proper culinary skills. Learning strategies will focus on knife handling skills, team skills and professionalism, safety and sanitation, financial control practices, equipment utilization, identification of food products, following nutritional guidelines, cold food garde manger, butchery skills, an awareness of international cuisines and cultures, and a high level of understanding of culinary techniques. Application of appropriate technology for a career in the Culinary Arts, along with critical research skills, will be addressed. Depending upon the student's credentials some assessments in this course maybe waived.

To register for the course:

Once all assessment requirements have been met and any necessary foundation coursework is completed, you must meet with an academic advisor to obtain a CUL 303 permit. This permit will allow you to register/waitlist for CUL 303. It is recommended that this course be taken at the beginning of a student's studies, but is only a prerequisite for CUL 360, CUL 495 and program completion.

APPLICATION REQUIREMENTS

The Culinary and Dietary Operations Management Program requires students to complete a specific list of requirements before being officially admitted into the program. Students are listed in a pre-program code while the application requirements are being met. The full program start date and implementation of the program code may be dependent on space availability. To be admitted to the program the student must complete the following:

1. Apply to Schoolcraft College	Apply to Schoolcraft College online at www.schoolcraft.edu.
2. Transcripts	Request official undergraduate transcripts from all colleges and universities previously attended. Transcripts must be sent directly from the issuing college or university to Schoolcraft College. To confirm that the transcripts have been received, contact the Answer Center at 734-462-4426.
3. Academic Advising and Assessment	This program requires minimum assessment levels or coursework in the areas of math, reading, and writing. Students should have placement scores (Computer Placement Test, ACT, or SAT) submitted before meeting with an academic advisor. Students with prior college-level work or a degree may be exempt from placement testing. The Computer Placement Test (CPT) is taken in the Testing Center. ACT or SAT scores must be less than three years old. Contact the Academic Advising at 734-462-4429 to make an appointment.
4. CUL 303 Registration Requirements	
A. Prior Culinary Arts Experience	***College Credit:*** • Students who have graduated from the Schoolcraft College Culinary Arts associate in applied science degree in 2005 or later will meet this requirement. • *OR* have received an associate degree from an institution accredited by ACFEFAC at the time of graduation. A list of accredited institutions and dates of accreditation is available at http://www.acfchefs.org/ACFSource/Education/Postsecondary.aspx#MI ***OR Special Licensure or Certification:*** • Have current credentials from ACFEFAC of a Sous Chef or higher (provide credential card)

	*OR **Work-Life Experience:*** • Have previous professional chef experience. Students will be evaluated by the Culinary Arts Department which includes an interview and portfolio review. Contact the Culinary Arts Department to schedule an appointment at 734-462-4423.
B. Academic Advising	The CUL 303 course requires minimum assessment levels or coursework in the areas of math, reading, and writing (Contact Academic advising regarding a CUL 303 permit at the end of this packet for details). Students should meet with an academic advisor to develop an academic plan. They can determine if an assessment test is necessary and if foundation courses are needed. Students with prior bachelor-level college work or a degree may be exempt from placement testing. Students who have submitted SAT or ACT scores that are less than three years old to the Admissions and Welcome Center may also be exempt from assessment testing. Contact the Academic Advising Office at 734-462-4429 to make an appointment.
C. Obtain a Sanitation Certificate	Submit proof of a valid ServSafe Food Protection Manager Certificate earned within the last five years to the Records Office.
D. Software Application prerequisite	Complete CIS 120 Software Applications or equivalent with a grade of 2.0/C or better. If you have prior experience with this content, you may opt for credit by exam. For additional information contact (734)462-4530. Students pay the current resident tuition rate per credit hour.
E. Chemistry Application prerequisite	Students who have an associate degree from an Institution accredited by the ACFEFAC at the time of graduation or possess a certification of Sous Chef or above meet the Chemistry requirement. Other candidates may need to complete CHEM 100 - Introduction to the Chemistry of Food for Culinary Arts, with a minimum grade of 2.0.
F. Obtain a CUL 303 Permit	Once all assessment requirements have been met and any necessary foundation coursework is completed, students must meet with a Schoolcraft academic advisor to obtain a permit to register for CUL 303. Please note CUL 303 is restricted to regularly admitted students; High school Dual-Enrolled students are not eligible.
5. College prerequisite coursework- CUL 303	Complete CUL 303 - Culinary Program Practicals with a grade of 2.5 or better. Your grade must be posted to your transcript before you submit a program change form found at the end of this packet. Depending upon the student's credentials some assessments in this course may be waived.
6. Prior Learning and/or Transfer Credit (PLTC)	After you have completed CUL 303 you will be eligible to receive prior learning and/or transfer credit towards your baccalaureate degree. ***Schoolcraft College Graduates:*** • Schoolcraft College students who have graduated from our Culinary Arts Program with an associate in applied science in 2005 or later will automatically receive credit after successful completion of CUL 303. If you have: ***College Credit:*** • An associate degree from an institution accredited by ACFEFAC at the time of graduation. *OR **Special Licensure or Certification:*** • Current credentials from ACFEFAC of a Sous Chef or higher (provide credential card) *OR **Work-Life Experience:*** • Professional chef experience that the Culinary Arts Department has determined meets the program admissions requirements. You will work with the Culinary Arts department to complete the Culinary Prior Learning and/or Transfer Credit Form after successful completion of CUL 303.
7. Fees Associated with PLTC	Fees will be assessed based on college policy for credit by exam or credential credit (see Prior Learning Credit and Fees below for details).
8. Cumulative GPA	Attain a cumulative grade point average of 2.0 or better for all Schoolcraft College courses for entrance into the program.
9. Apply to the Culinary and Dietary Operations Management Program	Meet with a Schoolcraft academic advisor. Completion of all sections of the application with the required signatures is necessary to be accepted into the Culinary and Dietary Operations Management Program.

SCHOOLCRAFT COLLEGE CULINARY INFORMATION SESSIONS

The Culinary Arts Department highly recommends that you attend a culinary arts campus tour. This will include an information session to learn more about the Schoolcraft College Culinary Arts Program and a tour of the facilities. Sign up for a Culinary Information Session tour at www.schoolcraft.edu/tour or by phone at 734-462-7464.

OPEN COURSES

The Culinary and Dietary Operations Management courses are open to all Schoolcraft students who have met the course prerequisite (see the online College Catalog).

PRIOR LEARNING CREDIT AND FEES

The number of college credits awarded will range from 22-48 credits based on the evaluation of skills demonstrated in the CUL 303 - Culinary Program Practicals course by the Culinary Arts Department. The fee schedule is as follows:

- College Credit - associate degree from a regionally accredited college or university (No Fee).
- Special Licensure or Certification- Current credentials from ACFEFAC of a Sous Chef or higher ($25 Fee).
- Work Life Experience - Professional chef experience that the Culinary Arts Department has determined meets the program admissions requirements (Pay current resident tuition rate per credit hour).

For the bachelor's degree the College will accept a maximum of 90 hours of transfer credit or prior learning credit. In order to earn a bachelor's degree, students must complete a minimum of 30 credit hours at Schoolcraft College toward that degree.

INTERNSHIP REQUIREMENT

The NFS 491 Clinical Nutrition Internship Permit will be issued by the Dean of Science Office after the following have been completed:

1. The student has completed the following courses:
   - NFS 440 - Exploring Specialized Diets
   - NFS 480 - Clinical Nutrition
2. The Associate Dean of Science Office is responsible for maintaining the list of qualifying students for placement into NFS 491 Clinical Nutrition Internship. The order of acceptance of qualified applicants will be based on the date the Associate Dean of Science Office receives a valid clinical permit for NFS 491 Clinical Nutrition Internship. The order of acceptance will be as follows for semester placement:
   1. Date the Admission and Welcome Center received application.
   2. Date of valid NFS 491 Clinical Nutrition Internship Permit.
   3. Overall grade point average for all courses taken at Schoolcraft College at the time of valid NFS 491 Application.
3. Due to the limited number of clinical sites, students may have to wait for ***at least one semester*** before they can enroll in NFS 491.

Students will be required to complete the following prior to clinical placement and any cost will be the student's responsibility.

- ***Criminal History Check Clearance.*** Generally, convictions or plea of guilty to a felony may prevent you from clinical affiliation assignment and/or employment in healthcare.
- ***Medical Clearance / Drug Screen.*** Physical and test expires after 12 months.
- ***Photo ID-Government issued photo ID.***
- ***Maintain a cumulative grade point average at Schoolcraft College of 2.0 or better.***
- ***Required Immunizations***
  - Two ***MMR*** vaccinations (Measles, Mumps, Rubella) - one as a child - one as an adult or Titer showing immunity for ALL the above.
  - ***Hepatitis B*** vaccination or Titer - (series must be started prior to clinical), or a signed Vaccination Declination Form.
  - ***Flu Shot***- must have annual shot vaccination.
  - ***Tetanus/Diphtheria/Pertussis (TDAP)*** - Must have received a TDAP within the past 7 years.
  - ***Two-step TB Test*** - TB test expires after 12 months. The student's TB test cannot expire before the end of class and/or when clinicals will be completed.
  - ***Chicken Pox*** - 2 Varicella vaccinations given 1 month apart and/or a laboratory titer verifying immunity. NOTE: We are no longer accepting history of chicken pox as evidence of immunity.

Students will be notified when to pick up forms from the Associates Dean of Science Office located in the Forum, room 500.

Based on the location of your NFS 491 Clinical Nutrition Internship some or all the following will be required:

1. Some internship sites may require physical exams and/or drug tests prior to selection for an internship.

2. Criminal background check which may require being fingerprinted.
3. Reference check.
4. Photo ID- Government issued photo ID.
5. Immunization and negative TB test.

ESTIMATE OF TUITION AND FEES

Culinary and Dietary Operations Management BS Degree			
2024-2025			
Program Credit Hours - 72			
	Resident	*Non-Resident*	*Out of State*
Tuition:	$ 10,008.00	$ 14,400.00	$ 19,440.00
Registration Fees: ($44 per semester)	$ 308.00	$ 308.00	$ 308.00
Service Fees: ($9 per credit hour)	$ 648.00	$ 648.00	$ 648.00
Instructional Equipment Fees: ($11 per credit hour)	$ 792.00	$ 792.00	$ 792.00
Infrastructure Fees: ($9 per credit hour)	$ 648.00	$ 648.00	$ 648.00
Course and Learning Management Fees: ($12 per class)	$ 276.00	$ 276.00	$ 276.00
Lab Fees: (varies according to individual class)	$ 525.00	$ 525.00	$ 525.00
Excess Contact Hour Fees: (varies according to individual class)	$ 834.00	$ 834.00	$ 834.00
Additional Expenses:			
Uniforms	$ 280.00	$ 280.00	$ 280.00
Knife Set	$ 159.99	$ 159.99	$ 159.99
Total	$ 14,478.99	$ 18,870.99	$ 23,910.99
The above figures are based on 2024-2025 rates and are subject to change. A Resident student is one whose legal residence is in the school District of Clarenceville, Garden City, Livonia, Northville, Plymouth-Canton or parts of Novi. All other students are Non-Residents.			

PLEASE NOTE

Requirements for admission to the Culinary Dietary and Operations Management Baccalaureate Program are subject to change at any time.

Ready to get started! Download the Culinary Dietary and Operations Management Student Checklist to get on track.	Student Checklist
Ready to apply? Download the Application Form and schedule a meeting with your Advisor.	Application Form

Please contact the Admissions and Welcome Center for updates on any applicable changes.

Phone: 734-462-4683
Fax: 734-462-4552
E-mail: admissions@schoolcraft.edu
Web: www.schoolcraft.edu

It is the policy of Schoolcraft College that no person shall, on the basis of race, color, national origin, gender, age, marital status, creed, or handicap, be excluded from participating in, be denied benefits of, or be subjected to discrimination during any program or activity or in employment.

2024-2025 Credential Year

Culinary Baking and Pastry Arts

The 30-week baking and pastry arts certificate program provides students with skills and a foundation to begin a career in baking and pastry including restaurant or hotel kitchens. Students will learn both fundamental and advanced bakery and pastry skills while studying all aspects of baking processes, techniques, safety, and sanitation.

Credentials

- Associate of General Studies using Culinary Baking and Pastry Arts Certificate
- Culinary Baking and Pastry Arts Certificate

Selective Admissions: Program Application Information

- Culinary Baking and Pastry Arts Application Information

Associate of General Studies using Culinary Baking and Pastry Arts Certificate

Schoolcraft program code #AGS.00042

This curriculum prepares students in quality baking and pastry preparation. The two core courses start with the fundamental skills and build gradually to the more advanced and refined skills. Topics covered include professionalism, safety and sanitation, dietetic baking, baking processes and techniques, pies, tarts, contemporary tortes, French pastry, cold and frozen desserts, chocolates, cake decoration, breads, cookies, and many other related nutritional desserts.

This program contains some courses restricted to students officially admitted to the Culinary Baking and Pastry Arts Certificate. Any student wishing to pursue an associate degree can apply all 35 credits from the Culinary Baking and Pastry Arts Certificate toward an Associate of General Studies (AGS) degree. Depending on the desired career path, discuss other options for an associate degree with an academic advisor.

The Culinary Baking and Pastry Arts Certificate program requires students to complete a specific list of requirements before being officially admitted into the program. Students are listed in a pre-program code while the application requirements are being met. The full program start date and implementation of the program code may be dependent on space availability. Requirements are listed online at https://www.schoolcraft.edu/admissions/apply-to-sc/students-with-selective-admission***/. Contact the Admissions and Welcome Center at 734-462-4426 or*** admissions@schoolcraft.edu ***to complete an application.***

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

ADMISSION PREREQUISITE

These courses are pre-program requirements and not included in program totals.

- **CUL 102 - Culinary Sanitation** ***Credits: 2*** *
- **CBPA 103 - Introduction to Baking and Pastry Skills and Techniques** ***Credits: 2***

Total Credits: 4

FIRST YEAR

Fall Semester

- **CBPA 125 - Pastries** ***Credits: 20***

TOTAL CREDITS: 20

Winter Semester

- **CBPA 144 - Baking** ***Credits: 15***

TOTAL CREDITS: 15

SECOND YEAR

Fall Semester

- English Communication - Select first General Education English Communication Course ***Credits: 3*** **
- Humanities - Select General Education Humanities Course ***Credits: 3*** **
- Mathematics - Select General Education Mathematics Course ***Credits: 3*** **
- Natural Science - Select General Education Science Course ***Credits: 4*** **
- Social Science - Select General Education Social Science Course ***Credits: 3*** **

TOTAL CREDITS: 16

Winter Semester

- English Communication - Select second General Education English Communication Course ***Credits: 3*** **
- Humanities - Select General Education Humanities Course ***Credits: 1*** **
- Natural Science - Select General Education Science Course ***Credits: 3*** **
- Social Science - Select General Education Social Science Course ***Credits: 3*** **

TOTAL CREDITS: 10

PROGRAM TOTAL: 61 CREDITS

* If student provides documentation of current ServSafe certification, CUL 102 is not required. This course is also open to any Schoolcraft student.

**Please check Schoolcraft General Education requirements to determine course options.

Culinary Baking and Pastry Arts Certificate

Schoolcraft program code #1YC.0P247/1YC.00247

The baking and pastry arts certificate program provides the skills necessary to enter bakeries, pastry shops, restaurants, and hotel bakeries and pastry kitchens.

The curriculum prepares students in quality baking and pastry preparation. The two core courses start with the fundamental skills and build gradually to the more advanced and refined skills. Topics covered include professionalism, safety and sanitation, dietetic baking, baking processes and techniques, pies, tarts, contemporary tortes, French pastry, cold and frozen desserts, chocolates, cake decoration, breads, cookies, and many other related nutritional desserts.

This program contains some courses restricted to students officially admitted to this program. Students who satisfactorily complete the program requirements qualify for a certificate of program completion.

This program requires students to complete a specific list of requirements before being officially admitted into the program. Students are listed in a pre-program code while the application requirements are being met. The full program start date and implementation of the program code may be dependent on space availability. Requirements are listed online at https://www.schoolcraft.edu/admissions/apply-to-sc/students-with-selective-admissions/***or on the*** Culinary Baking and Pastry Arts Application Information ***catalog page. Contact the Admissions and Welcome Center at 734-462-4426 or*** admissions@schoolcraft.edu ***to complete an application.***

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

ADMISSION PREREQUISITES

- **CUL 102 - Culinary Sanitation** ***Credits: 2*** *
- **CBPA 103 - Introduction to Baking and Pastry Skills and Techniques** ***Credits: 2***

Total Credits: 4

FIRST YEAR

Fall Semester

- **CBPA 125 - Pastries** ***Credits: 20***

TOTAL CREDITS: 20

Winter Semester

- **CBPA 144 - Baking** ***Credits: 15***

TOTAL CREDITS: 15

PROGRAM TOTAL: 35 CREDITS

* If student provides documentation of current ServSafe certification, CUL 102 is not required. This course is also open to any Schoolcraft student.

Schoolcraft College®

2024-2025 Credential Year

Culinary Baking and Pastry Arts Application Information

APPLICATION REQUIREMENTS

The Culinary Baking and Pastry Arts Certificate (CBPA) requires students to complete a specific list of requirements before being officially admitted into the program. Students are listed in a pre-program code while the application requirements are being met. The full program start date and implementation of the program code may be dependent on space availability. Students must complete the Culinary Baking and Pastry Arts Program Change Form with Academic Advising. To be admitted to the program the student must complete the following:

1. Apply to Schoolcraft College	Apply to Schoolcraft College online at www.schoolcraft.edu
2. Transcripts	It is recommended you request official undergraduate transcripts from all colleges and universities previously attended. Transcripts must be sent directly from the issuing college or university to Schoolcraft College. To confirm that transcripts have been received, contact the Answer Center at 734-462-4426.
3. Academic Advising and Assessment	This program requires minimum assessment levels or coursework in the areas of math, reading, and writing. Students should have placement scores (Computer Placement Test, ACT, or SAT) submitted before meeting with an academic advisor. Students with prior college-level work or a degree may be exempt from placement testing. The Computer Placement Test (CPT) is taken in the Testing Center. ACT or SAT scores must be less than three years old. Contact Academic Advising at 734-462-4429 to make an appointment.
4. Obtain a CBPA 103 Permit	Once all assessment requirements have been met and any necessary foundation coursework is completed, students must meet with a Schoolcraft academic advisor to obtain a permit to register for CBPA 103. Please note that CBPA 103 is restricted to regularly admitted students; High School Dual Enrollment students are not eligible.
5. College Prerequisite Coursework - CBPA 103	• Complete **CBPA 103 - Introduction to Baking and Pastry Skills and Techniques** with a grade of 2.5 or better. Your grade must be posted to your transcript before you submit a program application. CBPA 103 must be taken within five years of applying to the Culinary Baking and Pastry Arts Program.
6. Obtain a ServSafe Certificate	Submit proof of a valid ServSafe Food Protection Manager Certificate earned within the last five years to the Admissions and Welcome Center before applying to the Culinary Baking and Pastry Arts Program. Students may prepare to complete this requirement by taking Schoolcraft's CUL 102 - Culinary Sanitation course, Continuing Education class, or other opportunities outside of Schoolcraft (Michigan Restaurant Association).
7. Cumulative GPA	Attain a cumulative grade point average of 2.0 or better for all Schoolcraft college courses.
8. Apply to the Culinary Baking and Pastry Arts Program	Complete the Culinary Baking and Pastry Arts Program Restricted Enrollment Program Change Form with appropriate signatures with Academic Advising.

CULINARY ARTS INFORMATION SESSION

The Culinary Arts Department highly recommends attending a culinary arts campus tour that will include an information session to learn more about the Culinary Baking and Pastry Arts Programs, the application process, and a tour of the facilities. To find out more about how to schedule a tour go to www.schoolcraft.edu/tour.

CBPA 103 CLASS

To be eligible to register for CBPA 103 you must first meet with an academic advisor who will verify that all prerequisites are met. Qualified students will be issued an electronic permit that will allow them to register for CBPA 103.

- The CBPA 103 class tends to fill quickly. On the first day of registration, as early as possible, you may attempt to register for this course online at https://schoolcraft.edu/ocelotaccess

ENROLLMENT REQUIREMENTS

Once accepted to the program, you will receive information from the Culinary Arts department regarding which class to register for. You will be required to register for at least 15 or 20 credit hours each semester. All Culinary Baking and Pastry Arts students are encouraged to meet with an academic advisor prior to registration to review course requirements and to discuss their overall educational plan.

ATTENDANCE POLICY

Culinary Arts classes are designed to provide students with the necessary time to successfully complete competencies. Students are expected to attend and arrive on time for all scheduled classes. In order to ensure students' success, the Culinary Arts Program has established an attendance policy. If a student exceeds the maximum absence time they will be withdrawn from the course and will need to re-take the course to graduate. A copy of the attendance policy is available in the Culinary Department and will be provided to students during Culinary Orientation.

REQUIREMENTS FOR OBTAINING A CBPA 103 PERMIT

Please note that registration for CBPA 103 requires the issuance of an electronic permit by an academic advisor. Please schedule to meet with a Schoolcraft academic advisor to be issued a permit. The following must be completed before receiving a permit.

1. Student has been regularly admitted to Schoolcraft College.
2. Student has taken assessment test or is exempt from assessment testing.
3. Student has met minimum English score or has completed ENG 050 or higher with a 2.0 / C grade or higher.
4. Student has met minimum reading score or has completed COLLS 050 or higher with a 2.0 / C grade or higher.
5. Student has met minimum math score or has completed MATH 045 or higher with a 2.0 / C grade or better.
6. Student has current ServSafe Food Protection Manager Certificate or will provide current ServSafe Food Protection Manager Certificate (must submit a certificate for evaluation) before being eligible to apply to the Culinary Program.

REQUIREMENTS FOR CULINARY ARTS BAKING AND PASTRY ARTS PROGRAM RESTRICTED ENROLLMENT PROGRAM CHANGE FORM

Upon completion of CBPA 103 with a grade of 2.5 or above, and submission of a valid ServSafe Food Protection Certificate (earned within five years) you will meet with a representative from the Culinary Arts Department to complete the Culinary Baking and Pastry Arts Restricted Enrollment Program Change Form. The form will be turned in to the Academic Advising Office who will officially admit you to the Culinary Arts Baking and Pastry Arts Program.

1. ***ServSafe Certificate:*** Submit proof of a valid ServSafe Food Protection Manager Certificate earned within the last five years (must submit certificate for evaluation)
2. ***CBPA 103:*** Complete Introduction to Baking and Pastries Skills and Technique with a grade of 2.5 or better or completed the first year of Schoolcraft's Culinary Arts Program. Either requirement must be completed within five years of application to the program. Grade posted on transcript.
    - or has completed first year of the Culinary Arts Program
3. ***Cumulative College GPA:*** Attain a 2.0 or better cumulative grade point average for all courses attempted at Schoolcraft College.

ESTIMATE OF TUITION AND FEES

Culinary Baking and Pastry Arts			
2024-2025			
Program Credit Hours - 39			
	Resident	***Non-Resident***	***Out of State***
Tuition:	$ 5,421.00	$ 7,800.00	$ 10,530.00
Registration Fees: ($44 per semester)	$ 132.00	$ 132.00	$ 132.00
Service Fees: ($9 per credit hour)	$ 351.00	$ 351.00	$ 351.00
Instructional Equipment Fees: ($11 per credit hour)	$ 429.00	$ 429.00	$ 429.00
Infrastructure Fees: ($9 per credit hour)	$ 351.00	$ 351.00	$ 351.00
Course and Learning Management Fees: ($12 per class)	$ 48.00	$ 48.00	$ 48.00
Lab Fees: (varies according to individual class)	$ 1,055.00	$ 1,055.00	$ 1,055.00
Excess Contact Hour Fees: (varies according to individual class)	$ -	$ -	$ -
Additional Expenses:			
Uniforms	$ 280.00	$ 280.00	$ 280.00
Pastry Kit	$ 420.00	$ 420.00	$ 420.00

Total	$ 8,487.00	$ 10,866.00	$ 13,596.00
The above figures are based on 2024-2025 rates and are subject to change. A Resident student is one whose legal residence is in the school District of Clarenceville, Garden City, Livonia, Northville, Plymouth-Canton, or parts of Novi. All other students are Non-Residents.			

PLEASE NOTE:

Requirements for admission to the Culinary Arts Program are subject to change at any time.

Ready to get started! Download the Culinary Arts Program Student Checklist to get on track.	**Student Checklist**
Ready to apply? Download the Application Form and schedule a meeting with your advisor.	**Application Form**

Please contact the Admissions and Welcome Center for updates of any applicable changes.

Phone: 734-462-4683
Fax: 734-462-4552
E-mail: admissions@schoolcraft.edu
Web: www.schoolcraft.edu

It is the policy of Schoolcraft College that no person shall, on the basis of race, color, national origin, gender, age, marital status, creed, or handicap, be excluded from participating in, be denied benefits of, or be subjected to discrimination during any program or activity or in employment.

Schoolcraft College®

2024-2025 Credential Year

Earth and Environmental Science

The programs in the Earth and Environmental Sciences at Schoolcraft College provide students with the opportunity to explore this fast-growing field and pave the way for entry-level career possibilities or transfer to four-year institutions. Students who wish to gain experience with geographic information systems may enroll in the GIS Skills Certificate program. Students wishing to transfer and earn a bachelor's degree in one of the multiple pathways that include geology, geography, environmental science, meteorology, and other related geosciences, may enroll in the Associate of Science via Earth and Environmental Science transfer degree.

Credentials

- Earth and Environmental Science: Geographic Information Systems Skills Certificate
- Associate of Science using Earth and Environmental Science

Associate of Science using Earth and Environmental Science

Schoolcraft program code #AS.00042

The Associate of Science using Earth and Environmental Science degree is an interdisciplinary program that provides students with the foundation to pursue a variety of related fields at transfer institutions, as well as offers a set of classes in the major area of study that amplifies the students' interest and provides a depth of study.

Students enrolled in this program can pursue higher degrees at transfer institutions in disciplines such as atmospheric and climate science, environmental science, geology, and other geosciences, hydrology, geography, Geographic Information Systems (GIS), geotechnical engineering, oceanography, planetary science, sustainability, urban studies, and more.

Students who satisfactorily complete all college and program requirements qualify for an associate of science degree.

Students seeking to transfer to a baccalaureate program should request transfer guides from the intended college or university department to devise a plan that best suits their transfer needs and pathway interests. For more general information about transfer, please visit Transfer Out - Schoolcraft to U - Schoolcraft College.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Number of credits may vary depending on the course selection.

MAJOR AREA OF STUDY REQUIREMENTS (12 CREDITS)

- **EARTH 140 - Introductory Geology** ***Credits: 4***
- **EARTH 240 - Fossils and Earth History** ***Credits: 4***
- **EARTH 250 - Mineralogy** ***Credits: 4***

GEOSCIENCE REQUIREMENTS: SELECT A MINIMUM OF THREE COURSES CREDITS 9-12

- **EARTH 110 - Earth Systems** ***Credits: 4***
- **EARTH 120 - Environmental Science** ***Credits: 3***
- **EARTH 200 - Weather and Climate** ***Credits: 3***
- **EARTH 235 - Geographic Information Systems** ***Credits: 5***
- **EARTH 294 - Directed Study in Earth Science** ***Credits: 3*** *
  **EARTH 294 is initiated by the student with guidance from instructors in the department. Students are expected to contact the department at least one semester or earlier before they decide to pursue this directed study course.*

SELECT SCIENCE AND MATHEMATICS COURSES: CREDITS 24 MINIMUM.

- **BIOL 101 - General Biology** ***Credits: 4***
- **BIOL 104 - Conservation and Natural Resources** ***Credits: 3***
- **BIOL 120 - Principles of Biology 1** ***Credits: 5***
- **BIOL 130 - Principles of Biology 2** ***Credits: 5***
- **BIOL 140 - Scanning Electron Microscopy** ***Credits: 4***
- **CHEM 104 - Fundamentals of Chemistry** ***Credits: 4***
- **CHEM 111 - General Chemistry 1** ***Credits: 4***
- **CHEM 117 - General Chemistry 2 and Qualitative Analysis** ***Credits: 5***
- **PHYS 104 - Introduction to Astronomy** ***Credits: 4***
- **PHYS 123 - Applied Physics** ***Credits: 5***
- **PHYS 181 - General Physics 1** ***Credits: 4***
- **PHYS 182 - General Physics 2** ***Credits: 4***
- **PHYS 211 - Physics for Scientists and Engineers 1** ***Credits: 5***
- **PHYS 212 - Physics for Scientists and Engineers 2** ***Credits: 5***
- **MATH 122 - Elementary Statistics** ***Credits: 4***
- **MATH 126 - College Algebra** ***Credits: 4***
- **MATH 150 - Calculus with Analytic Geometry 1** ***Credits: 5***
- **MATH 151 - Calculus with Analytic Geometry 2** ***Credits: 5***

Associate of Science using Earth and Environmental Science (continued)

ADDITIONAL DEGREE DISTRIBUTION REQUIREMENTS

- Select two MTA English Communication courses: ***Credits:6***
- Select two MTA Humanities courses from two different disciplines: ***Credits: 4-8***
- Select two MTA Social Science courses from two different disciplines: ***Credits: 6-8***
  Recommended:
  - GEOG 133 - World Regional Geography ***Credits: 4***
  - ANTH 220 - Environmental Anthropology ***Credits: 3***

GENERAL EDUCATION REQUIREMENTS

Courses taken to satisfy the Major Area of Study and the Additional Degree Distribution requirements may also apply toward Schoolcraft's General Education requirements.

The Associate of Science (AS) Degree requirements are met through completing the degree program requirements of a minimum of courses. For more information regarding the Schoolcraft College General Education Requirements, please click Schoolcraft College General Education.

The AS Degree also aligns to the Michigan Transfer Agreement (MTA) requirements. For specific information regarding the MTA, please click MTA.

PROGRAM TOTAL 61-70 CREDITS

Earth and Environmental Science: Geographic Information Systems Skills Certificate

Schoolcraft program code #CRT.00376

Geographic Information Systems (GIS) are programs that incorporate both geospatial and tabular data to create products that help in understanding real-world issues and finding solutions to them. GIS is used by professionals in all levels of government, aviation, business, engineering, public health, utilities, education, transportation, emergency management, the space industry, and other various fields. Disciplines that employ GIS as a tool include anthropology, biology, civil engineering, criminal justice, environmental science, geology, geotechnical engineering, history, political science, sociology, and many more.

Students who wish to enroll in this program can use it to supplement their skill set for employment or to prepare for higher-level GIS courses at four-year institutions and gain advanced certification in the future. Students who satisfactorily complete the requirements for the Geographic Information Systems skills certificate will have a basic understanding of GIS and the variety of its applications and will qualify for a certificate of program completion.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor or counselor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **EARTH 235 - Geographic Information Systems** ***Credits: 5***
  Select one:
  - **EARTH 110 - Earth Systems** ***Credits: 4***
  - **EARTH 140 - Introductory Geology** ***Credits: 4***

TOTAL CREDITS: 9

Winter Semester

Select three:

- **ANTH 220 - Environmental Anthropology** ***Credits: 3***
- **BIOL 104 - Conservation and Natural Resources** ***Credits: 3***
- **CIS 129 - Introduction to Programming Logic** ***Credits: 3***
- **CIS 225 - Database Management Systems** ***Credits: 3***
- **EARTH 120 - Environmental Science** ***Credits: 3***
- **EARTH 200 - Weather and Climate** ***Credits: 3***
- **EARTH 240 - Fossils and Earth History** ***Credits: 4***
- **EARTH 250 - Mineralogy** ***Credits: 4***
- **EARTH 294 - Directed Study in Earth Science** ***Credits: 3***
- **GEOG 133 - World Regional Geography** ***Credits: 4***

TOTAL CREDITS: 9-12

Please note:

- EARTH 240 is offered during even Winter semesters.
- EARTH 250 is offered during odd Winter semesters.
- EARTH 294 is initiated by the student with guidance from instructors in the department. Students are expected to contact an instructor in the department at least one semester before they decide to pursue this directed study course and apply their Geographic Information Systems skills to complete a project or internship.

PROGRAM TOTAL: 18-21 CREDITS

Schoolcraft College®

2024-2025 Credential Year

Economics

The study of economics is the study of the world around us. It studies how individuals, groups, and nation-states allocate scarce resources. Economics incorporates multiple disciplines such as political science, business, finance, sociology, and the humanities. Students who study economics have a richer appreciation for what motivates individuals and companies and can understand how to optimize decision-making for the betterment of all.

Students studying Economics should talk to their Academic Advisor about transfer guides and articulation agreements with Schoolcraft College. Students interested in studying Economics at a 4-year university may be interested in completing the Associate of Arts, Associate of General Studies, Associate of Sciences, or Associate of Business Administration degree at Schoolcraft College.

Courses

- ECON 103 - Introductory Economics
- ECON 201 - Principles of Macroeconomics
- ECON 202 - Principles of Microeconomics

2024-2025 Credential Year

Education - Early Childhood Education

To work effectively with children, early childhood educators must be sensitive to and understand the developmental stages of children. This curriculum contains theoretical and practical experiences to prepare students to work in early childhood programs in a variety of settings. The required field experiences expose students to best practices in early childhood education.

Credentials

- Education - Early Childhood Education AAS Degree
- Education - Early Childhood Education Certificate
- Education - Early Childhood Education: Child Development Associate (CDA) Skills Certificate

Education - Early Childhood Education AAS Degree

Schoolcraft program code #AAS.00020

To work effectively with children, early childhood educators must be sensitive to and understand the developmental stages of children. This curriculum contains theoretical and practical experiences to prepare students to work in early childhood programs in a variety of settings. The required field experiences expose students to best practices in early childhood education.

Students who satisfactorily complete all college and program requirements qualify for an Associate of Applied Science degree.

Prior to the start of field placement hours, interviews at sites where children are present, observations, service-learning experiences, or practicums, students must:

- have a clear criminal background check.
- obtain Michigan Central Registry Clearance from the Michigan Department of Human Services
- obtain a current TB test.

Students who are not cleared through a criminal background check and by the Michigan Department of Human Services will not be permitted in the ECE/SPE programs. Some field placement/practicum sites may have additional requirements prior to starting an experience/practicum.

Students are expected to follow the ECE/SPE program policies, abide by the National Association for the Education of Young Children Code of Ethical Conduct, follow field placement policies and conduct themselves appropriately in the presence of children, families, and professionals during field placements/practicums.

To receive an Early Childhood Education AAS Degree students need to obtain a grade of 2.0 or higher in ECE 135, ECE 145, and ECE 265.

Not all courses are offered each semester. Students should work with an academic advisor to develop a plan of study. Students planning to transfer are advised to check the transfer institution's requirements/guides and discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **ECE 100 - Foundations of Early Childhood Education** ***Credits: 2*** **
- **ECE 110 - Child Development** ***Credits: 3*** **
- **ECE 120 - Creative Activities** ***Credits: 3*** **
- **ENG 101 - English Composition 1** ***Credits: 3***
- Humanities - Credits: 1-4 - Select General Education Humanities course.
  Recommended - Any World Language
  - OR **COMA 103 - Fundamentals of Speech** ***Credits: 3***
  - OR **ENG 203 - Children's Literature** ***Credits: 3***

TOTAL CREDITS: 12-15

Winter Semester

- **ECE 135 - Preschool Education with Field Experiences** ***Credits: 5*** * **
- **ECE 150 - Before and After School Programming for Children** ***Credits: 3***
- **ECE 170 - Curriculum, Assessment and Technology** ***Credits: 3***
- **SPE 220 - Early Childhood Special Education** ***Credits: 3***
- **PSYCH 153 - Human Relations** ***Credits: 3***

TOTAL CREDITS: 17

SECOND YEAR

Education - Early Childhood Education AAS Degree (continued)

Fall Semester

- **ECE 145 - Infant and Toddler Education with Field Experiences** ***Credits: 5*** * **
- **ECE 180 - Child and Family Welfare Services** ***Credits: 3***
- **ECE 250 - Literacy and Numerical Thinking** ***Credits: 3***
- Mathematics - Select General Education Mathematics Course ***Credits: 3-5***
- **ENG 102 - English Composition 2** ***Credits: 3***

TOTAL CREDITS: 17-19

Winter Semester

- **ECE 265 - Early Childhood Advanced Practical Experiences** ***Credits: 4*** *
- **ECE 230 - Classroom Behavior - Understanding Social Competence** ***Credits: 3***
- **ECE 280 - Emerging Educator** ***Credits: 1***
- **ECE 240 - Administration of Early Childhood Programs** ***Credits: 3***
- Natural Science - Select General Education Science Course ***Credits: 3-5***

TOTAL CREDITS: 14-16

PROGRAM TOTAL: 60-67 CREDITS

** In order to receive an Early Childhood Education AAS Degree students need to obtain a grade of 2.0 or higher in ECE 135, ECE 145, and ECE 265.*

*** If a student possesses a Child Development Associate Certification from the Council for Professional Recognition (https://www.cdacouncil.org/) in either the Preschool or Infant Toddler content area, they may be eligible to earn Prior Learning Assessment credit for ECE 100, ECE 110, ECE 120, and either ECE 135 - Preschool Education with Field Experiences or ECE 145 - Infant and Toddler Education with Field Experiences. Please consult the Program Director for more information*.

Education - Early Childhood Education Certificate

Schoolcraft program code #1YC.00031

The Early Childhood Education Certificate program provides an educational foundation for understanding children's development and children's needs. The program emphasizes helping students acquire the knowledge and skills needed to plan developmentally appropriate learning environments, nurturing strategies and activities for children which promote their physical, intellectual, social and emotional growth and wellbeing.

Students who satisfactorily complete the program requirements qualify for a certificate of program completion.

Prior to the start of field placement hours, interviews at sites where children are present, observations, service-learning experiences or practicums, students must:

- have a clear criminal background check.
- obtain Michigan Central Registry Clearance from the Michigan Department of Human Services
- obtain a current TB test.

Students who are not cleared through a criminal background check and by the Michigan Department of Human Services will not be permitted in the ECE/SPE programs. Some field placement/practicum sites may have additional requirements prior to starting an experience/practicum.

Students are expected to follow the ECE/SPE program policies, abide by the National Association for the Education of Young Children Code of Ethical Conduct, follow field placement policies, and conduct themselves appropriately in the presence of children, families, and professionals during field placements/practicums. In order to receive an Early Childhood Education Certificate student, need to obtain a grade of 2.0 or higher in ECE 135 and ECE 145.

Not all courses are offered each semester. Students should work with an academic advisor to develop a plan of study that works for them. Students planning to transfer are advised to check the transfer institution's requirements/guides and discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **ECE 100 - Foundations of Early Childhood Education** ***Credits: 2*** **
- **ECE 110 - Child Development** ***Credits: 3*** **
- **ECE 120 - Creative Activities** ***Credits: 3*** **
- **ECE 180 - Child and Family Welfare Services** ***Credits: 3***

TOTAL CREDITS: 11

Winter Semester

- **ECE 135 - Preschool Education with Field Experiences** ***Credits: 5*** *
- **ECE 230 - Classroom Behavior - Understanding Social Competence** ***Credits: 3***
- **ECE 240 - Administration of Early Childhood Programs** ***Credits: 3***

TOTAL CREDITS: 11

Spring Session

- **ECE 145 - Infant and Toddler Education with Field Experiences** ***Credits: 5*** * **

TOTAL CREDITS: 5

PROGRAM TOTAL: 27 CREDITS

** In order to receive an Early Childhood Education Certificate students need to obtain a grade of 2.0 or higher in ECE 135 and ECE 145.*

*** If a student possesses a Child Development Associate Certification from the Council for Professional Recognition (https://www.cdacouncil.org/) in either the Preschool or Infant Toddler content area, they may be eligible to earn Prior Learning Credit for ECE 100, ECE 110, ECE 120, and either ECE 135 - Preschool Education with Field Experiences or ECE 145 - Infant and Toddler Education with Field Experiences. Please consult the Program Director for more information.*

Early Childhood Education: Child Development Associate (CDA) Skills Certificate

Schoolcraft program code #CRT.00315

The Schoolcraft College Child Development Associate (CDA) Skills Certificate is designed to meet the formal early childhood education training requirements of the Child Development Associate (CDA) Credential. This external credential is offered through the Council for Professional Recognition and represents an international effort to credential qualified early childhood educators working with children from birth to age five. More information can be found at this link regarding the other credential requirements: https://www.cdacouncil.org/. Depending on if a student chooses to take ECE 135 or ECE 145, upon satisfactory completion of program requirements, they will receive a certificate of completion to present to the Council for Professional Recognition towards Preschool or Infant-Toddler credentialing respectively.

Prior to the start of field placement hours, interviews at sites where children are present, observations, service-learning experiences or practicums, students must:

- have a clear criminal background check.
- obtain Michigan Central Registry Clearance from the Michigan Department of Human Services
- obtain a current TB test.

Students who are not cleared through a criminal background check and by the Michigan Department of Human Services will not be permitted in the ECE/SPE programs. Some field placement/practicum sites may have additional requirements prior to starting an experience/practicum.

Students are expected to follow the ECE/SPE program policies, abide by the National Association for the Education of Young Children Code of Ethical Conduct, follow field placement policies and conduct themselves appropriately in the presence of children, families, and professionals during field placements/practicums. In order to receive a CDA Skills Certificate, students need to obtain a grade of 2.0 or higher in ECE 135 or ECE 145.

Not all courses are offered each semester. Students should work with an academic advisor to develop a plan of study that works for them. Students planning to transfer are advised to check the transfer institution's requirements/guides and discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **ECE 100 - Foundations of Early Childhood Education** ***Credits: 2***
- **ECE 110 - Child Development** ***Credits: 3***
- **ECE 120 - Creative Activities** ***Credits: 3***

TOTAL CREDITS: 8

Winter Semester

- **ECE 240 - Administration of Early Childhood Programs** ***Credits: 3***

  Select one:

  - **ECE 135 - Preschool Education with Field Experiences** ***Credits: 5*** *
  - **ECE 145 - Infant and Toddler Education with Field Experiences** ***Credits: 5*** *

TOTAL CREDITS: 8

PROGRAM TOTAL: 16 CREDITS

** Students will choose either ECE 135 or ECE 145 depending upon the type of External CDA Credential they plan to pursue through the Council for Professional Recognition. Students in the Early Childhood Education program must adhere to the Code of Ethics of the National Association for the Education of Young Children and the Council for Exceptional Children along with the Early Childhood Education and Special Education Department policies. Early Childhood Education and Special Education Department policies are provided from the department to the student in their field experience courses. In order to receive a CDA Skills Certificate, students need to obtain a grade of 2.0 or higher in ECE 135 or ECE 145.*

Schoolcraft College®

2024-2025 Credential Year

Education - Elementary and Secondary

Schoolcraft College offers educational programs to meet a wide variety of needs. The Teacher Education Transfer Program is designed to enable individuals who wish to become effective elementary or secondary education teachers to begin their professional studies at Schoolcraft and transfer into a teacher education program at a university. The Alternative Route to Interim Teacher Certification (ARC) Programs are Michigan Department of Education-approved teacher preparation programs allowing individuals, with an earned bachelor's degree to obtain initial certification or add endorsements to a current teaching certificate. Unlike the traditional teacher preparation program, the alternative route candidate's certification or endorsement(s) is not contingent on their academic major or minor but rather on passage of the appropriate Michigan Test for Teacher Certification (MTTC) and completion of program requirements.

Credentials

- Education - Elementary Education Alternative Route to Teacher Certification PK-3
- Education - Elementary Education Alternative Route to Teacher Certification PK-6
- Education - Elementary Education Alternative Route to Teacher Certification, K-5
- Education - Secondary Education Alternative Route to Teacher Certification
- Education - Teacher Education Transfer AA, AS, AFA, AGS Degree

Selective Admissions: Program Application Information

- Education - Elementary Education Alternative Route to Teacher Certification (PK-3, PK-6, and K-5) Program Application Information
- Education - Secondary Education Alternative Route to Teacher Certification Program Application Information

Elementary Education Alternative Route to Teacher Certification PK-3

Schoolcraft program code #PAC.0P313/PAC.00313

This program requires students to complete a specific list of requirements before being officially admitted into the program. Students are listed in a pre-program code while the application requirements are being met. Requirements are listed online at the Alternative Route to Interim Teacher Certification - Academics - Schoolcraft College or the Education - Elementary Education Alternative Route to Teacher Certification (PK-3, PK-6, and K-5) Program Application Information catalog page. Contact the Alternative Route to Teacher Certification department at arc@schoolcraft.edu for additional information.

The Alternative Route to Interim Teacher Certification (ARC) Program is a Michigan Department of Education-approved teacher preparation program allowing individuals to obtain initial certification in specific grade bands for elementary education or add endorsements to a current teaching certificate.

A Lower Elementary Education (PK-3) Interim Teaching Certificate (ITC) is earned upon completion of pre-certification coursework, CPR/First Aid certification, passing of appropriate MTTC, and successful background check. The ITC enables program participants to work as certified elementary classroom teachers in Michigan's public, charter, and parochial classrooms. Upon completion of 3 years of successful teaching under the ITC, instructional support from Schoolcraft College (peer mentoring and instructional coaching) and meeting additional program requirements a Standard Teaching Certificate is earned.

Certification is available in the following areas:

- Elementary Education (Lower Elementary Education PK-3)

New cohorts of the ARC program begin each year in the fall, winter, and spring/summer semesters. ARC teacher candidates will complete the pre-certification courses in either one or two consecutive semesters. The pre-certification courses are offered remotely in the evenings.

Students enrolled in the Alternative Route for Interim Teacher Certification Program will be required to maintain an overall 3.0 GPA, with no individual course grade lower than 3.0, and complete all program requirements within five years.

The ARC program also recognizes the value of prior teaching experience. Applicants who are not currently working in a K-12 classroom are encouraged to spend time in classrooms as a substitute teacher or a volunteer, to become better acquainted with their content area and the classroom environments.

The requirements for admission to an Alternative Route Program are:

- Bachelor's or graduate degree from an accredited college or university
- Minimum grade point average of 3.0 (4.0-point scale)
- Pass the applicable MTTC Subject Area Test(s)
- Pass the criminal background check (Fingerprinting may also be required by some school districts for fieldwork)
- Demonstrate the social, emotional, and professional behaviors consistent with those of professional educators.

The Michigan Interim Teaching Certificate is recognized only while working under the supervision of the ARC program.

SAMPLE SCHEDULE OF COURSES

INTENSIVE PRE-CERTIFICATION SEMESTER

Recommendation for Michigan Interim Teaching Certification after completion of Intensive Pre-Certification Semester.

- **EDUC 212 - Elementary Instructional Strategies in Grades PK-3** ***Credits: 2***
- **EDUC 235 - Teaching Literacy and Numeracy in Grades PK-3** ***Credits: 2***
- **EDUC 292 - Core Teaching Practices Practicum** ***Credits: 3***

Total Credits: 7

FIRST YEAR

Spring/Summer Session

Following first year (or minimum of 1 semester) of certified teaching in a Michigan school.

- **EDUC 245 - Effective Instruction for Today's Classroom** ***Credits: 2***

Total Credits: 2

SECOND YEAR

Elementary Education Alternative Route to Teacher Certification PK-3 (continued)

Spring/Summer Session

Following second year (or minimum of 3 semesters) of certified teaching in a Michigan school.

- **EDUC 240 - Teaching Literacy in the Elementary Classroom 2** ***Credits: 3***
- **EDUC 261 - Creating an Inclusive Classroom** ***Credits: 2***

Total Credits: 5

THIRD YEAR

Spring/Summer Session

Following third year (or minimum of 5 semesters) of certified teaching in a Michigan school.

- **EDUC 281 - Impacting the School Community** ***Credits: 2***

Total Credits: 2

PROGRAM TOTAL: 16 CREDITS

Recommendation for Michigan Standard Teaching Certification after completion of all semesters and three years of successful teaching under areas of certification.

PROGRAMS REQUIRING LICENSURE

Federal regulations require Schoolcraft College to publicly disclose, for each educational program designed to meet the educational requirements for a specific professional license or certification required for employment in an occupation (or advertised as meeting a requirement for employment), information about whether program completion would meet those requirements in a state. These public disclosure requirements apply to all programs, regardless of their modality (i.e., on-ground, online, and hybrid programs).

Please see the disclosure related to the educational requirements for professional licensure and certification.

Elementary Education Alternative Route to Teacher Certification PK-6

Schoolcraft program code #PAC.0P319/PAC.00319

This program requires students to complete a specific list of requirements before being officially admitted into the program. Students are listed in a pre-program code while the application requirements are being met. Requirements are listed online at the Alternative Route to Interim Teacher Certification - Academics - Schoolcraft College or the Education - Elementary Education Alternative Route to Teacher Certification (PK-3, PK-6, and K-5) Program Application Information catalog page. Contact the Alternative Route to Teacher Certification department at arc@schoolcraft.edu for additional information.

The Alternative Route to Interim Teacher Certification (ARC) Program is a Michigan Department of Education-approved teacher preparation program allowing individuals to obtain initial certification in specific grade bands for elementary education or add endorsements to a current teaching certificate.

A Lower and Upper Elementary Education (PK-3 and 3-6) Interim Teaching Certificate (ITC) is earned upon completion of pre-certification coursework, CPR/First Aid certification, passing of appropriate MTTC, and successful background check. The ITC enables program participants to work as certified elementary classroom teachers in Michigan's public, charter, and parochial classrooms. Upon completion of 3 years of successful teaching under the ITC, instructional support from Schoolcraft College (peer mentoring and instructional coaching) and meeting additional program requirements a Standard Teaching Certificate is earned.

Certification is available in the following areas:

- Elementary Education (Lower Elementary Education PK-3)
- Elementary Education (Upper Elementary Education 3-6)

New cohorts of the ARC program begin each year in the fall, winter, and spring/summer semesters. ARC teacher candidates will complete the pre-certification courses in either one or two consecutive semesters. The pre-certification courses are offered remotely in the evenings.

Students enrolled in the Alternative Route for Interim Teacher Certification Program will be required to maintain an overall 3.0 GPA, with no individual course grade lower than 3.0, and complete all program requirements within five years.

The ARC program also recognizes the value of prior teaching experience. Applicants who are not currently working in a K-12 classroom are encouraged to spend time in classrooms as a substitute teacher or a volunteer, to become better acquainted with their content area and the classroom environments.

The requirements for admission to an Alternative Route Program are:

- Bachelor's or graduate degree from an accredited college or university
- Minimum grade point average of 3.0 (4.0-point scale)
- Pass the applicable MTTC Subject Area Test(s)
- Pass the criminal background check (Fingerprinting may also be required by some school districts for fieldwork)
- Demonstrate the social, emotional, and professional behaviors consistent with those of professional educators.

The Michigan Interim Teaching Certificate is recognized only while working under the supervision of the ARC program.

Financial Aid Under Review

SAMPLE SCHEDULE OF COURSES

INTENSIVE PRE-CERTIFICATION SEMESTER

Recommendation for Michigan Interim Teaching Certification after completion of Intensive Pre-Certification Semester.

- **EDUC 212 - Elementary Instructional Strategies in Grades PK-3** ***Credits: 2***
- **EDUC 215 - Elementary Instructional Strategies in Grades 3-6** ***Credits: 2***
- **EDUC 235 - Teaching Literacy and Numeracy in Grades PK-3** ***Credits: 2***
- **EDUC 238 - Teaching Literacy and Numeracy in Grades 3-6** ***Credits: 2***
- **EDUC 292 - Core Teaching Practices Practicum** ***Credits: 3***
- **EDUC 293 - Core Teaching Practices** ***Credits: 1***

  NOTE: EDUC 293 is only required for students needing an additional practicum experience, per ARC program leadership.

Total Credits: 11-12

FIRST YEAR

Elementary Education Alternative Route to Teacher Certification PK-6 (continued)

Spring/Summer Session

Following first year (or minimum of 1 semester) of certified teaching in a Michigan school.

- **EDUC 245 - Effective Instruction for Today's Classroom** ***Credits: 2***

Total Credits: 2

SECOND YEAR

Spring/Summer Session

Following second year (or minimum of 3 semesters) of certified teaching in a Michigan school.

- **EDUC 240 - Teaching Literacy in the Elementary Classroom 2** ***Credits: 3***
- **EDUC 261 - Creating an Inclusive Classroom** ***Credits: 2***

Total Credits: 5

THIRD YEAR

Spring/Summer Session

Following third year (or minimum of 5 semesters) of certified teaching in a Michigan school.

- **EDUC 281 - Impacting the School Community** ***Credits: 2***

Total Credits: 2

PROGRAM TOTAL: 20 -21 CREDITS

Recommendation for Michigan Standard Teaching Certification after completion of all semesters and three years of successful teaching under areas of certification.

PROGRAMS REQUIRING LICENSURE

Federal regulations require Schoolcraft College to publicly disclose, for each educational program designed to meet the educational requirements for a specific professional license or certification required for employment in an occupation (or advertised as meeting a requirement for employment), information about whether program completion would meet those requirements in a state. These public disclosure requirements apply to all programs, regardless of their modality (i.e., on-ground, online, and hybrid programs).

Please see the disclosure related to the educational requirements for professional licensure and certification.

Elementary Education Alternative Route to Teacher Certification, K-5

Schoolcraft program code #1YC.0P170/1YC.00170

This program requires students to complete a specific list of requirements before being officially admitted into the program. Students are listed in a pre-program code while the application requirements are being met. Requirements are listed online at the Alternative Route to Interim Teacher Certification - Academics - Schoolcraft College or the Education - Elementary Education Alternative Route to Teacher Certification (PK-3, PK-6, and K-5) Program Application Information catalog page. Contact the Alternative Route to Teacher Certification department at arc@schoolcraft.edu for additional information.

The Alternative Route to Interim Teacher Certification (ARC) Program is a Michigan Department of Education-approved teacher preparation program allowing individuals to obtain initial certification in specific grade bands for elementary education or add endorsements to a current teaching certificate.

An Elementary K-5 All Subjects (K-8 All subjects in Self-Contained Classroom) Interim Teaching Certificate (ITC) is earned upon completion of pre-certification coursework, CPR/First Aid certification, passing of appropriate MTTC, and successful background check. The ITC enables program participants to work as certified elementary classroom teachers in Michigan's public, charter, and parochial classrooms. Upon completion of 3 years of successful teaching under the ITC, instructional support from Schoolcraft College (peer mentoring and instructional coaching) and meeting additional program requirements a Standard Teaching Certificate is earned.

Certification is available in the following areas:

- Elementary Education (K-5 All Subjects) (K-8 All Subjects in Self-Contained Classroom)

New cohorts of the ARC program begin each year in the fall, winter, and spring/summer semesters. ARC teacher candidates will complete the pre-certification courses in either one or two consecutive semesters. The pre-certification courses are offered remotely in the evenings.

Students enrolled in the Alternative Route for Interim Teacher Certification Program will be required to maintain an overall 3.0 GPA, with no individual course grade lower than 3.0, and complete all program requirements within five years.

The ARC program also recognizes the value of prior teaching experience. Applicants who are not currently working in a K-12 classroom are encouraged to spend time in classrooms as a substitute teacher or a volunteer, to become better acquainted with their content area and the classroom environments.

The requirements for admission to an Alternative Route Program are:

- Bachelor's or graduate degree from an accredited college or university
- Minimum grade point average of 3.0 (4.0-point scale)
- Pass the applicable MTTC Subject Area Test(s)
- Pass the criminal background check (Fingerprinting may also be required by some school districts for fieldwork)
- Demonstrate the social, emotional, and professional behaviors consistent with those of professional educators.

The Michigan Interim Teaching Certificate is recognized only while working under the supervision of the ARC program.

SAMPLE SCHEDULE OF COURSES

INTENSIVE PRE-CERTIFICATION SEMESTER

Recommendation for Michigan Interim Teaching Certification after completion of Intensive Pre-Certification Semester.

- **EDUC 101 - Introduction to Education** ***Credits: 3***
- **EDUC 210 - Elementary Instructional Strategies** ***Credits: 3***
- **EDUC 230 - Teaching Literacy in the Elementary Classroom 1** ***Credits: 3***
- **EDUC 292 - Core Teaching Practices Practicum** ***Credits: 3***

Total Credits: 12

FIRST YEAR - PROFESSIONAL DEVELOPMENT

Spring/Summer Session

Following first year (or minimum of 1 semester) of certified teaching in a Michigan school.

- **EDUC 245 - Effective Instruction for Today's Classroom** ***Credits: 2***

TOTAL CREDITS: 2

SECOND YEAR - PROFESSIONAL DEVELOPMENT

Elementary Education Alternative Route to Teacher Certification K-5 (continued)

Spring/Summer Session

Following second year (or minimum of 3 semesters) of certified teaching in a Michigan school.

- **EDUC 240 - Teaching Literacy in the Elementary Classroom 2** ***Credits: 3***
- **EDUC 261 - Creating an Inclusive Classroom** ***Credits: 2***

TOTAL CREDITS: 5

THIRD YEAR - PROFESSIONAL DEVELOPMENT

Spring/Summer Session

Following third year (or minimum of 5 semesters) of certified teaching in a Michigan school.

- **EDUC 281 - Impacting the School Community** ***Credits: 2***

TOTAL CREDITS: 2

PROGRAM TOTAL: 21 CREDITS

Recommendation for Michigan Standard Teaching Certification after completion of all semesters.

PROGRAMS REQUIRING LICENSURE

Federal regulations require Schoolcraft College to publicly disclose, for each educational program designed to meet the educational requirements for a specific professional license or certification required for employment in an occupation (or advertised as meeting a requirement for employment), information about whether program completion would meet those requirements in a state. These public disclosure requirements apply to all programs, regardless of their modality (i.e., on-ground, online, and hybrid programs).

Please see the disclosure related to the educational requirements for professional licensure and certification.

Education - Secondary Education Alternative Route to Teacher Certification

Schoolcraft program code #PAC.0P314/PAC.00314

This program requires students to complete a specific list of requirements before being officially admitted into the program. Students are listed in a pre-program code while the application requirements are being met. Requirements are listed online at the Alternative Route to Interim Teacher Certification - Academics - Schoolcraft College or the Education - Secondary Education Alternative Route to Teacher Certification Program Application Information catalog page. Contact the Alternative Route to Teacher Certification department at arc@schoolcraft.edu for additional information.

The Alternative Route to Interim Teacher Certification (ARC) Program is a Michigan Department of Education-approved teacher preparation program allowing individuals to obtain initial certification in secondary education (grades 6-12), K-12, or add endorsements to a current teaching certificate.

A Secondary or K-12 Interim Teaching Certificate (ITC) is earned upon completion of pre-certification coursework, CPR/First Aid certification, passing of appropriate MTTC, and successful background check. The ITC enables program participants to work as certified secondary or K-12 classroom teachers in Michigan's public, charter, and parochial classrooms. Upon completion of 3 years of successful teaching under the ITC, instructional support from Schoolcraft College (peer mentoring and instructional coaching) and meeting additional program requirements a Standard Teaching Certificate is earned.

Certification is available in the following areas:

- Secondary education (grades 6-12)
- K-12 (Music, Art, Physical Education, ESL, etc.)

New cohorts of the ARC program begin each year in the fall, winter, and spring/summer semesters. ARC teacher candidates will complete the pre-certification courses in either one or two consecutive semesters. The pre-certification courses are offered remotely in the evenings.

Students enrolled in the Alternative Route for Interim Teacher Certification Program will be required to maintain an overall 3.0 GPA, with no individual course grade lower than 3.0, and complete all program requirements within five years.

The ARC program also recognizes the value of prior teaching experience. Applicants who are not currently working in a K-12 classroom are encouraged to spend time in classrooms as a substitute teacher or a volunteer, to become better acquainted with their content area and the classroom environments.

The requirements for admission to an Alternative Route Program are:

- Bachelor's or graduate degree from an accredited college or university
- Minimum grade point average of 3.0 (4.0-point scale)
- Pass the applicable MTTC Subject Area Test(s)
- Pass the criminal background check (Fingerprinting may also be required by some school districts for fieldwork)
- Demonstrate the social, emotional, and professional behaviors consistent with those of professional educators.

Note: The Michigan Interim Teaching Certificate is recognized only while working under the supervision of the ARC program.

SAMPLE SCHEDULE OF COURSES

INTENSIVE PRE-CERTIFICATION SEMESTER

Recommendation for Michigan Interim Teaching Certification after completion of Intensive Pre-Certification Semester.

- **EDUC 220 - Secondary Instructional Strategies** ***Credits: 3***
- **EDUC 250 - Teaching Literacy in the Secondary School** ***Credits: 3***
- **EDUC 255 - Eliciting Student Thinking in the Secondary Classroom** ***Credits: 2***

Select One

Select one dependent upon educational goals.

- **EDUC 292 - Core Teaching Practices Practicum** ***Credits: 3***
- **EDUC 296 - Education Field-Based Internship in Instruction** ***Credits: 2***

Total Credits: 10-11

FIRST YEAR

Spring/Summer Session

Following first year (or minimum of 1 semester) of certified teaching in a Michigan school.

- **EDUC 245 - Effective Instruction for Today's Classroom** ***Credits: 2***

Secondary Education Alternative Route to Teacher Certification (continued)

Total Credits: 2

SECOND YEAR

Spring/Summer Session

Following second year (or minimum of 3 semesters) of certified teaching in a Michigan school.

- **EDUC 261 - Creating an Inclusive Classroom** ***Credits: 2***

Total Credits: 2

THIRD YEAR

Spring/Summer Session

Following third year (or minimum of 5 semesters) of certified teaching in a Michigan school.

- **EDUC 281 - Impacting the School Community** ***Credits: 2***

Total Credits: 2

PROGRAM TOTAL: 16-17 CREDITS

Recommendation for Michigan Standard Teaching Certification after completion of all semesters and three years of successful teaching under areas of certification.

PROGRAMS REQUIRING LICENSURE

Federal regulations require Schoolcraft College to publicly disclose, for each educational program designed to meet the educational requirements for a specific professional license or certification required for employment in an occupation (or advertised as meeting a requirement for employment), information about whether program completion would meet those requirements in a state. These public disclosure requirements apply to all programs, regardless of their modality (i.e., on-ground, online, and hybrid programs).

Please see the disclosure related to the educational requirements for professional licensure and certification.

Schoolcraft College®

2024-2025 Credential Year

Education - Elementary Education Alternative Route to Teacher Certification (PK-3, PK-6, and K-5) Program Application Information

The Alternative Route to Interim Teacher Certification (ARC) Program is a Michigan Department of Education-approved teacher preparation program allowing individuals to obtain initial certification in elementary education (grades PK-3, PK-6, or K-5), or add endorsements to a current teaching certificate.

A PK-3, PK-6, or K-5 Elementary Interim Teaching Certificate (ITC) is earned upon completion of pre-certification coursework, CPR/First Aid certification, passing of appropriate MTTC, and successful background check. The ITC enables program participants to work as certified PK-3 or Elementary classroom teachers in Michigan's public, charter, and parochial classrooms. A Standard Teaching Certificate is earned upon completion of the following: three (3) years of successful teaching under the ITC, instructional support from Schoolcraft College (peer mentoring and instructional coaching), and completion of additional program requirements.

To view the complete program description and a sample schedule of courses, view the Education - Elementary Education Alternative Route to Teacher Certification PK-3, Education - Elementary Education Alternative Route to Teacher Certification PK-6 or Education - Elementary Education Alternative Route to Teacher Certification, K-5 catalog pages.

APPLICATION REQUIREMENTS

The Alternative Route to Interim Teacher Certification (ARC) program requires an ARC Program application. To be admitted to the program you must complete the following:

1. Apply to Schoolcraft College	Apply to Schoolcraft College online at schoolcraft.edu/apply.
2. Transcripts	It is recommended you request official undergraduate transcripts from all colleges and universities previously attended. Transcripts must be sent directly from the issuing college or university to Schoolcraft College. To confirm that transcripts have been received, contact the Answer Center at 734-462-4426.
3. Apply to the ARC Program	Apply to the ARC program by completing the program-specific application. Email the application to arc@schoolcraft.edu.
4. Credential Evaluation	Contact the Education Office, arc@schoolcraft.edu, to make an appointment to have your degree, MTTC, and (if applicable) credentials assessed. This program requires students to possess a bachelor's degree from an accredited college or university (with a minimum overall GPA of 3.0), successfully pass the applicable MTTC Subject Area Test(s)* and pass the Criminal Background check. *Probationary approval may be given without passage of MTCC Subject Area Test(s) for one academic year.
5. Register for EDUC Courses	Meet with the ARC Certification Officer to plan your EDUC courses as needed.

ESTIMATION OF TUITION AND FEES

ARC PK-3			
2024-2025			
Program Credit Hours - 16			
	Resident	***Non-Resident***	***Out of State***
Tuition:	$ 2,224.00	$ 3,200.00	$ 3,200.00
Registration Fees: ($44 per semester)	$ 176.00	$ 176.00	$ 176.00
Service Fees: ($9 per credit hour)	$ 144.00	$ 144.00	$ 144.00
Instructional Equipment Fees: ($11 per credit hour)	$ 176.00	$ 231.00	$ 231.00
Infrastructure Fees: ($9 per credit hour)	$ 144.00	$ 144.00	$ 144.00
Course and Learning Management Fees: ($12 per class)	$ 84.00	$ 84.00	$ 84.00
Lab Fees: (varies according to individual class)	$ 125.00	$ 125.00	$ 125.00

Excess Contact Hour Fees: (varies according to individual class)	$ -	$ -	$ -
ARC Program Fee	$ 6,300.00	$ 6,300.00	$ 6,300.00
Additional Expenses (approximate):			
MTTC, State Licensure, and textbooks	$ 1,052.00	$ 1,052.00	$ 1,052.00
Total	$ 10,425.00	$ 11,456.00	$ 11,456.00
The above figures are based on 2024-2025 rates and are subject to change. A Resident student is one whose legal residence is in the school District of Clarenceville, Garden City, Livonia, Northville, Plymouth-Canton or parts of Novi. All other students are Non-Residents.			

ARC K-5			
2024-2025			
Program Credit Hours - 21			
	Resident	***Non-Resident***	***Out of State***
Tuition:	$ 2,919.00	$ 4,200.00	$ 5,670.00
Registration Fees: ($44 per semester)	$ 176.00	$ 176.00	$ 176.00
Service Fees: ($9 per credit hour)	$ 189.00	$ 189.00	$ 189.00
Instructional Equipment Fees: ($11 per credit hour)	$ 231.00	$ 231.00	$ 231.00
Infrastructure Fees: ($9 per credit hour)	$ 189.00	$ 189.00	$ 189.00
Course and Learning Management Fees: ($12 per class)	$ 96.00	$ 96.00	$ 96.00
Lab Fees: (varies according to individual class)	$ 125.00	$ 125.00	$ 125.00
Excess Contact Hour Fees: (varies according to individual class)	$ -	$ -	$ -
ARC Program Fee	$ 6,300.00	$ 6,300.00	$ 6,300.00
Additional Expenses (approximate):			
MTTC, State Licensure, and textbooks	$ 1,342.00	$ 1,342.00	$ 1,342.00
Total	$ 11,567.00	$ 12,848.00	$ 14,318.00
The above figures are based on 2024-2025 rates and are subject to change. A Resident student is one whose legal residence is in the school District of Clarenceville, Garden City, Livonia, Northville, Plymouth-Canton or parts of Novi. All other students are Non-Residents.			

ARC PK - 6			
2024-2025			
Program Credit Hours - 20			
	Resident	***Non-Resident***	***Out of State***
Tuition:	$ 2,780.00	$ 4,000.00	$ 5,400.00
Registration Fees: ($44 per semester)	$ 176.00	$ 176.00	$ 176.00
Service Fees: ($9 per credit hour)	$ 180.00	$ 180.00	$ 180.00
Instructional Equipment Fees: ($11 per credit hour)	$ 220.00	$ 220.00	$ 220.00
Infrastructure Fees: ($9 per credit hour)	$ 180.00	$ 180.00	$ 180.00
Course and Learning Management Fees: ($12 per class)	$ 108.00	$ 108.00	$ 108.00
Lab Fees: (varies according to individual class)	$ 125.00	$ 125.00	$ 125.00
Excess Contact Hour Fees: (varies according to individual class)	$ -	$ -	$ -
ARC Program Fee	$ 6,300.00	$ 6,300.00	$ 6,300.00
Additional Expenses (approximate):			
MTTC, State Licensure, and textbooks	$ 1,342.00	$ 1,342.00	$ 1,342.00
Total	$ 11,411.00	$ 12,631.00	$ 14,031.00
The above figures are based on 2024-2025 rates and are subject to change. A Resident student is one whose legal residence is in the school District of Clarenceville, Garden City, Livonia, Northville, Plymouth-Canton or parts of Novi. All other students are Non-Residents.			

PLEASE NOTE:

Requirements for admission to the Alternative Route to Teacher Certification Program are subject to change at any time.

Ready to apply? Visit the Alternate Route to Interim Teacher Certification (ARC) information page to complete the Application Form and schedule a meeting with the Education Office at 734-462-4335.	Application Form

Please contact the Admissions and Welcome Center for updates and/or any applicable changes:
Phone: 734-462-4683
E-mail: admissions@schoolcraft.edu
Website: www.schoolcraft.edu

It is the policy of Schoolcraft College that no person shall, on the basis of race, color, national origin, gender, age, marital status, creed, or handicap, be excluded from participating in, be denied benefits of, or be subject to discrimination during any program or activity or in employment.

Schoolcraft College®

2024-2025 Credential Year

Education - Secondary Education Alternative Route to Teacher Certification Program Application Information

The Alternative Route to Interim Teacher Certification (ARC) Program is a Michigan Department of Education-approved teacher preparation program allowing individuals to obtain initial certification in secondary education (grades 6-12), K-12, or add endorsements to a current teaching certificate.

A Secondary or K-12 Interim Teaching Certificate (ITC) is earned upon completion of pre-certification coursework, CPR/First Aid certification, passing of appropriate MTTC, and successful background check. The ITC enables program participants to work as certified secondary or K-12 classroom teachers in Michigan's public, charter, and parochial classrooms. A Standard Teaching Certificate is earned upon completion of the following: three (3) years of successful teaching under the ITC, instructional support from Schoolcraft College (peer mentoring and instructional coaching), and completion of additional program requirements.

APPLICATION REQUIREMENTS

To be admitted to the Alternative Route to Interim Teacher Certification (ARC) program you must complete the following:

1. Apply to Schoolcraft College	Apply to Schoolcraft College online at www.schoolcraft.edu/apply.
2. Transcripts	It is recommended you request official undergraduate transcripts from all colleges and universities previously attended. Transcripts must be sent directly from the issuing college or university to Schoolcraft College. To confirm that transcripts have been received, contact the Answer Center at 734-462-4426.
3. Apply to the ARC Program	Apply to the ARC program by completing the program-specific application. Email the application to arc@schoolcraft.edu.
4. Credential Evaluation	Contact the Education Office, arc@schoolcraft.edu, to make an appointment to have your degree, MTTC, and (if applicable) credentials assessed. This program requires students to possess a bachelor's degree from an accredited college or university (with a minimum overall GPA of 3.0), successfully pass the applicable MTTC Subject Area Test(s)* and pass the Criminal Background check. *Probationary approval may be given without passage of MTCC Subject Area Test(s) for one academic year.
5. Register for EDUC Courses	Meet with the ARC Certification Officer to plan your EDUC courses as needed.

ESTIMATION OF TUITION AND FEES

ARC Secondary			
2024-2025			
Program Credit Hours - 17			
	Resident	***Non-Resident***	***Out of State***
Tuition:	$ 2,363.00	$ 3,400.00	$ 4,590.00
Registration Fees: ($44 per semester)	$ 176.00	$ 176.00	$ 176.00
Service Fees: ($9 per credit hour)	$ 153.00	$ 153.00	$ 153.00
Instructional Equipment Fees: ($11 per credit hour)	$ 187.00	$ 187.00	$ 187.00
Infrastructure Fees: ($9 per credit hour)	$ 153.00	$ 153.00	$ 153.00
Course and Learning Management Fees: ($12 per class)	$ 84.00	$ 84.00	$ 84.00
Lab Fees: (varies according to individual class)	$ 125.00	$ 125.00	$ 125.00
Excess Contact Hour Fees: (varies according to individual class)	$ -	$ -	$ -
ARC Program Fee	$ 6,300.00	$ 6,300.00	$ 6,300.00
Additional Expenses (approximate):			
MTTC, State Licensure, and textbooks	$ 1,163.00	$ 1,163.00	$ 1,163.00

Total	$ 10,704.00	$ 11,741.00	$ 12,931.00
The above figures are based on 2024-2025 rates and are subject to change. A Resident student is one whose legal residence is in the school District of Clarenceville, Garden City, Livonia, Northville, Plymouth-Canton or parts of Novi. All other students are Non-Residents.			

PLEASE NOTE:

Requirements for admission to the Alternative Route to Teacher Certification Program are subject to change at any time.

Ready to apply? Visit the Alternate Route to Interim Teacher Certification (ARC) information page to complete the Application Form and schedule a meeting with the Education Office at 734-462-4335.	**Application Form**

Please contact the Admissions and Welcome Center for updates and/or any applicable change:
Phone: 734-462-4683
E-mail: admissions@schoolcraft.edu
Website: www.schoolcraft.edu

It is the policy of Schoolcraft College that no person shall, on the basis of race, color, national origin, gender, age, marital status, creed, or handicap, be excluded from participating in, be denied benefits of, or be subject to discrimination during any program or activity or in employment.

Education - Teacher Education Transfer AA, AS, AFA, AGS Degree

Schoolcraft program code #AA.00700

The Teacher Education Transfer Program is designed to enable students who wish to become effective elementary or secondary education teachers to begin their professional studies at Schoolcraft and transfer into a teacher education program at a university. The coursework is based on both the Interstate Teacher Assessment and Support Consortium - Model Core Teaching Standards (2011) (InTASC) and International Society for Technology in Education (ISTE) standards.

Students in the Teacher Education Transfer Program who plan to attend a partner university will be able to receive academic advising and pre-transfer assistance from the participating university. Students in the Teacher Education Transfer Program who complete all program requirements will also be eligible to receive an Associate of Arts (AA), Associate of Science (AS), Associate of Fine Arts (AFA), or Associate of General Studies (AGS) degree with an education designation.

The Teacher Education Transfer Program requires:

- Successful completion of the following courses with a minimum GPA of 2.5, with no individual course grade lower than 2.0 (C):
    - EDUC 101 - Introduction to Education *
    - PSYCH 249 - Educational Psychology
    - EDUC 110 - Child Development
    - EDUC 205 - Promoting Learning in a Diverse Society, Using Family, School and Community Partnerships *
    - EDUC 200 - Children with Special Needs
    - EDUC 270 - Instructional Technology *
- Overall minimum GPA of 2.5 (minimum of 60 hours)
- Criminal background check

**Course requiring fieldwork (Fingerprinting may also be required by some school districts for fieldwork)* Students may also complete this program with an AS, AGS, or an AFA degree after meeting all general education and degree requirements. Please contact your advisor for details.

Students who are not in the Teacher Education Transfer Program may transfer the individual course credits to other institutions. Students should review current transfer guides and articulation agreements when planning to transfer credits. The education designation on the transcript is available only to students who are admitted to and complete the requirements of the Teacher Education Transfer Program. All courses that apply to these degrees must be at the 100 or 200 level.

Please contact the Associate Dean, Education and Occupational Programs for additional information, 734-462-4335.

The program outline provides the framework for a Teacher Education Transfer Program, but it does not represent a final academic plan for any specific four-year college or university. Students should consult with their advisor and the teacher preparation institution to which they are transferring, for details regarding transfer credit for all education courses, general education, and admission application requirements for the specific college/university to which they plan to transfer.

Students need to be aware that educational programs require a criminal background check.

In order to complete the program requirements, students will need to have an overall minimum GPA of 2.5 (minimum of 60 hours), with no individual course grade lower than 2.0 (C).

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **ENG 101 - English Composition 1** ***Credits: 3***
- Elective - Major/Minor Transfer ***Credits: 3****
- Social Science - Select General Education Social Science Course ***Credits: 3-4***
- **EDUC 101 - Introduction to Education** ***Credits: 3***
- Elective - Major/Minor Transfer ***Credits: 3****

TOTAL CREDITS: 15-16

Teacher Education Transfer AA, AS, AFA, AGS Degree (continued)

Winter Semester

- **ENG 102 - English Composition 2** ***Credits: 3***
- Social Science - Select General Education Social Science Course ***Credits: 3-4***
- Mathematics - Select General Education Mathematics Course ***Credits: 3-4***
- Humanities - Select General Education Humanities Course ***Credits: 3-4***
- Select One
    - **PSYCH 249 - Educational Psychology** ***Credits: 3***
    - **EDUC 110 - Child Development** ***Credits: 3***

TOTAL CREDITS: 15-18

SECOND YEAR

Fall Semester

- **EDUC 205 - Promoting Learning in a Diverse Society, Using Family, School and Community Partnerships** ***Credits: 3***
- Elective - Major/Minor Transfer ***Credits: 3****
- **EDUC 200 - Children with Special Needs** ***Credits: 3***
- Natural Science - Select General Education Science Course ***Credits: 4-5***
- Humanities - Select General Education Humanities Course ***Credits: 3-4***

TOTAL CREDITS: 16-18

Winter Semester

- Elective - Major/Minor Transfer ***Credits: 3****
- Humanities - Select General Education Humanities Course ***Credits: 3-4***
- Elective - Major/Minor Transfer ***Credits: 3****
- Elective - Major/Minor Transfer ***Credits: 3****
- **EDUC 270 - Instructional Technology** ***Credits: 3***

TOTAL CREDITS: 15-16

PROGRAM TOTAL: 61-68 CREDITS

**Electives in Liberal Arts Courses and Major/Minor Transfer Areas: Course selection may vary based upon the major or minor that is pursued.*

POTENTIAL COURSES THAT MAY BE USED TOWARD MEETING TRANSFER REQUIREMENTS

- **ART 113 - Art Education** ***Credits: 3***
- **ENG 203 - Children's Literature** ***Credits: 3***
- **MATH 105 - Mathematics for Elementary Teachers 1** ***Credits: 4***
- **MATH 106 - Mathematics for Elementary Teachers 2** ***Credits: 4***
- **MUSIC 107 - Music for Elementary Teachers** ***Credits: 4***
- **PE 240 - Physical Education for Elementary Teachers** ***Credits: 3***

Schoolcraft College®

2024-2025 Credential Year

Education - Special Education

The Autism Education skills certificate is designed to provide students with the knowledge, skills and strategies for working with individuals with autism. Students may be current certified K-12 educators who would like to increase their understanding of autism, current or future paraeducators, and/or families of individuals with autism. The certificate provides the foundational information and direct experiences needed for increased understanding of educational protocol when working with individuals with autism.

Working as a Para Educator requires people to be supportive and nurturing while taking a strength-based perspective to match the strengths of each person with special needs. This curriculum contains theoretical and practical experiences designed to prepare students to work in public school special education classrooms, inclusive classrooms and resource rooms, institutional settings, sheltered workshops, job coaching programs, group homes or supported-living programs. Students learn to work effectively as members of professional educational and community-based teams that support persons with disabilities.

Credentials

- Associate of General Studies using Autism Education Skills Certificate
- Education - Special Education: Autism Education Skills Certificate
- Education - Special Needs Para Educator AAS Degree
- Education - Special Needs Para Educator Certificate

Associate of General Studies using Autism Education Skills Certificate

Schoolcraft program code #AGS.00042

The Autism Education curriculum provides a foundation in educating individuals with autism. It is designed for exposure to the key elements of educating individuals with autism.

Students who want to pursue an associate degree can apply all 19 credits from the Autism Education Skills Certificate toward an Associate of General Studies (AGS) degree. Depending on the desired career path, discuss other options for an associate degree with an academic advisor.

Not all courses are offered each semester. Students should work with an academic advisor to develop a plan of study that works for them. Students planning to transfer are advised to check the transfer institution's requirements/guides and discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **ECE 110 - Child Development** ***Credits: 3***
- **SPE 100 - Children with Special Needs** ***Credits: 3***
- **SPE 102 - Introduction to Autism Spectrum Disorders** ***Credits: 3***
- English Communication - Select first General Education English Communication Course ***Credits: 3 ****
- Humanities - Select General Education Humanities Course ***Credits: 3 ****

TOTAL CREDITS: 15

Winter Semester

- **SPE 122 - ASD Communication Strategies** ***Credits: 3***
- **SPE 132 - ASD Instructional Procedures** ***Credits: 3***
- **SPE 142 - ASD Behavior Implications** ***Credits: 3***
- **SPE 112 - Applied Behavior Analysis** ***Credits: 1***
- English Communication - Select second General Education English Communication Course ***Credits: 3 ****
- Mathematics - Select General Education Mathematics Course ***Credits: 3 ****

TOTAL CREDITS: 16

SECOND YEAR

Fall Semester

- Natural Science - Select General Education Science Course ***Credits: 4 ****
- Social Science - Select General Education Social Science Course ***Credits: 3 ****
- Humanities - Select General Education Humanities Course ***Credits: 1 ****
- Electives - Select courses supportive of occupational and academic goals ***Credits: 7***

TOTAL CREDITS: 15

Winter Semester

- Natural Science - Select General Education Science Course ***Credits: 3 ****
- Social Science - Select General Education Social Science Course ***Credits: 3 ****
- Electives - Select courses supportive of occupational and academic goals ***Credits: 8***

TOTAL CREDITS: 14

PROGRAM TOTAL: 60 CREDITS

*Please check Schoolcraft General Education requirements to determine course options.

Education - Special Education: Autism Education Skills Certificate

Schoolcraft program code #CRT.00316

The Autism Education skills certificate provides a foundation in educating individuals with autism. The certificate is designed for exposure to the key elements of educating individuals with autism. Students who satisfactorily complete the program requirements qualify for a certificate of program completion.

Not all courses are offered each semester. Students should work with an academic advisor to develop a plan of study that works for them. Students planning to transfer are advised to check the transfer institution's requirements/guides and discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **ECE 110 - Child Development** ***Credits: 3***
- **SPE 100 - Children with Special Needs** ***Credits: 3***
- **SPE 102 - Introduction to Autism Spectrum Disorders** ***Credits: 3***

TOTAL CREDITS: 9

Winter Semester

- **SPE 122 - ASD Communication Strategies** ***Credits: 3***
- **SPE 132 - ASD Instructional Procedures** ***Credits: 3***
- **SPE 142 - ASD Behavior Implications** ***Credits: 3***
- **SPE 112 - Applied Behavior Analysis** ***Credits: 1***

TOTAL CREDITS: 10

PROGRAM TOTAL: 19 CREDITS

Education - Special Needs Para Educator AAS Degree

Schoolcraft program code # AAS.00021

Working as a Para Educator requires persons to be supportive and nurturing while taking a strength-based perspective to the strengths of each person with special needs. This curriculum contains theoretical and practical experiences designed to prepare students to work in public school special education classrooms, inclusive classrooms and resource rooms, institutional settings, sheltered workshops, job coaching programs, group homes or supported-living programs. Students learn to work effectively as members of professional educational and community-based teams that support persons with disabilities.

Students who satisfactorily complete all college and program requirements qualify for an Associate of Applied Science degree.

Prior to the start of field placement hours, interviews at sites where children are present, observations, service-learning experiences or practicums, students must:

- have a clear criminal background check.
- obtain Michigan Central Registry Clearance from the Michigan Department of Human Services
- obtain a current TB test.

Students who are not cleared through a criminal background check and by the Michigan Department of Human Services will not be permitted in the ECE/SPE programs. Some field placement/practicum sites may have additional requirements prior to starting an experience/practicum.

Students are expected to follow the ECE/SPE program policies, abide by the National Association for the Education of Young Children Code of Ethical Conduct, follow field placement policies and conduct themselves appropriately in the presence of children, families and professionals during field placements/practicums.

In order to receive a Special Education Para Educator AAS Degree from Schoolcraft College, students need to receive a grade of 2.0 or higher in SPE 155 and SPE 275.

Not all courses are offered each semester. Students should work with an academic advisor to develop a plan of study that works for them. Students planning to transfer are advised to check the transfer institution's requirements/guides and discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **ECE 110 - Child Development** ***Credits: 3***
- **SPE 100 - Children with Special Needs** ***Credits: 3***
- **SPE 105 - Introduction to Developmental Disabilities** ***Credits: 3***
- **ENG 101 - English Composition 1** ***Credits: 3***
- Humanities - Credits: 3-4 - Select General Education Humanities course.
  Recommended - Any World Language
  - OR **COMA 103 - Fundamentals of Speech** ***Credits: 3***
  - OR **ENG 203 - Children's Literature** ***Credits: 3***

TOTAL CREDITS: 15-16

Winter Semester

- **ECE 170 - Curriculum, Assessment and Technology** ***Credits: 3***
- **ENG 102 - English Composition 2** ***Credits: 3***
- **SPE 155 - Special Education Practical Experiences 1** ***Credits: 3*** *
- **SPE 220 - Early Childhood Special Education** ***Credits: 3***
- **PSYCH 153 - Human Relations** ***Credits: 3***

TOTAL CREDITS: 15

Special Education – Special Needs Para Educator AAS Degree (continued)

SECOND YEAR

Fall Semester

- **SPE 115 - Special Educational Programs and Supported Living** ***Credits: 3***
- **SPE 125 - Learning Disabilities** ***Credits: 3***
- Mathematics - Select General Education Mathematics Course ***Credits: 3-5***
- **ECE 120 - Creative Activities** ***Credits: 3***
- **ECE 180 - Child and Family Welfare Services** ***Credits: 3***

TOTAL CREDITS: 15-17

Winter Semester

- **SPE 210 - Methods and Curricula for Persons with Developmental Disabilities** ***Credits: 3***
- **SPE 275 - Special Education Practical Experiences 2** ***Credits: 3*** *
- **ECE 230 - Classroom Behavior - Understanding Social Competence** ***Credits: 3***
- **ECE 280 - Emerging Educator** ***Credits: 1***
- **SPE 135 - Emotional Impairment** ***Credits: 3***
- Natural Science - Select General Education Science Course ***Credits: 3-5***

TOTAL CREDITS: 16-18

PROGRAM TOTAL: 61-66 CREDITS

** Students in the Early Childhood and Special Education programs must adhere to the code of ethics of the National Association for the Education of Young Children and the Council for Exceptional Children, along with the Early Childhood and Special Education Department policies. In order to receive a Special Education Para Educator AAS Degree from Schoolcraft College, students need to receive a grade of 2.0 or higher in SPE 155 and SPE 275.*

Education - Special Needs Para Educator Certificate

Schoolcraft program code #1YC.00032

The Special Needs Para Educator certificate program provides an educational foundation for understanding neuro-typical and neuro-atypical human development. The program emphasizes a strength-based best practices model in preparing students to work with children and adults with special needs.

Students who satisfactorily complete the program requirements qualify for a certificate of program completion.

Prior to the start of field placement hours, interviews at sites where children are present, observations, service-learning experiences or practicums, students must:

- have a clear criminal background check.
- obtain Michigan Central Registry Clearance from the Michigan Department of Human Services
- obtain a current TB test.

Students who are not cleared through a criminal background check and by the Michigan Department of Human Services will not be permitted in the ECE/SPE programs. Some field placement/practicum sites may have additional requirements prior to starting an experience/practicum. Students are expected to follow the ECE/SPE program policies, abide by the National Association for the Education of Young Children Code of Ethical Conduct, follow field placement policies and conduct themselves appropriately in the presence of children, families, and professionals during field placements/practicums. In order to receive a Special Education Para Educator Certificate from Schoolcraft College, students need to obtain a grade of 2.0 or higher in SPE 155.

Not all courses are offered each semester. Students should work with an academic advisor to develop a plan of study that works for them. Students planning to transfer are advised to check the transfer institution's requirements/guides and discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **ECE 110 - Child Development** ***Credits: 3***
- **SPE 100 - Children with Special Needs** ***Credits: 3***
- **SPE 105 - Introduction to Developmental Disabilities** ***Credits: 3***
- **SPE 115 - Special Educational Programs and Supported Living** ***Credits: 3***
- **SPE 125 - Learning Disabilities** ***Credits: 3***

TOTAL CREDITS: 15

Winter Semester

- **SPE 135 - Emotional Impairment** ***Credits: 3***
- **SPE 155 - Special Education Practical Experiences 1** ***Credits: 3 ****
- **SPE 210 - Methods and Curricula for Persons with Developmental Disabilities** ***Credits: 3***
- **SPE 220 - Early Childhood Special Education** ***Credits: 3***
- **ECE 230 - Classroom Behavior - Understanding Social Competence** ***Credits: 3***

TOTAL CREDITS: 15

PROGRAM TOTAL: 30 CREDITS

** Students in the Early Childhood and Special Education programs must adhere to the code of ethics of the National Association for the Education of Young Children and the Council for Exceptional Children along with the Early Childhood and Special Education Department policies. In order to receive a Special Education Para Educator Certificate from Schoolcraft College, students need to obtain a grade of 2.0 or higher in SPE 155.*

Schoolcraft College®

2024-2025 Credential Year

Electronic Technology

Schoolcraft provides students interested in electronics a variety of educational options to increase their opportunities to become electronics repair professional or an electronics engineering technician.

- The electronic technology skills certificate is designed for students who want to gain the basic skills needed for entry-level jobs in electronics.
- With an electronic technology certificate, students will have a solid foundation for positions such as an electronic repairer that requires a thorough understanding of electronic fundamentals. The certificate is also required to apply for entrance into Schoolcraft's biomedical engineering technology associate degree program.
- The associate of applied science in electronic technology gives students a strong background in electronics and the fundamentals of electricity, opening up positions as an electronics engineering technician where they will be able to work with engineers to design and test computers, electronic devices, appliances, and medical and industrial equipment. Students gain additional knowledge of micro-controllers, programmable logic controllers and digital and analog circuits in Schoolcraft's labs, while lectures focus on taking measurements and reporting findings in a clear, concise manner.

Credentials

- Electronic Technology AAS Degree
- Electronic Technology Certificate
- Electronic Technology Skills Certificate

Electronic Technology AAS Degree

Schoolcraft program code # AAS.00120

This electronics program is designed to give students a strong background in the fundamentals of electricity, electronic devices, and basic circuits (digital and linear). The curriculum includes laboratory demonstration of the principles taught in class affording practical experience in fabrication, instrumentation, and presentation.

The program is not directly aimed at specific products. With the multiplicity of equipment presently in use and the rapid advance and change in technology, the department stresses the development of a broad background that will enable students to find employment and be able to further their skills in a diversified number of industries.

Students who satisfactorily complete all college and program requirements qualify for an associate of applied science degree.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **ELECT 131 - Basic Measurement and Reporting Skills** ***Credits: 3***
- **ELECT 137 - DC Circuits and Mathematical Modeling** ***Credits: 5***
- **MATH 102 - Technical Mathematics** ***Credits: 4***
- Natural Science - Select one:
  - **BIOL 105 - Basic Human Anatomy and Physiology** ***Credits: 4***
  - **CHEM 111 - General Chemistry 1** ***Credits: 4***
  - **PHYS 123 - Applied Physics** ***Credits: 5***

TOTAL CREDITS: 16-17

Winter Semester

- **ELECT 138 - AC Circuits and Mathematical Modeling** ***Credits: 5***
- **ELECT 139 - Diodes and Transistors** ***Credits: 3***
- **ELECT 180 - LabVIEW Programming CORE 1 and 2** ***Credits: 5***

TOTAL CREDITS: 13

Spring/Summer Session

- **ELECT 215 - Operational Amplifiers and Linear Integrated Circuits** ***Credits: 4***
- **ELECT 219 - Digital Logic Circuits** ***Credits: 4***

TOTAL CREDITS: 8

SECOND YEAR

Fall Semester

- **ELECT 144 - Introduction to Microcontrollers** ***Credits: 3***
- **ELECT 218 - AC/DC Motors** ***Credits: 3***
- **ENG 101 - English Composition 1** ***Credits: 3***
- Social Science - Select General Education Social Science course.
  - Recommended: **PSYCH 153 - Human Relations** ***Credits: 3***

TOTAL CREDITS: 12-13

Electronic Technology AAS Degree (continued)

Winter Semester

- **ELECT 251 - Programmable Logic and Industrial Controls** ***Credits: 4***
- Elective - Select from list ***Credits: 3-4***
- Humanities - Select General Education Humanities course.
    - Recommended: **COMA 103 - Fundamentals of Speech** ***Credits: 3***
- English - Select one:
    - **ENG 102 - English Composition 2** ***Credits: 3***
    - **ENG 116 - Technical Writing** ***Credits: 3***

TOTAL CREDITS: 11-15

PROGRAM TOTAL: 60-66 CREDITS

ELECTIVES

- **CIS 115 - Introduction to Computer Based Systems** ***Credits: 3***
- **CIS 171 - Introduction to Networking** ***Credits: 3***
- **CNT 130 - Computer Hardware and Troubleshooting** ***Credits: 3***
- **ELECT 133 - Introduction to Battery Technology** ***Credits: 3***
- **ELECT 145 - Fluid Power** ***Credits: 4***
- **ELECT 228 - Electronic Troubleshooting** ***Credits: 3***
- **ELECT 252 - Programmable Logic System Design** ***Credits: 4***
- **MET 103 - Introduction to Materials Science** ***Credits: 3***
- **ROBAT 101 - Robot Tool Handling Operations and Programming** ***Credits: 3***

Electronic Technology Certificate

Schoolcraft program code # 1YC.00125

The certificate for electronics provides the student with a solid foundation for many jobs that require a thorough understanding of electronic fundamentals. Completion of the certificate program also offers the student the opportunity to pursue advanced technical credentials in healthcare, in manufacturing, or in computer systems.

Students who satisfactorily complete the program requirements qualify for a certificate of program completion.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **ELECT 131 - Basic Measurement and Reporting Skills** ***Credits: 3***
- **ELECT 137 - DC Circuits and Mathematical Modeling** ***Credits: 5***
- Natural Science - Select one:
  - **BIOL 105 - Basic Human Anatomy and Physiology** ***Credits: 4 ****
  - **CHEM 111 - General Chemistry 1** ***Credits: 4***
  - **PHYS 123 - Applied Physics** ***Credits: 5***

TOTAL CREDITS: 12-13

Winter Semester

- **ELECT 138 - AC Circuits and Mathematical Modeling** ***Credits: 5***
- **ELECT 139 - Diodes and Transistors** ***Credits: 3***
- **ELECT 180 - LabVIEW Programming CORE 1 and 2** ***Credits: 5***

TOTAL CREDITS: 13

Spring/Summer Session

- **ELECT 215 - Operational Amplifiers and Linear Integrated Circuits** ***Credits: 4***
- **ELECT 219 - Digital Logic Circuits** ***Credits: 4***

TOTAL CREDITS: 8

PROGRAM TOTAL: 33-34 CREDITS

*BIOL 105 is required for the BMET program internship sequence.

Electronic Technology Skills Certificate

Schoolcraft program code # CRT.00320

The electronic technology certificate is intended for students wishing to gain the basic skills needed for entry-level jobs in electronics. Completion of the skills certificate permits the student to take electrical measurements, understand DC and AC signals, and apply solid-state troubleshooting techniques used in modern jobs involving electronics.

Students who satisfactorily complete the program requirements qualify for a certificate of program completion. All program required courses must have been completed with a grade of 2.0 or better.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **ELECT 131 - Basic Measurement and Reporting Skills** ***Credits: 3***
- **ELECT 137 - DC Circuits and Mathematical Modeling** ***Credits: 5***

TOTAL CREDITS: 8

Winter Semester

- **ELECT 138 - AC Circuits and Mathematical Modeling** ***Credits: 5***
- **ELECT 139 - Diodes and Transistors** ***Credits: 3***

TOTAL CREDITS: 8

PROGRAM TOTAL: 16 CREDITS

Schoolcraft College®

2024-2025 Credential Year

Emergency Medical Technology

Emergency Medical Technicians and Paramedics are on the front-line of emergency medical care, and Schoolcraft can help students prepare for a career in this fast-paced profession by earning either a certificate or an associate of applied science degree.

The Emergency Medical Technician skills certificate prepares students for employment as a pre-hospital Emergency Medical Technician, while the Paramedic certificate and associate of applied science degree enables students to qualify for positions as an advanced emergency provider. The rigorous programs include a combination of lecture, laboratory, and clinical and field internship experience to give students a solid foundation in the field of emergency medical services. Every course is approved by the Michigan Department of Health & Human Services Bureau of EMS, Trauma, & Preparedness, EMS Section.

Students successfully completing the program requirements will be eligible to take the National Registry of EMT written and practical exams. Those who successfully pass the credentialing exams will be eligible to apply for state licensure.

Credits earned in the certificate programs may count toward a Schoolcraft AAS degree and transfer toward a bachelor's degree at a four-year college or university.

Credentials

- Emergency Medical Technology - Paramedic AAS Degree
- Emergency Medical Technology - Paramedic Certificate
- Emergency Medical Technology Skills Certificate

Selective Admissions: Program Application Information

- Emergency Medical Technician: Paramedic Program Application Information

Emergency Medical Technology - Paramedic AAS Degree

Schoolcraft program code #AAS.0P250/AAS.00250

The Emergency Medical Technology Paramedic degree program prepares competent entry-level Paramedics in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains with or without exit points at the Advanced Emergency Medical Technician and/or Emergency Medical Technician and/or Emergency Medical Responder levels. A combination of lecture, laboratory, clinical, and field experience will be utilized to fulfill all training requirements.

All courses are approved by the Michigan Department of Health & Human Services Bureau of EMS, Trauma, & Preparedness, EMS Section. Students successfully completing the program requirements will be eligible to take the National Registry of EMT Paramedic written and practical exams. Those who successfully pass the credentialing exams will be eligible to apply for state licensure. Students will be evaluated in the following core competency areas: didactic, practical, clinical, and field internship performance. Practical skills are graded on a pass/fail basis, and students will be required to pass all skills examinations to successfully complete the program. All clinical and field internship rotations will be graded on attendance, attitude, and skills performance which will be evaluated by field mentors, clinical coordinator, and/or the course instructor. All students will be required to hold liability insurance which is valid for one year. Students are admitted twice a year into the paramedic program, once in the fall and again in the winter semesters. All emergency medical technology courses must be taken in sequence. Students who satisfactorily complete all college and program requirements qualify for an associate of applied science degree.

Currently licensed EMTs and Paramedics may be eligible for prior learning credit. Please contact an advisor for more information.

The Paramedic portion of this program requires students to complete a specific list of requirements before being officially admitted into the program. Students are listed in a pre-program code while the application requirements are being met. The full program start date and implementation of the program code may be dependent on space availability. Requirements are listed online at https://www.schoolcraft.edu/admissions/apply-to-sc/students-with-selective-admissions/ ***or the*** Emergency Medical Technician: Paramedic Program Application Information ***catalog page. Contact the Admissions and Welcome Center at 734-462-4426 or*** admissions@schoolcraft.edu ***to complete an application.***

For more certification information, please contact:

Michigan Department of Health & Human Services Bureau of EMS Trauma, & Preparedness, EMS Section
Capitol View Building, 6th Floor
201 Townsend Street
Lansing, Michigan 48913
(517) 335-1825
goddet@michigan.gov
www.michigan.gov/ems

The Schoolcraft College Paramedic Program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP).

Commission on Accreditation of Allied Health Education Programs
25400 US Highway 19 N., Suite 158
Clearwater, FL 33763
(727) 210-2350
www.caahep.org

To contact CoAEMSP:
8301 Lakeview Parkway, Suite 111-312
Rowlett, TX 75088
(214) 703-8445 - FAX (214) 703-8992
www.coaemsp.org

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Emergency Medical Technology – Paramedic AAS Degree (continued)

Fall Semester

- **BIOL 101 - General Biology** ***Credits: 4***
- **EMT 115 - Emergency Medical Technology - Basic** ***Credits: 10***

TOTAL CREDITS: 14

Winter Semester

- **BIOL 236 - Human Anatomy and Physiology** ***Credits: 5***
- **HIT 100 - Introduction to Medical Terminology** ***Credits: 2***
- English Communication - Credits: 3 - Select first General Education English Communication course.
- Recommended: **ENG 101 - English Composition 1** ***Credits: 3***

TOTAL CREDITS: 10

Spring Session

- Mathematics - Credits: 3-5 - Select General Education Mathematics course.
  - Recommended: **MATH 111 - Applications - Utility of Math** ***Credits: 4***
- Social Science - Credits: 3-4 - Select General Education Social Science course.
  - Recommended: **PSYCH 153 - Human Relations** ***Credits: 3***

TOTAL CREDITS: 6-9

Summer Session

- Humanities - Select General Education Humanities Course ***Credits: 1-4***
- English Communication - Credits: 3 - Select second General Education English Communication course.
  - Recommended: **COMA 103 - Fundamentals of Speech** ***Credits: 3***

TOTAL CREDITS: 4-7

SECOND YEAR

Fall Semester

- **EMT 210 - Paramedic Technology - Module 1** ***Credits: 10***

TOTAL CREDITS: 10

Winter Semester

- **EMT 220 - Paramedic Technology - Module 2** ***Credits: 10.5***

TOTAL CREDITS: 10.5

Spring Session

- **EMT 230 - Paramedic Technology - Module 3** ***Credits: 9***

TOTAL CREDITS: 9

THIRD YEAR

Fall Semester

- **EMT 290 - Paramedic Field Internship** ***Credits: 2***

TOTAL CREDITS: 2

PROGRAM TOTAL: 65.5-71.5 CREDITS

Emergency Medical Technology – Paramedic AAS Degree (continued)

PROGRAMS REQUIRING LICENSURE

Federal regulations require Schoolcraft College to publicly disclose, for each educational program designed to meet the educational requirements for a specific professional license or certification required for employment in an occupation (or advertised as meeting a requirement for employment), information about whether program completion would meet those requirements in a state. These public disclosure requirements apply to all programs, regardless of their modality (i.e., on-ground, online, and hybrid programs).

Please see the disclosure related to the educational requirements for professional licensure and certification.

Emergency Medical Technology - Paramedic Certificate

Schoolcraft program code # 1YC.0P024/1YC.00024

The Emergency Medical Technology Paramedic Certificate program prepares competent entry-level Paramedics in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains with or without exit points at the Advanced Emergency Medical Technician and/or Emergency Medical Technician and/or Emergency Medical Responder levels. A combination of lecture, laboratory, and clinical and field experience will be utilized to fulfill all training requirements.

All courses are approved by the Michigan Department of Health & Human Services Bureau of EMS, Trauma, & Preparedness, EMS Section. Students completing the program requirements will be eligible to take the National Registry of EMT Paramedic written and practical exams. Those who successfully pass the credentialing exams will be eligible to apply for state licensure.

Students will be evaluated in the following core competency areas: didactic, practical, clinical, and field internship performance. Practical skills are graded on a pass/fail basis, and students will be required to pass all skills examinations to complete the program. All clinical and field internship rotations will be graded on attendance, attitude, and skills performance which will be evaluated by field mentors, clinical coordinator, and/or the course instructor. All students will be required to hold liability insurance which is valid for one year.

The special nature of the emergency medical technology coursework precludes concurrent enrollment in the courses for this certificate, thus necessitating additional time to complete the requirements for this certificate. Historically, individuals who take all four courses have done so over a two-year period.

The paramedic certificate program requires the EMT skills certificate for entry. Currently licensed EMTs may be eligible for prior learning credit. Please contact an advisor for more information.

This program requires students to complete a specific list of requirements before being officially admitted into the program. Students are listed in a pre-program code while the application requirements are being met. The full program start date and implementation of the program code may be dependent on space availability. Requirements are listed online at https://www.schoolcraft.edu/admissions/apply-to-sc/students-with-selective-admissions/ ***or the*** Emergency Medical Technician: Paramedic Program Application Information ***catalog page. Contact the Admissions and Welcome Center at 734-462-4426 or admissions@schoolcraft.edu to complete an application.***

For more certification information, please contact:
Michigan Department of Health and Human Services Bureau of EMS Trauma, and Preparedness, EMS Section
Capital View Building, 6th Floor
201 Townsend Street
Lansing, Michigan 48913
(517) 335-1825
godet@michigan.gov
www.michigan.gov/ems

The Schoolcraft College Paramedic Program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP).

Commission on Accreditation of Allied Health Education Programs
25400 US Highway 19 N., Suite 158
Clearwater, FL 33763
(727) 210-2350
www.caahep.org

To contact CoAEMSP:
8301 Lakeview Parkway, Suite 111-312
Rowlett, TX 75088
(214) 703-8445 - FAX (214) 703-8992
www.coaemsp.org

Emergency Medical Technology - Paramedic Certificate (continued)

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **EMT 210 - Paramedic Technology - Module 1** ***Credits: 10***

TOTAL CREDITS: 10

Winter Semester

- **EMT 220 - Paramedic Technology - Module 2** ***Credits: 10.5***

TOTAL CREDITS: 10.5

Spring Session

- **EMT 230 - Paramedic Technology - Module 3** ***Credits: 9***

TOTAL CREDITS: 9

SECOND YEAR

Fall Semester

- **EMT 290 - Paramedic Field Internship** ***Credits: 2***

TOTAL CREDITS: 2

PROGRAM TOTAL: 31.5 CREDITS

PROGRAMS REQUIRING LICENSURE

Federal regulations require Schoolcraft College to publicly disclose, for each educational program designed to meet the educational requirements for a specific professional license or certification required for employment in an occupation (or advertised as meeting a requirement for employment), information about whether program completion would meet those requirements in a state. These public disclosure requirements apply to all programs, regardless of their modality (i.e., on-ground, online, and hybrid programs).

Please see the disclosure related to the educational requirements for professional licensure and certification.

Emergency Medical Technology Skills Certificate

Schoolcraft program code #CRT.00324

The emergency medical technology skills certificate prepares students for employment as pre-hospital emergency medical providers. A combination of lecture, laboratory, and clinical and field experience will be utilized to fulfill all training requirements.

All courses are approved by the Michigan Department of Health & Human Services Bureau of EMS, Trauma, & Preparedness, EMS Section. Students successfully completing the program requirements will be eligible to take the National Registry of EMT Paramedic written and practical exams. Those who successfully pass the credentialing exams will be eligible to apply for state licensure.

Students will be evaluated in the following core competency areas: didactic, practical, clinical, and field internship performance. Practical skills are graded on a pass/fail basis, and students will be required to pass all skills examinations to successfully complete the program. All clinical and field internship rotations will be graded on attendance, attitude and skills performance which will be evaluated by field mentors, clinical coordinator and/or the course instructor. All students will be required to hold liability insurance which is valid for one year.

The EMT skills certificate provides students with basic knowledge and applicable skills for a career in the field of emergency medical service. This skill certificate is required for entry into the paramedic certificate program. Currently licensed EMTs may be eligible for prior learning credit. Please contact an advisor for more information.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **EMT 115 - Emergency Medical Technology - Basic** ***Credits: 10***
- **BIOL 101 - General Biology** ***Credits: 4***

TOTAL CREDITS: 14

Winter Semester

- **BIOL 236 - Human Anatomy and Physiology** ***Credits: 5***

TOTAL CREDITS: 5

PROGRAM TOTAL: 19 CREDITS

PROGRAMS REQUIRING LICENSURE

Federal regulations require Schoolcraft College to publicly disclose, for each educational program designed to meet the educational requirements for a specific professional license or certification required for employment in an occupation (or advertised as meeting a requirement for employment), information about whether program completion would meet those requirements in a state. These public disclosure requirements apply to all programs, regardless of their modality (i.e., on-ground, online, and hybrid programs).

Please see the disclosure related to the educational requirements for professional licensure and certification.

Schoolcraft College®

2024-2025 Credential Year

Emergency Medical Technician: Paramedic Program Application Information

Paramedics are on the front line of emergency medical care, and Schoolcraft can help students prepare for a career in this fast-paced profession by earning either a certificate (Emergency Medical Technology - Paramedic Certificate) or an Associate of Applied Science degree (Emergency Medical Technology - Paramedic AAS Degree.)

- Paramedic courses are offered at the Livonia Campus within our Health Science building.
- The paramedic certificate prepares students for employment as a pre-hospital emergency medical provider, while the associate in science degree enables students to qualify for a job as an emergency provider. The rigorous programs include a combination of lecture, laboratory, clinical, and internship experience to give students a solid foundation in the field of emergency medical technology. Every course is approved by the Michigan Department of Community Health EMS and Trauma Systems Section.
- Students achieving 80 percent or higher in the required courses will receive a certificate of completion and be eligible to test for state licensure.
- Credits earned in the certificate program will count toward the Paramedic AAS degree and may transfer toward a bachelor's degree at a four-year college or university. Students should work closely with an advisor to ensure the best course transferability.

APPLICATION REQUIREMENTS

The Emergency Medical Technician-Paramedic Program requires students to complete a specific list of requirements before being officially admitted into the program. Students are listed in a pre-program code while the application requirements are being met. The full program start date and implementation of program code may be dependent on space availability. To be admitted to the program the student must complete the following:

1. Apply to Schoolcraft College	Apply to Schoolcraft College on-line at www.schoolcraft.edu/apply.
2. Transcripts	It is recommended you request official undergraduate transcripts from all colleges and universities previously attended. Transcripts must be sent directly from the issuing college or university to Schoolcraft College. To confirm that transcripts have been received, contact the Answer Center at 734-462-4426. The Paramedic Program at Schoolcraft College does not accept nor make advanced placement for EMT 210, EMT 220, EMT 230 and EMT 290.
3. Academic Advising and Assessment	This program requires minimum assessment levels or course work in the areas of math, reading and writing. Students should have placement scores (Computer Placement Test, ACT, or SAT) submitted prior to meeting with an academic advisor. Students with prior college-level work or a degree may be exempt from placement testing. The Computer Placement Test (CPT) is taken in the Testing Center. ACT or SAT scores must be less than three years old. Contact the Academic Advising at 734-462-4429 to make an appointment.
4. BIOL 101	• Complete one semester of BIOL 101 - General Biology with a grade of 2.0/C or better. You may complete an equivalent college course to satisfy this requirement. BIOL 101 is not waived by completing Anatomy and Physiology.
5. BIOL 236 or 237 and 238	• Complete one semester (BIOL 236 or BIOL 237 and BIOL 238) of Human Anatomy and Physiology with a grade of 3.0/B or better. You may complete an equivalent college course to satisfy this requirement.
6. EMT 115	• Complete EMT 115 - Emergency Medical Technology - Basic with a grade of 2.7 or better. You may present a valid State of Michigan EMT-Basic License to satisfy this requirement.
7. Cumulative GPA	Attain a cumulative grade point average of 2.0 or better for all Schoolcraft College courses.
8. Apply to Emergency Medical Technician: Paramedic Program	Meet with an Academic Advisor to complete the EMT Restricted Enrollment Program Application and Restricted Enrollment Program Change Form.

ESTIMATE OF TUITION AND FEES

EMT- Skills Certificate			
2024-2025			
Program Credit Hours - 19			
	Resident	*Non-Resident*	*Out of State*
Tuition:	$2,641.00	$ 3,800.00	$ 5,130.00
Registration Fees: ($44 per semester)	$ 88.00	$ 88.00	$ 88.00
Service Fees: ($9 per credit hour)	$ 171.00	$ 171.00	$ 171.00
Instructional Equipment Fees: ($11 per credit hour)	$ 209.00	$ 209.00	$ 209.00
Infrastructure Fees: ($9 per credit hour)	$ 171.00	$ 171.00	$ 171.00
Course and Learning Management Fees: ($12 per class)	$ 36.00	$ 36.00	$ 36.00
Lab Fees: (varies according to individual class)	$ 252.00	$ 252.00	$ 252.00
Excess Contact Hour Fees: (varies according to individual class)	$1,112.00	$ 1,112.00	$ 1,112.00
Additional Expenses:			
	$ 600.00	$ 600.00	$ 600.00
Total	$5,280.00	$ 6,439.00	$ 7,769.00
The above figures are based on 2024-2025 rates and are subject to change. A Resident student is one whose legal residence is in the school District of Clarenceville, Garden City, Livonia, Northville, Plymouth-Canton or parts of Novi. All other students are Non-Residents.			

EMT-Paramedic Certificate			
2024-2025			
Program Credit Hours – 31.5			
	Resident	*Non-Resident*	*Out of State*
Tuition:	$ 4,378.50	$ 6,300.00	$ 8,505.00
Registration Fees: ($44 per semester)	$ 176.00	$ 176.00	$ 176.00
Service Fees: ($9 per credit hour)	$ 283.50	$ 283.50	$ 283.50
Instructional Equipment Fees: ($11 per credit hour)	$ 346.50	$ 346.50	$ 346.50
Infrastructure Fees: ($9 per credit hour)	$ 283.50	$ 283.50	$ 283.50
Course and Learning Management Fees: ($12 per class)	$ 48.00	$ 48.00	$ 48.00
Lab Fees: (varies according to individual class)	$ 951.00	$ 951.00	$ 951.00
Excess Contact Hour Fees: (varies according to individual class)	$ 1,043.00	$ 1,043.00	$ 1,043.00
Additional Expenses:			
Total	$ 7,510.00	$ 9,431.50	$ 11,636.50
The above figures are based on 2024-2025 rates and are subject to change. A Resident student is one whose legal residence is in the school District of Clarenceville, Garden City, Livonia, Northville, Plymouth-Canton or parts of Novi. All other students are Non-Residents.			

EMT-Paramedic AAS Degree			
2024-2025			
Program Credit Hours – 66.5			
	Resident	*Non-Resident*	*Out of State*
Tuition:	$ 9,243.50	$ 13,300.00	$ 17,955.00
Registration Fees: ($44 per semester)	$ 352.00	$ 352.00	$ 352.00
Service Fees: ($9 per credit hour)	$ 598.50	$ 598.50	$ 598.50
Instructional Equipment Fees: ($11 per credit hour)	$ 731.50	$ 731.50	$ 731.50
Infrastructure Fees: ($9 per credit hour)	$ 598.50	$ 598.50	$ 598.50
Course and Learning Management Fees: ($12 per class)	$ 156.00	$ 156.00	$ 156.00
Lab Fees: (varies according to individual class)	$ 1,203.00	$ 1,203.00	$ 1,203.00
Excess Contact Hour Fees: (varies according to individual class)	$ 2,155.00	$ 2,155.00	$ 2,155.00
Additional Expenses:			

	$ 600.00	$ 600.00	$ 600.00
Total	$ 15,638.00	$ 19,694.50	$ 24,349.50
The above figures are based on 2024-2025 rates and are subject to change. A Resident student is one whose legal residence is in the school District of Clarenceville, Garden City, Livonia, Northville, Plymouth-Canton or parts of Novi. All other students are Non-Residents.			

PLEASE NOTE:

Requirements for admission to the Emergency Medical Technology - Paramedic Program are subject to change at any time.

Ready to get started! Download the Emergency Medical Technology - Paramedic Program Student Checklist to get on track.	**Student Checklist**
Ready to apply? Download the Application Form and schedule a meeting with your Advisor.	**Application Form**

Please contact the Admissions and Welcome Center for updates on any applicable changes:

Phone: (734) 462-4683
Fax: (734) 462-4552
E-mail: admissions@schoolcraft.edu
Web: www.schoolcraft.edu

It is the policy of Schoolcraft College that no person shall, on the basis of race, color, national origin, gender, age, marital status, creed, or handicap, be excluded from participating in, be denied benefits of, or be subject to discrimination during any program or activity or in employment.

QUESTIONS

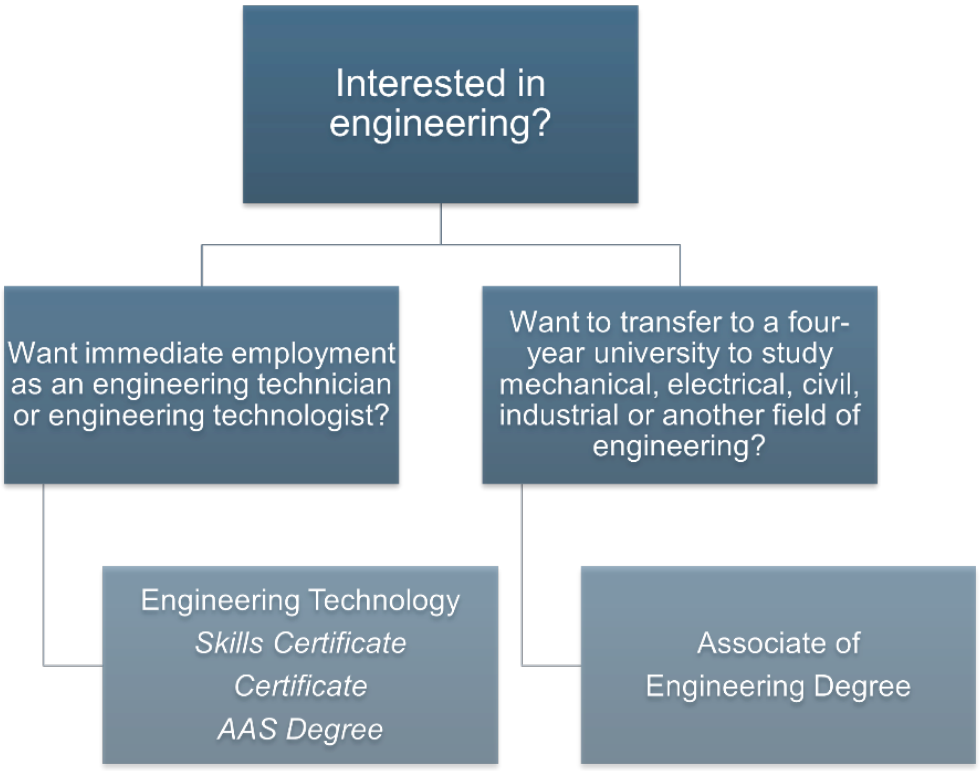
If you have specific program questions, contact:

Thomas Worthington M. Ed, EMTP, EMSIC
Program Director/Faculty
(734) 462-4786 tworthin@schoolcraft.edu

Schoolcraft College®

2024-2025 Credential Year

Engineering Technology



The practice of Engineering is focused on the design, development, testing, and use of machines, technology, and structures. ***Engineers*** apply science and math principles to develop new products, improve systems, and solve technical problems. ***Engineering Technicians or Technologists*** assist engineers in many ways, such as setting up and operating equipment, running tests, and collecting data.

Schoolcraft's Engineering Technology program offers three levels of credentials to prepare students to seek immediate employment as engineering technicians or technologists in a variety of work settings. Students will develop workplace readiness through educational experiences with a real-world focus in the ever-changing fields of engineering, manufacturing, and technology:

- The ***Engineering Technology Skills Certificate*** is designed to provide foundational skills to prepare a student for employment in the manufacturing industry.
- The ***Engineering Technology Certificate*** builds upon the Skills Certificate, enhancing a student's career opportunity as an engineering technician or engineering technologist.
- The ***Engineering Technology AAS*** is designed to enable individuals the opportunity to continually expand and upgrade their applied skills as well as to maintain a thorough mastery of evolving manufacturing technologies.
    - Individuals who have successfully completed the Department of Labor Apprenticeship Certificate in a technical occupation may be able to apply 21-45 credits toward the completion of an Engineering Technology AAS. Contact the Associate Dean of Occupational Programs in Engineering and Technology for further details.

Students seeking to transfer to a four-year institution to pursue a bachelor's degree in engineering can begin their studies with Schoolcraft's two-year Associate of Engineering degree:

- The ***Associate of Engineering degree*** allows the student to establish a strong academic foundation in mathematics and science and complete courses to fulfill general education requirements-all before moving on to a bachelor's degree in engineering program at another college or university.

- Civil, chemical, computer systems, electrical, environmental, industrial, and mechanical engineering are among the most popular bachelor's degrees, although there are more than 25 recognized specialties.
- Schoolcraft's degree can prepare the student for transfer into any engineering specialty.
- The specific courses required will be determined by the destination college or university and/or the student's intended major.
- Students must work with an academic advisor to ensure that their courses transfer.

Credentials

- Associate of Engineering Transfer Degree
- Engineering Technology AAS Degree
- Engineering Technology Certificate
- Engineering Technology Skills Certificate

MiTransfer Pathway

- MiTransfer Pathway - Mechanical Engineering

Associate of Engineering Transfer Degree

Schoolcraft program code # AE.00039

Schoolcraft's Associate of Engineering degree is designed for students who intend to pursue a bachelor's degree in engineering. It allows the student to establish a strong academic foundation in mathematics and science and complete courses to fulfill general education requirements-all before moving on to a bachelor's degree program at another college or university.

- Civil, chemical, computer systems, electrical, environmental, industrial, and mechanical engineering are among the most popular bachelor's degrees, although there are more than 25 recognized specialties.
- Schoolcraft's degree can prepare the student for transfer into any engineering specialty.
- The specific courses required will be determined by the destination college or university and/or the student's intended major.
- Students must work with an academic advisor to ensure that their courses transfer.

All courses must be completed with a minimum overall grade point average of 2.0 or better. Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **MATH 150 - Calculus with Analytic Geometry 1** ***Credits: 5***
- **CHEM 111 - General Chemistry 1** ***Credits: 4***
- English Communication - Select first General Education English Communication course. *
  - Recommended: **ENG 101 - English Composition 1** ***Credits: 3***
- ECON - Select one:
  - **ECON 201 - Principles of Macroeconomics** ***Credits: 4***
  - **ECON 202 - Principles of Microeconomics** ***Credits: 4***

TOTAL CREDITS: 16

Winter Semester

- **MATH 151 - Calculus with Analytic Geometry 2** ***Credits: 5***
- **PHYS 211 - Physics for Scientists and Engineers 1** ***Credits: 5***
- Humanities - Select General Education Humanities Course ***Credits: 3*** *
- English Communication - Select second General Education English Communication course. *

  Recommended:
  - **ENG 102 - English Composition 2** ***Credits: 3***
  - **ENG 116 - Technical Writing** ***Credits: 3***

TOTAL CREDITS: 16

SECOND YEAR

Fall Semester

- **MATH 240 - Calculus with Analytic Geometry 3** ***Credits: 5***
- **PHYS 212 - Physics for Scientists and Engineers 2** ***Credits: 5***
- Social Science - Select General Education Social Science Course ***Credits: 3*** *
- Humanities - Select General Education Humanities Course ***Credits: 1*** *

TOTAL CREDITS: 14

Associate of Engineering Transfer Degree (continued)

Winter Semester

- **MATH 252 - Differential Equations** ***Credits: 5***
- Electives - Credits: 9 - Select liberal arts or occupational courses that satisfy transfer and academic goals and requirements. *

  Recommended:

  - **ENGR 201 - Statics** ***Credits: 3***
  - **ENGR 202 - Mechanics of Materials** ***Credits: 3***
  - **ENGR 203 - Dynamics** ***Credits: 4***

TOTAL CREDITS: 14

PROGRAM TOTAL: 60 CREDITS

*Please check Schoolcraft General Education and transfer institution program requirements to determine course options.

Engineering Technology AAS Degree

Schoolcraft program code # AAS.00273

This AAS Degree is designed to provide the student with knowledge of the practical application of principles, techniques, procedures, and equipment to the design and production of various goods and services. Engineering Technology graduates will be able to assist engineers in designing, developing, using, and maintaining all types of equipment. They will work independently or in teams doing product evaluation and testing, where they adjust, test, and repair equipment. Additionally, Technologists may be involved in the manufacturing, deployment, or servicing of equipment. With 16 elective credit options, the program can be customized to meet a student's or employer's interest. Students who graduate with this degree may consider transferring to another college or university to complete a bachelor's degree in engineering technology.

There are two ways to complete the Engineering Technology AAS Degree:

1. The traditional route of completing all courses.
2. Individuals who have successfully completed the Department of Labor Apprenticeship Certificate may be able to apply 21-45 credits toward the completion of an Engineering Technology AAS. Contact the Associate Dean of Occupational Programs in Engineering and Technology and see below for further details.

All program-required courses must be completed with a grade of 2.0 or better.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **ENGR 100 - Introduction to Engineering and Technology** ***Credits: 3***
- **CIS 120 - Software Applications** ***Credits: 3***
- Mathematics - Select one:
  - **MATH 102 - Technical Mathematics** ***Credits: 4***
  - **MATH 113 - Intermediate Algebra for College Students** ***Credits: 4***
- OSH - Select one:
  - **OSH 111 - Occupational Safety and Health for General Industry** ***Credits: 2***
  - **OSH 112 - Occupational Safety and Health for Construction** ***Credits: 2***

TOTAL CREDITS: 12

Winter Semester

- **CAD 120 - Mechanical Blueprint Reading with Sketching** ***Credits: 3***
- Elective - Select from list ***Credits: 2-4***
- **QM 106 - Introduction to Quality Improvement Tools** ***Credits: 3***
- **MFG 102 - Basic Machining Processes** ***Credits: 3***

TOTAL CREDITS: 11-13

Spring/Summer Session

- English Communication - Credits: 3 - Select first General Education English Communication course.
  Recommended:
  - **ENG 100 - Communication Skills** ***Credits: 3***
  - OR **ENG 101 - English Composition 1** ***Credits: 3***
- Social Science - Credits: 3-4 - Select a General Education Social Science course.
  - Recommended: **PSYCH 153 - Human Relations** ***Credits: 3***

TOTAL CREDITS: 6-7

SECOND YEAR

Engineering Technology AAS Degree (continued)

Fall Semester

- **MFG 103 - Basic Computer Numerical Control (CNC)** ***Credits: 3***
- **MET 103 - Introduction to Materials Science** ***Credits: 3***
- Elective - Select from list ***Credits: 3-4***
- English Communication - Credits: 3 - Select second General Education English Communication course.
    - Recommended: **ENG 116 - Technical Writing** ***Credits: 3***
- Humanities - Credits: 1-4 - Select a General Education Humanities course.
    - Recommended: **COMA 103 - Fundamentals of Speech** ***Credits: 3***

TOTAL CREDITS: 14-18

Winter Semester

- **WELD 110 - Introduction to Welding Basics for Fabrication** ***Credits: 3***
- Natural Science - Select a General Education Science Course ***Credits: 3-5***
- Elective - Select from list so that AAS program total credits 60 credit minimum or higher ***Credits: 2-11***

TOTAL CREDITS: 16-18

PROGRAM TOTAL: 60 CREDITS

ELECTIVES

- **BUS 116 - Project Management** ***Credits: 3***
- **CAD 130 - Geometric Dimensioning and Tolerance** ***Credits: 3***
- **CAD 210 - CATIA - 3D and 2D Applications** ***Credits: 4***
- **CAD 220 - SolidWorks - 3D and 2D Applications** ***Credits: 4***
- **CAD 230 - NX - 3D and 2D Applications** ***Credits: 4***
- **ELECT 131 - Basic Measurement and Reporting Skills** ***Credits: 3***
- **ELECT 137 - DC Circuits and Mathematical Modeling** ***Credits: 5***
- **ELECT 138 - AC Circuits and Mathematical Modeling** ***Credits: 5***
- **ELECT 139 - Diodes and Transistors** ***Credits: 3***
- **ELECT 144 - Introduction to Microcontrollers** ***Credits: 3***
- **ELECT 219 - Digital Logic Circuits** ***Credits: 4***
- **MFG 103 - Basic Computer Numerical Control (CNC)** ***Credits: 3***
- **MFG 202 - Advanced Machining Processes** ***Credits: 3***
- **MFG 212 - Coordinate Measuring Machine** ***Credits: 2***
- **MFG 291 - Manufacturing Internship** ***Credits: 3***
- **QM 106 - Introduction to Quality Improvement Tools** ***Credits: 3*** *
- **QM 107 - Quality Planning and Team Building** ***Credits: 3*** *
- **ROBAT 101 - Robot Tool Handling Operations and Programming** ***Credits: 3***
- **WELD 113 - Shielded Metal Arc Welding (S.M.A.W.)** ***Credits: 3***
- **WELD 115 - Gas Metal Arc Welding (G.M.A.W./M.I.G.)** ***Credits: 3***
- **WELD 119 - Gas Tungsten Inert Arc Welding (G.T.A.W./ T.I.G.)** ***Credits: 3***

**QM 106 and QM 107 may not be counted as both a program-supportive and an elective course.*

Engineering Technology AAS Degree - with Department of Labor Apprenticeship Certificate

This AAS Degree is designed to allow students who possess a Department of Labor Apprenticeship Certificate to apply a minimum of 21 credits of their prior learning experiences toward the credits needed for the Engineering Technology AAS degree. Additional credits, based on professional experience and other courses completed, may be applied on a case-by-case basis, not to exceed 45 credits total. Contact the Associate Dean of Occupational Programs in Engineering and Technology for further details.

DEPARTMENT OF LABOR APPRENTICESHIP CERTIFICATE

The following courses will be accepted as completed based on completion of the Department of Labor Apprenticeship Certificate (21 credits):

- All Electives ***Credits: 16***
- **ENGR 100 - Introduction to Engineering and Technology** ***Credits: 3***
- **OSH 111 - Occupational Safety and Health for General Industry** ***Credits: 2***
- ***OR*** **OSH 112 - Occupational Safety and Health for Construction** ***Credits: 2***

Total Credits: 21

TECHNICAL COURSES

Remaining program required technical courses (26 credits):

- **CAD 120 - Mechanical Blueprint Reading with Sketching** ***Credits: 3***
- **CIS 120 - Software Applications** ***Credits: 3***
- **MATH 102 - Technical Mathematics** ***Credits: 4***
- ***OR*** **MATH 113 - Intermediate Algebra for College Students** ***Credits: 4***
- **MET 103 - Introduction to Materials Science** ***Credits: 3***
- **MFG 102 - Basic Machining Processes** ***Credits: 3***
- **MFG 105 - Manufacturing Processes** ***Credits: 4***
- **QM 106 - Introduction to Quality Improvement Tools** ***Credits: 3***
- **WELD 110 - Introduction to Welding Basics for Fabrication** ***Credits: 3***

Total Credits: 26

GENERAL EDUCATION COURSES

Remaining program required general education courses (minimum 13 credits):

English Communication - Credits:6

Recommended:

- **ENG 100 - Communication Skills** ***Credits: 3***
- **ENG 116 - Technical Writing** ***Credits: 3***

Social Science - Credits:3-4

- Recommended: **PSYCH 153 - Human Relations** ***Credits: 3***

Humanities - Credits: 1-4

- Recommended: **COMA 103 - Fundamentals of Speech** ***Credits: 3***

Science - Credits: 3-5

- Select General Education Natural Science Course ***Credits: 3-5***

Total Credits: Minimum 13

Engineering Technology Certificate

Schoolcraft program code # 1YC.00272

This Certificate is designed to provide introductory educational experiences for those students seeking to start or enhance their career as an engineering technician or engineering technologist. This Certificate provides technical skill and knowledge enhancement in addition to building essential job-related communication skills. All courses apply directly to programs leading to associate degrees for students seeking to further their education beyond this program.

Students who satisfactorily complete the program requirements qualify for a certificate of completion. All program required courses must be completed with a grade of 2.0 or better.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **ENGR 100 - Introduction to Engineering and Technology** ***Credits: 3***
- **CIS 120 - Software Applications** ***Credits: 3***
- Mathematics - Select one:
  - **MATH 102 - Technical Mathematics** ***Credits: 4***
  - **MATH 113 - Intermediate Algebra for College Students** ***Credits: 4***
- OSH - Select one:
  - **OSH 111 - Occupational Safety and Health for General Industry** ***Credits: 2***
  - **OSH 112 - Occupational Safety and Health for Construction** ***Credits: 2***

TOTAL CREDITS: 12

Winter Semester

- **CAD 120 - Mechanical Blueprint Reading with Sketching** ***Credits: 3***
- Elective - Select from list ***Credits: 3-4*** *
- **MFG 102 - Basic Machining Processes** ***Credits: 3***
- QM - Select one:
  - **QM 106 - Introduction to Quality Improvement Tools** ***Credits: 3***
  - **QM 107 - Quality Planning and Team Building** ***Credits: 3***

TOTAL CREDITS: 12-13

Spring/Summer Session

- English Communication - Credits: 3 - Select a General Education English Communication course.
  - Recommended: **ENG 100 - Communication Skills** ***Credits: 3***
- Social Science - Credits: 3-4 - Select a General Education Social Science course.
  - Recommended: **PSYCH 153 - Human Relations** ***Credits: 3***

TOTAL CREDITS: 6-7

PROGRAM TOTAL: 30-32 CREDITS

**Students planning to continue studies in pursuit of a certificate or associate degree are encouraged to select a course which can be applied to a future program of study. Discuss options with an academic advisor.*

ELECTIVES

- **BUS 116 - Project Management** ***Credits: 3***
- **CAD 130 - Geometric Dimensioning and Tolerance** ***Credits: 3***
- **CAD 210 - CATIA - 3D and 2D Applications** ***Credits: 4***
- **CAD 220 - SolidWorks - 3D and 2D Applications** ***Credits: 4***
- **CAD 230 - NX - 3D and 2D Applications** ***Credits: 4***
- **ELECT 131 - Basic Measurement and Reporting Skills** ***Credits: 3***
- **ELECT 137 - DC Circuits and Mathematical Modeling** ***Credits: 5***
- **ELECT 144 - Introduction to Microcontrollers** ***Credits: 3***

Engineering Technology Certificate (continued)

- **MET 103 - Introduction to Materials Science** ***Credits: 3***
- **MFG 105 - Manufacturing Processes** ***Credits: 4***
- **MFG 202 - Advanced Machining Processes** ***Credits: 3***
- **QM 106 - Introduction to Quality Improvement Tools** ***Credits: 3*** **
- **QM 107 - Quality Planning and Team Building** ***Credits: 3*** **
- **ROBAT 101 - Robot Tool Handling Operations and Programming** ***Credits: 3***
- **WELD 110 - Introduction to Welding Basics for Fabrication** ***Credits: 3***

*** QM 106 and QM 107 may not be counted as both a program supportive and an elective course.*

Engineering Technology Skills Certificate

Schoolcraft program code # CRT.00271

This Skills Certificate is designed to provide foundational first steps for employment as an engineering technician or engineering technologist. These courses apply directly to programs leading to additional credentials, including certificates and associate degrees for students seeking to further their education beyond this program.

Students who satisfactorily complete the program requirements qualify for a certificate of completion. All program-required courses must be completed with a grade of 2.0 or better.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **ENGR 100 - Introduction to Engineering and Technology** ***Credits: 3***
- **CIS 120 - Software Applications** ***Credits: 3***
- Mathematics - Select one:
  - **MATH 102 - Technical Mathematics** ***Credits: 4***
  - **MATH 113 - Intermediate Algebra for College Students** ***Credits: 4***

TOTAL CREDITS: 10

Winter Semester

- **CAD 120 - Mechanical Blueprint Reading with Sketching** ***Credits: 3***
- Elective - Select from list ***Credits: 3-4 ****
- OSH - Select one:
  - **OSH 111 - Occupational Safety and Health for General Industry** ***Credits: 2***
  - **OSH 112 - Occupational Safety and Health for Construction** ***Credits: 2***

TOTAL CREDITS: 8-9

PROGRAM TOTAL: 18-19 CREDITS

**Students planning to continue studies in pursuit of a certificate or associate degree are encouraged to select a course which can be applied to a future program of study. Discuss options with an academic advisor.*

ELECTIVES

- **BUS 116 - Project Management** ***Credits: 3***
- **CAD 210 - CATIA - 3D and 2D Applications** ***Credits: 4***
- **CAD 220 - SolidWorks - 3D and 2D Applications** ***Credits: 4***
- **CAD 230 - NX - 3D and 2D Applications** ***Credits: 4***
- **ELECT 131 - Basic Measurement and Reporting Skills** ***Credits: 3***
- **ELECT 144 - Introduction to Microcontrollers** ***Credits: 3***
- **MET 103 - Introduction to Materials Science** ***Credits: 3***
- **MFG 102 - Basic Machining Processes** ***Credits: 3***
- **MFG 105 - Manufacturing Processes** ***Credits: 4***
- **QM 106 - Introduction to Quality Improvement Tools** ***Credits: 3***
- **QM 107 - Quality Planning and Team Building** ***Credits: 3***
- **ROBAT 101 - Robot Tool Handling Operations and Programming** ***Credits: 3***
- **WELD 110 - Introduction to Welding Basics for Fabrication** ***Credits: 3***

MiTransfer Pathway - Mechanical Engineering

Community colleges and universities in Michigan have simplified the transfer process by developing Transfer Pathways. These pathways build on the Michigan Transfer Agreement (MTA), which makes it easier for students to transfer their general education courses taken at Schoolcraft to participating four-year schools.

MITRANSFER PATHWAY COURSES

The following courses at Schoolcraft College are guaranteed to transfer to mechanical engineering programs of participating institutions.

- **CHEM 111 - General Chemistry 1** ***Credits: 4***
- **ENGR 201 - Statics** ***Credits: 3***
- **ENGR 202 - Mechanics of Materials** ***Credits: 3***
- **ENGR 203 - Dynamics** ***Credits: 4***
- **MATH 150 - Calculus with Analytic Geometry 1** ***Credits: 5***
- **MATH 151 - Calculus with Analytic Geometry 2** ***Credits: 5***
- **MATH 240 - Calculus with Analytic Geometry 3** ***Credits: 5***
- **MATH 252 - Differential Equations** ***Credits: 5*** *
- **PHYS 211 - Physics for Scientists and Engineers 1** ***Credits: 5***
- **PHYS 212 - Physics for Scientists and Engineers 2** ***Credits: 5***

**Minimum 4 credits, linear algebra must be covered (MATH 230)*

SCHOOLCRAFT COLLEGE DEGREE REQUIREMENTS

Students may earn an associate degree at Schoolcraft! By taking the MiTransfer Pathways courses and completing MTA, students need to complete the remaining electives to get to 60 credits to earn the following degrees:

- Associate of Arts (AA) Degree
- Associate of Engineering (AE) Degree
- Associate of General Studies (AGS) Degree
- Associate of Science (AS) Degree

Note that these remaining courses to receive your associate degree may not be accepted for transfer by universities participating in the agreement.

TRANSFER INSTITUTION DEGREE REQUIREMENTS

Learn more about the transfer institution degree requirements by meeting with one of our ***academic advisors*** who can help you understand the transfer guides and agreements.

Andrews University	Michigan Technological University	
Central Michigan University	Northern Michigan University	University of Michigan-Dearborn
Eastern Michigan University	Oakland University	University of Michigan-Flint
Ferris State University	Saginaw Valley State University	Wayne State University
Kettering University	Spring Arbor University	Western Michigan University
Lawrence Technological University	University of Detroit Mercy	

Schoolcraft College®

2024-2025 Credential Year

English

An education in English can help students pursue a career as an author, editor, technical writer, or screenwriter. It also offers a strong foundation for careers in advertising, education, public relations, and law, to name a few. Schoolcraft's courses cover everything from grammar, essay and research writing, and creative writing skills to more professional disciplines like journalism or technical writing. There are also courses that delve into great literary works through the ages. Students can gain additional knowledge and experience by applying for a position with the student newspaper, the Schoolcraft Connection, or by submitting articles to The MacGuffin, a peer-reviewed literary journal.

Courses

- ENG 050 - Modern English Grammar
- ENG 055 - Building Writing Skills
- ENG 099 - English Composition 1 Support
- ENG 100 - Communication Skills
- ENG 101 - English Composition 1
- ENG 102 - English Composition 2
- ENG 106 - Business English
- ENG 107 - Introduction to Journalism
- ENG 116 - Technical Writing
- ENG 120 - Introduction to Literary Studies
- ENG 170 - Modern Literature by and About Women
- ENG 200 - Introduction to Film
- ENG 203 - Children’s Literature
- ENG 205 - Creative Writing 1
- ENG 206 - Creative Writing 2
- ENG 221 - Advanced Composition
- ENG 243 - Introduction to Literature - Short Fiction
- ENG 244 - Introduction to Literature - Poetry
- ENG 245 - Introduction to Literature - Drama
- ENG 246 - Introduction to Literature - Novel
- ENG 248 - Introduction to Literature - Shakespeare
- ENG 251 - American Literature from Colonial Times to the Civil War
- ENG 252 - American Literature from the Late Nineteenth Century to the Present
- ENG 275 - World Literature - Casebook Studies of Universal Themes
- ENG 280 - The Nature of Language

Schoolcraft College®

2024-2025 Credential Year

English as a Second Language

At Schoolcraft, we believe that everyone should have the opportunity to pursue their educational goals. For many individuals, building a strong foundation in the English language is the first step.

In our English as a Second Language courses, you will develop strong communication, speaking, listening, reading, and writing skills in the English language. All of the English as a Second Language courses require a placement test prior to registration. This program does not result in a credential but rather prepares students to be college-ready and to build academic success. Schoolcraft's ESL program is a SEVP-recognized and approved English Language Learning/Bridge Program for F-1 students.

Credentials

- English as a Second Language (ESL)

Courses

- ESL 060 - Reading and Vocabulary 1
- ESL 064 - Listening and Speaking 1
- ESL 067 - Grammar and Writing 1
- ESL 070 - Reading and Vocabulary 2
- ESL 074 - Listening and Speaking 2
- ESL 077 - Grammar and Writing 2
- ESL 078 - English for Business Purposes
- ESL 079 - American English Pronunciation
- ESL 080 - Reading and Vocabulary 3
- ESL 084 - Listening and Speaking 3
- ESL 087 - Grammar and Writing 3
- ESL 110 - Reading and Vocabulary 4
- ESL 114 - Listening and Speaking 4
- ESL 117 - Grammar and Writing 4
- ESL 130 - Capstone Course

English as a Second Language (ESL)

Schoolcraft program code: Aligned with the student's major program of study

The courses in the English as a Second Language (ESL) program prepare students for study in American college settings and also teach the international student about American culture and the English language for daily living and communication with native speakers. The instruction includes:

- English and vocabulary development
- Academic writing activities: forms, letters, compositions, summaries, essay exams, and research papers
- Speaking activities: discussions, oral reports, and formal speeches
- Listening skills: lectures, video, and audio tapes
- Reading and grammar for college level academic purposes
- Test preparation and note taking skills.
- Computer-assisted instruction

Instruction is highly individualized to meet individual learner goals. Classes incorporate learning in the language labs, using computer-assisted instruction and other interactive instructional materials. Instructors work with students individually and in small groups to maximize the rate of student progress. In advanced levels of the program, students will complement the ESL courses with appropriate academic college coursework. The English as a Second Language program consists of four levels, focusing on specific content areas, followed by a capstone class designed to prepare students for success in college classes.

Students are initially placed into the appropriate level, based on their ESL Accuplacer Exam scores. Therefore, not all classes may be required. In addition to the required coursework within the program, students may choose to take an elective course to enhance and extend their learning of the English language. Students interested in selecting an elective course will be expected to meet all pre-requisites.

NOTE: Courses must be at a 100-level or higher to be used toward completion of any academic credential or program. Students are required to have a final course grade of 70% (2.0) in order to successfully complete each course and advance to the next level.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **ESL 060 - Reading and Vocabulary 1** ***Credits: 4***
- **ESL 064 - Listening and Speaking 1** ***Credits: 4***
- **ESL 067 - Grammar and Writing 1** ***Credits: 4***

TOTAL CREDITS: 12

Winter Semester

- **ESL 070 - Reading and Vocabulary 2** ***Credits: 4***
- **ESL 074 - Listening and Speaking 2** ***Credits: 4***
- **ESL 077 - Grammar and Writing 2** ***Credits: 4***

TOTAL CREDITS: 12

SECOND YEAR

Fall Semester

- **ESL 080 - Reading and Vocabulary 3** ***Credits: 4***
- **ESL 084 - Listening and Speaking 3** ***Credits: 4***
- **ESL 087 - Grammar and Writing 3** ***Credits: 4***
- Elective - Select one (optional)
    - **ESL 078 - English for Business Purposes** ***Credits: 3***
    - **ESL 079 - American English Pronunciation** ***Credits: 3***

TOTAL CREDITS: 12-15

English as a Second Language (ESL) (continued)

Winter Semester

- **ESL 110 - Reading and Vocabulary 4** ***Credits: 4***
- **ESL 114 - Listening and Speaking 4** ***Credits: 4***
- **ESL 117 - Grammar and Writing 4** ***Credits: 4***
- Elective - Select one (optional)
    - **ESL 078 - English for Business Purposes** ***Credits: 3***
    - **ESL 079 - American English Pronunciation** ***Credits: 3***

TOTAL CREDITS: 12-15

THIRD YEAR

Fall Semester

- **ESL 130 - Capstone Course** ***Credits: 4***
- Electives - Selected entry level courses (optional) ***Credits: 8***

TOTAL CREDITS: 4-12

PROGRAM TOTAL: 52-66 CREDITS

2024-2025 Credential Year

Finance

Financial Management involves planning, organizing, directing, and controlling the financial activities of an enterprise. Financial managers are responsible for the financial health of an organization. They produce financial reports, direct investment activities, and develop strategies and plans for the long-term financial goals of their organization. The Financial Management course is one of the course offerings in the Business Career and Learning Pathway and explores the role of financial management in business ownership. Areas of focus include:

- Business performance through financial analysis
- Tax considerations of business ownership
- Business risk analysis
- Financial markets
- Financial planning and forecasting
- Debt and equity financing
- Project and investment evaluation and decision making

Courses

- FIN 420 - Financial Management

2024-2025 Credential Year

Fire Technology

Today's fire fighter has a wide range of responsibilities, from fighting fires and rescuing victims, to salvaging building contents, providing medical services, and having an awareness of leaderships role in tactics and strategies as well as fire service administration. Schoolcraft offers three educational options to help students become part of this field.

Our certificate program provides career training for entry-level fire fighters. It is designed for students who are currently entry level, volunteer or paid-on-call employees of a recognized Michigan fire department or are currently seeking employment as such. The program works in cooperation with the Michigan Fire Fighters Training Council and can prepare you to take the state exam for certification as an entry-level fire fighter.

The Fire Fighter Technology associate of applied science degree combines lectures and hands-on activities that prepare the student to respond in a variety of emergencies. Our Fire Fighter Technology degree program is available to students wishing to attend part-time or full-time.

The Fire and Emergency Services associate of applied science degree will expose students to the broader spectrum of the fire and emergency services in the post-9/11 world. Students will learn the core traditional fire service information along with the newer emergency services, emergency management and homeland security components common in the industry today.

Most programs enable students to participate in courses that utilize Schoolcraft's state-of-the-art Public Safety Training Complex. It includes a four-story burn tower that simulates a variety of firefighting and rescue situations, including high-angle approaches. Credits may also transfer toward a bachelor's degree at a four-year college or university.

Credentials

- Fire and Emergency Services AAS Degree
- Fire Fighter Technology AAS Degree
- Fire Fighter Technology Certificate

Fire and Emergency Services AAS Degree

Schoolcraft program code # AAS.00217

This program is designed with distance learning, and online schedule flexibility for students who currently possess firefighting certifications or will not require them. This emphasis is designed for students who seek promotions or desire a professional position in the public or private fire service sectors and provides students with a wide knowledge base of the fire service and public safety. Students in this emphasis will have the education necessary to work in administrative, preventive, investigative, and educational areas of the fire service.

Contact the Fire Technology office at 734-462-4305 for additional information.

The Fire and Emergency Services associate degree program is nationally recognized by the U.S. Fire Administration through the Fire and Emergency Services Higher Education (FESHE) initiative.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **FIRE 101 - Principles of Emergency Services** ***Credits: 3***
- **FIRE 105 - Fire Behavior and Combustion** ***Credits: 3***
- Select General Education Mathematics course.
  Recommended:
  - **MATH 101 - Business Mathematics** ***Credits: 3***
  - *OR* **MATH 126 - College Algebra** ***Credits: 4***
- Select first General Education English Communication course.
  - *Recommended:* **ENG 101 - English Composition 1** ***Credits: 3***

TOTAL CREDITS: 12-14

Winter Semester

- **FIRE 125 - Building Construction for the Fire Service** ***Credits: 3***
- **FIRE 131 - Fire Fighting - Tactics and Strategy** ***Credits: 3***
- Select General Education Natural Science course.
  - *Recommended:* **BIOL 101 - General Biology** ***Credits: 4***
- **HS 101 - Introduction to Homeland Security** ***Credits: 3***

TOTAL CREDITS: 12-14

Spring/Summer Session

- Select a second General Education English Communication course.
  - *Recommended:* **ENG 102 - English Composition 2** ***Credits: 3***
- Select a General Education Humanities course.
  - *Recommended:* **COMA 103 - Fundamentals of Speech** ***Credits: 3***

TOTAL CREDITS: 6-7

SECOND YEAR

Fall Semester

- **FIRE 132 - Fire Prevention** ***Credits: 3***
- **FIRE 136 - Fire Protection Systems** ***Credits: 3***
- **CIS 120 - Software Applications** ***Credits: 3***
- Select a General Education Social Science course.
  - *Recommended:* **PSYCH 153 - Human Relations** ***Credits: 3***
- **FIRE 277 - Fire Protection Hydraulics and Water Supply** ***Credits: 3***

TOTAL CREDITS: 15-16

Fire and Emergency Services AAS Degree (continued)

Winter Semester

- **FIRE 205 - Fire Department Organization and Administration** ***Credits: 3***
- **FIRE 221 - Principles of Fire and Emergency Services Safety and Survival** ***Credits: 3***
- **HS 202 - Introduction to Emergency Management** ***Credits: 3***
- Electives - Select one to two courses not previously taken ***Credits: 6-24***

TOTAL CREDITS: 15-33

PROGRAM TOTAL: 60-84 CREDITS

ELECTIVES

- **BIOL 236 - Human Anatomy and Physiology** ***Credits: 5***
- **CJ 210 - Criminal Procedure** ***Credits: 3***
- **CJ 211 - Criminal Law** ***Credits: 3***
- **FIRE 113 - Fire Fighter 1 Basic Fire Suppression** ***Credits: 14***
- **FIRE 127 - Fire Academy** ***Credits: 24***
- **SOC 201 - Principles of Sociology** ***Credits: 3***

Fire Fighter Technology AAS Degree

Schoolcraft program code # AAS.00254

Recognizing the need for more highly skilled fire fighters, many municipalities now require additional education for their employees. The curriculum developed for the associate of applied science degree program combines lectures with hands-on activities to prepare the student to respond to a variety of emergencies. Specialists in the field provide valuable input on both content and methodology.

The Fire Fighter 1 and 2 courses cover content that is identical to the Fire Academy course but in a part-time format. Therefore, two sample schedules are offered below.

Students who satisfactorily complete all college and program requirements qualify for an associate of applied science degree.

Contact the Fire Technology office at 734-462-4305 for additional information.

The Fire Fighter Technology Programs and Fire Academy courses are certified by the Michigan Office of Fire Fighter Training. For more information, regarding certification please contact: Bureau of Fire Services/OFFT PO Box 30700, Lansing, MI 48909 • 517- 241-8847 www.michigan.gov.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **FIRE 101 - Principles of Emergency Services** ***Credits: 3***
- **FIRE 113 - Fire Fighter 1 Basic Fire Suppression** ***Credits: 14***

TOTAL CREDITS: 17

Winter Semester

- **FIRE 120 - Fire Fighter 2 Advanced Fire Suppression** ***Credits: 10***
- **FIRE 131 - Fire Fighting - Tactics and Strategy** ***Credits: 3***
- Science - Credits: 3-5 - Select General Education Natural Science course.
    - **BIOL 101 - General Biology** ***Credits: 4***

    (Recommended for students interested in EMT)

TOTAL CREDITS: 16-18

Spring/Summer Session

- Social Science - Select General Education Social Science Course ***Credits: 3-4***
- Humanities - Select General Education Humanities course ***Credits: 1-4***

TOTAL CREDITS: 4-8

SECOND YEAR

Fall Semester

- English Communication - Select first General Education English Communication Course ***Credits: 3***
- Mathematics - General Education Mathematics Course ***Credits 3-5***
- **EMT 115 - Emergency Medical Technology - Basic** ***Credits: 10***

TOTAL CREDITS: 16-18

Winter Semester

- English Communication - Select second General Education English Communication Course ***Credits: 3***
- **FIRE 125 - Building Construction for the Fire Service** ***Credits: 3***
- **FIRE 205 - Fire Department Organization and Administration** ***Credits: 3***
- **HS 202 - Introduction to Emergency Management** ***Credits: 3***

TOTAL CREDITS: 12

Fire Fighter Technology AAS Degree (continued)

PROGRAM TOTAL: 65-72 CREDITS

ALTERNATE - FIRE FIGHTER TECHNOLOGY AAS DEGREE

FIRST YEAR

Fall Semester

- **FIRE 127 - Fire Academy** ***Credits: 24***

TOTAL CREDITS: 24

Winter Semester

- English Communication - Select first General Education English Communication Course ***Credits: 3***
- Mathematics - General Education Mathematics Course ***Credits: 3-4***
- **FIRE 131 - Fire Fighting - Tactics and Strategy** ***Credits: 3***
- Science - Credits: 3-5 - Select General Education Natural Science course.
    - **BIOL 101 - General Biology** ***Credits: 4***

    (Recommended for students interested in EMT)

TOTAL CREDITS: 12-14

Spring/Summer Session

- Social Science - General Education Social Science Course ***Credits: 3-4***
- Humanities - General Education Humanities course ***Credits: 1-4***

TOTAL CREDITS 4-8

SECOND YEAR

Fall Semester

- **EMT 115 - Emergency Medical Technology - Basic** ***Credits: 10***
- **FIRE 101 - Principles of Emergency Services** ***Credits: 3***

TOTAL CREDITS: 13

Winter Semester

- English Communication - Select second General Education English Communication ***Credits: 3***
- **FIRE 125 - Building Construction for the Fire Service** ***Credits: 3***
- **FIRE 205 - Fire Department Organization and Administration** ***Credits: 3***
- **HS 202 - Introduction to Emergency Management** ***Credits: 3***

TOTAL CREDITS: 12

PROGRAM TOTAL: 65-73 CREDITS

PROGRAMS REQUIRING LICENSURE

Federal regulations require Schoolcraft College to publicly disclose, for each educational program designed to meet the educational requirements for a specific professional license or certification required for employment in an occupation (or advertised as meeting a requirement for employment), information about whether program completion would meet those requirements in a state. These public disclosure requirements apply to all programs, regardless of their modality (i.e., on-ground, online, and hybrid programs).

Please see the disclosure related to the educational requirements for professional licensure and certification.

Fire Fighter Technology Certificate

Schoolcraft program code # 1YC.00253

The fire fighter technology program provides career training for fire protection technicians. The program is offered in cooperation with the Michigan Fire Fighters Training Council and focuses on meeting the needs of fire service personnel. It is designed for students who are currently employed by Michigan Fire Marshal/recognized fire departments, currently seeking employment, and/or volunteer in recognized fire districts. All courses meet the state-mandated requirements for preparing students to take the state exam for certification as entry-level fire fighters.

The Fire Fighter 1 and 2 courses cover content that is identical to the Fire Academy course but in a part-time format. Therefore, two sample schedules are offered below. Fire Fighter 1, 2, and/or Academy courses require students to attain an average of 70 percent or better on test scores and to score at least 70 percent on their final exam to receive a passing grade of 2.0. The Emergency Medical Technology-Basic course requires an average of 80 percent on tests and 80 percent on the final for a grade of 2.7. Students achieving an 80 percent or higher in the Emergency Medical Technology-Basic course will receive a certificate of completion and be eligible to test for State licensure. Practical skills in both areas must be passed at stated proficiency levels to successfully complete each course and be recommended for the state certification exams.

Students who satisfactorily complete the program requirements qualify for a certificate of program completion.

Contact the Fire Technology office at 734-462-4305 for additional information.

The Fire Fighter Technology Programs and Fire Academy courses are certified by the Michigan Office of Fire Fighter Training. For more information regarding certification please contact: Bureau of Fire Services/OFFT PO Box 30700, Lansing, MI 48909 • 517- 241-8847 www.michigan.gov.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **FIRE 113 - Fire Fighter 1 Basic Fire Suppression** ***Credits: 14***

TOTAL CREDITS: 14

Winter Semester

- **FIRE 120 - Fire Fighter 2 Advanced Fire Suppression** ***Credits: 10***

TOTAL CREDITS: 10

Spring Session

- **EMT 115 - Emergency Medical Technology - Basic** ***Credits: 10***

TOTAL CREDITS: 10

PROGRAM TOTAL: 34

ALTERNATE - FIRE FIGHTER TECHNOLOGY

FIRST YEAR

Fall Semester

- **FIRE 127 - Fire Academy** ***Credits: 24***

TOTAL CREDITS: 24

Winter Semester

- **EMT 115 - Emergency Medical Technology - Basic** ***Credits: 10***

TOTAL CREDITS: 10

PROGRAM TOTAL: 34

Alternate - Fire Fighter Technology AAS Degree (continued)

PROGRAMS REQUIRING LICENSURE

Federal regulations require Schoolcraft College to publicly disclose, for each educational program designed to meet the educational requirements for a specific professional license or certification required for employment in an occupation (or advertised as meeting a requirement for employment), information about whether program completion would meet those requirements in a state. These public disclosure requirements apply to all programs, regardless of their modality (i.e., on-ground, online, and hybrid programs).

Please see the disclosure related to the educational requirements for professional licensure and certification.

2024-2025 Credential Year

Geography

Schoolcraft offers a variety of courses in this discipline, including environmental science, physical and world geography, and geographic information systems to give students a better understanding of climates, cultures, ecology, economics, and population studies. Course topics range from the study of human impact on the natural environment to the study of water resources and economic policies around the world.

There is currently no certificate or degree program offered in Geography. Some or all of the courses listed below may be required/recommended or applied toward a certificate or degree program in another area of study. These courses may also be taken for personal or professional interest or for transfer to a four-year college or university.

Courses

- GEOG 133 - World Regional Geography
- GEOG 212 - Environmental Science

Schoolcraft College®

2024-2025 Credential Year

Health Information Technology

As virtually every medical care facility has moved to electronic medical record keeping, the need for health information technicians responsible for healthcare data in a variety of formats has become even more important. At Schoolcraft, students can earn either a health coding specialist certificate or health information technology associate of applied science degree to improve their opportunities to qualify for a position in this rapidly changing field.

At Schoolcraft, our faculty is trained in the latest technology, along with state and federal legislation related to medical recordkeeping standards. Schoolcraft's Health Information Technology associate degree program is nationally accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM). Students will enjoy a combination of classroom, laboratory, and off-campus experiences in a variety of healthcare facilities with supervised professional practice assignments to expand their learning opportunities.

- The coding specialist certificate prepares students to review and analyze health records to identify relevant diagnoses and procedures for patient services, translating diagnostic and procedural phrases utilized by healthcare providers into coded form.
- Associate of applied science degree graduates are eligible to take the Registered Health Information Technician examination.
- A minimum grade of 2.0 is required in all classes and full and part-time programs are available.
- The program has transfer agreements with many state universities.

Credentials

- Health Information Technology AAS Degree
- Health: Coding Specialist Certificate

Selective Admissions: Program Application Information

- Health Information Technology Program Application Information
- Health: Coding Specialist Program Application Information

Health Information Technology AAS Degree

Schoolcraft program code # AAS.0P153/AAS.00153

The health information technology program will prepare the student to be a health information technician. The technician is responsible for performing tasks related to the use, analysis, validation, presentation, abstracting, coding, storage, security, retrieval, quality measurement, and control of healthcare data in paper-based, hybrid, and/or electronic health record systems.

The program coordinates classroom, laboratory, and off-campus experiences in a variety of healthcare facilities, such as acute care hospitals, ambulatory care centers, mental health facilities, and other health-related facilities. The off-campus activities include supervised professional practice assignments. The student gains experience in applying knowledge to technical procedures in health information systems. The health information technician is detail-oriented and recognizes the business aspects of healthcare. The technician will have a strong interest in activities, such as assisting medical staff in evaluating the quality of healthcare, protecting the privacy and confidentiality of patient information, and utilizing healthcare data. Health information technology courses should be taken in accordance with prerequisites; a minimum grade of 2.0 in each course is required. Graduates are eligible to take the Registered Health Information Technician (RHIT) examination. The program is designed for full-time or part-time students.

There are two ways to complete the Health Information Technology AAS Degree:

1. The traditional route of completing all courses.
2. Individuals who have successfully completed training, such as through the Medical Education & Training Campus, may be able to apply 19-45 credits toward the completion of a Health Information Technology AAS. Contact the appropriate instructional administrator for further details.

Students who satisfactorily complete all college and program requirements qualify for an associate of applied science degree.

This program requires students to complete a specific list of requirements before being officially admitted into the program. Students are listed in a pre-program code while the application requirements are being met. The full program start date and implementation of the program code may be dependent on space availability. Review the application requirements online at https://www.schoolcraft.edu/admissions/apply-to-sc/students-with-selective-admissions/ ***or the*** Health Information Technology Program Application Information ***catalog page. Contact the Admissions and Welcome Center at 734-462-4426/ or*** admissions@schoolcraft.edu ***or the Advising Departments at 734-462-4429 (option 4)*** /eadvise@schoolcraft.edu ***to complete an application.***

The associate degree program in Health Information Technology at Schoolcraft College is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM). For additional information contact:

CAHIIM
233 N. Michigan Ave. 21st Floor
Chicago, Illinois 60611-5800
info@cahiim.org | www.cahiim.org | 312-233-1100

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

ADMISSION PREREQUISITES

These courses must be completed prior to admission to the Health Information Technology AAS program. Students must achieve a 2.0 or higher in CIS 120, BIOL 236**, HIT 104 for acceptance.

FIRST YEAR

Fall Semester

- **HIT 104 - Medical Terminology** ***Credits: 4*** *
- **BIOL 236 - Human Anatomy and Physiology** ***Credits: 5*** * **
- **CIS 120 - Software Applications** ***Credits: 3*** *
- **ENG 101 - English Composition 1** ***Credits: 3***

TOTAL CREDITS: 15

Health Information Technology AAS Degree (continued)

Winter Semester

- **HIT 117 - ICD-10-CM/PCS** ***Credits: 3***
- **HIT 118 - Human Diseases** ***Credits: 4***
- **HIT 120 - Foundations of Health Information Management Technology** ***Credits: 3***
- **MATH 111 - Applications - Utility of Math** ***Credits: 4***

TOTAL CREDITS: 14

Spring Session

- **HIT 114 - Pharmacology for Health Professionals** ***Credits: 2***
- **HIT 162 - Professional Practice Experience Simulation** ***Credits: 2***

TOTAL CREDITS: 4

SECOND YEAR

Fall Semester

- **HIT 210 - Healthcare Statistics for Health Information Management** ***Credits: 3***
- **HIT 130 - Legal Aspects of Health Information** ***Credits: 3***
- **HIT 222 - Basic Ambulatory Coding** ***Credits: 3***
- **HIT 232 - Computer Applications in Healthcare** ***Credits: 2***
- English - Select one:
  - **ENG 102 - English Composition 2** ***Credits: 3*** ***
  - **ENG 106 - Business English** ***Credits: 3***
- Humanities - Credits: 1-4 - Select General Education Humanities course.
  - Recommended: **HUM 106 - Introduction to Art and Music** ***Credits: 1***

TOTAL CREDITS: 15-18

Winter Semester

- **HIT 224 - Quality Management in Healthcare** ***Credits: 2***
- **HIT 242 - Organization and Management** ***Credits: 3***
- **HIT 240 - Healthcare Reimbursement Methodologies** ***Credits: 2***
- **HIT 235 - Intermediate ICD-10-CM/PCS** ***Credits: 3***
- **HIT 234 - Intermediate Ambulatory Coding** ***Credits: 3***

TOTAL CREDITS: 13

Spring Session

- **HIT 262 - Professional Practice Experience** ***Credits: 2***
- Social Science - Credits: 3-4 - Select General Education Social Science course.
  - Recommended: **PSYCH 153 - Human Relations** ***Credits: 3***

TOTAL CREDITS: 5-6

PROGRAM TOTAL: 66-70 CREDITS

* Courses that must be taken prior to acceptance in the HIT program

** BIOL 237 & BIOL 238 are accepted to replace BIOL 236. Students planning to transfer should consult with their academic advisor about these options. Please review all course prerequisites.

*** Any student desiring transfer credit should take ENG 102. Please review all course prerequisites.

ELECTIVE (OPTIONAL)

NOTE: Federal Financial Aid may not be available for these courses. Please contact the Financial Aid office for other potential sources of aid.

- **HIT 213 - Health Information Technology Seminar** ***Credits: 1***
- **HIT 231 - Ambulatory Coding Practicum** ***Credits: 2***
- **HIT 236 - ICD Coding Practicum** ***Credits: 2***

Health Information Technology AAS Degree (continued)

PROGRAMS REQUIRING LICENSURE

Federal regulations require Schoolcraft College to publicly disclose, for each educational program designed to meet the educational requirements for a specific professional license or certification required for employment in an occupation (or advertised as meeting a requirement for employment), information about whether program completion would meet those requirements in a state. These public disclosure requirements apply to all programs, regardless of their modality (i.e., on-ground, online, and hybrid programs).

Please see the disclosure related to the educational requirements for professional licensure and certification.

Health: Coding Specialist Certificate

Schoolcraft program code # 1YC.0P240/1YC.00240

The coding specialist program will prepare a student to review and analyze health records to identify relevant diagnoses and procedures for patient services in the inpatient, ambulatory, and/or ancillary setting. The student will practice translating diagnostic and procedural phrases utilized by healthcare providers into coded forms. In the program, students apply the following skills:

- Coding of inpatient diagnoses using the International Classification of Diseases 10th Revision, Clinical Modification (ICD-10-CM) and inpatient procedures using the International Classification of Diseases 10th Revision, Procedure Coding System (ICD-10-PCS).
- Coding of ambulatory setting procedures and services using Current Procedural Terminology (CPT).
- Reading and interpreting health record documentation to identify all diagnoses and procedures that affect the current inpatient stay/outpatient encounter visit.
- Applying approved coding guidelines to assign and sequence the correct diagnosis, applying procedure codes for hospital inpatient and outpatient services.

A minimum grade of 2.0 is required for progression to the next health information technology course. A minimum grade of 2.0 is required for the basic science course and basic computer course.

The coder can be employed in hospital departments such as health information services (medical records), quality management, professional fee services, radiology, emergency room, outpatient/ambulatory surgery, ancillary services, and specialty physician clinics. Coding specialists also work as independent contractors, consultants, and trainers as well as for insurance companies, government agencies, health maintenance organizations, and other facilities involved with the healthcare reimbursement process. The curriculum in the coding specialist program will allow the student to select the health information technology associate degree program as a career path. The coding specialist certificate may be completed on a full-time or part-time basis.

Students who satisfactorily complete the program requirements qualify for a certificate of program completion.

This program requires students to complete a specific list of requirements before being officially admitted into the program. Students are listed in a pre-program code while the application requirements are being met. The full program start date and implementation of the program code may be dependent on space availability. Requirements are listed online at https://www.schoolcraft.edu/admissions/apply-to-sc/students-with-selective-admissions/ ***or the*** Health: Coding Specialist Program Application Information ***catalog page. Contact the Admissions and Welcome Center at*** 734-462-4426/admissions@schoolcraft.edu ***or the Advising Departments at 734-462-4429 (option 4)***/eadvise@schoolcraft.edu ***to complete an application.***

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

ADMISSION PREREQUISITES

- **BIOL 236 - Human Anatomy and Physiology** ***Credits: 5*** * **
- **HIT 104 - Medical Terminology** ***Credits: 4*** *
- **CIS 120 - Software Applications** ***Credits: 3*** *

Total Credits: 12

FIRST YEAR

Fall Semester

- **HIT 120 - Foundations of Health Information Management Technology** ***Credits: 3***
- **HIT 118 - Human Diseases** ***Credits: 4***
- **HIT 114 - Pharmacology for Health Professionals** ***Credits: 2***
- **HIT 117 - ICD-10-CM/PCS** ***Credits: 3***
- **HIT 222 - Basic Ambulatory Coding** ***Credits: 3***

TOTAL CREDITS: 15

Health: Coding Specialist Certificate (continued)

Winter Semester

- **HIT 235 - Intermediate ICD-10-CM/PCS** ***Credits: 3***
- **HIT 234 - Intermediate Ambulatory Coding** ***Credits: 3***
- **HIT 236 - ICD Coding Practicum** ***Credits: 2***
- **HIT 231 - Ambulatory Coding Practicum** ***Credits: 2***
- **HIT 240 - Healthcare Reimbursement Methodologies** ***Credits: 2***

TOTAL CREDITS: 12

PROGRAM TOTAL: 39 CREDITS

* Courses that must be taken prior to acceptance in the HIT program

** BIOL 237 & BIOL 238 are accepted to replace BIOL 236. Students planning to transfer should consult with their academic advisor about these options. Please review all course prerequisites.

PROGRAMS REQUIRING LICENSURE

Federal regulations require Schoolcraft College to publicly disclose, for each educational program designed to meet the educational requirements for a specific professional license or certification required for employment in an occupation (or advertised as meeting a requirement for employment), information about whether program completion would meet those requirements in a state. These public disclosure requirements apply to all programs, regardless of their modality (i.e., on-ground, online, and hybrid programs).

Please see the disclosure related to the educational requirements for professional licensure and certification.

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2024-2025 Credential Year

Health Information Technology Program Application Information

The Health Information Technology program will prepare the student to be a Health Information Technician. The technician is responsible for performing tasks related to the use, analysis, validation, presentation, abstracting, coding, storage, security, retrieval, quality measurement, and control of health information. Important points about the HIT program include:

- Health Information Technology courses are offered at the main campus in Livonia, Michigan. Most classes generally meet one or two days or evenings per week.
- In addition to lecture and laboratory experiences, the program requires one off-campus daytime professional practice experience.
- Students who satisfactorily complete all program/college requirements qualify for an Associate of Applied Science Degree. Graduates are eligible to take the Registered Health Information Technician (RHIT) examination and/or the Certified Coding Associate (CCA) examination offered by the American Health Information Management Association (AHIMA).
- The Health Information Technology Program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM).
- A minimum grade of 2.0 is required in all classes and full and part-time programs are available.

To view the complete program description and a sample schedule of courses, view the Health Information Technology AAS Degree catalog page.

APPLICATION REQUIREMENTS

The Health Information Technology Program (HIT) requires students to complete a specific list of requirements before being officially admitted into the program. Students are listed in a pre-program code while the application requirements are being met. The full program start date and implementation of program code may be dependent on space availability. To be admitted to the program the student must complete the following:

1. Apply to Schoolcraft College	Apply to Schoolcraft College on-line at www.schoolcraft.edu
2. Transcripts	It is recommended you request official undergraduate transcripts from all colleges and universities previously attended. Transcripts must be sent directly from the issuing college or university to Schoolcraft College. To confirm that transcripts have been received, contact the Answer Center at 734-462-4426.
3. Academic Advising and Assessment	This program requires minimum assessment levels or course work in the areas of math, reading and writing. Students should have placement scores (Computer Placement Test, ACT, or SAT) submitted prior to meeting with an academic advisor. Students with prior college-level work or a degree may be exempt from placement testing. The Computer Placement Test (CPT) is taken in the Testing Center. ACT or SAT scores must be less than three years old. Contact the Academic Advising at 734-462-4429 to make an appointment.
4. College Prerequisite Coursework	• Complete CIS 120 - Software Applications with a grade of 2.0/C or better. • Complete BIOL 236 - Human Anatomy and Physiology with a grade of 2.0/C or better. • *OR* Complete BIOL 237 - Principles of Human Anatomy and Physiology 1 and BIOL 238 - Principles of Human Anatomy and Physiology 2 with a grade of 2.0/C or better in both courses. • Complete HIT 104 - Medical Terminology with a grade of 2.0/C or better.
5. Cumulative GPA	Attain a cumulative grade point average at Schoolcraft College of 2.0 or better.
6. Apply to Health Information Technology Program	Meet with a Schoolcraft academic advisor. Completion of all sections of this application with signatures from an academic advisor is required to be accepted into the HIT Program.

OPEN COURSES

Admission to the Health Information Technology Program is not necessary to register for the courses listed below.

The following courses are open to all Schoolcraft students who have met the course prerequisite (see the course descriptions in the College Catalog.)

- HIT 104 - Medical Terminology
- HIT 114 - Pharmacology for Health Professionals
- HIT 118 - Human Diseases
- HIT 120 - Foundations of Health Information Management Technology
- HIT 130 - Legal Aspects of Health Information

PROFESSIONAL PRACTICE EXPERIENCE

HIT 262 - Professional Practice Experience requires:

1. The student has been formally admitted into the HIT program.

2. Students will be required to complete the following before professional practice experience placement:

- ***Criminal History Check Clearance. Convictions or a guilty plea to a felony may prevent you from clinical affiliation assignment and/or employment in healthcare.***
- ***Medical Clearance / Drug Screen***
  - Students are required to have a negative urine drug screen on the first attempt just before the start of the practical components of the program. Please note marijuana is still prohibited.
- ***Maintain a cumulative grade point average at Schoolcraft College of 2.0 or better.***
- ***Required Immunizations***
  - Two ***MMR*** vaccinations (Measles, Mumps, Rubella) - one as a child - and one as an adult or titer showing immunity for ALL the above.
  - ***Hepatitis B*** vaccination or titer - (series must be started prior to clinical), or a signed Vaccination Declination Form.
  - ***Two-step TB Test*** - TB test expires after 12 months. The student's TB test cannot expire before the end of class and/or when clinicals will be completed.
  - ***Chicken Pox*** - 2 Varicella vaccinations given 1 month apart and/or a laboratory titer verifying immunity. NOTE: History of chickenpox is not accepted as evidence of immunity.

Students will be notified when to pick up forms from the Health Professions Office:

Health Science Center, Room 510
healthprofessions@schoolcraft.edu
734-462-4770

ESTIMATE OF TUITION AND FEES

Health Information Technology			
2024-2025			
Program Credit Hours - 66			
	Resident	***Non-Resident***	***Out of State***
Tuition:	$ 9,174.00	$ 13,200.00	$ 17,820.00
Registration Fees: ($44 per semester)	$ 308.00	$ 308.00	$ 308.00
Service Fees: ($9 per credit hour)	$ 594.00	$ 594.00	$ 594.00
Instructional Equipment Fees: ($11 per credit hour)	$ 726.00	$ 726.00	$ 726.00
Infrastructure Fees: ($9 per credit hour)	$ 594.00	$ 594.00	$ 594.00
Course and Learning Management Fees: ($12 per class)	$ 276.00	$ 276.00	$ 276.00
Lab Fees: (varies according to individual class)	$ 197.00	$ 197.00	$ 197.00
Excess Contact Hour Fees: (varies according to individual class)	$ 1,529.00	$ 1,529.00	$ 1,529.00
Additional Expenses:			
Hepatitis B Vaccine	$ 150.00	$ 150.00	$ 150.00
Application fee for certification exam (optional)	$ 300.00	$ 300.00	$ 300.00
Miscellaneous expenses for clinical affiliation	$ 300.00	$ 300.00	$ 300.00
Total	$ 14,148.00	$ 18,174.00	$ 22,794.00
The above figures are based on 2024-2025 rates and are subject to change. A Resident student is one whose legal residence is in the school District of Clarenceville, Garden City, Livonia, Northville, Plymouth-Canton or parts of Novi. All other students are Non-Residents.			

PLEASE NOTE:

Requirements for admission to the Health Information Technology Program are subject to change at any time.

Ready to get started! Download the Health Information Technology Student Checklist to get on track.	Student Checklist
Ready to apply? Download the Application Form and schedule a meeting with your Advisor.	Application Form

Please contact the Admissions and Welcome Center for updates on any applicable changes.

Phone: 734-462-4683
Fax: 734-462-4552
E-mail: admissions@schoolcraft.edu
Web: www.schoolcraft.edu

It is the policy of Schoolcraft College that no person shall, on the basis of race, color, national origin, gender, age, marital status, creed, or handicap, be excluded from participating in, be denied benefits of, or be subjected to discrimination during any program or activity or in employment.

Schoolcraft College®

2024-2025 Credential Year

Health: Coding Specialist Program Application Information

The Coding Specialist program will prepare a student to review and analyze health records to identify relevant diagnoses and procedures for patient services in the inpatient, ambulatory and/or ancillary setting. The student will practice translating diagnostic and procedural phrases utilized by healthcare providers into coded form. In the program, students apply the following skills:

- Coding of inpatient diagnoses and procedures using International Classification of Diseases ICD-10-CM and ICD-10-PCS.
- Coding of ambulatory setting procedures and service using Current Procedural Terminology (CPT).
- Reading and interpreting health record documentation to identify all diagnoses and procedures that affect the current inpatient stay/outpatient encounter visit.
- Applying approved coding guidelines to assign and sequence the correct diagnosis.
- Applying procedure codes for hospital inpatient and outpatient services.
- Use of industry coding software such as encoders.
- A minimum grade of 2.0 is required in all classes and full and part-time programs are available.

APPLICATION REQUIREMENTS

To be admitted to the Coding Specialist Program the student must complete the following:

1. Apply to Schoolcraft College	Apply to Schoolcraft College online at www.schoolcraft.edu.
2. Transcripts	It is recommended you request official undergraduate transcripts from all colleges and universities previously attended. Transcripts must be sent directly from the issuing college or university to Schoolcraft College. To confirm that transcripts have been received, contact the Answer Center at 734-462-4426.
3. Academic Advising and Assessment	This program requires minimum assessment levels or coursework in the areas of math, reading, and writing. Students should have placement scores (Computer Placement Test, ACT, or SAT) submitted before meeting with an academic advisor. Students with prior college-level work or a degree may be exempt from placement testing. The Computer Placement Test (CPT) is taken in the Testing Center. ACT or SAT scores must be less than three years old. Contact the Academic Advising at 734-462-4429 to make an appointment.
4. Complete Coursework	• Complete ***HIT 104 - Medical Terminology*** with a grade of 2.0/C or better. • Complete CIS ***120 - Software Applications*** with a grade of 2.0/C or better. • Complete BIOL ***236 - Human Anatomy and Physiology or BIOL 237 - Principles of Human Anatomy and Physiology 1 and BIOL 238 - Principles of Human Anatomy and Physiology 2.*** Complete one semester of Human Anatomy and Physiology with a grade of 2.0/C or better. You may complete an equivalent college course to satisfy this requirement.
5. Cumulative GPA	Attain a cumulative grade point average of 2.0 or better for all Schoolcraft College courses.
6. Apply to the Coding Specialist Program	Complete the Coding Specialist Program Application and Restricted Enrollment Change Form with an Academic Advisor.

ESTIMATE OF TUITION AND FEES

Coding Specialist Certificate			
2024-2025			
Program Credit Hours - 39			
	Resident	***Non-Resident***	***Out of State***
Tuition:	$ 5,421.00	$ 7,800.00	$ 10,530.00
Registration Fees: ($44 per semester)	$ 132.00	$ 132.00	$ 132.00

Service Fees: ($9 per credit hour)	$ 351.00	$ 351.00	$ 351.00
Instructional Equipment Fees: ($11 per credit hour)	$ 429.00	$ 429.00	$ 429.00
Infrastructure Fees: ($9 per credit hour)	$ 351.00	$ 351.00	$ 351.00
Course and Learning Management Fees: ($12 per class)	$ 156.00	$ 156.00	$ 156.00
Lab Fees: (varies according to individual class)	$ 95.00	$ 95.00	$ 95.00
Excess Contact Hour Fees: (varies according to individual class)	$ 973.00	$ 973.00	$ 973.00
Additional Expenses:			
Certificate Exam (CCA) Fee	$ 199.00	$ 199.00	$ 199.00
Total	$ 8,107.00	$ 10,486.00	$ 13,216.00
The above figures are based on 2024-2025 rates and are subject to change. A Resident student is one whose legal residence is in the school District of Clarenceville, Garden City, Livonia, Northville, Plymouth-Canton or parts of Novi. All other students are Non-Residents.			

PLEASE NOTE:

Requirements for admission to the Coding Specialist Program are subject to change at any time.

Ready to get started! Download the Coding Specialist Student Checklist to get on track.	**Student Checklist**
Ready to apply? Download the Application Form and schedule a meeting with your Advisor.	**Application Form**

Please contact the Admissions and Welcome Center for updates on any applicable changes:

Phone: (734) 462-4683
Fax: (734) 462-4552
E-mail: admissions@schoolcraft.edu
Web: www.schoolcraft.edu

It is the policy of Schoolcraft College that no person shall, on the basis of race, color, national origin, gender, age, marital status, creed, or handicap, be excluded from participating in, be denied benefits of, or be subject to discrimination during any program or activity or in employment.

Schoolcraft College®

2024-2025 Credential Year

History

Studying regional, U.S., and world history helps students learn about the past and apply those learnings to today's society. Schoolcraft offers a variety of history courses, such as ancient and modern world history along with unique courses on the History of Michigan and the Great Lakes and U.S. Business History. In addition, the credits from these history courses may count toward a Schoolcraft associate degree and/or transfer to a four-year institution.

Courses

- HIST 134 - Ancient World
- HIST 137 - Early Modern World
- HIST 138 - Contemporary World
- HIST 141 - History of Michigan and the Great Lakes
- HIST 151 - Early America - U.S. History
- HIST 152 - 19th Century America - U.S. History
- HIST 153 - Contemporary America - U.S. History
- HIST 230 - U.S. Business History - 1865 to Present

2024-2025 Credential Year

Homeland Security

Homeland security personnel help secure U.S. borders, airports, seaports, and waterways. They also research and develop the latest security technologies, respond to natural disasters or terrorist assaults, and analyze intelligence reports to help protect the homeland from threats.

Schoolcraft's homeland security associate of applied science degree provides students the educational foundation of private and homeland security knowledge to prepare for transfer to a four-year institution with classes in criminal justice, communications, and emergency management.

Credentials

- Homeland Security AAS Degree

Homeland Security AAS Degree

Schoolcraft program code # AAS.00252

Since September 11, 2001, the security industry has expanded rapidly. The United States Department of Homeland Security employs more than 180,000 individuals. Coupled with that, the private security industry employs nearly 1.5 million security personnel. The homeland security degree program is focused on providing students with a foundation of private and homeland security knowledge to build upon as a transfer to a specialty degree. The objectives of the homeland security associate degree program are to upgrade personnel employed in the security industry and to prepare students for full-time employment in this field.

Students who satisfactorily complete all college and program requirements qualify for an associate of applied science degree.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

Contact the Public Safety Education office at 734-462-4747 for more information.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **CJ 102 - Organization and Administration of Law Enforcement Agencies** ***Credits: 3***
- **HS 101 - Introduction to Homeland Security** ***Credits: 3***
- English Communication - Credits: 3 - Select first General Education English Communication course.
  Recommended:
  - **ENG 100 - Communication Skills** ***Credits: 3***
  - OR **ENG 101 - English Composition 1** ***Credits: 3***
- Social Science - Credits: 3-4 - Select one:
  - **PSYCH 153 - Human Relations** ***Credits: 3***
  - **PSYCH 201 - Introductory Psychology** ***Credits: 4***
- Social Science - Credits: 3-4 - Select General Education Social Science course not already taken.
  - Recommended: **POLS 105 - Survey of American Government** ***Credits: 3***

TOTAL CREDITS: 15-17

Winter Semester

- Mathematics - Select General Education Mathematics Course ***Credits: 3-4***
- **CJ 210 - Criminal Procedure** ***Credits: 3***
- **CJ 113 - Introduction to Criminal Justice System** ***Credits: 3***
- **HS 102 - Understanding Terrorism** ***Credits: 3***
- English Communication - Credits: 3 - Select second General Education English Communication course.
  Recommended:
  - **ENG 116 - Technical Writing** ***Credits: 3***
  - OR **ENG 102 - English Composition 2** ***Credits: 3***

TOTAL CREDITS: 15-17

SECOND YEAR

Fall Semester

- Natural Science - General Education Science Course ***Credits: 3-5***
- **CJ 201 - Criminal Investigation** ***Credits: 3***
- **HS 103 - Transportation and Border Security** ***Credits: 3***
- **HS 202 - Introduction to Emergency Management** ***Credits: 3***
- **SOC 201 - Principles of Sociology** ***Credits: 3***

TOTAL CREDITS: 15-16

Homeland Security AAS Degree (continued)

Winter Semester

- **CIS 115 - Introduction to Computer Based Systems** ***Credits: 3***
- **CJ 211 - Criminal Law** ***Credits: 3***
- **HS 201 - Organizational and Facility Security** ***Credits: 3***
- **HS 203 - Intelligence Analysis and Security Management** ***Credits: 3***
- Humanities - Select General Education Humanities course. Any 100 or 200 World Language course (recommended) ***Credits: 3-4***

TOTAL CREDITS: 15-16

PROGRAM TOTAL: 60-67 CREDITS

Schoolcraft College®

2024-2025 Credential Year

Humanities

The study of humanities gives students the chance to learn about art, culture, history, and music throughout the world while earning credits that may count toward a Schoolcraft associate degree and transfer toward a bachelor's degree at a four-year institution. Course offerings include World Masterpieces, Mass Media and Popular Culture, and many others. Students can also take part in field study courses that include trips to England, France, Italy, and Spain for hands-on experiences of foreign arts and cultures.

Courses

- HUM 106 - Introduction to Art and Music
- HUM 151 - World Masterpieces (Prehistory-1400)
- HUM 152 - World Masterpieces (1400-Present)
- HUM 190 - Individual Humanism - An Honors Colloquium
- HUM 210 - The Art of Being Human
- HUM 212 - Mass Media and Popular Culture
- HUM 215 - Humanities through the Arts

2024-2025 Credential Year

Manufacturing

Today's manufacturing professionals need to understand the fundamentals of production and technology while using critical thinking skills to solve problems and focus on quality and efficiency. Schoolcraft's manufacturing program exposes students to manufacturing processes, materials, methods of production and quality systems and tools offering three levels of credentials:

- The Advanced Manufacturing Skills Certificate introduces students to the fundamental skills and techniques in manufacturing needed for employment in today's highly technical manufacturing environments.
- With the Advanced Manufacturing Certificate, students can enhance their skills as they are exposed to the most current manufacturing technology and techniques through experiential learning experiences.
- The Associate of Applied Science Degree in Advanced Manufacturing gives students' higher-level knowledge and skills, such as how to program CNC machines, or work as a production manager or quality technician. This program also provides exposure to tool and die making.

Credentials

- Advanced Manufacturing AAS Degree
- Advanced Manufacturing Certificate
- Advanced Manufacturing Skills Certificate

Advanced Manufacturing AAS Degree

Schoolcraft program code # AAS.00135

The Associate of Applied Science Degree in Advanced Manufacturing is designed to provide learners with growth and development in a variety of manufacturing processes, to expose them to materials and methods of production, make them aware of quality systems and tools and introduce them to tool and die making. This degree is designed to enable individuals the opportunity to continually expand and upgrade their applied skills as well as to maintain a thorough mastery of evolving manufacturing technologies. Protective shop clothing and eye protection supplies are required for the program and will be purchased by the student.

Students who satisfactorily complete all college and program requirements qualify for an Associate of Applied Science Degree.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **MFG 102 - Basic Machining Processes** ***Credits: 3***
- **MFG 105 - Manufacturing Processes** ***Credits: 4***
- **CAD 120 - Mechanical Blueprint Reading with Sketching** ***Credits: 3***
- Mathematics - Select General Education Mathematics Course ***Credits: 3-5***
- Elective - Select one:
    - **BUS 116 - Project Management** ***Credits: 3***
    - **ENGR 100 - Introduction to Engineering and Technology** ***Credits: 3***

TOTAL CREDITS: 16-18

Winter Semester

- **MFG 103 - Basic Computer Numerical Control (CNC)** ***Credits: 3***
- **MFG 106 - Basic Mastercam** ***Credits: 3***
- **CAD 130 - Geometric Dimensioning and Tolerance** ***Credits: 3***
- **QM 107 - Quality Planning and Team Building** ***Credits: 3***

TOTAL CREDITS: 12

Spring Session

- Elective - Select from list ***Credits: 3***
- Natural Science - Select General Education Science Course ***Credits: 3-5***

TOTAL CREDITS: 6-8

SECOND YEAR

Fall Semester

- **MFG 203 - Advanced Computer Numerical Control (CNC)** ***Credits: 3***
- **MFG 206 - Advanced Mastercam** ***Credits: 3***
- **MET 103 - Introduction to Materials Science** ***Credits: 3***
- English Communication - Credits: 3 - Select first General Education English Communication courses.
    - Recommended: **ENG 100 - Communication Skills** ***Credits: 3***
- Social Science - Credits: 3-4 - Select General Education Social Science course.
    - Recommended: **PSYCH 153 - Human Relations** ***Credits: 3***

TOTAL CREDITS: 15-16

Advanced Manufacturing AAS Degree (continued)

Winter Semester

- **MFG 211 - 3D Computer Numerical Control** ***Credits: 3***
- Elective - Select any from list not previously taken ***Credits: 4***
- English Communication - Credits: 3 - Select second General Education English Communication course.
- Recommended:
    - **ENG 106 - Business English** ***Credits: 3***
    - ***OR*** **ENG 116 - Technical Writing** ***Credits: 3***
- Humanities - Credits: 1-4 - Select General Education Humanities course.
    - Recommended: **COMA 103 - Fundamentals of Speech** ***Credits: 3***

TOTAL CREDITS: 11-14

PROGRAM TOTAL: 60-68 CREDITS

ELECTIVES

- **MFG 202 - Advanced Machining Processes** ***Credits: 3***
- **MFG 212 - Coordinate Measuring Machine** ***Credits: 2***
- **MFG 213 - Machining Speeds and Feeds** ***Credits: 2***
- **MFG 291 - Manufacturing Internship** ***Credits: 3***
- **OSH 111 - Occupational Safety and Health for General Industry** ***Credits: 2***
- **WELD 110 - Introduction to Welding Basics for Fabrication** ***Credits: 3***
- **WELD 115 - Gas Metal Arc Welding (G.M.A.W./M.I.G.)** ***Credits: 3***
- **WELD 119 - Gas Tungsten Inert Arc Welding (G.T.A.W./ T.I.G.)** ***Credits: 3***
- **ROBAT 101 - Robot Tool Handling Operations and Programming** ***Credits: 3***

Advanced Manufacturing Certificate

Schoolcraft program code # 1YC.00237

The Advanced Manufacturing Certificate provides enhanced skills needed for employment in today's highly technical manufacturing environments. The Certificate is designed to train those new to manufacturing, but also serves to update or expand the skills of seasoned manufacturing workers with the most current technology and techniques. These classes all apply to the Advanced Manufacturing Associate of Applied Science Degree. Protective shop clothing and eye protection supplies are required for the program and will be purchased by the student.

Students who satisfactorily complete the program requirements qualify for a certificate of program completion. Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **MFG 102 - Basic Machining Processes** ***Credits: 3***
- **MFG 105 - Manufacturing Processes** ***Credits: 4***
- **CAD 120 - Mechanical Blueprint Reading with Sketching** ***Credits: 3***
- Elective - Select one:
  - **BUS 116 - Project Management** ***Credits: 3***
  - **ENGR 100 - Introduction to Engineering and Technology** ***Credits: 3***

TOTAL CREDITS: 13

Winter Semester

- **MFG 103 - Basic Computer Numerical Control (CNC)** ***Credits: 3***
- **MFG 106 - Basic Mastercam** ***Credits: 3***
- Mathematics - Select General Education Mathematics Course ***Credits: 3-5***
- **QM 107 - Quality Planning and Team Building** ***Credits: 3***

TOTAL CREDITS: 12-14

Spring Session

- **CAD 130 - Geometric Dimensioning and Tolerance** ***Credits: 3***
- Manufacturing - Select one:
- **MFG 203 - Advanced Computer Numerical Control (CNC)** ***Credits: 3***
- **MFG 206 - Advanced Mastercam** ***Credits: 3***

TOTAL CREDITS: 6

PROGRAM TOTAL: 31-33 CREDITS

Advanced Manufacturing Skills Certificate

Schoolcraft program code # CRT.00337

The Advanced Manufacturing Skills Certificate introduces learners to foundational skills and techniques in manufacturing. It provides the basic skills needed for employment in today's highly technical manufacturing environments. These classes all apply to the Advanced Manufacturing Certificate and Associate of Applied Science Degree. Protective shop clothing and eye protection supplies are required for the program and will be purchased by the student.

Students who satisfactorily complete the program requirements qualify for a certificate of program completion. All program required courses must have been completed with a grade of 2.0 or better.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **MFG 102 - Basic Machining Processes** ***Credits: 3***
- **CAD 120 - Mechanical Blueprint Reading with Sketching** ***Credits: 3***
- Elective - Select one
- **BUS 116 - Project Management** ***Credits: 3***
- **ENGR 100 - Introduction to Engineering and Technology** ***Credits: 3***

TOTAL CREDITS: 9

Winter Semester

- **MFG 103 - Basic Computer Numerical Control (CNC)** ***Credits: 3***
- **MFG 106 - Basic Mastercam** ***Credits: 3***
- **QM 107 - Quality Planning and Team Building** ***Credits: 3***

TOTAL CREDITS: 9

PROGRAM TOTAL: 18 CREDITS

Schoolcraft College®

2024-2025 Credential Year

Mathematics

Students interested in mathematics will find the array of courses available at Schoolcraft covering basic math, intermediate algebra, trigonometry, statistics, pre-calculus, calculus, calculus with analytic geometry, linear algebra, and differential equations. Students can also expand their mathematics educational opportunities through a variety of activities:

- Join the Math and Physics Club, which offers challenging activities and an annual competition.
- Compete for the Pythagorean Prize, which honors two top winners each year with cash prizes and recognition.
- Publish student-authored articles and research in The Right Angle.

There is currently no certificate or degree program offered in Mathematics. Some or all of the courses listed below may be required/recommended or applied toward a certificate or degree program in another area of study. These courses may also be taken for personal or professional interest or for transfer to a four-year college or university.

Courses

- MATH 011 - Applications - Utility of Math Support
- MATH 013 - Intermediate Algebra Support
- MATH 022 - Elementary Statistics Support
- MATH 045 - Basic Mathematics
- MATH 047 - Prealgebra
- MATH 053 - Beginning Algebra
- MATH 101 - Business Mathematics
- MATH 102 - Technical Mathematics
- MATH 105 - Mathematics for Elementary Teachers 1
- MATH 106 - Mathematics for Elementary Teachers 2
- MATH 111 - Applications - Utility of Math
- MATH 113 - Intermediate Algebra for College Students
- MATH 119 - Trigonometry
- MATH 122 - Elementary Statistics
- MATH 126 - College Algebra
- MATH 129 - Precalculus
- MATH 135 - Finite Mathematics
- MATH 145 - Calculus for Business and Social Science
- MATH 150 - Calculus with Analytic Geometry 1
- MATH 151 - Calculus with Analytic Geometry 2
- MATH 230 - Linear Algebra
- MATH 240 - Calculus with Analytic Geometry 3
- MATH 252 - Differential Equations

2024-2025 Credential Year

Mechatronics Technology

The Mechatronics Technology program focuses on the integration of mechanical, electrical (electronics), fluid power (hydraulics or pneumatics), and computer technologies to control machine movements. The students' studies begin with courses in mechanics, sensors, basic electronics, pneumatics, control logic, and robot programming and control.

The program is not directly aimed at specific products. With the multiplicity of equipment presently in use and the rapid advance and change in technology, the department stresses the development of a broad background that will enable students to find employment and be able to further their skills in a diversified number of industries.

Protective shop clothing and eye protection supplies required for the program will be purchased by the student.

All courses are not offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students who satisfactorily complete all college and program requirements qualify for an associate of applied science degree.

Credentials

- Mechatronics Technology AAS Degree
- Mechatronics Technology Certificate
- Mechatronics Technology Skills Certificate

Mechatronics Technology AAS Degree

Schoolcraft program code # AAS.00224

The mechatronics technology program focuses on the integration of mechanical, electrical (electronics), fluid power (hydraulics or pneumatics), and computer technologies to control machine movements. The students' studies begin with courses in mechanics, sensors, basic electronics, pneumatics, control logic, and robot programming and control.

The program is not directly aimed at specific products. With the multiplicity of equipment presently in use and the rapid advance and change in technology, the department stresses the development of a broad background that will enable students to find employment and be able to further their skills in a diversified number of industries.

Protective shop clothing and eye protection supplies required for the program will be purchased by the student.

Students who satisfactorily complete all college and program requirements qualify for an associate of applied science degree.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **MATH 102 - Technical Mathematics** ***Credits: 4***
- **MECH 101 - Introduction to Mechatronics** ***Credits: 3***
- **MFG 102 - Basic Machining Processes** ***Credits: 3***
- **ROBAT 101 - Robot Tool Handling Operations and Programming** ***Credits: 3***

TOTAL CREDITS: 13

Winter Semester

- **CAD 120 - Mechanical Blueprint Reading with Sketching** ***Credits: 3***
- **ELECT 137 - DC Circuits and Mathematical Modeling** ***Credits: 5***
- **MECH 111 - Introduction to Industrial Control Systems** ***Credits: 3***
- English Communication - Credits: 3 - Select first General Education English Communication course.
- Recommended: **ENG 101 - English Composition 1** ***Credits: 3***

TOTAL CREDITS: 14

Spring Session

- **ELECT 138 - AC Circuits and Mathematical Modeling** ***Credits: 5***
- English Communication - Credits: 3 - Select second General Education English Communication course.
- Recommended: **ENG 116 - Technical Writing** ***Credits: 3***

TOTAL CREDITS: 8

SECOND YEAR

Fall Semester

- **ELECT 218 - AC/DC Motors** ***Credits: 3***
- **ELECT 251 - Programmable Logic and Industrial Controls** ***Credits: 4***
- Elective: Select from list ***Credits: 3***
- Social Science - Credits: 3-4 - Select General Education Social Science course.
- Recommended: **PSYCH 153 - Human Relations** ***Credits: 3***

TOTAL CREDITS: 13-14

Mechatronics Technology AAS Degree (continued)

Winter Semester

- **CNT 179 - Physical Networking** ***Credits: 3***
- **ELECT 145 - Fluid Power** ***Credits: 4***
- **MECH 131 - Industrial Internet of Things (IIoT)** ***Credits: 3***
- Humanities - Credits: 1-4 - Select General Education Humanities course.
- Recommended: **COMA 103 - Fundamentals of Speech** ***Credits: 3***
- Science - Credits: 3-5 - Select General Education Natural Science course.
- Recommended: **PHYS 123 - Applied Physics** ***Credits: 5***

TOTAL CREDITS: 14-19

PROGRAM TOTAL: 62-68 CREDITS

If a student possesses any of the certifications below, they may be eligible to earn Prior Learning Assessment course credit. Completion of the listed courses also prepares uncertified students to sit for the exams. Please consult the Faculty Representative for more information.

- SACA Certified Industry 4.0 Associate Basic Operations - MECH 101
- SACA Certified Industry 4.0 Associate Advanced Operations - MECH 111
- SACA Certified Industry 4.0 Associate IIOT, Networking & Data Analytics - MECH 131
- SACA Certified Industry 4.0 Associate Robot Systems Operations or FANUC Handling Tool Operations and Programming certification-ROBAT 101

ELECTIVES

- **BUS 116 - Project Management** ***Credits: 3***
- **CAD 130 - Geometric Dimensioning and Tolerance** ***Credits: 3***
- **ENGR 100 - Introduction to Engineering and Technology** ***Credits: 3***
- **MET 103 - Introduction to Materials Science** ***Credits: 3***
- **QM 107 - Quality Planning and Team Building** ***Credits: 3***
- **WELD 110 - Introduction to Welding Basics for Fabrication** ***Credits: 3***

Mechatronics Technology Certificate

Schoolcraft program code # 1YC.00223

The mechatronics technology certificate is designed to address basic competency in skills needed for employment in today's complex manufacturing environments. These classes all apply to the mechatronics associate degree. The program is not directly aimed at specific products. With the multiplicity of equipment presently in use and the rapid advance and change in technology, the department stresses the development of a broad background that will enable students to find employment and be able to further their skills in a diversified number of industries.

Protective shop clothing and eye protection supplies required for the program will be purchased by the student. Students who satisfactorily complete the program requirements qualify for a certificate of program completion.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **CAD 120 - Mechanical Blueprint Reading with Sketching** ***Credits: 3***
- **MECH 101 - Introduction to Mechatronics** ***Credits: 3***
- **MFG 102 - Basic Machining Processes** ***Credits: 3***
- **ROBAT 101 - Robot Tool Handling Operations and Programming** ***Credits: 3***

TOTAL CREDITS: 12

Winter Semester

- **CNT 179 - Physical Networking** ***Credits: 3***
- **ELECT 137 - DC Circuits and Mathematical Modeling** ***Credits: 5***
- **MECH 111 - Introduction to Industrial Control Systems** ***Credits: 3***
- **MECH 131 - Industrial Internet of Things (IIoT)** ***Credits: 3***

TOTAL CREDITS: 14

Spring Session

- **ELECT 138 - AC Circuits and Mathematical Modeling** ***Credits: 5***
- **MATH 102 - Technical Mathematics** ***Credits: 4***

TOTAL CREDITS: 9

PROGRAM TOTAL: 35 CREDITS

If a student possesses any of the certifications below, they may be eligible to earn Prior Learning Assessment course credit. Completion of the listed courses also prepares uncertified students to sit for the exams. Please consult the Faculty Representative for more information.

- SACA Certified Industry 4.0 Associate Basic Operations - MECH 101
- SACA Certified Industry 4.0 Associate Advanced Operations - MECH 111
- SACA Certified Industry 4.0 Associate IIOT, Networking & Data Analytics - MECH 131
- SACA Certified Industry 4.0 Associate Robot Systems Operations or FANUC Handling Tool Operations and Programming certification-ROBAT 101

Mechatronics Technology Skills Certificate

Schoolcraft program code # CRT.00222

The mechatronics technology skills certificate introduces learners to the basic skills needed for employment in today's complex manufacturing environments. These classes all apply to the mechatronics technology certificate and associate degree.

Protective shop clothing and eye protection supplies required for the program will be purchased by the student.

Students who satisfactorily complete the program requirements qualify for a certificate of program completion. All program-required courses must have been completed with a grade of 2.0 or better.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **MECH 101 - Introduction to Mechatronics** ***Credits: 3***
- **MFG 102 - Basic Machining Processes** ***Credits: 3***
- **ROBAT 101 - Robot Tool Handling Operations and Programming** ***Credits: 3***

TOTAL CREDITS: 9

Winter Semester

- **CAD 120 - Mechanical Blueprint Reading with Sketching** ***Credits: 3***
- **MECH 111 - Introduction to Industrial Control Systems** ***Credits: 3***
- **MECH 131 - Industrial Internet of Things (IIoT)** ***Credits: 3***

TOTAL CREDITS: 9

PROGRAM TOTAL: 18 CREDITS

If a student possesses any of the certifications below, they may be eligible to earn Prior Learning Assessment course credit. Completion of the listed courses also prepares uncertified students to sit for the exams. Please consult the Faculty Representative for more information.

- SACA Certified Industry 4.0 Associate Basic Operations - MECH 101
- SACA Certified Industry 4.0 Associate Advanced Operations - MECH 111
- SACA Certified Industry 4.0 Associate IIOT, Networking & Data Analytics - MECH 131
- SACA Certified Industry 4.0 Associate Robot Systems Operations or FANUC Handling Tool Operations and Programming certification- ROBAT 101

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2024-2025 Credential Year

Medical Assisting

Schoolcraft's nationally accredited medical assisting program will prepare you for both the caregiving and administrative aspects of the growing healthcare field. The program offers three certificate options:

- The medical biller/receptionist skills certificate can lead to a career in a variety of healthcare facilities, providing organizational and operational support.
- The phlebotomy skills certificate program will teach students how to draw blood through the venipuncture method, preparing them for employment as a phlebotomist in a doctor's office, clinic, or healthcare facility.
- The medical assisting certificate program goal is to prepare medical assistants who are competent in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains to enter the profession.

Credentials

- Associate of General Studies using Medical Assisting Certificate
- Associate of General Studies using Medical Biller/Receptionist Skills Certificate
- Associate of General Studies using Phlebotomy Skills Certificate
- Medical Assisting Certificate
- Medical Assisting: Medical Biller/Receptionist Skills Certificate
- Medical Assisting: Phlebotomy Skills Certificate

Selective Admissions: Program Application Information

- Medical Assisting Certificate Program Application Information

Associate of General Studies using Medical Assisting Certificate

Schoolcraft program code # AGS.00042

The medical assisting certificate program goal is to prepare medical assistants who are competent in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains to enter the profession. The program is designed to coordinate classroom and laboratory experience with practical experience in a healthcare facility such as the physician's office. Medical assistants are multi-skilled allied health professionals who perform a wide range of roles in physicians' offices, clinics, and other healthcare settings. They are proficient in a multitude of clinical and administrative tasks and are widely viewed by doctors as vital members of the healthcare delivery team. Students are required to achieve a grade of 2.0 or better for all HIT and MA courses.

Academic and medical assisting courses must be completed by the end of the winter semester to be eligible for placement in the Office Practicum offered in the spring. The Office Practicum is an externship that is structured to provide experiences in applying knowledge, performing administrative and clinical procedures, and developing professional attitudes for interacting with other professionals and consumers in a healthcare facility.

Any student wishing to pursue an associate degree can apply all 35 credits from the Medical Assisting Certificate toward an Associate of General Studies (AGS) degree. Depending on the desired career path, discuss other options for an associate degree with an academic advisor.

"The Medical Assisting Program of Schoolcraft College is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of Medical Assisting Education Review Board (MAERB)." Graduates are eligible to take the Certified Medical Assistant (CMA) examination conducted by the certifying board of the American Association of Medical Assistants.

This program requires a special admissions process. Contact the Admissions and Welcome Center at 734-462-4426 or admissions@schoolcraft.edu ***to complete an application.***

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection. Note: Students must begin MA 196 within six months of completing MA 175 & MA 180.

For more information about accreditation please contact:
Commission on Accreditation of Allied Health Education Programs (CAAHEP)
25400 U.S. Highway 19 North, Suite 158
Clearwater, FL 33763
727-210-2350
mail@caahep.org
www.caahep.org

SAMPLE SCHEDULE OF COURSES

ADMISSION PREREQUISITES

- **BIOL 105 - Basic Human Anatomy and Physiology** ***Credits: 4***
- **HIT 104 - Medical Terminology** ***Credits: 4***

Total Credits: 8

FIRST YEAR

Fall Semester

- **MA 134 - Medical Insurance Coding** ***Credits: 3***
- **MA 140 - Medical Office Procedures** ***Credits: 3***
- **MA 115 - Phlebotomy** ***Credits: 3***
- **CIS 120 - Software Applications** ***Credits: 3***
- English Communication - Select first General Education English Communication Course ***Credits: 3*** **

TOTAL CREDITS: 15

Associate of General Studies using Medical Assisting Certificate (continued)

Winter Semester

- **MA 175 - Medical Laboratory Techniques** ***Credits: 3*** *
- **MA 180 - Medical Office Clinical Procedures** ***Credits: 4*** *
- **MA 155 - Medical Insurance Billing** ***Credits: 3***
- **HIT 114 - Pharmacology for Health Professionals** ***Credits: 2***
- English Communication - Select second General Education English Communication Course ***Credits: 3*** **

TOTAL CREDITS: 15

Spring Session

- **MA 196 - Office Practicum** ***Credits: 3*** *

TOTAL CREDITS: 3

SECOND YEAR

Fall Semester

- Humanities - Select General Education Humanities Course ***Credits: 3*** **
- Mathematics - Select General Education Mathematics Course ***Credits: 3*** **
- Natural Science - Select General Education Science Course ***Credits: 3*** **
- Social Science - Select General Education Social Science Course ***Credits: 3*** **

TOTAL CREDITS: 12

Winter Semester

- Humanities - Select General Education Humanities Course ***Credits: 1*** **
- Social Science - Select General Education Social Science Course ***Credits: 3*** **
- Elective - Select course supportive of occupational and academic goals ***Credits: 3***

TOTAL CREDITS: 7

PROGRAM TOTAL: 60 CREDITS

*Courses open only to students who are officially admitted to the Medical Assisting Program.

**Please check Schoolcraft General Education requirements to determine course options.

PROGRAMS REQUIRING LICENSURE

Federal regulations require Schoolcraft College to publicly disclose, for each educational program designed to meet the educational requirements for a specific professional license or certification required for employment in an occupation (or advertised as meeting a requirement for employment), information about whether program completion would meet those requirements in a state. These public disclosure requirements apply to all programs, regardless of their modality (i.e., on-ground, online, and hybrid programs).

Please see the disclosure related to the educational requirements for professional licensure and certification.

Associate of General Studies using Medical Biller/Receptionist Skills Certificate

Schoolcraft program code # AGS.00042

The medical biller/receptionist curriculum prepares the student to answer telephones, route calls, greet visitors, respond to inquiries from the public, perform medical insurance billing and provide information about the healthcare facility. Job opportunities are in medical offices, hospitals, clinics, health-related facilities, urgent care centers, and surgical centers.

Any student wishing to pursue an associate degree can apply all 16 credits from the Medical Assisting: Medical Biller/Receptionist Skills Certificate toward an Associate of General Studies (AGS) degree. Depending on the desired career path, discuss other options for an associate degree with an academic advisor. All program-required courses must have been completed with a grade of 2.0 or better.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **CIS 120 - Software Applications** ***Credits: 3***
- **HIT 104 - Medical Terminology** ***Credits: 4*** *
- **MA 134 - Medical Insurance Coding** ***Credits: 3*** *
- English Communication - Select first General Education English Communication Course ***Credits: 3*** **
- Humanities - Select General Education Humanities Course ***Credits: 3*** **

TOTAL CREDITS: 16

Winter Semester

- **MA 155 - Medical Insurance Billing** ***Credits: 3*** *
- **MA 140 - Medical Office Procedures** ***Credits: 3*** *
- English Communication - Select second General Education English Communication Course ***Credits: 3*** **
- Mathematics - Select General Education Mathematics Course ***Credits: 3*** **
- Social Science - Select General Education Social Science Course ***Credits: 3*** **

TOTAL CREDITS: 15

SECOND YEAR

Fall Semester

- Natural Science - Select General Education Science Course ***Credits: 4*** **
- Humanities - Select General Education Humanities Course ***Credits: 1*** **
- Electives - Select courses supportive of occupational and academic goals ***Credits: 10***

TOTAL CREDITS: 15

Winter Semester

- Natural Science - Select General Education Science Course ***Credits: 3*** **
- Social Science - Select General Education Social Science Course ***Credits: 3*** **
- Electives - Select courses supportive of occupational and academic goals ***Credits: 8***

TOTAL CREDITS: 14

PROGRAM TOTAL: 60 CREDITS

*Courses apply to the Medical Assisting Program.

**Please check Schoolcraft General Education requirements to determine course options.

Associate of General Studies using Phlebotomy Skills Certificate

Schoolcraft program code # AGS.00042

The phlebotomy curriculum prepares the student for employment as a phlebotomist with job opportunities in a medical office, clinic, or healthcare facility. The phlebotomist is trained to draw blood through a method called venipuncture. A venipuncture is performed when a large specimen of blood is needed for testing.

Any student wishing to pursue an associate degree can apply all 17 credits from the Phlebotomy Skills Certificate toward an Associate of General Studies (AGS) degree. Depending on the desired career path, discuss other options for an associate degree with an academic advisor. All program required courses must have been completed with a grade of 2.0 or better.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **BIOL 105 - Basic Human Anatomy and Physiology** ***Credits: 4*** *
- **HIT 104 - Medical Terminology** ***Credits: 4*** *
- English Communication - Select first General Education English Communication Course ***Credits: 3*** **
- Humanities - Select General Education Humanities Course ***Credits: 3*** **

TOTAL CREDITS: 14

Winter Semester

- **MA 115 - Phlebotomy** ***Credits: 3*** *
- **MA 140 - Medical Office Procedures** ***Credits: 3*** *
- **CIS 120 - Software Applications** ***Credits: 3*** *
- English Communication - Select second General Education English Communication Course ***Credits: 3*** **
- Mathematics - Select General Education Mathematics Course ***Credits: 3*** **

TOTAL CREDITS: 15

Spring Session

- Select One
- **MA 161 - Phlebotomy Internship** ***Credits: 2***
- **HIT 114 - Pharmacology for Health Professionals** ***Credits: 2*** *

TOTAL CREDITS: 2

SECOND YEAR

Fall Semester

- Social Science - Select General Education Social Science Course ***Credits: 3*** **
- Humanities - Select General Education Humanities Course ***Credits: 1*** **
- Natural Science - Select General Education Science Course ***Credits: 3*** **
- Electives - Select courses supportive of occupational and academic goals ***Credits: 9***

TOTAL CREDITS: 16

Winter Semester

- Social Science - Select General Education Social Science Course ***Credits: 3*** **
- Electives - Select courses supportive of occupational and academic goals ***Credits: 10***

TOTAL CREDITS: 13

PROGRAM TOTAL: 60 CREDITS

*Courses apply to the Medical Assisting Program.

**Please check Schoolcraft General Education requirements to determine course options.

Medical Assisting Certificate

Schoolcraft program code # 1YC.0P026/1YC.00026

The medical assisting certificate program goal is to prepare medical assistants who are competent in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains to enter the profession. The program is designed to coordinate classroom and laboratory experience with practical experience in a healthcare facility such as the physician's office. Medical assistants are multi-skilled allied health professionals who perform a wide range of roles in physicians' offices, clinics, and other healthcare settings. They are proficient in a multitude of clinical and administrative tasks and are widely viewed by doctors as vital members of the healthcare delivery team. Students are required to achieve a grade of 2.0 or better for all HIT and MA courses.

Academic and medical assisting courses must be completed by the end of the winter semester to be eligible for placement in the Office Practicum offered in the spring. The Office Practicum is an externship that is structured to provide experiences in applying knowledge, performing administrative and clinical procedures, and developing professional attitudes for interacting with other professionals and consumers in a healthcare facility.

Students who satisfactorily complete the program requirements qualify for a certificate of program completion. "The Medical Assisting Program of Schoolcraft College is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Medical Assisting Education Review Board (MAERB)." Graduates are eligible to take the Certified Medical Assistant (CMA) examination conducted by the certifying board of the American Association of Medical Assistants.

This program requires students to complete a specific list of requirements before being officially admitted into the program. Students are listed in a pre-program code while the application requirements are being met. The full program start date and implementation of program code may be dependent on space availability. Requirements are listed online at https://www.schoolcraft.edu/admissions/apply-to-sc/students-with-selective-admissions/ ***or*** the Medical Assisting Certificate Program Application Information ***catalog page. Contact the Admissions and Welcome Center at 734-462-4426 or*** admissions@schoolcraft.edu ***to complete an application.***

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection. Note: Students must begin MA 196 within six months of completing MA 175 & MA 180.

For more information about accreditation please contact:
Commission on Accreditation of Allied Health Education Programs (CAAHEP)
25400 U.S. Highway 19 North, Suite 158
Clearwater, FL 33763
727-210-2350
mail@caahep.org
www.caahep.org

SAMPLE SCHEDULE OF COURSES

ADMISSION PREREQUISITES

- **BIOL 105 - Basic Human Anatomy and Physiology** ***Credits: 4***
- **HIT 104 - Medical Terminology** ***Credits: 4***

Total Credits: 8

FIRST YEAR

Fall Semester

- **MA 134 - Medical Insurance Coding** ***Credits: 3***
- **MA 140 - Medical Office Procedures** ***Credits: 3***
- **MA 115 - Phlebotomy** ***Credits: 3***
- **CIS 120 - Software Applications** ***Credits: 3***

TOTAL CREDITS: 12

Medical Assisting Certificate (continued)

Winter Semester

- **MA 175 - Medical Laboratory Techniques** ***Credits: 3*** *
- **MA 180 - Medical Office Clinical Procedures** ***Credits: 4*** *
- **MA 155 - Medical Insurance Billing** ***Credits: 3***
- **HIT 114 - Pharmacology for Health Professionals** ***Credits: 2***

TOTAL CREDITS: 12

Spring Session

- **MA 196 - Office Practicum** ***Credits: 3*** *

TOTAL CREDITS: 3

PROGRAM TOTAL: 35 CREDITS

*Courses open only to students who are officially admitted to the Medical Assisting Program.

PROGRAMS REQUIRING LICENSURE

Federal regulations require Schoolcraft College to publicly disclose, for each educational program designed to meet the educational requirements for a specific professional license or certification required for employment in an occupation (or advertised as meeting a requirement for employment), information about whether program completion would meet those requirements in a state. These public disclosure requirements apply to all programs, regardless of their modality (i.e., on-ground, online, and hybrid programs).

Please see the disclosure related to the educational requirements for professional licensure and certification.

Medical Assisting: Medical Biller/Receptionist Skills Certificate

Schoolcraft program code # CRT.00350

The medical biller/receptionist certificate prepares the student to answer telephones, route calls, greet visitors, respond to inquiries from the public, perform medical insurance billing and provide information about the healthcare facility. Job opportunities are in medical offices, hospitals, clinics, health-related facilities, urgent care centers, and surgical centers.

Students who satisfactorily complete the program requirements qualify for a certificate of program completion. All program required courses must have been completed with a grade of 2.0 or better.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **CIS 120 - Software Applications** ***Credits: 3***
- **HIT 104 - Medical Terminology** ***Credits: 4*** *
- **MA 134 - Medical Insurance Coding** ***Credits: 3*** *

TOTAL CREDITS: 10

Winter Semester

- **MA 155 - Medical Insurance Billing** ***Credits: 3*** *
- **MA 140 - Medical Office Procedures** ***Credits: 3*** *

TOTAL CREDITS: 6

PROGRAM TOTAL: 16 CREDITS

*Courses apply to the Medical Assisting Program.

Medical Assisting: Phlebotomy Skills Certificate

Schoolcraft program code # CRT.00325

The phlebotomy certificate prepares the student for employment as a phlebotomist with job opportunities in a medical office, clinic, or healthcare facility. The phlebotomist is trained to draw blood through a method called venipuncture. A venipuncture is performed when a large specimen of blood is needed for testing.

Students who satisfactorily complete the program requirements qualify for a certificate of program completion. All program required courses must have been completed with a grade of 2.0 or better.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **BIOL 105 - Basic Human Anatomy and Physiology** ***Credits: 4*** *
- **HIT 104 - Medical Terminology** ***Credits: 4*** *

TOTAL CREDITS: 8

Winter Semester

- **MA 115 - Phlebotomy** ***Credits: 3*** *
- **MA 140 - Medical Office Procedures** ***Credits: 3*** *
- **CIS 120 - Software Applications** ***Credits: 3*** *

TOTAL CREDITS: 9

Spring Session

- Select One
- **MA 161 - Phlebotomy Internship** ***Credits: 2*** **
- **HIT 114 - Pharmacology for Health Professionals** ***Credits: 2*** *

TOTAL CREDITS: 2

PROGRAM TOTAL: 19 CREDITS

*Courses apply to the Medical Assisting Program.

** If your major is Phlebotomy, you are strongly encouraged to complete MA 161 to obtain eligibility to take the National Center for Competency Testing certification Exam. All courses may be applied toward the associate of general studies degree.

Schoolcraft College®

2024-2025 Credential Year

Medical Assisting Certificate Program Application Information

The medical assisting certificate program goal is to prepare medical assistants who are competent in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains to enter the profession. The program is designed to coordinate classroom and laboratory experience with practical experience in a healthcare facility such as the physician's office. Medical assistants are multi-skilled allied health professionals who perform a wide range of roles in physicians' offices, clinics, and other healthcare settings. They are proficient in a multitude of clinical and administrative tasks and are widely viewed by doctors as vital members of the healthcare delivery team.

- Classes are offered during the day with some courses offered in the evening on a limited basis. Most classes generally meet one or two days per week in Health Professions classrooms/laboratories.
- In addition to classroom and laboratory experience, the program includes an office practicum in a healthcare facility.
- Students who successfully complete all program courses qualify for a Certificate of Program Completion and are eligible to take the Certified Medical Assistant (CMA) examination conducted by the certifying board of the American Association of Medical Assistants.
- The Medical Assisting program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Medical Assisting Education Review Board (MAERB).

APPLICATION REQUIREMENTS

The Medical Assisting (MA) Program requires students to complete a specific list of requirements before being officially admitted into the program. Students are listed in a pre-program code while the application requirements are being met. The full program start date and implementation of the program code may be dependent on space availability. To be admitted to the program the student must complete the following:

1. Apply to Schoolcraft College	Apply to Schoolcraft College online at www.schoolcraft.edu/apply.
2. Transcripts	It is recommended you request official undergraduate transcripts from all colleges and universities previously attended. Transcripts must be sent directly from the issuing college or university to Schoolcraft College. To confirm that transcripts have been received, contact the Answer Center at 734-462-4426.
3. Academic Advising and Assessment	This program requires minimum assessment levels or coursework in the areas of math, reading, and writing. Students should have placement scores (Computer Placement Test, ACT, or SAT) submitted prior to meeting with an academic advisor. Students with prior college-level work or a degree may be exempt from placement testing. The Computer Placement Test (CPT) is taken in the Testing Center. ACT or SAT scores must be less than three years old. Contact the Academic Advising at 734-462-4429 to make an appointment.
4. College Prerequisite Coursework	• Complete BIOL 105 - Basic Human Anatomy and Physiology or equivalent. Complete Basic Anatomy and Physiology with a grade of 2.0/C or better. • Complete HIT 104 - Medical Terminology or equivalent. Complete Medical Terminology with a grade of 2.0/C or better. ○ NOTE: Prior to the start of MA 175 and MA 180 these additional courses must be complete with a 2.0 or higher: CIS 120, MA 115, MA 134, and MA 140.
5. Apply to Medical Assisting Program	Meet with an Academic Advisor to complete the Medical Assisting Restricted Enrollment Change Form.

OPEN/SUPPORTING COURSES

Admission to the Medical Assisting Program is not necessary to register for the courses listed below. The following courses are open to all Schoolcraft students who have met the course prerequisite (see the Medical Assisting Certificate catalog page).

- CIS 120 - Software Applications
- BIOL 105 - Basic Human Anatomy and Physiology
- HIT 104 - Medical Terminology
- HIT 114 - Pharmacology for Health Professionals
- MA 115 - Phlebotomy
- MA 134 - Medical Insurance Coding
- MA 140 - Medical Office Procedures
- MA 155 - Medical Insurance Billing

ESTIMATE OF TUITION AND FEES

Medical Assisting Certificate			
2024-2025			
Program Credit Hours – 35			
	Resident	*Non-Resident*	*Out of State*
Tuition:	$ 4,865.00	$ 7,000.00	$ 9,450.00
Registration Fees: ($44 per semester)	$ 176.00	$ 176.00	$ 176.00
Service Fees: ($9 per credit hour)	$ 315.00	$ 315.00	$ 315.00
Instructional Equipment Fees: ($11 per credit hour)	$ 385.00	$ 385.00	$ 385.00
Infrastructure Fees: ($9 per credit hour)	$ 315.00	$ 315.00	$ 315.00
Course and Learning Management Fees: ($12 per class)	$ 132.00	$ 132.00	$ 132.00
Lab Fees: (varies according to individual class)	$ 273.00	$ 273.00	$ 273.00
Excess Contact Hour Fees: (varies according to individual class)	$ 278.00	$ 278.00	$ 278.00
Additional Expenses:			
Hepatitis B Vaccine	$ 150.00	$ 150.00	$ 150.00
Application Fee for Certification Exam (optional)	$ 235.00	$ 235.00	$ 235.00
Miscellaneous Expenses for Clinical Affiliation	$ 300.00	$ 300.00	$ 300.00
Liability Insurance (per fiscal year)	$ 20.00	$ 20.00	$ 20.00
Total	$ 7,444.00	$ 9,579.00	$ 12,029.00
The above figures are based on 2024-2025 rates and are subject to change. A Resident student is one whose legal residence is in the school District of Clarenceville, Garden City, Livonia, Northville, Plymouth-Canton or parts of Novi. All other students are Non-Residents.			

PLEASE NOTE:

Requirements for admission to the Medical Assisting Certificate are subject to change at any time.

Ready to get started! Download the Medical Assisting Certificate Student Checklist to get on track.	Student Checklist
Ready to apply? Download the Application Form and schedule a meeting with your Advisor.	Application Form

Please contact the Admissions and Welcome Center for updates on any applicable changes:

Phone: (734) 462-4683
Fax: (734) 462-4552
E-mail: admissions@schoolcraft.edu
Web: www.schoolcraft.edu

It is the policy of Schoolcraft College that no person shall, on the basis of race, color, national origin, gender, age, marital status, creed, or handicap, be excluded from participating in, be denied benefits of, or be subject to discrimination during any program or activity or in employment.

2024-2025 Credential Year

Medical Imaging

Medical Imaging programs at Schoolcraft College prepare students for successful careers in the field of Radiology. These programs utilize a strong curriculum, quality clinical experiences, and a commitment to undergraduate education in the creation of images and treatment of patients using highly sophisticated equipment and techniques.

Schoolcraft College offers an Associate of Applied Science degree in Radiologic Technology. Radiographers are healthcare professionals responsible for producing images of the bones and organs of the human body. They operate radiologic equipment utilizing ionizing radiation and are responsible for creating high-quality radiographs. These medical images are used to diagnose and treat diseases. Upon successful completion of this program, students will be qualified to sit for the registry in their field of study.

In addition, an Associate of Applied Science degree in Diagnostic Medical Sonography (Ultrasound) is offered. Diagnostic Medical Sonography is a branch of diagnostic medical imaging. DMS is a medical procedure that uses high-frequency sound waves (ultrasound) to produce visual images of organs, tissues, or blood flow. These dynamic images are produced using non-ionizing ultrasound creating 2D and 3D images under the guidance of a licensed physician.

Additional Medical Imaging Programs are offered at Schoolcraft, which allow currently credentialed Imaging professionals the opportunity to advance within the profession. These include the opportunity to obtain training to test for credentials in Computed Tomography (CT), Magnetic Resonance Imaging (MRI), and Mammography (M). Upon completion of one of these programs, students will be eligible to test for advanced registry certification by the American Registry of Radiologic Technologists.

Credentials

- Computed Tomography Post-Associate Certificate
- Diagnostic Medical Sonography AAS Degree
- Magnetic Resonance Imaging Post-Associate Certificate
- Mammography Post-Associate Certificate
- Radiologic Technology AAS Degree

Selective Admissions: Program Application Information

- Computed Tomography Post Associate Degree Program Application Information
- Diagnostic Medical Sonography AAS Program Application Information
- Magnetic Resonance Imaging Program Application Information
- Mammography Post Associate Certificate Program Application Information
- Radiologic Technology AAS Program Application Information

Computed Tomography Post-Associate Certificate

Schoolcraft program code #PAC.0P278/PAC.00278

The Computed Tomography post-associate certificate is designed for those students who are registered Radiologic Technologists (ARRT), Radiation Therapists (ARRT), and Nuclear Medicine Technologists (ARRT or NMTCB). It is not necessary to hold an associate degree to be in this program. The program consists of traditional or online didactic courses and professionally supervised clinical training performed at a local clinical site.

The Computer Tomography program provides the knowledge that will enable students to enter the workforce as entry-level Computed Tomography technologists. The program prepares the post-graduate technologist to use computed technology to produce cross-sectional anatomical images of the human body for diagnostic testing, radiation therapy treatment planning, and positron emission tomography (PET).

The post-associate certificate is awarded upon successful completion of a minimum of 16 credits. Upon completion of the program, students are eligible to take the ARRT post-primary certification examination in computed tomography. This adds the Computed Tomography credential (CT) to their ARRT certification.

Mission:

The mission of the Schoolcraft College Computed Tomography post-associate certificate program is to serve the community by providing an educational setting where students will receive the advanced training and knowledge necessary to enter the profession as entry-level Computed Tomography technologists. Graduates will exemplify qualities of excellence in patient care, professionalism, safety, and ethical behavior thereby enhancing the healthcare experience of the patients we serve.

This program requires a special admissions process. Students are required to complete a specific list of requirements before being officially admitted into the program. Students are listed in a pre-program code while application requirements are being met. The full program start date and implementation of the program code may be dependent on space availability. Requirements are listed online at https://www.schoolcraft.edu/admissions/apply-to-sc/students-with-selective-admissions/ or the Computed Tomography Post Associate Degree Program Application Information catalog page. Contact the Admissions and Welcome Center at 734-462-4426/ admissions@schoolcraft.edu or the Advising Department at 734-462-4429 (option 4)/eadvise@schoolcraft.edu to obtain an application.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of total program credits may vary depending on course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **CTMI 210 - Computed Tomography Principles and Instrumentation** ***Credits: 2***
- **CTMI 220 - Patient Care and Safety in Computed Tomography** ***Credits: 2***
- **CTMI 270 - Computed Tomography Clinical Education 1** ***Credits: 4***

TOTAL CREDITS: 8

Winter Semester

- **CTMI 230 - Pathology and Cross-Sectional Anatomy** ***Credits: 3***
- **CTMI 280 - Computed Tomography Clinical Education 2** ***Credits: 4***
- **CTMI 290 - Computed Tomography Capstone** ***Credits: 1***

TOTAL CREDITS: 8

PROGRAM TOTAL: 16 CREDITS

PROGRAMS REQUIRING LICENSURE

Federal regulations require Schoolcraft College to publicly disclose, for each educational program designed to meet the educational requirements for a specific professional license or certification required for employment in an occupation (or advertised as meeting a requirement for employment), information about whether program completion would meet those requirements in a state. These public disclosure requirements apply to all programs, regardless of their modality (i.e., on-ground, online, and hybrid programs).

Please see the disclosure related to the educational requirements for professional licensure and certification.

Diagnostic Medical Sonography AAS Degree

Schoolcraft program code #AAS.0P281/#AAS.00281

Diagnostic Medical Sonography (DMS) is a branch of diagnostic medical imaging. DMS, also called ultrasonography or sonography, is a diagnostic medical procedure that uses high frequency sound waves (ultrasound) to produce dynamic visual images of organs, tissues, or blood flow inside the body. Sonography is a radiation-free imaging modality.

The Diagnostic Medical Sonography program (DMS) provides the knowledge that will enable students to enter the workforce as entry-level sonographers. The program includes didactic, directed hands-on laboratory and professionally supervised clinical training in general sonography (defined as abdomen, obstetric, gynecologic, superficial organs, and other appropriate areas).

Educational facilities located within Schoolcraft College include state-of-the-art classrooms and clinical resources designated to promote an exceptional educational experience. Students that satisfactorily complete this 24-month program will earn an associate degree of applied science from Schoolcraft College. Upon completion of the program graduates sit for the American Registry in Diagnostic Medical Sonography (ARDMS) exam. Successful passing of this exam results in being certified as a Registered Diagnostic Medical Sonographer (RDMS).

Mission:

The mission of the Schoolcraft College Diagnostic Medical Sonography program is to serve the community by providing an educational setting where students will receive the essential foundation for a career in diagnostic medical sonography science. Graduates will exemplify qualities of excellence in patient care, professionalism, safety, and ethical behavior thereby enhancing the healthcare experience of the patients we serve.

Program Goals:

- To prepare competent entry-level general sonographers in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains.
- Offer an educational experience that promotes effective communication skills, critical thinking abilities, and professionalism.
- Provide an educational program that enhances career opportunities and encourages a desire for life-long learning.
- Develop Diagnostic Medical Sonographers that function as a compassionate and competent part of the healthcare team and represent the commitment to excellence that Schoolcraft College strives to achieve.
- Prepare the students to take and pass the ARDMS examination in Ultrasound Physics and Instrumentation, Abdomen, Obstetrics & Gynecology Sonography.

This program requires a special admissions process. Students are required to complete a specific list of requirements before being officially admitted into the program. Students are listed in a pre-program code while application requirements are being met. The full program start date and implementation of the program code may be dependent on space availability. Requirements are listed online at https://www.schoolcraft.edu/admissions/apply-to-sc/students-with-selective-admissions/ ***or the*** Diagnostic Medical Sonography AAS Program Application Information ***catalog page. Contact the Admissions and Welcome Center at 734-462-4426/*** admissions@schoolcraft.edu ***or the Advising Department at 734-462-4429 (option 4)***/eadvise@schoolcraft.edu ***to complete an application.***

Students who satisfactorily complete the program requirements with a minimum of a 3.0 grade in each DMS, Mathematics, Biology, and Physics class will qualify for an associate of applied science degree.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of total program credits may vary depending on course selection.

SAMPLE SCHEDULE OF COURSES

ADMISSION PREREQUISITES

*These courses must be completed prior to admission to the Diagnostic Medical Sonography AAS program. Students must achieve a 3.0 or higher in DMS 100, COMA 103, Mathematics, Biology and Physics for acceptance.

FIRST YEAR

Fall Semester

- **COMA 103 - Fundamentals of Speech** ***Credits: 3*** *
- **BIOL 236 - Human Anatomy and Physiology** ***Credits: 5*** * ***
- Select one: Credits 2-4
    - **HIT 100 - Introduction to Medical Terminology** ***Credits: 2*** *

Diagnostic Medical Sonography AAS Degree (continued)

- **HIT 104 - Medical Terminology** ***Credits: 4*** *
- Mathematics* Credits 3-5 - Select one:
  - **MATH 102 - Technical Mathematics** ***Credits: 4***
  - **MATH 113 - Intermediate Algebra for College Students** ***Credits: 4*** or a higher Mathematics course

TOTAL CREDITS: 13-17

Winter Semester

- **DMS 100 - Introduction to Diagnostic Medical Sonography** ***Credits: 3*** *
- **PHIL 257 - Bioethics** ***Credits: 3***
- **PHYS 123 - Applied Physics** ***Credits: 5*** *
- Social Science - Select Any General Education Social Science course. Recommended courses are listed below.
  - **ANTH 112 - Introduction to Anthropology** ***Credits: 3***
  - **GEOG 133 - World Regional Geography** ***Credits: 4***
  - **PSYCH 201 - Introductory Psychology** ***Credits: 4***
  - **SOC 201 - Principles of Sociology** ***Credits: 3***
  - **SOC 205 - Social Problems** ***Credits: 3***
  - **SOC 209 - Marriage and Family** ***Credits: 3***
  - **SOC 210 - Cultural Diversity** ***Credits: 3***
  - **SOC 220 - Urban Sociology** ***Credits: 3***

TOTAL CREDITS: 14-15

Spring/Summer Session

Admission to Program Required for All DMS Courses Below**

DMS courses are 15 weeks.

- **DMS 110 - Sonography Physics and Instrumentation** ***Credits: 4*** **
- **DMS 116 - Cross-Sectional Sonography** ***Credits: 3*** **
- **DMS 152 - Sonography Lab 1** ***Credits: 2*** **
- English - Select One:
  - **ENG 101 - English Composition 1** ***Credits: 3***
  - **ENG 102 - English Composition 2** ***Credits: 3***

TOTAL CREDITS: 12

SECOND YEAR

Fall Semester

- **DMS 120 - Abdominal Sonography** ***Credits: 3*** **
- **DMS 202 - Sonography Lab 2** ***Credits: 2*** **
- **DMS 212 - Sonography Clinical 1** ***Credits: 3*** **

TOTAL CREDITS: 8

Winter Semester

- **DMS 220 - Sonography Clinical 2** ***Credits: 6*** **
- **DMS 162 - Obstetrics Sonography** ***Credits: 3*** **
- **DMS 166 - Gynecology Sonography** ***Credits: 2*** **

TOTAL CREDITS: 11

Spring/Summer Session

DMS courses are 15 weeks.

- **DMS 252 - Advanced Sonography** ***Credits: 3*** **
- **DMS 230 - Sonography Clinical 3** ***Credits: 6*** **

TOTAL CREDITS: 9

PROGRAM TOTAL: 67- 72 CREDITS

Diagnostic Medical Sonography AAS Degree (continued)

If a student is a current Registered Diagnostic Medical Sonographer, RDMS through the American Registry in Diagnostic Medical Sonography, ARDMS, they may be eligible to earn Prior Learning Credit for all listed DMS courses (39 credits) plus HIT 100 and mathematics. The remaining credits must be earned at Schoolcraft College to obtain an AAS. Please consult the Program Director for more information.

****Students may also take the BIOL 237-BIOL 238 Anatomy and Physiology course sequence, please meet with an advisor for recommendations.*

Magnetic Resonance Imaging Post-Associate Certificate

Schoolcraft program code #PAC.0P280/PAC.00280

The Magnetic Resonance Imaging post-associate certificate is designed for those students who are registered Radiologic Technologists (ARRT), Radiation Therapists (ARRT), Nuclear Medicine Technologists (ARRT or NMTCB), and Sonographer (ARRT or ARDMS). It is not necessary to hold an associate degree to be in this program. The program consists of traditional or online didactic courses and professionally supervised clinical training performed at a local clinical site.

The Magnetic Resonance Imaging (MRI) program provides the knowledge that will enable students to enter the workforce as entry-level MRI technologists. The program prepares the post-graduate technologist to use MRI to diagnose diseases and injuries. During an MRI, the resonant frequency properties of atoms are used within a magnetic field to image the anatomic and/or physiologic conditions of the body. MRI is an exciting advancing technology in the field of Radiology.

The post-associate certificate is awarded upon successful completion of 16 credits. Upon completion of the program, students are eligible to take the ARRT post-primary certification examination in Magnetic Resonance Imaging.

Mission:

The mission of the Schoolcraft College Magnetic Resonance Imaging post-associate certificate program is to serve the community by providing an educational setting where students will receive the advanced training and knowledge necessary to enter the profession as entry-level MRI technologists. Graduates will exemplify qualities of excellence in patient care, professionalism, safety, and ethical behavior thereby enhancing the healthcare experience of the patients we serve.

This program requires a special admissions process. Students are required to complete a specific list of requirements before being officially admitted into the program. Students are listed in a pre-program code while application requirements are being met. The full program start date and implementation of the program code may be dependent on space availability. Requirements are listed online at https://www.schoolcraft.edu/admissions/apply-to-sc/students-with-selective-admissions/ or the Magnetic Resonance Imaging Program Application Information catalog page. Contact the Admissions and Welcome Center at 734-462-4426/ admissions@schoolcraft.edu or the Advising Department at 734-462-4429 (option 4)/eadvise@schoolcraft.edu to obtain an application.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of total program credits may vary depending on course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **MRI 210 - Magnetic Resonance Imaging Image Production** ***Credits: 3***
- **MRI 220 - Magnetic Resonance Imaging Patient Care and Safety** ***Credits: 2***
- **MRI 270 - Magnetic Resonance Imaging Clinical Education 1** ***Credits: 4***

TOTAL CREDITS: 9

Winter Semester

- **MRI 230 - Anatomy and Pathology** ***Credits: 2***
- **MRI 280 - Magnetic Resonance Imaging Clinical Education 2** ***Credits: 4***
- **MRI 290 - Magnetic Resonance Imaging Capstone** ***Credits: 1***

TOTAL CREDITS: 7

PROGRAM TOTAL: 16 CREDITS

PROGRAMS REQUIRING LICENSURE

Federal regulations require Schoolcraft College to publicly disclose, for each educational program designed to meet the educational requirements for a specific professional license or certification required for employment in an occupation (or advertised as meeting a requirement for employment), information about whether program completion would meet those requirements in a state. These public disclosure requirements apply to all programs, regardless of their modality (i.e., on-ground, online, and hybrid programs).

Please see the disclosure related to the educational requirements for professional licensure and certification.

Mammography Post-Associate Certificate

Schoolcraft program code #PAC.0P279/PAC.00279

The Mammography post-associate certificate is designed for those students who are registered Radiologic Technologists (ARRT). The program consists of didactic courses and professionally supervised clinical training performed at a local clinical site.

The Mammography program provides the knowledge that will enable students to enter the workforce as entry-level mammography technologists. The program prepares the post-graduate technologist to use mammography to detect the presence of a tumor or lump, and other abnormalities of the breast. Mammography uses low-energy radiation to produce images of the breast that play a key role in the early detection of breast cancer.

The post-associate certificate is awarded upon successful completion of 9 credits. Upon completion of the program, students are eligible to take the ARRT post-primary certification examination in mammography. This adds the Mammography credential (M) to their ARRT certification.

Mission:

The mission of the Schoolcraft College Mammography post-associate certificate program is to serve the community by providing an educational setting where students will receive the advanced training and knowledge necessary to enter the profession as entry-level Mammography technologists. Graduates will exemplify qualities of excellence in patient care, professionalism, safety, and ethical behavior thereby enhancing the healthcare experience of the patients we serve.

This program requires a special admissions process. ***Students are required to complete a specific list of requirements before being officially admitted into the program. Students are listed in a pre-program code while application requirements are being met. The full program start date and implementation of the program code may be dependent on space availability. Requirements are listed online at*** https://www.schoolcraft.edu/admissions/apply-to-sc/students-with-selective-admissions/ ***or the*** Mammography Post Associate Certificate Program Application Information ***catalog page. Contact the Admissions and Welcome Center at 734-462-4426/*** admissions@schoolcraft.edu ***or the Advising Department at 734-462-4429 (option 4)/*** eadvise@schoolcraft.edu ***to obtain an application.***

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of total program credits may vary depending on course selection.

NOTE: Federal Financial Aid is not available for this program.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **MAMM 210 - Mammography Procedures and Image Analysis** ***Credits: 3***
- **MAMM 220 - Instrumentation and Quality Assurance Mammography** ***Credits: 2***

TOTAL CREDITS: 5

Winter Semester

- **MAMM 270 - Mammography Clinical Education** ***Credits: 4***

TOTAL CREDITS: 4

PROGRAM TOTAL: 9 CREDITS

PROGRAMS REQUIRING LICENSURE

Federal regulations require Schoolcraft College to publicly disclose, for each educational program designed to meet the educational requirements for a specific professional license or certification required for employment in an occupation (or advertised as meeting a requirement for employment), information about whether program completion would meet those requirements in a state. These public disclosure requirements apply to all programs, regardless of their modality (i.e., on-ground, online, and hybrid programs).

Please see the disclosure related to the educational requirements for professional licensure and certification.

Radiologic Technology AAS Degree

Schoolcraft program code #AAS.0P283/AAS.00283

Radiologic Technology is an area of medicine that uses ionizing radiation to provide diagnostic images of a patient's body under the supervision of a Radiologist. Radiologic technologists learn to position patients for x-ray exams, provide radiation safety for patients and others, and produce a quality diagnostic image. The curriculum features a combination of didactic coursework, hands-on lab work, and supervised clinical experience providing a solid foundation in the field of Radiology services.

The Radiologic Technology program provides the knowledge that will enable students to enter the workforce as entry-level technologists. The didactic and clinical learning experiences require approximately 40 hours of participation per week in the second year of the program. Educational facilities located within Schoolcraft College include state-of-art classrooms and clinical training resources designed to promote an exceptional educational experience.

Successful completion of the program requirements qualifies the student to take the national credential examination offered by the American Registry of Radiologic Technologists, A.R.R.T. Satisfactory achievement of this examination qualifies the graduate to practice as a Registered Radiologic Technologist, R.T.(R).

Mission:

The mission of the Schoolcraft College Radiologic Technology program is to serve the community by providing an education setting where students will receive the essential foundation for a career in radiology science. Graduates will exemplify qualities of excellence in patient care, professionalism, safety, and ethical behavior thereby enhancing the healthcare experience of the patients we serve.

Program Goals:

1. Students will exemplify clinical competency.
2. Students will demonstrate clinical thinking during radiographic examinations.
3. Students will promote professionalism and lifelong learning.
4. Students will demonstrate effective communication skills.

This program requires a special admissions process. Students are required to complete a specific list of requirements before being officially admitted into the program. Students are listed in a pre-program code while application requirements are being met. The full program start date and implementation of the program code may be dependent on space availability. Requirements are listed online at https://www.schoolcraft.edu/admissions/apply-to-sc/students-with-selective-admissions/ ***or the*** Radiologic Technology AAS Program Application Information ***catalog page. Contact the Admissions and Welcome Center at 734-462-4426/*** admissions@schoolcraft.edu ***or the Advising Department at 734-462-4429 (option 4)***/eadvise@schoolcraft.edu ***to complete an application.***

Students who satisfactorily complete the program requirements with a minimum of a 3.0 grade in each Radiology, Mathematics, Biology, and Physics class will qualify for an associate of applied science degree.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

ADMISSION PREREQUISITES

*These courses must be completed prior to admission to the Radiologic Technology AAS program. Students must achieve a 3.0 or higher in RAD 100, RAD 105, Mathematics, Biology and Physics for acceptance.

FIRST YEAR

Fall Semester

- **RAD 100 - Introduction to Radiology Sciences** ***Credits: 2*** *
- **BIOL 236 - Human Anatomy and Physiology** ***Credits: 5*** * ***
- Select one: Credits 2-4
  - **HIT 100 - Introduction to Medical Terminology** ***Credits: 2*** *
  - **HIT 104 - Medical Terminology** ***Credits: 4*** *
- Mathematics* - Select one
  - **MATH 102 - Technical Mathematics** ***Credits: 4***
  - **MATH 113 - Intermediate Algebra for College Students** ***Credits: 4*** or a higher Mathematics course

TOTAL CREDITS: 13-15

Radiologic Technology AAS Degree (continued)

Winter Semester

- **RAD 105 - Radiation Safety** ***Credits: 2*** *
- **COMA 103 - Fundamentals of Speech** ***Credits: 3***
- **PHYS 123 - Applied Physics** ***Credits: 5*** *
- Social Science - Credits: 3-4 - Select any General Education Social Science Course. Recommended courses are listed below.
  - **ANTH 112 - Introduction to Anthropology** ***Credits: 3***
  - **GEOG 133 - World Regional Geography** ***Credits: 4***
  - **PSYCH 201 - Introductory Psychology** ***Credits: 4***
  - **SOC 201 - Principles of Sociology** ***Credits: 3***
  - **SOC 205 - Social Problems** ***Credits: 3***
  - **SOC 209 - Marriage and Family** ***Credits: 3***
  - **SOC 210 - Cultural Diversity** ***Credits: 3***
  - **SOC 220 - Urban Sociology** ***Credits: 3***

TOTAL CREDITS: 13-14

Spring/Summer Session

RAD courses are 15 weeks.

- **RAD 110 - Patient Care and Assessment** ***Credits: 3*** **
- **RAD 115 - Digital Imaging and Image Acquisition** ***Credits: 2*** **
- **RAD 212 - Radiology Procedures 1** ***Credits: 6*** **

TOTAL CREDITS: 11

SECOND YEAR

Fall Semester

- **RAD 215 - Radiology Clinical Education 1** ***Credits: 6*** **
- **RAD 232 - Radiology Procedures 2** ***Credits: 6*** **

TOTAL CREDITS: 12

Winter Semester

- **RAD 200 - Radiation Physics and Radiobiology** ***Credits: 3*** **
- **RAD 235 - Radiology Clinical Education 2** ***Credits: 6*** **
- English - Select One
  - **ENG 101 - English Composition 1** ***Credits: 3***
  - **ENG 102 - English Composition 2** ***Credits: 3***

TOTAL CREDITS: 12

Spring Session

RAD courses are 7 weeks.

- **RAD 240 - Advanced Imaging** ***Credits: 2*** **
- **RAD 250 - Radiologic Technology Capstone** ***Credits: 1*** **
- **PHIL 257 - Bioethics** ***Credits: 3***

TOTAL CREDITS: 6

PROGRAM TOTAL: 67-70 CREDITS

If a student is a current Registered Radiologic Technologist, R.T.(R) through the American Registry of Radiologic Technologists, A.R.R.T., they may be eligible to earn Prior Learning Credit for all listed RAD courses (39 credits) plus HIT 100 and mathematics. The remaining credits must be earned at Schoolcraft College to obtain an AAS. Please consult the Program Director for more information.

****Students may also take the BIOL 237-BIOL 238 Anatomy and Physiology course sequence, please meet with an advisor for recommendations.*

Schoolcraft College®

2024-2025 Credential Year

Computed Tomography Post Associate Degree Program Application Information

The Computed Tomography post-associate certificate is designed for those students who are registered Radiologic Technologists (ARRT), Radiation Therapists (ARRT), and Nuclear Medicine Technologists (ARRT or NMTCB). It is not necessary to hold an associate degree to be in this program. The program consists of traditional or online didactic courses, and professionally supervised clinical training performed at a local clinical site.

The Computer Tomography program provides the knowledge that will enable students to enter the workforce as entry-level Computed Tomography technologists. The program prepares the post-graduate technologist to use computed technology to produce cross-sectional anatomical images of the human body for diagnostic testing, radiation therapy treatment planning, and positron emission tomography (PET).

The post-associate's certificate is awarded upon successful completion of a minimum of 16 credits. Upon completion of the program, students are eligible to take the ARRT post-primary certification examination in computed tomography. This adds the Computed Tomography (CT) credential to their ARRT certification.

To view the complete program description and a sample schedule of courses, view the Computed Tomography Post-Associate Certificate catalog page.

APPLICATION REQUIREMENTS

Computed Tomography Program students are listed in a pre-program code prior to completing the application requirements. The full program start date and implementation of program code may be dependent on space availability. To be admitted to the program you must complete the following:

1. Apply to Schoolcraft College	Apply to Schoolcraft College on-line at www.schoolcraft.edu/apply.
2. Transcripts	It is recommended you request official undergraduate transcripts from all colleges and universities previously attended. Transcripts must be sent directly from the issuing college or university to Schoolcraft College. To confirm that transcripts have been received, contact the Answer Center at 734-462-4426.
3. Credential Evaluation	Contact the Health Professions Administrative Office, HealthProfessions@schoolcraft.edu, to make an appointment to have your credentials assessed by the appropriate Clinical Coordinator. This program requires students to be a registered Radiologic Technologist (ARRT), Radiation Therapist (ARRT), or Nuclear Medicine Technologist (ARRT or NMTCB) prior to starting the program. It is not necessary to hold an associate degree.
4. Other Items Required for Admission	a) Criminal History Check Clearance. Generally, convictions or pleas of guilt to a felony may prevent you from clinical affiliation assignment and/or employment in healthcare. b) Medical Clearance / Drug Screen Physical and test expires after 12 months. Drug screens may need to be repeated throughout the program as required by clinical agencies. Marijuana use is prohibited. c) Maintain a cumulative grade point average at Schoolcraft College of 2.5 or higher. d) Required Immunizations e) Two MMR vaccinations (Measles, Mumps, Rubella) - one as a child - one as an adult or Titer showing immunity for ALL of the above. f) Hepatitis B vaccination or Titer - (series must be started prior to clinical) or a signed Vaccination Declination Form. g) Flu Shot - must have annual vaccination. h) Tetanus/Diphtheria/Pertussis (TDAP) - must have received a TDAP within the past 7 years.

	i) Two-step TB Test - TB test expires after 12 months. The student's TB test cannot expire before the end of class and/or when clinical will be completed. j) Chicken Pox - 2 Varicella vaccinations given 1 month apart and/or a laboratory Titer verifying immunity. NOTE: we are no longer accepting history of chicken pox as evidence of immunity. k) Covid-19 Vaccination or other vaccinations as required by federal, state, or clinical agency guidelines. NOTE: Subject to permitted clinical site medical/religious exemptions. l) Basic Life Support course for Professional Healthcare Providers. Students need to complete a course that includes an in-person demonstration of the performance skills. 100% online courses are not accepted. This certification must be renewed annually.
5. Register for Computed Tomography Courses	Meet with an Academic Advisor to plan your CTMI courses as needed.

ESTIMATE OF TUITION AND FEES

Computed Tomography Post Associate			
2024-2025			
Program Credit Hours – 16			
	Resident	***Non-Resident***	***Out of State***
Tuition:	$ 2,224.00	$ 3,200.00	$ 4,320.00
Registration Fees: ($44 per semester)	$ 88.00	$ 88.00	$ 88.00
Service Fees: ($9 per credit hour)	$ 144.00	$ 144.00	$ 144.00
Instructional Equipment Fees: ($11 per credit hour)	$ 176.00	$ 176.00	$ 176.00
Infrastructure Fees: ($9 per credit hour)	$ 144.00	$ 144.00	$ 144.00
Course and Learning Management Fees: ($12 per class)	$ 72.00	$ 72.00	$ 72.00
Lab Fees: (varies according to individual class)	$ -	$ -	$ -
Excess Contact Hour Fees: (varies according to individual class)	$ -	$ -	$ -
Additional Expenses:			
Certification Exam Fee (optional)	$ 225.00	$ 225.00	$ 225.00
Total	$ 3,073.00	$ 4,049.00	$ 7,122.00
The above figures are based on 2024-2025 rates and are subject to change. A Resident student is one whose legal residence is in the school District of Clarenceville, Garden City, Livonia, Northville, Plymouth-Canton or parts of Novi. All other students are Non-Residents.			

PLEASE NOTE:

Requirements for admission to the Computed Tomography Post-AAS are subject to change at any time.

Ready to get started! Download the Computed Tomography Post-AAS Checklist to get on track.	**Student Checklist**
Ready to apply? Download the Application Form and schedule an appointment with the Clinical Coordinator.	**Application Form**

Please contact the Admissions and Welcome Center for updates on any applicable changes.

Phone: (734) 462-4683

E-mail: admissions@schoolcraft.edu

Web: www.schoolcraft.edu

It is the policy of Schoolcraft College that no person shall, on the basis of race, color, national origin, gender, age, marital status, creed, or handicap, be excluded from participating in, be denied benefits of, or be subject to discrimination during any program or activity or in employment.

Schoolcraft College®

2024-2025 Credential Year

Diagnostic Medical Sonography AAS Program Application Information

The Diagnostic Medical Sonography program provides the knowledge that will enable students to enter the workforce as entry-level technologists. The didactic and clinical learning experience courses require *approximately 40 hours of participation per week in the second year of the program.*

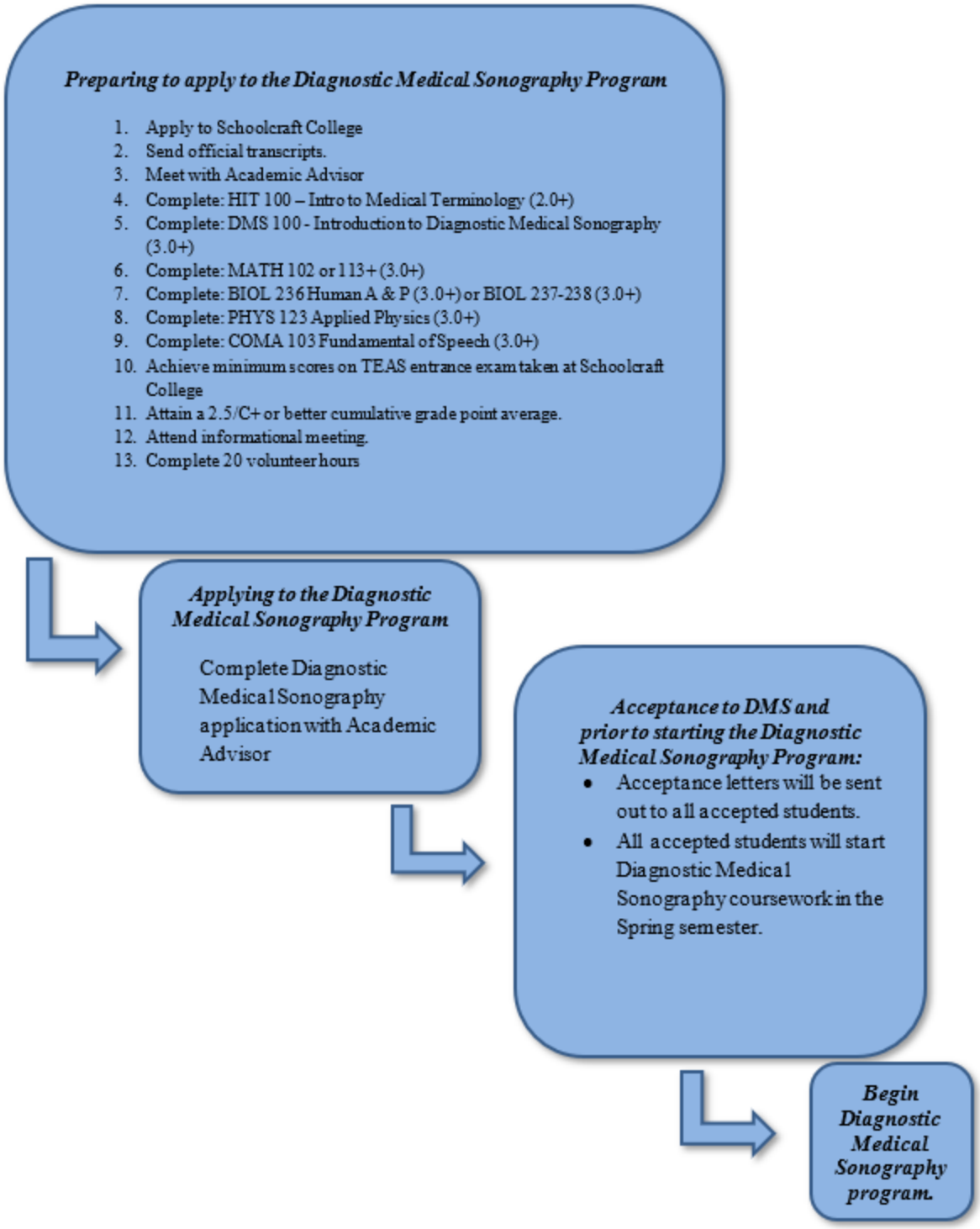
Educational facilities located within Schoolcraft College include state-of art classroom and clinical training resources designed to promote an exceptional educational experience.

Successful completion of the program requirements allows graduates to sit for the American Registry in Diagnostic Medical Sonography (ARDMS) exam.

To view the complete program description and a sample schedule of courses, view the Diagnostic Medical Sonography AAS Degree catalog page.

APPLICATION REQUIREMENTS

The Diagnostic Medical Sonography Program requires students to complete a specific list of requirements before being officially admitted into the program. Students are listed in a pre-program code while the application requirements are being met. The full program start date and implementation of program code may be dependent on space availability. Requirements are listed in the application. To be admitted to the program you must complete the following:



PREPARING TO APPLY TO THE DIAGNOSTIC MEDICAL SONOGRAPHY PROGRAM (DMS)

1. Apply to Schoolcraft College	Apply to Schoolcraft College on-line at www.schoolcraft.edu
2. Transcripts	It is recommended you request official undergraduate transcripts from all colleges and universities previously attended. Transcripts must be sent directly from the issuing college or university to the Schoolcraft College Records Office. To confirm that transcripts have been received, contact the Answer Center & Help Line at 734-462-4426.
3. Advising	The Diagnostic Medical Sonography program requires minimum assessment levels of course work in the areas of math, reading, and writing. Students should meet with an

	academic advisor to develop an academic plan. Students with prior college level work or a degree may be exempt from general college placement testing. Students who have submitted ACT or SAT scores that are less than three years old to the Admissions Office may also be exempt from assessment testing. Contact the Academic Advising Center at 734-462-4429 to make an appointment to discuss an academic plan and preparation for the TEAS (DMS entrance) exam. Diagnostic Medical Sonography students should possess and maintain the following to be able to adequately communicate, make decisions, manipulate equipment, perform procedures, and provide indirect or direct quality care for clients in a variety of healthcare settings: 1. Sufficient intellectual, psychological, and emotional capabilities 2. Sufficient capacity to concentrate for sustained periods of time. 3. Sufficient communication skills 4. Sufficient visual acuity 5. Sufficient auditory perception 6. Sufficient gross and fine motor coordination 7. Sufficient physical abilities and strength required to push, pull, transfer, or move objects up to approximately 35 pounds utilizing safe patient handling techniques. 8. Sufficient physical stamina to remain standing for long periods of time. Students potentially needing accommodations may review further information at http://www.schoolcraft.edu/dss/disability-support-services. Students may also schedule an appointment with Disability Support Services at 734-462-4330 regarding options to ensure equal access to programs and activities.
4. College Prerequisites required for program entry	Complete: 1. HIT 100 - Introduction to Medical Terminology (2.0+) 2. DMS 100 - Introduction to Diagnostic Medical Sonography (3.0+) 3. MATH 102 - Technical Mathematics or MATH 113 - Intermediate Algebra for College Students+ (3.0+) 4. BIOL 236 - Human Anatomy and Physiology (3.0+) or BIOL 237 - Principles of Human Anatomy and Physiology 1 and BIOL 238 - Principles of Human Anatomy and Physiology 2 (3.0+) 5. PHYS 123 - Applied Physics (3.0+) 6. COMA 103 - Fundamentals of Speech (3.0+) 7. Overall GPA 2.5+ *There are no expiration dates for acceptable BIOL courses.*
5. Admission Exam	The ATI TEAS Exam (Test of Essential Academic Skills) is a multiple-choice exam that must be taken using the online version. The TEAS Exam includes: • 31% Reading: Key Ideas & Details (15%), Craft & Structure (9%), Integration of Knowledge & Ideas (7%) • 16% English and Language: Convention of Standard English (6%), Knowledge of Language (6%), Vocabulary Acquisition (4%) • 31% Science: Human Anatomy & Physiology (21%), Life & Physical Science (5%), Scientific Reasoning (5%) • 22% Mathematics: Number & Algebra (16%), Measurement & Data (6%) • ***Minimum TEAS Exam scores required are Composite: 60% (Adjusted Individual Total Score), 68% Reading, 60% English, 60% Math, 50% Science.*** Achieve the required minimum scores on the ONLINE TEAS Exam (Test of Essential Academic Skills) within two attempts. Students may take the TEAS exam a maximum of 2 times within a 12-month period. The highest score for each section of the two attempts will be accepted. Ex: Students may not take a third attempt until the first test date attempt expires. The maximum number of attempts on the TEAS exam is four (4) attempts overall. Students must complete all sections of the TEAS Exam with maximum effort on each attempt for scores to be accepted and composite score must still be 60% or higher. TEAS online exam scores are not accepted from other institutions. All TEAS testing will need to be taken in person at the Schoolcraft College Testing Center.

	Students who may need academic testing accommodations should meet with the Disability Support Services Office (734-462-4330) prior to taking the TEAS exam to determine potential accommodations. The Schoolcraft College Personal and Professional Learning Department has a preparation course available to assist with test success http://www.schoolcraft.edu/PPL and the ATI website also has study materials and practice exams available. The Schoolcraft College Learning Support Services department also provides free personalized TEAS prep plans for success through one-on-one and group formats. To inquire about support for the TEAS, please contact teasprep@schoolcraft.edu (734-462-7359). TEAS Exam attempts at Schoolcraft College must be scheduled in advance. Fees paid are non-refundable and non-transferrable. Students needing to change testing dates will need to pay the full fee. Obtain more information regarding the TEAS exam: https://www.schoolcraft.edu/testingcenter/teas.
6. Cumulative GPA	Attain a 2.5/C+ or better *cumulative* grade point average for all Diagnostic Medical Sonography program supportive and prerequisite courses.
7. Volunteer Hours	Complete 20 hours of volunteer hours. Must be in a hospital or nursing home. (See page 13 for hours verification document) Must be verified by program director.
8. Information Session	Attend Diagnostic Medical Sonography program information session. Sessions will be held in Fall and Winter semesters.

APPLYING TO DMS

9. Apply to Diagnostic Medical Sonography	Complete the student portion of the application and meet with an academic advisor for academic planning and to sign off on the application. The academic advisor will submit the application packet to the program administrators. Applications are reviewed on a continual basis, students will receive an acceptance letter via email from the Medical Imaging Department that states the year, and cohort the student will be able to start the Diagnostic Medical Sonography program. Students who do not respond to correspondence by deadlines will be cancelled by the Medical Imaging Department. All required prerequisites must be completed (with final course grade on transcript) ***prior to submitting application.***
10. Hepatitis B Vaccine	Students who do not have the Hepatitis B vaccine three shot series already completed should begin the series while waiting to start the Diagnostic Medical Sonography program.
11. CPR Course for Healthcare Professionals	Students should wait to complete an American Heart Association Basic Life Support course for Professional Healthcare Providers until approximately 2 months prior to clinical rotations in the Diagnostic Medical Sonography program. Students need to complete a course that includes an in-person demonstration of the performance skills (adult, child, infant and AED use). 100% online courses are not accepted.
12. Other Diagnostic Medical Sonography Program Requirements	Students will be emailed additional information about Orientation sessions and other health/clinical/program requirements prior to student's program start date. Correspondence will only be sent to Schoolcraft College email.

ACCEPTANCE TO DMS AND PRIOR TO STARTING THE DIAGNOSTIC MEDICAL SONOGRAPHY PROGRAM

- The order of acceptance of qualified applicants will be based on the date the College receives a ***valid*** application. An application is ***valid*** only if ***all*** of the requirements listed in this document have been met.
- Any incomplete applications received from a student will be returned. Applications may be resubmitted when all of the requirements have been met.
- In the event more than one qualified student applies on the same day and time, the applications will be ordered based on highest cumulative grade point average in the prerequisite/supportive courses.
- Accepted students will be emailed an information packet from the Medical Imaging department to Schoolcraft College email only. Students are responsible for maintaining current contact information for all college

communications. Students should get their college email forwarded to their primary email so as not to miss any communications.

- Students may defer their admission only one time, otherwise, the student will need to reapply and meet the application requirements at that time.
- Students who do not meet Medical Imaging department deadlines or have been accepted to the program and then are "no call, no show" to start the program, will be cancelled and not eligible to reapply to the program in the future.
- After one week of Spring semester start date for Spring start cohorts, preference will be given for students to be pulled up to spots vacated, with students who have completed the DMS 100 Introduction to Diagnostic Medical Sonography OR are currently enrolled in this course and have current passing status. *(Requirements subject to change. Students will be sent emails with requirements to Schoolcraft College emails only.)*
- Participate in a mandatory Diagnostic Medical Sonography student informational session to discuss educational goals, learning techniques/strategies, and recommendations for success in the program by Medical Imaging department deadline dates.
- Mandatory volunteer hours - must provide documentation of hours signed by the supervisor.

REQUIREMENTS PRIOR TO DMS PROGRAM CLINICAL ROTATIONS

- Complete all health/clinical placement requirements and provide documentation including a health questionnaire/physical exam (dated within the last 12 months from the fall start of the Diagnostic Medical Sonography program), TB testing, immunization records including Measles, Mumps, Rubella (MMR), Tetanus, diphtheria, Pertussis (TdaP), Varicella (chicken pox), Hepatitis B, flu vaccine (in season), COVID vaccine, a negative urine drug screen on first attempt (marijuana use is still prohibited), and pass a criminal background check by DMS office.
- Drug screens may need to be repeated throughout the program as required by clinical agencies. Students will also need to meet any other future health/clinical/agency requirements as specified by the agencies.
- An authorization to register is only issued by the Medical Imaging department upon completion of the any specified requirements.

OPEN/SUPPORTING COURSES

Admission to the Diagnostic Medical Sonography Program is not necessary to register for the course listed below. The following course is open to all Schoolcraft students who have met the course prerequisite(s) (see the College Catalog).

- DMS 100 - Introduction to Diagnostic Medical Sonography

ESTIMATE OF TUITION AND FEES

Diagnostic Medical Sonography AAS Degree			
2024-2025			
Program Credit Hours - 68			
	Resident	***Non-Resident***	***Out of State***
Tuition:	$ 9,452.00	$ 13,600.00	$ 18,360.00
Registration Fees: ($44 per semester)	$ 176.00	$ 176.00	$ 176.00
Service Fees: ($9 per credit hour)	$ 612.00	$ 612.00	$ 612.00
Instructional Equipment Fees: ($11 per credit hour)	$ 748.00	$ 748.00	$ 748.00
Infrastructure Fees: ($9 per credit hour)	$ 612.00	$ 612.00	$ 612.00
Course and Learning Management Fees: ($12 per class)	$ 240.00	$ 240.00	$ 240.00
Lab Fees: (varies according to individual class)	$ 1,015.00	$ 1,015.00	$ 1,015.00
Excess Contact Hour Fees: (varies according to individual class)	$ 973.00	$ 973.00	$ 973.00
Additional Expenses:			
ACE MAPP (clinical website)	$ 100.00	$ 100.00	$ 100.00
CPR	$ 60.00	$ 60.00	$ 60.00
Drug Screen	$ 40.00	$ 40.00	$ 40.00
Background check	$ 50.00	$ 50.00	$ 50.00
Trajecys (online documentation system)	$ 200.00	$ 200.00	$ 200.00
Total	$ 14,278.00	$ 18,426.00	$ 23,186.00
The above figures are based on 2024-2025 rates and are subject to change. A Resident student is one whose legal residence is in the school District of Clarenceville, Garden City, Livonia, Northville, Plymouth-Canton or parts of Novi. All other students are Non-Residents.			

PLEASE NOTE:

Requirements for admission to the Diagnostic Medical Sonography AAS are subject to change at any time.

Ready to get started! Download the Diagnostic Medical Sonography Student Checklist to get on track.	Student Checklist
Ready to apply? Download the Application Form and schedule a meeting with your Advisor.	Application Form

Please contact the Admissions and Welcome Center for updates of any applicable changes:

Phone: (734) 462-4683
E-mail: admissions@schoolcraft.edu
Web: www.schoolcraft.edu

It is the policy of Schoolcraft College that no person shall, on the basis of race, color, national origin, gender, age, marital status, creed, or handicap, be excluded from participating in, be denied benefits of, or be subject to discrimination during any program or activity or in employment.

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2024-2025 Credential Year

Magnetic Resonance Imaging Program Application Information

The Magnetic Resonance Imaging post-associate certificate is designed for those students who are registered Radiologic Technologists (ARRT), Radiation Therapists (ARRT), Nuclear Medicine Technologists (ARRT or NMTCB), and Sonographers (ARRT or ARDMS). It is not necessary to hold an associate degree to be in this program. The program consists of traditional or online didactic courses and professionally supervised clinical training performed at a local clinical site.

The Magnetic Resonance Imaging (MRI) program provides the knowledge that will enable students to enter the workforce as entry-level MRI technologists. The program prepares the post-graduate technologist to use MRI to diagnose diseases and injuries. During an MRI, the resonant frequency properties of atoms are used within a magnetic field to image anatomic and/or physiologic conditions of the body. MRI is an exciting advancing technology in the field of Radiology.

The post-associate's certificate is awarded upon successful completion of 16 credits. Upon completion of the program students are eligible to take the ARRT post-primary certification examination in Magnetic Resonance Imaging.

APPLICATION REQUIREMENTS

The Magnetic Resonance Imaging Program requires students to complete a specific list of requirements before being officially admitted into the program. Students are listed in a pre-program code while the application requirements are being met. The full program start date and implementation of the program code may be dependent on space availability. To be admitted to the program you must complete the following:

1. Apply to Schoolcraft College	Apply to Schoolcraft College online at www.schoolcraft.edu
2. Transcripts	It is recommended you request official undergraduate transcripts from all colleges and universities previously attended. Transcripts must be sent directly from the issuing college or university to Schoolcraft College. To confirm that transcripts have been received, contact the Answer Center at 734-462-4426.
3. Credential Evaluation	Contact the Health Professions Administrative Office, HS 510 in the Health Sciences building at Schoolcraft College main campus, to make an appointment to have your credentials assessed by the appropriate Clinical Coordinator. This program requires students to be registered Radiologic Technologists (ARRT), Radiation Therapists (ARRT), Nuclear Medicine Technologists (ARRT or NMTCB), or Sonographers (ARRT or ARDMS) prior to starting in this program. *It is not necessary to hold an associate degree.*
4. Other Items Required for Admission	a) Criminal History Check Clearance. Generally, convictions or pleas of guilt to a felony may prevent you from clinical affiliation assignment and/or employment in healthcare. b) Medical Clearance / Drug Screen Physical and test expires after 12 months. Drug screens may need to be repeated throughout the program as required by clinical agencies. Marijuana use is prohibited. c) Maintain a cumulative grade point average at Schoolcraft College of 2.5 or higher. d) Required Immunizations i) Two MMR vaccinations (Measles, Mumps, Rubella) - one as a child - one as an adult or Titer showing immunity for ALL of the above. ii) Hepatitis B vaccination or Titer - (series must be started prior to clinical) or a signed Vaccination Declination Form. iii) Flu Shot - must have annual vaccination. iv) Tetanus/Diphtheria/Pertussis (TDAP) - must have received a TDAP within the past 7 years. v) Two-step TB Test - TB test expires after 12 months. The student's TB test cannot expire before the end of class and/or when clinical will be completed.

	vi) Chicken Pox - 2 Varicella vaccinations given 1 month apart and/or a laboratory Titer verifying immunity. NOTE: we are no longer accepting history of chicken pox as evidence of immunity. vii) Covid-19 Vaccination or other vaccinations as required by federal, state, or clinical agency guidelines. NOTE: Subject to permitted clinical site medical/religious exemptions. e) Basic Life Support course for Professional Healthcare Providers. Students need to complete a course that includes an in-person demonstration of the performance skills. Courses completed 100% online are not accepted. This certification must be renewed annually.
5. Register for Magnetic Resonance Imaging Courses	Meet with an Academic Advisor to plan your MRI courses as needed. Click here to view the Magnetic Resonance Imaging Post-Associate Certificate program information.

ESTIMATE OF TUITION AND FEES

Magnetic Resonance Imaging (MRI) Post Associate Degree			
2024-2025			
Program Credit Hours - 16			
	Resident	***Non-Resident***	***Out of State***
Tuition:	$ 2,224.00	$ 3,200.00	$ 4,320.00
Registration Fees: ($44 per semester)	$ 88.00	$ 88.00	$ 88.00
Service Fees: ($9 per credit hour)	$ 144.00	$ 144.00	$ 144.00
Instructional Equipment Fees: ($11 per credit hour)	$ 176.00	$ 176.00	$ 176.00
Infrastructure Fees: ($9 per credit hour)	$ 144.00	$ 144.00	$ 144.00
Course and Learning Management Fees: ($12 per class)	$ 72.00	$ 72.00	$ 72.00
Lab Fees: (varies according to individual class)	$ -	$ -	$ -
Excess Contact Hour Fees: (varies according to individual class)	$ -	$ -	$ -
Additional Expenses:			
Application Fee for Certification Exam (optional)	$ 200.00	$ 200.00	$ 200.00
Total	$ 3,048.00	$ 4,024.00	$ 5,144.00
The above figures are based on 2024-2025 rates and are subject to change. A Resident student is one whose legal residence is in the school District of Clarenceville, Garden City, Livonia, Northville, Plymouth-Canton or parts of Novi. All other students are Non-Residents.			

PLEASE NOTE:

Requirements for admission to the Magnetic Resonance Imaging Post-AAS are subject to change at any time.

Ready to get started! Download the Magnetic Resonance Imaging Student Checklist to get on track.	**Student Checklist**
Ready to apply? Download the Application Form and schedule a meeting with the Clinical Coordinator.	**Application Form**

Please contact the Admissions and Welcome Center for updates on any applicable changes:

Phone: (734) 462-4683
E-mail: admissions@schoolcraft.edu
Web: www.schoolcraft.edu

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2024-2025 Credential Year

Mammography Post Associate Certificate Program Application Information

The Mammography post-associate certificate is designed for those students that are registered radiologic technologists (ARRT). The program consists of didactic courses and professionally supervised clinical training performed at a local clinical site. The Mammography program provides the knowledge that will enable students to enter the workforce as entry level mammography technologists. The program prepares the post-graduate technologist to use mammography to detect for presence of tumor or lump, and other abnormalities of the breast. Mammography uses low-energy radiation to produce images of the breast that play a key role in early detection of breast cancer. The post-associate's certificate is awarded upon successful completion of a minimum of 9 credits. Upon completion of the program, students are eligible to take the ARRT post-primary certification examination in mammography. This adds the Mammography credential (M) to their ARRT certification.

APPLICATION REQUIREMENTS

The Mammography Program requires students to complete a specific list of requirements before being officially admitted into the program. Students are listed in a pre-program code while the application requirements are being met. The full program start date and implementation of program code may be dependent on space availability. To be admitted to the program you must complete the following:

1. Apply to Schoolcraft College	Apply to Schoolcraft College on-line at www.schoolcraft.edu/apply
2. Transcripts	It is recommended you request official undergraduate transcripts from all colleges and universities previously attended. Transcripts must be sent directly from the issuing college or university to Schoolcraft College. To confirm that transcripts have been received, contact the Answer Center at 734-462-4426.
3. Credential Evaluation	Contact the Health Professions Administrative Office, HealthProfessions@schoolcraft.edu, to make an appointment to have your credentials assessed by the appropriate Clinical Coordinator. This program requires students to be a registered Radiologic Technologist (ARRT) prior to starting the program. *It is not necessary to hold an associate degree.*
4. Other Items Required for Admission	a) Criminal History Check Clearance. Generally, convictions or pleas of guilt to a felony may prevent you from clinical affiliation assignment and/or employment in healthcare. b) Medical Clearance / Drug Screen Physical and test expires after 12 months. Drug screens may need to be repeated throughout the program as required by clinical agencies. Marijuana use is prohibited. c) Maintain a cumulative grade point average at Schoolcraft College of 2.5 or higher. d) Required Immunizations i) Two MMR vaccinations (Measles, Mumps, Rubella) - one as a child - one as an adult or Titer showing immunity for ALL of the above. ii) Hepatitis B vaccination or Titer - (series must be started prior to clinical) or a signed Vaccination Declination Form. iii) Flu Shot - must have annual vaccination. iv) Tetanus/Diphtheria/Pertussis (TDAP) - must have received a TDAP within the past 7 years. v) Two-step TB Test - TB test expires after 12 months. The student's TB test cannot expire before the end of class and/or when clinical will be completed. vi) Chicken Pox - 2 Varicella vaccinations given 1 month apart and/or a laboratory Titer verifying immunity. NOTE: we are no longer accepting history of chicken pox as evidence of immunity.

	vii) Covid-19 Vaccination or other vaccinations as required by federal, state, or clinical agency guidelines. NOTE: Subject to permitted clinical site medical/religious exemptions. e) Basic Life Support course for Professional Healthcare Providers. Students need to complete a course that includes an in-person demonstration of the performance skills. Courses completed 100% online are not accepted. This certification must be renewed annually.
5. Register for Mammography Courses	Meet with an Academic Advisor to plan your MAMM courses as needed. Click here to view the Mammography Post-Associate Certificate program information.

ESTIMATE OF TUITION AND FEES

Mammography Post-Associate Certificate			
2024-2025			
Program Credit Hours - 9			
	Resident	***Non-Resident***	***Out of State***
Tuition:	$ 1,251.00	$ 1,800.00	$ 2,430.00
Registration Fees: ($44 per semester)	$ 88.00	$ 88.00	$ 88.00
Service Fees: ($9 per credit hour)	$ 81.00	$ 81.00	$ 81.00
Instructional Equipment Fees: ($11 per credit hour)	$ 99.00	$ 99.00	$ 99.00
Infrastructure Fees: ($9 per credit hour)	$ 81.00	$ 81.00	$ 81.00
Course and Learning Management Fees: ($12 per class)	$ 36.00	$ 36.00	$ 36.00
Lab Fees: (varies according to individual class)	$ -	$ -	$ -
Excess Contact Hour Fees: (varies according to individual class)	$ -	$ -	$ -
Additional Expenses:			
Application Fee for Certification Exam (optional)	$ 225.00	$ 225.00	$ 225.00
Total	$ 1,861.00	$ 2,410.00	$ 3,040.00
The above figures are based on 2024-2025 rates and are subject to change. A Resident student is one whose legal residence is in the school District of Clarenceville, Garden City, Livonia, Northville, Plymouth-Canton or parts of Novi. All other students are Non-Residents.			

PLEASE NOTE:

Requirements for admission to the Mammography Post-AAS Certificate are subject to change at any time.

Ready to get started! Download the Mammography PAC Student Checklist to get on track.	**Student Checklist**
Ready to apply? Download the Application Form and schedule a meeting with the Clinical Coordinator.	**Application Form**

Please contact the Admissions and Welcome Center for updates on any applicable changes:

Phone: (734) 462-4683

E-mail: admissions@schoolcraft.edu

Web: www.schoolcraft.edu

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2024-2025 Credential Year

Radiologic Technology AAS Program Application Information

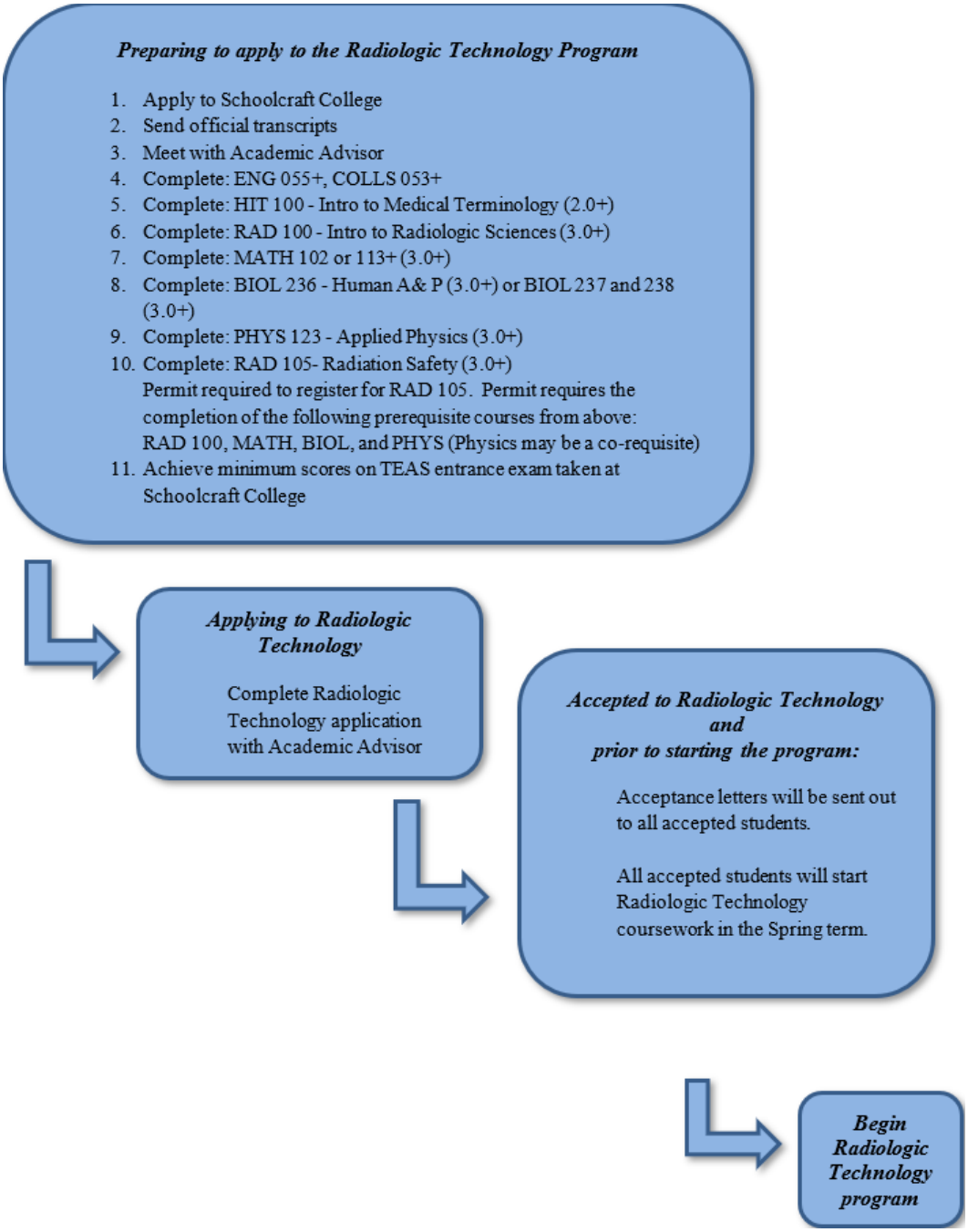
The Radiologic Technology program provides the knowledge that will enable students to enter the workforce as entry-level technologists. The didactic and clinical learning experiences require *approximately 40 hours of participation per week in the second year of the program.*

Educational facilities located within Schoolcraft College include state of art classroom and clinical training resources designed to promote an exceptional educational experience.

Successful completion of the program requirements qualifies the student to take the national credential examination offered by the American Registry of Radiologic Technologists, A.R.R.T. Satisfactory achievement of this examination qualifies the graduate to practice as a Registered Radiologic Technologist, R.T. (R).

APPLICATION REQUIREMENTS

The Radiologic Technology Program requires students to complete a specific list of requirements before being officially admitted into the program. Students are listed in a pre-program code while the application requirements are being met. The full program start date and implementation of program code may be dependent on space availability. Requirements are listed in the application. To be admitted to the program you must complete the following:



PREPARING TO APPLY TO RADIOLOGIC TECHNOLOGY PROGRAM

1. Apply to Schoolcraft College	Apply to Schoolcraft College on-line at www.schoolcraft.edu
2. Transcripts	It is recommended you request official undergraduate transcripts from all colleges and universities previously attended. Transcripts must be sent directly from the issuing college or university to the Schoolcraft College Records Office. To confirm that transcripts have been received, contact the Answer Center & Help Line at 734-462-4426.
3. Advising	The Radiologic Technology program requires minimum assessment levels of course work in the areas of math, reading, and writing. Students should meet with an academic advisor to develop an academic plan. Students with prior college level work or a degree may be exempt from general college placement testing. Students who have submitted ACT or SAT scores that are less than three years old to the Admissions Office may also be exempt from assessment testing. Contact the Academic Advising Center at 734-462-4429 to make an appointment to discuss an academic plan and preparation for the TEAS (Radiologic Technology entrance) exam.

	Radiologic Technology students should possess and maintain the following to be able to adequately communicate, make decisions, manipulate equipment, perform procedures, and provide indirect or direct quality care for clients in a variety of healthcare settings: 1. Sufficient intellectual, psychological, and emotional capabilities 2. Sufficient capacity to concentrate for sustained periods of time. 3. Sufficient communication skills 4. Sufficient visual acuity 5. Sufficient auditory perception 6. Sufficient gross and fine motor coordination 7. Sufficient physical abilities and strength required to push, pull, transfer, or move objects up to approximately 35 pounds utilizing safe patient handling techniques. 8. Sufficient physical stamina to remain standing for long periods of time. Students potentially needing accommodations may review further information at http://www.schoolcraft.edu/dss/disability-support-services. Students may also schedule an appointment with Disability Support Services at 734-462-4330 regarding options to ensure equal access to programs and activities.
4. College Prerequisites required for program entry	Complete: 1. ENG 055 - Building Writing Skills+, COLLS 053 - Critical Reading and Thinking Applications+ 2. HIT 100 - Introduction to Medical Terminology (2.0+) 3. RAD 100 - Introduction to Radiology Sciences (3.0+) 4. RAD 105 - Radiation Safety (3.0+) 5. MATH 102 - Technical Mathematics or MATH 113 - Intermediate Algebra for College Students + (3.0+) 6. BIOL 236 - Human Anatomy and Physiology (3.0+) or BIOL 237 - Principles of Human Anatomy and Physiology 1 and BIOL 238 - Principles of Human Anatomy and Physiology 2 (3.0+) 7. PHYS 123 - Applied Physics (3.0+) 8. Overall GPA 2.5+
5. Admission Exam	The ATI TEAS Exam (Test of Essential Academic Skills) is a multiple-choice exam that must be taken using the online version. The TEAS Exam includes: • 31% Reading: Key Ideas & Details (15%), Craft & Structure (9%), Integration of Knowledge & Ideas (7%) • 16% English and Language: Convention of Standard English (6%), Knowledge of Language (6%), Vocabulary Acquisition (4%) • 31% Science: Human Anatomy & Physiology (21%), Life & Physical Science (5%), Scientific Reasoning (5%) • 22% Mathematics: Number & Algebra (16%), Measurement & Data (6%) • ***Minimum TEAS Exam scores required are Composite: 60% (Adjusted Individual Total Score), 68% Reading, 60% English, 60% Math, 50% Science.*** Achieve the required minimum scores on the ONLINE TEAS Exam (Test of Essential Academic Skills) within two attempts. Students may take the TEAS exam a maximum of 2 times within a 12-month period. The highest score for each section of the two attempts will be accepted. Ex: Students may not take a third attempt until the first test date attempt expires. The maximum number of attempts on the TEAS exam is four (4) attempts overall. Students must complete all sections of the TEAS Exam with maximum effort on each attempt for scores to be accepted and composite score must still be 60% or higher. TEAS online exam scores are not accepted from other institutions. All TEAS testing will need to be taken in person at the Schoolcraft College Testing Center. Students who may need academic testing accommodations should meet with the Disability Support Services Office (734-462-4330) prior to taking the TEAS exam to determine potential accommodations. The Schoolcraft College Personal and Professional Learning Department has a preparation course available to assist with test success http://www.schoolcraft.edu/PPL and the ATI website also has study materials and practice exams available. The Schoolcraft College Learning Support Services department also provides free personalized TEAS prep plans for success through one-on-one and group formats. To

	inquire about support for the TEAS, please contact teasprep@schoolcraft.edu (734-462-7359). TEAS Exam attempts at Schoolcraft College must be scheduled in advance. Fees paid are non-refundable and non-transferrable. Students needing to change testing dates will need to pay the full fee. Obtain more information regarding the TEAS exam: https://www.schoolcraft.edu/testingcenter/teas.
6. Cumulative GPA	Attain a 2.5/C+ or better *cumulative* grade point average for all RAD program supportive and prerequisite courses.
7. RAD 105 Radiation Safety Permit	Meet with an academic advisor to complete permit for RAD 105 - Radiation Safety.

APPLYING TO RADIOLOGIC TECHNOLOGY

8. Apply to Radiologic Technology	Complete the student portion of the Radiologic Technology Program Application and meet with an academic advisor for academic planning and to sign off on the application. The academic advisor will submit the application packet to the Admissions and Welcome Center. Applications are reviewed on a continual basis and students will receive an acceptance letter via email from the program officials, which states the year, and cohort the student will be able to start the RAD program. Students who do not respond to correspondence by deadlines will be cancelled by the Medical Imaging Department. All required prerequisites must be completed (with final course grade on transcript) ***prior to submitting application.***
9. Hepatitis B Vaccine	Students, who do not have the Hepatitis B vaccine three shot series already completed, should begin the series while waiting to start the Radiologic Technology program.
10. CPR Course for Healthcare Professionals	Students should wait to complete an American Heart Association Basic Life Support course for Professional Healthcare Providers until approximately 2 months prior to clinical rotations in the RAD program. Students need to complete a course that includes an in-person demonstration of the performance skills (adult, child, infant and AED use). 100% online courses are not accepted.
11. Other Radiologic Technology Program Requirements	Students will be emailed additional information about Orientation sessions and other health/clinical/program requirements approximately two months prior to student's program start date. Correspondence will only be sent to Schoolcraft College email.

ACCEPTANCE TO RADIOLOGIC TECHNOLOGY AND PRIOR TO STARTING THE PROGRAM

- The order of acceptance of qualified applicants will be based on the date the College receives a ***valid*** application. An application is ***valid*** only if ***all*** the requirements listed in this document have been met.
- Any incomplete applications received from a student will be returned. Applications may be resubmitted when all the requirements have been met.
- In the event more than one qualified student applies on the same day, the applications will be ordered based on highest cumulative grade point average in the prerequisite/supportive courses.
- Accepted students will be emailed an information packet from the Medical Imaging department to Schoolcraft College email only. Information will be emailed approximately two months prior to the start semester. Students are responsible for maintaining current contact information for all college communications. Students should get their college email forwarded to their primary email so as not to miss any communications.
- Students may defer their admission only one time, otherwise, the student will need to reapply and meet the application requirements at that time.
- Students who do not meet Medical Imaging deadlines or have been accepted to the program and then are "no call, no show" to start the program, will be cancelled and not eligible to reapply to the program in the future. *(Requirements subject to change. Students will be sent emails with requirements to Schoolcraft College emails only.)*
- After one week of Spring semester start date for Spring start cohorts, preference will be given for students to be pulled up to spots vacated, with students who have completed the RAD 100 - Introduction to Radiology Sciences OR are currently enrolled in this course and have current passing status.
- Participate in a mandatory RAD Student informational session to discuss educational goals, learning techniques/strategies, and recommendations for success in the program by Medical Imaging deadline dates.

REQUIREMENTS PRIOR TO RAD PROGRAM CLINICAL ROTATIONS

- Complete all health/clinical placement requirements and provide documentation including a health questionnaire/physical exam (dated within the last 12 months from the fall start of the Radiologic Technology

program), TB testing, immunization records including Measles, Mumps, Rubella (MMR), Tetanus, diphtheria, Pertussis (TdaP), Varicella (chicken pox), Hepatitis B, flu vaccine (in season), COVID vaccine, a negative urine drug screen on first attempt (marijuana use is still prohibited), and pass a criminal background check by the Medical Imaging Department.

- Drug screens may need to be repeated throughout the program as required by clinical agencies. Students will also need to meet any other future health/clinical/agency requirements as specified by the agencies.
- An authorization to register is only issued by the Medical Imaging Department upon completion of the specified requirements.

BEGIN RADIOLOGIC TECHNOLOGY

View the sample schedule of courses for the Radiologic Technology AAS Degree in the online catalog including admission prerequisites and supportive courses.

Students, who are unsuccessful with any RAD course, may not continue in the Radiologic Technology program.

Students should work with an advisor if more credits are needed per semester to qualify for financial aid.

Please check Schoolcraft General Education requirements to determine course options.

PLEASE NOTE: The Radiologic Technology program and application requirements are subject to change based on JRCERT/ASRT regulations, curricular changes, Institutional policy, and program needs. Students are responsible for checking for any admission update.

OPEN/SUPPORTING COURSES

Admission to the Radiologic Technology Program is not necessary to register for the courses listed below. The following courses are open to all Schoolcraft students who have met the course prerequisite(s) (see the College Catalog).

- RAD 100 - Introduction to Radiology Sciences
- RAD 105 - Radiation Safety

ESTIMATE OF TUITION AND FEES

Radiologic Technology AAS Degree			
2024-2025			
Program Credit Hours - 67			
	Resident	***Non-Resident***	***Out of State***
Tuition:	$ 9,313.00	$ 13,400.00	$ 18,090.00
Registration Fees: ($44 per semester)	$ 176.00	$ 176.00	$ 176.00
Service Fees: ($9 per credit hour)	$ 603.00	$ 603.00	$ 603.00
Instructional Equipment Fees: ($11 per credit hour)	$ 737.00	$ 737.00	$ 737.00
Infrastructure Fees: ($9 per credit hour)	$ 603.00	$ 603.00	$ 603.00
Course and Learning Management Fees: ($12 per class)	$ 228.00	$ 228.00	$ 228.00
Lab Fees: (varies according to individual class)	$ 1,165.00	$ 1,165.00	$ 1,165.00
Excess Contact Hour Fees: (varies according to individual class)	$ 973.00	$ 973.00	$ 973.00
Additional Expenses:			
Hepatitis B Vaccine	$ 150.00	$ 150.00	$ 150.00
Application Fee for certification exam (optional)	$ 225.00	$ 225.00	$ 225.00
Total	$ 13,798.00	$ 17,885.00	$ 22,575.00
The above figures are based on 2024-2025 rates and are subject to change. A Resident student is one whose legal residence is in the school District of Clarenceville, Garden City, Livonia, Northville, Plymouth-Canton or parts of Novi. All other students are Non-Residents.			

PLEASE NOTE:

Requirements for admission to the Radiologic Technology AAS are subject to change at any time.

Ready to get started! Download the Radiologic Technology Student Checklist to get on track.	**Student Checklist**

Ready to apply? Download the Application Form and schedule a meeting with your Advisor.	Application Form

Please contact the Admissions and Welcome Center for updates on any applicable changes:

Phone: (734) 462-4683
Fax: (734) 462-4552
E-mail: admissions@schoolcraft.edu
Web: www.schoolcraft.edu

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2024-2025 Credential Year

Metallurgy & Materials Science

The relationships among composition, processing, structure, properties, and performance of industrial materials are the focus of the Schoolcraft College Metallurgy and Materials Science department. Since 1966, the department has been providing students with knowledge of metals and other materials used in processes and industries including automotive, aerospace, appliance, building construction, energy production and distribution, and consumer products. Measurement, a critical precursor to control, is emphasized in the academic curriculum that features significant hands-on laboratory activity. Lectures expound on the qualitative aspects of underlying physical principle.

The department offers students the opportunity to learn on an impressive assemblage of material testing and characterization equipment, including a state-of-the-art scanning electron microscope used for high magnification inspection and compositional analysis. Program options include:

- Metallurgy: Applied Physical Certificate: This program allows those who are currently employed in the field with an opportunity to develop or reinforce skills needed to advance in the laboratory or supporting organizations.
- Metallurgy and Materials Science Associate of Applied Science (AAS) degree: This is the only two-year program of its kind in the state of Michigan. It gives students broad knowledge of materials testing, manufacturing, and research and development needed to contribute to high performance in positions ranging from laboratory technician to plant manager.
- Materials Science Post-Associate Certificate: This program allows professionals who are currently employed in the field with an opportunity to expand their knowledge of current technologies applied to laboratory practice and other materials-related careers.

Credentials

- Materials Science Post-Associate Certificate
- Metallurgy and Materials Science AAS Degree
- Metallurgy: Applied Physical Certificate

Materials Science Post-Associate Certificate

Schoolcraft program code # PAC.00179

The Materials Science Post-Associate Certificate is designed for working technical professionals who need specific training in metallurgical technologies or laboratory practices.

This program is geared toward part-time students and will enhance the student's ability to contribute to metallurgical technology and laboratory settings. In addition, the program will benefit certain personnel in management, supervision, sales, quality, purchasing, or other materials-related technical support functions.

Prior to admission, students must have earned a minimum of an accredited associate degree in applied science. Prerequisite and co-requisite requirements must be honored, or evidence of prior learning proficiency must be demonstrated. Please contact the appropriate administrator to discuss options. The post-associate certificate is awarded upon successful completion of 16 credit hours (exact number may vary slightly due to credit value or content of courses).

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Program Courses Completion of a minimum of 16 credit hours is required. Courses can be taken through independent study.

PROGRAM COURSES

Completion of a minimum of 16 credit hours is required. Courses can be taken through independent study.

**These classes are offered on a rotational basis. Contact Metallurgy faculty for current and projected offerings.*

A STUDENT IS REQUIRED TO TAKE THE THREE COURSES LISTED BELOW

- **MET 212 - Heat Treatment** ***Credits: 3*** *****
- **MET 216 - Mechanical Testing** ***Credits: 3*** *****
- **MET 281 - Special Problems in Materials Science** ***Credits: 3*** *****

A STUDENT MAY CHOOSE FROM ANY OF THE COURSES LISTED BELOW

- **MET 160 - Composite Materials** ***Credits: 3*** *****
- **MET 232 - Metals Processing and Properties** ***Credits: 3***
- **MET 248 - Scanning Electron Microscopy and X-ray Microanalysis** ***Credits: 3***
- **MET 291 - Metallurgy Internship** ***Credits: 3***
- **WELD 262 - Welding Metallurgy** ***Credits: 3***

Metallurgy and Materials Science AAS Degree

Schoolcraft program code # AAS.00184

The desired outcome of the Metallurgy and Materials Science AAS Degree program is to prepare students to knowledgeably, safely, and responsibly contribute to metallurgical and material laboratory functions in engineering, manufacturing, and research and development organizations in a variety of industries. In addition, the knowledge gained could be applied in sales, purchasing, marketing, management, quality or other materials-related activities. The emphasis is on the basic theory and tools of metallurgical analysis and characterization techniques. Electives may be selected to nurture burgeoning interests in a specific area of materials science, business, basic sciences, manufacturing, or welding in preparation for further academic work or imminent employment.

Metallurgy and Materials Science graduates can apply fundamental knowledge to the processing, testing, and characterization of industrial materials by a variety of techniques. Students who satisfactorily complete all college and program requirements qualify for an associate of applied science degree. Students seeking transfer to a baccalaureate program should request transfer guides provided by the department.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **MET 103 - Introduction to Materials Science** ***Credits: 3***
- **CHEM 104 - Fundamentals of Chemistry** ***Credits: 4***
- **MATH 102 - Technical Mathematics** ***Credits: 4***
- English Communication - Credits: 3 - Select first General Education English Communication course.
    - Recommended: **ENG 101 - English Composition 1** ***Credits: 3***

TOTAL CREDITS: 14

Winter Semester

- **CAD 120 - Mechanical Blueprint Reading with Sketching** ***Credits: 3***
- **MET 116 - Introduction to Physical Metallurgy** ***Credits: 3***
- **CIS 120 - Software Applications** ***Credits: 3***
- **MET 153 - Metallography** ***Credits: 3***
- English Communication - Credits: 3 - Select second General Education English Communication course.
    - Recommended: **ENG 116 - Technical Writing** ***Credits: 3***

TOTAL CREDITS: 15

Spring Session

- **MFG 102 - Basic Machining Processes** ***Credits: 3***
- **WELD 110 - Introduction to Welding Basics for Fabrication** ***Credits: 3***

TOTAL CREDITS: 6

SECOND YEAR

Fall Semester

- **MET 212 - Heat Treatment** ***Credits: 3*** *****
- **MET 216 - Mechanical Testing** ***Credits: 3*** *****
- **MET 232 - Metals Processing and Properties** ***Credits: 3***
- Elective - Select from list at bottom of layout ***Credits: 3-4***
- Elective - Select one
    - **BUS 116 - Project Management** ***Credits: 3***
    - **ENGR 100 - Introduction to Engineering and Technology** ***Credits: 3***

TOTAL CREDITS: 15-16

Metallurgy and Materials Science AAS Degree (continued)

Winter Semester

- Elective Select from list below ***Credits: 3-4***
- **MET 281 - Special Problems in Materials Science** ***Credits: 3*** *
- **OSH 111 - Occupational Safety and Health for General Industry** ***Credits: 2***
- Social Science - Credits: 3-4 - Select General Education Social Science course.
    - Recommended: **PSYCH 153 - Human Relations** ***Credits: 3***
- Humanities - Credits: 1-4 - Select General Education Humanities course.
    - Recommended: **COMA 103 - Fundamentals of Speech** ***Credits: 3***

TOTAL CREDITS: 12-17

PROGRAM TOTAL: 62-67 CREDITS

*These classes are offered on a rotational basis. Contact Metallurgy faculty for current and projected offerings.

ELECTIVES

- **CAD 130 - Geometric Dimensioning and Tolerance** ***Credits: 3***
- **MET 160 - Composite Materials** ***Credits: 3*** *
- **MET 248 - Scanning Electron Microscopy and X-ray Microanalysis** ***Credits: 3*** *
- **MET 291 - Metallurgy Internship** ***Credits: 3***
- **MFG 103 - Basic Computer Numerical Control (CNC)** ***Credits: 3***
- **MFG 106 - Basic Mastercam** ***Credits: 3***
- **QM 106 - Introduction to Quality Improvement Tools** ***Credits: 3***
- **QM 107 - Quality Planning and Team Building** ***Credits: 3***
- **WELD 262 - Welding Metallurgy** ***Credits: 3***

Metallurgy: Applied Physical Certificate

Schoolcraft program code # 1YC.00124

The Applied Physical Metallurgy Certificate program provides current metallurgical practitioners with an opportunity to reinforce technical skills and acquire the academic foundation needed for professional advancement. The program is geared toward part-time students and applies the materials science construct "Composition plus processing leads to structure, properties, and performance as defined by the customer."

Students who satisfactorily complete the program requirements qualify for a certificate of program completion.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **MET 103 - Introduction to Materials Science** ***Credits: 3***
- **CHEM 104 - Fundamentals of Chemistry** ***Credits: 4***
- **MATH 102 - Technical Mathematics** ***Credits: 4***
- English Communication - Credits: 3 - Select General Education English Communication course.
    - Recommended: **ENG 116 - Technical Writing** ***Credits: 3***

TOTAL CREDITS: 14

Winter Semester

- **MET 116 - Introduction to Physical Metallurgy** ***Credits: 3***
- **MFG 102 - Basic Machining Processes** ***Credits: 3***
- **CIS 120 - Software Applications** ***Credits: 3***
- **MET 153 - Metallography** ***Credits: 3***
- Select One:
    - **BUS 116 - Project Management** ***Credits: 3***
    - **CAD 120 - Mechanical Blueprint Reading with Sketching** ***Credits: 3***
    - **ENGR 100 - Introduction to Engineering and Technology** ***Credits: 3***
    - **WELD 110 - Introduction to Welding Basics for Fabrication** ***Credits: 3***

TOTAL CREDITS: 15

Spring Session

- **OSH 111 - Occupational Safety and Health for General Industry** ***Credits: 2***

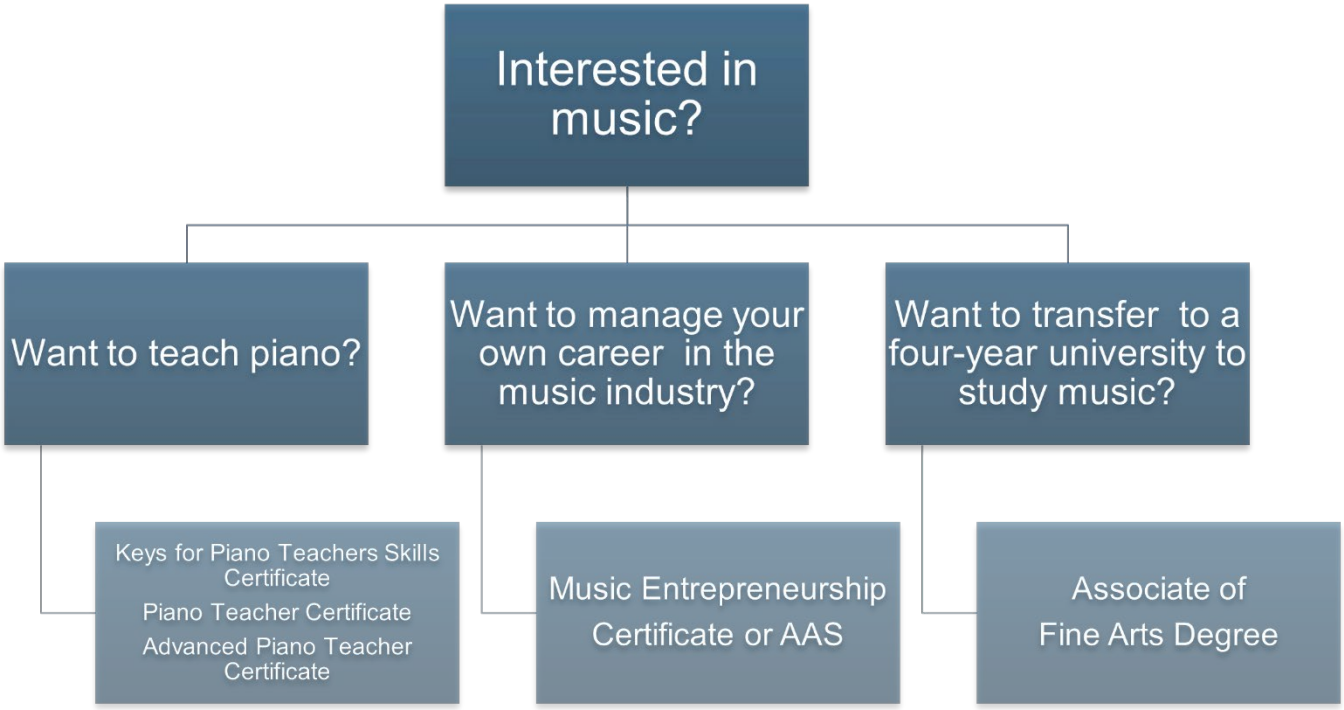
TOTAL CREDITS: 2

PROGRAM TOTAL: 31 CREDITS

Schoolcraft College®

2024-2025 Credential Year

Music



Schoolcraft's Music department offers several options for individuals interested in the field of music.

There are ***four certificate options*** to provide opportunities for students who plan to make music their profession or want to learn more about piano teaching as a career:

- If you are interested in managing your own music career, then the Music Entrepreneurship Certificate program may be for you. This program will help you to develop the necessary music and business skills to help navigate today's evolving music industry.
- If you dream of sharing your love for the piano with others, then Schoolcraft's three unique piano teacher certificate programs are perfect for you. The programs offer a thorough grounding in teaching materials and techniques along with music theory and history. You will also have the opportunity to practice your teaching skills right on campus in our group piano classes for children. All applicants must audition in order to enter the piano teacher certificate programs. The piano teacher programs will help you to:
    - Prepare for a career of teaching piano in music academies, community education programs, out of your own studio, or in the homes of your students.
    - Challenge your own abilities and prepare to share your love of music with the next generation.
    - Establish a foundation for state and national Music Teachers Associations and the Royal Conservatory.

There are also multiple options for students seeking an ***associate degree*** in the music discipline. Depending on the desired career path, discuss options for an associate degree in music with an academic advisor:

- Students interested in transferring to a four-year university can also work toward an ***Associate of Fine Arts (AFA)*** degree with an emphasis in music performance or music history/culture, as well as other areas within the Fine Arts.
- Students seeking to manage their own music careers can earn a ***Music Entrepreneurship AAS***.
- Students can apply all of the credits from any of the four certificate programs toward an ***Associate of General Studies (AGS)*** degree.

Credentials

- Associate of General Studies using Keys for Piano Teachers Skills Certificate
- Associate of General Studies using Piano Teacher Advanced Certificate
- Associate of General Studies using Piano Teacher Certificate
- Music: Associate of Fine Arts Degree
- Music: Keys for Piano Teachers Skills Certificate
- Music: Music Entrepreneurship AAS Degree
- Music: Music Entrepreneurship Certificate
- Music: Piano Teacher Advanced Certificate
- Music: Piano Teacher Certificate

Associate of General Studies using Keys for Piano Teachers Skills Certificate

Schoolcraft program code # AGS.00042

Keys for Piano Teachers is designed for current piano teachers or those interested in entering the profession. The program introduces pianists to teaching materials and techniques and provides opportunities to improve their keyboard techniques for piano instruction. In addition, students are given opportunities to observe children enrolled in group classes on campus. The program provides the opportunity to enroll in a variety of electives such as Music History, Music Technology and non-music courses.

In order to enter Keys for Piano Teachers, each applicant must audition to demonstrate an appropriate level of musicianship. MUSIC 121 - Class Piano 1 and MUSIC 104 - Basic Materials in Music Theory may help to develop the skills necessary to successfully pass the audition. Contact the Music department for further information.

Any student wishing to pursue an associate degree can apply all 16 credits from the Keys for Piano Teachers Skills Certificate toward an Associate of General Studies (AGS) degree. Depending on the desired career path, discuss other options for an associate degree with an academic advisor.

Applied Music has an added fee.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **MUSIC 201 - Keyboard Skills for Piano Teachers 1** ***Credits: 2***
- **MUSIC 247 - Piano Teaching Techniques and Materials 1** ***Credits: 3***
- **MUSIC 143 - Practice Teaching and Practicum in Piano Teaching 1** ***Credits: 2***
- Electives - Select Music courses not already taken from the list (minimum 9 credits) ***Credits: 9***

TOTAL CREDITS: 16

Winter Semester

- English Communication - Select first General Education English Communication Course ***Credits: 3*** *
- Mathematics - Select General Education Mathematics Course ***Credits: 3*** *
- Natural Science - Select General Education Science Course ***Credits: 4*** *
- Electives - Select courses supportive of occupational and academic goals ***Credits: 6***

TOTAL CREDITS: 16

SECOND YEAR

Fall Semester

- English Communication - Select second General Education English Communication Courses ***Credits: 3*** *
- Social Science - Select General Education Social Science Course ***Credits: 3*** *
- Electives - Select courses supportive of occupational and academic goals ***Credits: 8***

TOTAL CREDITS: 14

Winter Semester

- Natural Science - Select General Education Science Course ***Credits: 3*** *
- Social Science - Select General Education Social Science Course ***Credits: 3*** *
- Electives - Select courses supportive of occupational and academic goals ***Credits: 8***

TOTAL CREDITS: 14

PROGRAM TOTAL: 60 CREDITS

*Please check Schoolcraft General Education requirements to determine course options.

**Requires audition

Associate of General Studies using Keys for Piano Teachers Skills Certificate (continued)

ELECTIVES

- **MUSIC 105 - Music Appreciation** ***Credits: 3***
- **MUSIC 131 - Applied Music - Piano 1** ***Credits: 2***
- **MUSIC 133 - Applied Music - Voice 1** ***Credits: 2***
- **MUSIC 135 - Applied Music - Instrumental 1** ***Credits: 2***
- **MUSIC 137 - Sight Singing and Ear Training 1** ***Credits: 2***
- **MUSIC 140 - Jazz Lab Band - Improvisation 1** ***Credits: 2*** **
- **MUSIC 149 - Popular Music Culture in America** ***Credits: 3***
- **MUSIC 153 - Music Theory 1** ***Credits: 3***
- **MUSIC 155 - History of Broadway** ***Credits: 3***
- **MUSIC 164 - Music History 1 - 17th and 18th Centuries** ***Credits: 3***
- **MUSIC 165 - Music History 2 - 19th and 20th Centuries** ***Credits: 3***
- **MUSIC 168 - Synthesizer Ensemble 1** ***Credits: 3*** **
- **MUSIC 171 - Music Technology 1** ***Credits: 3***
- **HUM 106 - Introduction to Art and Music** ***Credits: 1***

Associate of General Studies using Piano Teacher Advanced Certificate

Schoolcraft program code # AGS.00042

The Piano Teacher Advanced curriculum is designed for pianists to advance their professional careers as private piano teachers. The curriculum is structured to provide advanced instruction in piano teaching materials and techniques as well as music theory and history. In addition, students are given numerous opportunities to observe and teach children enrolled in group piano classes on campus. (Two supervised teaching sessions of children are required.)

The program is aligned with intermediate and advanced requirements provided in Michigan's Student Achievement Testing and the Royal Conservatory programs. Successful completion of the Piano Teachers Certificate is required for admission to the Advanced Certificate program.

Any student wishing to pursue an associate degree can apply all 30 credits from the Piano Teacher Advanced Certificate toward an Associate of General Studies (AGS) degree. Depending on the desired career path, discuss other options for an associate degree with an academic advisor.

Applied Music has an added fee.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **MUSIC 231 - Applied Music - Piano 3** ***Credits: 2***
- **MUSIC 164 - Music History 1 - 17th and 18th Centuries** ***Credits: 3***
- **MUSIC 243 - Practice Teaching and Practicum in Piano Teaching 3** ***Credits: 2***
- **MUSIC 250 - Music Theory 3** ***Credits: 3***
- **MUSIC 204 - Keyboard Skills for Piano Teachers 3** ***Credits: 2***
- **MUSIC 277 - Piano Teaching Techniques and Materials 3** ***Credits: 3***

TOTAL CREDITS: 15

Winter Semester

- **MUSIC 232 - Applied Music - Piano 4** ***Credits: 2***
- **MUSIC 165 - Music History 2 - 19th and 20th Centuries** ***Credits: 3***
- **MUSIC 244 - Practice Teaching and Practicum in Piano Teaching 4** ***Credits: 2***
- **MUSIC 252 - Music Theory 4** ***Credits: 4***
- **MUSIC 205 - Keyboard Skills for Piano Teachers 4** ***Credits: 2***
- **MUSIC 298 - Special Music Projects for Honors Studies - Performance/Composition/Research** ***Credits: 2***

TOTAL CREDITS: 15

SECOND YEAR

Fall Semester

- English Communication - Select first General Education English Communication Course ***Credits: 3*** *
- Mathematics - Select General Education Mathematics Course ***Credits: 3*** *
- Natural Science - Select General Education Science Course ***Credits: 4*** *
- Social Science - Select General Education Social Science Course ***Credits: 3*** *
- Electives - Select courses supportive of occupational and academic goals ***Credits: 3***

TOTAL CREDITS: 16

Winter Semester

- English Communication - Select second General Education English Communication Course ***Credits: 3*** *
- Natural Science - Select General Education Science Course ***Credits: 3*** *
- Social Science - Select General Education Social Science Course ***Credits: 3*** *
- Electives - Select courses supportive of occupational and academic goals ***Credits: 5***

TOTAL CREDITS: 14

Associate of General Studies using Piano Teacher Advanced Certificate (continued)

PROGRAM TOTAL: 60 CREDITS

*Please check Schoolcraft General Education requirements to determine course options.

Associate of General Studies using Piano Teacher Certificate

Schoolcraft program code # AGS.00042

The Piano Teacher curriculum is designed for pianists to pursue professional careers as private piano teachers. It is structured to provide instruction in piano teaching materials and techniques as well as music theory and history. In addition, students are given numerous opportunities to observe and teach children enrolled in group piano classes on campus. (Two supervised teaching sessions of children are required.) The program is aligned with beginning and intermediate requirements provided in Michigan's Student Achievement Testing and the Royal Conservatory programs.

In order to enter Keys for Piano Teachers, each applicant must audition to demonstrate an appropriate level of musicianship. MUSIC 121 - Class Piano 1 and MUSIC 104 - Basic Materials in Music Theory may help to develop the skills necessary to successfully pass the audition. Contact the Music department for further information. Applicants having successfully completed the Keys for Piano Teachers Skills Certificate are automatically eligible and coursework will transfer.

Any student wishing to pursue an associate degree can apply all 28 credits from the Piano Teacher Certificate toward an Associate of General Studies (AGS) degree. Depending on the desired career path, discuss other options for an associate degree with an academic advisor.

Applied Music has an added fee.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **MUSIC 131 - Applied Music - Piano 1** ***Credits: 2***
- **MUSIC 137 - Sight Singing and Ear Training 1** ***Credits: 2***
- **MUSIC 143 - Practice Teaching and Practicum in Piano Teaching 1** ***Credits: 2***
- **MUSIC 153 - Music Theory 1** ***Credits: 3***
- **MUSIC 201 - Keyboard Skills for Piano Teachers 1** ***Credits: 2***
- **MUSIC 247 - Piano Teaching Techniques and Materials 1** ***Credits: 3***

TOTAL CREDITS: 14

Winter Semester

- **MUSIC 132 - Applied Music - Piano 2** ***Credits: 2***
- **MUSIC 138 - Sight Singing and Ear Training 2** ***Credits: 2***
- **MUSIC 144 - Practice Teaching and Practicum in Piano Teaching 2** ***Credits: 2***
- **MUSIC 154 - Music Theory 2** ***Credits: 3***
- **MUSIC 202 - Keyboard Skills for Piano Teachers 2** ***Credits: 2***
- **MUSIC 257 - Piano Teaching Techniques and Materials 2** ***Credits: 3*** *

TOTAL CREDITS: 14

SECOND YEAR

Fall Semester

- English Communication - Select first General Education English Communication Course ***Credits: 3*** **
- Mathematics - Select General Education Mathematics Course ***Credits: 3*** **
- Natural Science - Select General Education Science Course ***Credits: 4*** **
- Social Science - Select General Education Social Science Course ***Credits: 3*** **
- Electives - Select courses supportive of occupational and academic goals ***Credits: 3***

TOTAL CREDITS: 16

Winter Semester

- English Communication - Select second General Education English Communication Course ***Credits: 3*** **
- Natural Science - Select General Education Science Course ***Credits: 3*** **
- Social Science - Select General Education Social Science Course ***Credits: 3*** **

Associate of General Studies using Piano Teacher Certificate (continued)

- Electives - Select courses supportive of occupational and academic goals ***Credits: 7***

TOTAL CREDITS: 16

PROGRAM TOTAL: 60 CREDITS

*These classes are offered on a rotational basis. Contact Liberal Arts office for current offerings.

**Please check Schoolcraft General Education requirements to determine course options.

Music: Associate of Fine Arts Degree

Schoolcraft program code # AFA.00402

Schoolcraft's Associate of Fine Arts (AFA) degree is designed for students who intend to pursue a bachelor's degree in any fine arts field. It allows the student to establish a strong academic foundation in arts and complete courses to fulfill general education requirements-all before transferring to a bachelor's degree program at another college or university. The AFA allows students to focus on a particular discipline within the fine arts, including both music performance as well as music history/culture. Students interested in other areas of fine arts could substitute courses in art, creative writing, literature, theater, or humanities. See the degree requirements or talk to an academic advisor for details.

All courses must be completed with a minimum overall grade point average of 2.0 or better.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- English Communication - Select first General Education English Communication Course ***Credits: 3*** *
- Mathematics - Select General Education Mathematics Course ***Credits: 4*** *
- Humanities - Select first General Education Humanities course ***Credits: 3*** *
- Major Area of Study - ***Select liberal arts courses from ART, HUM, MUSIC, THEA, and ENG (Creative Writing or Literature courses only). * See list below for recommended music courses.***
  For recommended courses in other areas of the fine arts, see the degree requirements or talk with an academic advisor.

TOTAL CREDITS: 13

Winter Semester

- English Communication - Select second General Education English Communication Course ***Credits: 3*** *
- Social Science - Select first General Education Social Science Course ***Credits: 3*** *
- Humanities - Select second General Education Humanities course ***Credits: 1*** *
- Major Area of Study - ***Select liberal arts courses from ART, HUM, MUSIC, THEA, and ENG (Creative Writing or Literature courses only). * See list below for recommended music courses.***

For recommended courses in other areas of the fine arts, see the degree requirements or talk with an academic advisor.

TOTAL CREDITS: 13

Spring/Summer Session

- Natural Science - Select first General Education Science Course ***Credits: 3***
- Social Science - Select second General Education Social Science Course ***Credits: 3***

TOTAL CREDITS: 6

SECOND YEAR

Fall Semester

- Natural Science - Select second General Education Science Course ***Credits: 4***
- Major Area of Study - ***Select liberal arts courses from ART, HUM, MUSIC, THEA, and ENG (Creative Writing or Literature courses only). * See list below for recommended music courses. Credits: 6***

For recommended courses in other areas of the fine arts, see the degree requirements or talk with an academic advisor.

- Electives - Select liberal arts or occupational courses that satisfy transfer and academic goals. ***Credits: 3*** *

TOTAL CREDITS: 13

Winter Semester

- Major Area of Study - ***Select liberal arts courses from ART, HUM, MUSIC, THEA, and ENG (Creative Writing or Literature courses only). * See list below for recommended music courses. Credits: 3***
  For recommended courses in other areas of the fine arts, see the degree requirements or talk with an academic advisor.
- Electives - Select liberal arts or occupational courses that satisfy transfer and academic goals. ***Credits: 12*** *

TOTAL CREDITS: 15

Music: Associate of Fine Arts Degree (continued)

RECOMMENDED COURSES - MUSIC HISTORY/CULTURE TRACK:

- **MUSIC 105 - Music Appreciation** ***Credits: 3***
- **MUSIC 149 - Popular Music Culture in America** ***Credits: 3***
- **MUSIC 153 - Music Theory 1** ***Credits: 3***
- **MUSIC 154 - Music Theory 2** ***Credits: 3***
- **MUSIC 155 - History of Broadway** ***Credits: 3***
- **MUSIC 160 - Introduction to World Music** ***Credits: 3***
- **MUSIC 164 - Music History 1 - 17th and 18th Centuries** ***Credits: 3***
- **MUSIC 165 - Music History 2 - 19th and 20th Centuries** ***Credits: 3***
- Additional courses in the humanities, music history, and culture that satisfy transfer and academic goals and requirements.

RECOMMENDED COURSES - MUSIC PERFORMANCE TRACK:

- **MUSIC 121 - Class Piano 1** ***Credits: 2***
- **MUSIC 137 - Sight Singing and Ear Training 1** ***Credits: 2***
- **MUSIC 138 - Sight Singing and Ear Training 2** ***Credits: 2***
- **MUSIC 153 - Music Theory 1** ***Credits: 3***
- **MUSIC 154 - Music Theory 2** ***Credits: 3***
- Additional courses in music performance that satisfy transfer and academic goals and requirements.

PROGRAM TOTAL: 60 CREDITS

*Please check Schoolcraft General Education and transfer institution program requirements to determine course options.

Music: Keys for Piano Teachers Skills Certificate

Schoolcraft program code # CRT.00345

Keys for Piano Teachers is designed for current piano teachers or those interested in entering the profession. The program introduces pianists to teaching materials and techniques and provides opportunities to improve their keyboard techniques for piano instruction. In addition, students are given opportunities to observe children enrolled in group classes on campus. The program provides the opportunity to enroll in a variety of electives such as Music History, Music Technology, and non-music courses.

In order to enter Keys for Piano Teachers, each applicant must audition to demonstrate an appropriate level of musicianship. MUSIC 121 - Class Piano 1 and MUSIC 104 - Basic Materials in Music Theory may help to develop the skills necessary to successfully pass the audition. Contact the Music department for further information.

Students who satisfactorily complete the program requirements, and receive recommendation of the music faculty, qualify for a certificate of program completion.

Applied Music has an added fee.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **MUSIC 201 - Keyboard Skills for Piano Teachers 1** ***Credits: 2***
- **MUSIC 247 - Piano Teaching Techniques and Materials 1** ***Credits: 3***
- **MUSIC 143 - Practice Teaching and Practicum in Piano Teaching 1** ***Credits: 2***
- Electives - Select Music courses not already taken from the list (minimum 9 credits) ***Credits: 9***

TOTAL CREDITS: 16

PROGRAM TOTAL: 16 CREDITS

**Requires audition

ELECTIVES

- **MUSIC 105 - Music Appreciation** ***Credits: 3***
- **MUSIC 131 - Applied Music - Piano 1** ***Credits: 2***
- **MUSIC 133 - Applied Music - Voice 1** ***Credits: 2***
- **MUSIC 135 - Applied Music - Instrumental 1** ***Credits: 2***
- **MUSIC 137 - Sight Singing and Ear Training 1** ***Credits: 2***
- **MUSIC 140 - Jazz Lab Band - Improvisation 1** ***Credits: 2*** **
- **MUSIC 149 - Popular Music Culture in America** ***Credits: 3***
- **MUSIC 153 - Music Theory 1** ***Credits: 3***
- **MUSIC 155 - History of Broadway** ***Credits: 3***
- **MUSIC 164 - Music History 1 - 17th and 18th Centuries** ***Credits: 3***
- **MUSIC 165 - Music History 2 - 19th and 20th Centuries** ***Credits: 3***
- **MUSIC 168 - Synthesizer Ensemble 1** ***Credits: 3*** **
- **MUSIC 171 - Music Technology 1** ***Credits: 3***
- **HUM 106 - Introduction to Art and Music** ***Credits: 1***

Music: Music Entrepreneurship AAS Degree

Schoolcraft program code # AAS.00347

The associate degree curriculum is designed to help students hone their music skills and develop their business skills to be successful in building and maintaining a self-managed career in the music industry. Courses in music and in general business subjects provide opportunities for students who are considering starting a career in the music business, as well as for students who are already working in the industry but want to improve their chance for success.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **MUSIC 150 - Introduction to Music Entrepreneurship** ***Credits: 3***
- **MUSIC 137 - Sight Singing and Ear Training 1** ***Credits: 2***
- **ENG 101 - English Composition 1** ***Credits: 3***
- **BUS 103 - Organizing a Small Business** ***Credits: 3***
- **MUSIC 153 - Music Theory 1** ***Credits: 3***
- Music - Select one
    - **MUSIC 131 - Applied Music - Piano 1** ***Credits: 2***
    - **MUSIC 133 - Applied Music - Voice 1** ***Credits: 2***
    - **MUSIC 135 - Applied Music - Instrumental 1** ***Credits: 2***

TOTAL CREDITS: 16

Winter Semester

- **MUSIC 171 - Music Technology 1** ***Credits: 3***
- **SRT 121 - Basic Sound and Recording Techniques 1** ***Credits: 3***
- **BUS 104 - Operating a Small Business** ***Credits: 3***
- Accounting - Select one
- **ACCT 103 - Introduction to Accounting** ***Credits: 4***
- **ACCT 201 - Principles of Accounting 1** ***Credits: 4***
- Music - Select one
    - **MUSIC 117 - Choir 1** ***Credits: 2***
    - **MUSIC 141 - Wind Ensemble 1** ***Credits: 2***
    - **MUSIC 142 - Jazz Band 1** ***Credits: 2***
    - **MUSIC 168 - Synthesizer Ensemble 1** ***Credits: 3***

TOTAL CREDITS: 15-16

SECOND YEAR

Fall Semester

- **BUS 101 - Introduction to Business** ***Credits: 3***
- **BUS 207 - Business Law 1** ***Credits: 3***
- Elective - Select from list of other MUSIC, SRT, or BUS courses not previously taken ***Credits: 2-3***
- English Communication - Credits: 3 - Select General Education English Communication course.
    - Recommended: **ENG 106 - Business English** ***Credits: 3***
- Mathematics - Credits: 3-5 - Select General Education Mathematics course.
    - Recommended: **MATH 101 - Business Mathematics** ***Credits: 3***

TOTAL CREDITS: 14-17

Music: Music Entrepreneurship AAS Degree (continued)

Winter Semester

- Natural Science - Select General Education Science Course ***Credits: 3-5***
- **BUS 215 - E-Commerce** ***Credits: 3***
- **MUSIC 154 - Music Theory 2** ***Credits: 3***
- **MUSIC 172 - Music Technology 2** ***Credits: 3***
- Social Science - Credits: 3-4 - Select General Education Social Science course.
  Recommended:
  - OR **PSYCH 153 - Human Relations** ***Credits: 3***
  - **SOC 210 - Cultural Diversity** ***Credits: 3***

TOTAL CREDITS: 15-18

PROGRAM TOTAL: 60-66 CREDITS

ELECTIVES

- **MUSIC 131 - Applied Music - Piano 1** ***Credits: 2***
- **MUSIC 132 - Applied Music - Piano 2** ***Credits: 2***
- **MUSIC 133 - Applied Music - Voice 1** ***Credits: 2***
- **MUSIC 134 - Applied Music - Voice 2** ***Credits: 2***
- **MUSIC 135 - Applied Music - Instrumental 1** ***Credits: 2***
- **MUSIC 136 - Applied Music - Instrumental 2** ***Credits: 2***
- **MUSIC 117 - Choir 1** ***Credits: 2***
- **MUSIC 118 - Choir 2** ***Credits: 2***
- **MUSIC 141 - Wind Ensemble 1** ***Credits: 2***
- **MUSIC 241 - Wind Ensemble 2** ***Credits: 2***
- **MUSIC 142 - Jazz Band 1** ***Credits: 2***
- **MUSIC 242 - Jazz Band 2** ***Credits: 2***
- **MUSIC 149 - Popular Music Culture in America** ***Credits: 3***
- **MUSIC 155 - History of Broadway** ***Credits: 3***
- **MUSIC 164 - Music History 1 - 17th and 18th Centuries** ***Credits: 3***
- **MUSIC 165 - Music History 2 - 19th and 20th Centuries** ***Credits: 3***
- **MUSIC 168 - Synthesizer Ensemble 1** ***Credits: 3***
- **MUSIC 169 - Synthesizer Ensemble 2** ***Credits: 3***
- **MUSIC 250 - Music Theory 3** ***Credits: 3***
- **SRT 122 - Basic Sound and Recording Techniques 2** ***Credits: 3***
- **SRT 150 - Ear Training for Recording Engineers** ***Credits: 2***
- **BUS 204 - Personal Finance** ***Credits: 3***
- **BUS 226 - Principles of Marketing** ***Credits: 3***

Music: Music Entrepreneurship Certificate

Schoolcraft program code # 1YC.00346

The Music Entrepreneurship Certificate is built for students who want to manage their own career in the music industry. There is a balance of courses in music and general business subjects to help students develop the skills necessary to be successful in the competitive world of today's music industry. This curriculum is designed for students who want to start their career in the music business, as well as for those students who are already working in the industry but want to improve their opportunities for success.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **MUSIC 150 - Introduction to Music Entrepreneurship** ***Credits: 3***
- **MUSIC 137 - Sight Singing and Ear Training 1** ***Credits: 2***
- **ENG 101 - English Composition 1** ***Credits: 3***
- **BUS 103 - Organizing a Small Business** ***Credits: 3***
- **MUSIC 153 - Music Theory 1** ***Credits: 3***
- MUSIC - Select one
  - **MUSIC 131 - Applied Music - Piano 1** ***Credits: 2***
  - **MUSIC 133 - Applied Music - Voice 1** ***Credits: 2***
  - **MUSIC 135 - Applied Music - Instrumental 1** ***Credits: 2***

TOTAL CREDITS: 16

Winter Semester

- **MUSIC 171 - Music Technology 1** ***Credits: 3***
- **SRT 121 - Basic Sound and Recording Techniques 1** ***Credits: 3***
- **BUS 104 - Operating a Small Business** ***Credits: 3***
- ACCOUNTING - Select one:
  - **ACCT 103 - Introduction to Accounting** ***Credits: 4***
  - **ACCT 201 - Principles of Accounting 1** ***Credits: 4***
- MUSIC - Select one:
  - **MUSIC 117 - Choir 1** ***Credits: 2***
  - **MUSIC 141 - Wind Ensemble 1** ***Credits: 2***
  - **MUSIC 142 - Jazz Band 1** ***Credits: 2***
  - **MUSIC 168 - Synthesizer Ensemble 1** ***Credits: 3***

TOTAL CREDITS: 15-16

PROGRAM TOTAL: 31-32 CREDITS

Music: Piano Teacher Advanced Certificate

Schoolcraft program code # 1YC.00246

The Piano Teacher Advanced Certificate program is designed for pianists to advance their professional careers as private piano teachers. The curriculum is structured to provide advanced instruction in piano teaching materials and techniques as well as music theory and history. In addition, students are given numerous opportunities to observe and teach children enrolled in group piano classes on campus. (Two supervised teaching sessions of children are required.)

The program is aligned with intermediate and advanced requirements provided in Michigan's Student Achievement Testing and the Royal Conservatory programs. Successful completion of the Piano Teachers Certificate is required for admission to the Advanced Certificate program. Students who satisfactorily complete the program requirements, and upon recommendation of the music faculty, qualify for a certificate of program completion.

Applied Music has an added fee.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **MUSIC 231 - Applied Music - Piano 3** ***Credits: 2***
- **MUSIC 164 - Music History 1 - 17th and 18th Centuries** ***Credits: 3***
- **MUSIC 243 - Practice Teaching and Practicum in Piano Teaching 3** ***Credits: 2***
- **MUSIC 250 - Music Theory 3** ***Credits: 3***
- **MUSIC 204 - Keyboard Skills for Piano Teachers 3** ***Credits: 2***
- **MUSIC 277 - Piano Teaching Techniques and Materials 3** ***Credits: 3***

TOTAL CREDITS: 15

Winter Semester

- **MUSIC 232 - Applied Music - Piano 4** ***Credits: 2***
- **MUSIC 165 - Music History 2 - 19th and 20th Centuries** ***Credits: 3***
- **MUSIC 244 - Practice Teaching and Practicum in Piano Teaching 4** ***Credits: 2***
- **MUSIC 252 - Music Theory 4** ***Credits: 4***
- **MUSIC 205 - Keyboard Skills for Piano Teachers 4** ***Credits: 2***
- **MUSIC 298 - Special Music Projects for Honors Studies - Performance/Composition/Research** ***Credits: 2***

TOTAL CREDITS: 15

PROGRAM TOTAL: 30 CREDITS

Music: Piano Teacher Certificate

Schoolcraft program code # 1YC.00115

The Piano Teacher Certificate program is designed for pianists to pursue professional careers as private piano teachers. The curriculum is structured to provide instruction in piano teaching materials and techniques as well as music theory and history. In addition, students are given numerous opportunities to observe and teach children enrolled in group piano classes on campus. (Two supervised teaching sessions of children are required.) The program is aligned with beginning and intermediate requirements provided in Michigan's Student Achievement Testing and the Royal Conservatory programs.

In order to enter the Piano Teacher Certificate program, each applicant must audition to demonstrate an appropriate level of musicianship. MUSIC 121 - Class Piano 1 and MUSIC 104 - Basic Materials in Music Theory may help to develop the skills necessary to successfully pass the audition. Contact the Music department for further information. Applicants having successfully completed the Keys for Piano Teachers Skills Certificate are automatically eligible and coursework will transfer.

Students who satisfactorily complete the program requirements, and upon recommendation of the music faculty, qualify for a certificate of program completion.

Applied Music has an added fee.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **MUSIC 131 - Applied Music - Piano 1** ***Credits: 2***
- **MUSIC 137 - Sight Singing and Ear Training 1** ***Credits: 2***
- **MUSIC 143 - Practice Teaching and Practicum in Piano Teaching 1** ***Credits: 2***
- **MUSIC 153 - Music Theory 1** ***Credits: 3***
- **MUSIC 201 - Keyboard Skills for Piano Teachers 1** ***Credits: 2***
- **MUSIC 247 - Piano Teaching Techniques and Materials 1** ***Credits: 3***

TOTAL CREDITS: 14

Winter Semester

- **MUSIC 132 - Applied Music - Piano 2** ***Credits: 2***
- **MUSIC 138 - Sight Singing and Ear Training 2** ***Credits: 2***
- **MUSIC 144 - Practice Teaching and Practicum in Piano Teaching 2** ***Credits: 2***
- **MUSIC 154 - Music Theory 2** ***Credits: 3***
- **MUSIC 202 - Keyboard Skills for Piano Teachers 2** ***Credits: 2***
- **MUSIC 257 - Piano Teaching Techniques and Materials 2** ***Credits: 3*** *

TOTAL CREDITS: 14

PROGRAM TOTAL: 28 CREDITS

*These classes are offered on a rotational basis. Contact Liberal Arts office for current offerings.

Schoolcraft College®

2024-2025 Credential Year

Nursing

*Students may take the NATP 115 - Nursing Assistant Course (6 credits) for eligibility to take the Michigan Nurse Aide Exam to be placed on the state registry.

Schoolcraft offers students several options when preparing for a career in this vital healthcare field: nursing assistant training, practical nursing, advanced placement for licensed practical nurses, and registered nursing education.

- The nursing assistant course (6 credits) provides students with the opportunity for an entry-level healthcare position primarily in extended care facilities, home health agencies, or hospitals. The course is three days a week during fall, winter, and spring semesters. A five day a week (over four weeks) course is offered during the summer semester. Students who meet the nursing assistant course requirements or the Nursing Assistant Training Program skills certificate requirements are eligible to take the Michigan nursing assistant competency exam to be on the state registry. The nursing assistant preparation course is approved by the Michigan Department of Licensing and Regulatory Affairs (LARA) Bureau of Community and Health Systems. A minimum overall grade of 75% for theory and satisfactory completion of laboratory and clinical competencies is needed for successful course completion and eligibility to take the Michigan nursing assistant exam. Students must meet health and clinical requirements, have a negative drug screen on first attempt (marijuana use still prohibited), and pass a criminal background check.
- The Nursing Assistant Training Program skills certificate includes the nursing assistant course and additional general education credits that prepare students for further studies in healthcare. Students need to attain a minimum of 16 credits for this optional certificate.
- The Nursing: Practical (PN) certificate is an option at the end of the first year of the registered nurse program. Students complete the first-year courses plus a specific practical nursing leadership course during the summer semester. Preparation provides students with eligibility to take the National Council Licensure Examination for Practical Nursing (NCLEX-PN).
- The Nursing: Registered (RN) associate degree of applied science (AAS) program qualifies students to take the National Council Licensure Examination for Registered Nursing (NCLEX-RN) and provides the academic background needed for further education in a Bachelor of Science in nursing (BSN) degree program.
- Licensed Practical Nurse Advanced Placement option (LPN-RN) offers LPNs who are licensed in Michigan to apply for advanced placement into the second year of the associate degree of applied science (AAS) registered nursing program for eligibility to take the NCLEX-RN examination.
- PN and RN nursing program courses must be taken in sequence and a minimum grade of 80% plus a satisfactory clinical performance evaluation in specific nursing courses are required for progression to the next course. Computerized testing is required in all nursing courses. Academic courses other than nursing must be completed according to program requirements or with a minimum grade of 2.0. Students are admitted to the practical or registered nursing program on an ongoing basis and start the program in the fall semester. Students must meet health and clinical requirements, have a negative drug screen on first attempt (marijuana use still prohibited), and pass a criminal background check.

The associate degree and practical nursing programs are approved by the Michigan Board of Nursing. For more information on MI-Board of Nursing approval and licensure please contact:

LARA Department of Licensing and Regulatory Affairs
Bureau of Health Care Services
Board of Nursing
611 West Ottawa Street
P.O. Box 30670 Lansing, MI 48909-8170
517-335-0318
bhcsinfo@michigan.gov
www.michigan.gov/LARA

The nursing associate degree and practical programs at Schoolcraft College at the main Livonia campus located in Livonia, MI are accredited by:

Accreditation Commission for Education in Nursing (ACEN)
3343 Peachtree Road NE, Suite 850
Atlanta, GA 30326
404-975-5000
www.acen.org
info@acenursing.org
The most recent accreditation decision made by the ACEN Board of Commissioners for the associate and practical nursing programs is Continuing Accreditation.

Completion of program requirements provides students with eligibility to take the NCLEX-RN or NCLEX-PN exams. Students who wish to be licensed in another state should check the National Council of State Boards of Nursing website https://www.ncsbn.org/14730.htm to clarify requirements in that state.

Credentials

- Nursing: Licensed Practical Nurse to Registered Nurse Options (LPN to RN)
- Nursing: Nursing Assistant Training Program Skills Certificate
- Nursing: Practical Certificate (PN)
- Nursing: Registered AAS Degree (RN)

Selective Admissions: Program Application Information

- Nursing: Licensed Practical Nurse to Registered Nurse Option (LPN to RN) Program Application Information
- Nursing: Nursing Career Ladder Curriculum Program Application Information

Nursing: Licensed Practical Nurse to Registered Nurse Options (LPN to RN)

Schoolcraft program code # AAS.0P000/AAS.00000

Nursing courses are open only to students who are officially admitted to the nursing career ladder curriculum.

Licensed practical nurses who are licensed in Michigan and are interested in becoming registered nurses (RNs) may apply to complete the second year of the associate of applied science (AAS) degree nursing program. The associate degree nursing program is approved by the Michigan Board of Nursing and the Accreditation Commission for Education in Nursing (ACEN). This program provides advanced nursing theory and clinical practice in caring for adults, children, and families to prepare graduates for entry-level positions in hospitals, long-term care facilities, medical offices, home health, and other community settings. Students who satisfactorily complete the associate degree nursing program are eligible to apply to take the National Council Licensure Examination-Registered Nurse (NCLEX-RN) as a step in obtaining licensure as a registered nurse (RN).

Students need to complete the prerequisite courses and meet other admission requirements. Students may defer their admission only one time, otherwise, the student will need to reapply and meet the application requirements at that time. Students who do not meet nursing department deadlines or have been accepted to the program and then are "no call, no show" to start the program will be canceled and not eligible to reapply to the program in the future.

Nursing courses must be taken in sequence. Courses typically include one day of theory with two days of clinical. Clinical sessions are offered on day or afternoon shifts with the potential for weekend rotations. Clinical rotation schedules will be determined depending on clinical site availability. A minimum grade of 80% in each nursing course is required for progression to the next course. Academic courses, other than nursing, must be completed according to application requirements. Computer lab use and computer testing are required in this program. Students will need to have a computer device for home and on-campus use that meets the requirements provided before entry into the program. See Information Security Policy 1090 at www.schoolcraft.edu for more information. Students must furnish and maintain uniforms and supplies as required by the department and clinical facilities. Students must meet health and clinical requirements, have a negative drug screen on the first attempt (marijuana use still prohibited), and pass a criminal background check.

This program is offered at the Livonia Main Campus. Students are admitted on an ongoing basis to start the nursing courses at the beginning of the designated fall semester. The number of LPNs admitted depends on space availability and the number may vary per year.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

This program requires students to complete a specific list of requirements before being officially admitted into the program. Students are listed in a pre-program code while the application requirements are being met. The full program start date and implementation of the program code may be dependent on space availability. Requirements are listed online at https://www.schoolcraft.edu/admissions/apply-to-sc/students-with-selective-admissions/ or on the Nursing: Licensed Practical Nurse to Registered Nurse Option (LPN to RN) Program Application Information catalog page. Contact the Admissions and Welcome Center at 734-462-4426 or admissions@schoolcraft.edu to complete an application.

SAMPLE SCHEDULE OF COURSES

ADMISSION PREREQUISITES AND SUPPORTIVE COURSES

*COLLS 130 - Applied Learning Theory for Nursing Majors is a suggested elective for pre-nursing students to develop study skills and success strategies.

- LPN Have an active, unrestricted LPN license in the State of Michigan ***Credits: 25.5***
- **BIOL 236 - Human Anatomy and Physiology** ***Credits: 5*** **
- **PSYCH 201 - Introductory Psychology** ***Credits: 4*** ***
- English Communication - Credits: 3 - ⁺Select first General Education English Communication courses with a minimum grade of 2.0.
    - Recommended: **ENG 101 - English Composition 1** ***Credits: 3***
- Mathematics - Select one of the following, or a higher Mathematics course, with a minimum grade of 2.0.
    - **MATH 102 - Technical Mathematics** ***Credits: 4***
    - **MATH 111 - Applications - Utility of Math** ***Credits: 4***
    - **MATH 113 - Intermediate Algebra for College Students** ***Credits: 4***

Total Credits: 41.5

Nursing: Licensed Practical Nurse to Registered Nurse Option (LPN to RN) (continued)

SECOND YEAR

Fall Semester

- **NURS 205 - Advanced Medical Surgical Nursing** ***Credits: 4.5***
- **NURS 248 - Maternal-Child Nursing 2** ***Credits: 5***
- English Communication - Credits: 3 - +Select second General Education English Communication course with a minimum grade of 2.0.
    - Recommended: **ENG 102 - English Composition 2** ***Credits: 3***

TOTAL CREDITS: 12.5

Winter Semester

- **NURS 246 - Psychiatric Mental Health Nursing** ***Credits: 4***
- **NURS 250 - Advanced Concepts in Registered Nursing** ***Credits: 4.5***
- Humanities - Credits: 1 - Select General Education Humanities course with a minimum grade of 2.0.
    - Recommended: **HUM 106 - Introduction to Art and Music** ***Credits: 1***

TOTAL CREDITS: 9.5♦

PROGRAM TOTAL: 63.5 CREDITS

**Students may also take the BIOL 237-BIOL 238 Anatomy and Physiology course sequence which may be preferred for BSN programs.

***PSYCH 201 - Introductory Psychology is a prerequisite course and must be completed for application submission.

****Mathematics - students should meet with an advisor to determine courses that satisfy academic goals and BSN program requirements.

♦Students should work with an advisor if more credits are needed per semester to qualify for financial aid.

+Please check Schoolcraft General Education requirements to determine course options.

PROGRAMS REQUIRING LICENSURE

Federal regulations require Schoolcraft College to publicly disclose, for each educational program designed to meet the educational requirements for a specific professional license or certification required for employment in an occupation (or advertised as meeting a requirement for employment), information about whether program completion would meet those requirements in a state. These public disclosure requirements apply to all programs, regardless of their modality (i.e., on-ground, online, and hybrid programs).

Please see the disclosure related to the educational requirements for professional licensure and certification.

Nursing: Nursing Assistant Training Program Skills Certificate

Schoolcraft program code # CRT.00321

The Nursing Assistant Course is open only to students who are officially admitted to the college. Contact the Admissions and Welcome Center at 734-462-4426 or admissions@schoolcraft.edu ***for more information.***

The Nursing Assistant Course (6 credits) provides students with the opportunity for an entry-level healthcare position primarily in extended care facilities, home health agencies, or hospitals. The course is three days a week and offered each seven weeks in the fall, winter and spring semesters. A five day a week (over four weeks) course is offered during the summer semester. Students who meet the course requirements are eligible to take the Michigan nursing assistant exam to be on the state registry.

The nursing assistant course is approved by the Michigan Department of Licensing and Regulatory Affairs (LARA) Bureau of Community and Health Systems. A minimum overall grade of 75% for theory and satisfactory completion of laboratory and clinical competencies is needed for successful course completion and eligibility to take the Michigan nursing assistant exam. Students must meet health and clinical requirements, have a negative drug screen on first attempt, and pass a criminal background check.

The Schoolcraft College Nursing Assistant Training Program Skills Certificate is a minimum sixteen credit option that provides the nursing assistant with a college certificate that prepares students for further studies in healthcare. Students do not need to complete the certificate program to be eligible to take the state exam. Students who opt to complete the skills certificate need to complete the nursing assistant course (6 credits) and complete a minimum of another 10 general education credits for a minimum of at least 16 credits.

Students should work with an academic advisor to develop a schedule that will work for them and assist with meeting any financial aid requirements per semester. Students must meet health and clinical requirements, have a negative drug screen on first attempt, and pass a criminal background check. Computerized testing is required during this course. Students should also discuss course GPA requirements for future healthcare program requirements. Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

Successful completion of NATP 115 - Nursing Assistant Course allows for eligibility to take the Michigan Nurse Aide Exam to be placed on the state registry.

- **NATP 115 - Nursing Assistant Course** ***Credits: 6***

SELECT A MINIMUM OF 10 CREDITS

- Humanities - Select any Humanities course with a minimum grade of 2.0 ***Credits: 1-4***
- Science - Credits: 1-5 - Select any Natural Science course with a minimum grade of 3.0.
    - Recommended: **BIOL 236 - Human Anatomy and Physiology** ***Credits: 5*** ** *
- English Communication - 6 credits - Select two General Education English Communication courses with a minimum grade of 2.0.
    - Recommended: **ENG 101 - English Composition 1** ***Credits: 3***
    - AND **ENG 102 - English Composition 2** ***Credits: 3***
- Mathematics - Credits: 3-5 - Select any Mathematics course with a minimum grade of 2.0.
    - Recommended: **MATH 102 - Technical Mathematics** ***Credits: 4*** **
    - OR: **MATH 111 - Applications - Utility of Math** ***Credits: 4*** **
    - OR: **MATH 113 - Intermediate Algebra for College Students** ***Credits: 4*** ** or higher Math course
- Social Science - Credits: 3-4 - Select any Social Science course with a minimum grade of 2.0.
    - Recommended: **PSYCH 201 - Introductory Psychology** ***Credits: 4*** **

PROGRAM TOTAL: 16

* Students who may transfer to a baccalaureate program should elect the BIOL 237-BIOL 238 Anatomy & Physiology course sequence. BIOL 236 or the BIOL 237-BIOL 238 combination must be completed with a 3.0 or better for future nursing program admission.

**Identified courses may apply toward the certificate PN, an associate of applied science RN, or used toward other science-based curriculums.

+Please check Schoolcraft College General Education requirements to determine course options.

All courses may be applied toward the associate of general studies degree.

Nursing: Practical Certificate (PN)

Schoolcraft program code # 1YC.0P017/1YC.00017

Nursing courses are open only to students who are officially admitted to the nursing career ladder curriculum. The practical nursing program is approved by the Michigan Board of Nursing and accredited by the Accreditation Commission for Education in Nursing (ACEN). This program provides basic nursing theory and clinical practice in caring for adults, children, and families to prepare graduates for entry-level positions in long-term care facilities, medical offices, hospitals, home health, and other community settings. Students who satisfactorily complete the practical nursing program are eligible to apply to take the National Council Licensure Examination-Practical Nurse (NCLEX-PN) as a step in obtaining licensure as a licensed practical nurse (LPN). Students who wish to pursue this option must successfully complete the Advanced Concepts in Practical Nursing course at the end of the first academic year along with the other first-year courses within the associate degree of nursing program.

Students need to complete the prerequisite courses and meet other admission requirements. Students may defer their admission only one time, otherwise, the student will need to reapply and meet the application requirements at that time. Students who do not meet nursing department deadlines or have been accepted to the program and then are "no call, no show" to start the program will be canceled and not eligible to reapply to the program in the future. After August 1 for fall start cohorts, and after October 1 for winter start cohorts, preference will be given for students to be pulled up to spots vacated at the last minute by other students, with students who have completed the NURS 104 - Pharmacology for Nurses course or the NATP 115 - Nursing Assistant Course or are currently enrolled in either course and have current passing status.

Nursing courses must be taken in sequence. Courses typically include one day of theory with two days of clinical. Clinical sessions are offered on day or afternoon shifts with the potential for weekend rotations. Clinical rotation schedules will be determined depending on clinical site availability. A minimum grade of 80% in each nursing course is required for progression to the next course. Academic courses, other than nursing, must be completed according to application requirements. Computer lab use and computer testing are required in this program. Students will need to have a computer device for home and on-campus use that meets the requirements provided before entry into the program. See Information Security Policy 1090 at www.schoolcraft.edu for more information. Students must furnish and maintain uniforms and supplies as required by the department and clinical facilities. Students must meet health and clinical requirements, have a negative drug screen on the first attempt (marijuana use still prohibited), and pass a criminal background check. This program is offered at the Livonia Main Campus.

Students selecting the practical nursing certificate option at the end of the first year of the NCLC sequence may then complete the registered nursing program without further application or admission requirements. Students who satisfactorily complete the program requirements qualify for a certificate of program completion. This program requires students to complete a specific list of requirements before being officially admitted into the program. Students are listed in a pre-program code while the application requirements are being met. The full program start date and implementation of the program code may be dependent on space availability. Requirements are listed online at https://www.schoolcraft.edu/admissions/apply-to-sc/students-with-selective-admissions/ or the Nursing: Nursing Career Ladder Curriculum Program Application Information catalog page. Contact the Admissions and Welcome Center at 734-462-4426 or admissions@schoolcraft.edu to complete an application.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

ADMISSION PREREQUISITES AND SUPPORTIVE COURSES

*COLLS 130 - Applied Learning Theory for Nursing Majors is a suggested elective for pre-nursing students to develop study skills and success strategies.

- **BIOL 236 - Human Anatomy and Physiology** ***Credits: 5*** **
- **PSYCH 201 - Introductory Psychology** ***Credits: 4*** ***

Mathematics

****Select one of the following, or a higher Mathematics course, with a minimum grade of 2.0

- **MATH 102 - Technical Mathematics** ***Credits: 4***
- **MATH 111 - Applications - Utility of Math** ***Credits: 4***
- **MATH 113 - Intermediate Algebra for College Students** ***Credits: 4***

Total Credits: 13

Nursing: Practical Certificate (PN) (continued)

FIRST YEAR

Fall Semester

- **NURS 104 - Pharmacology for Nurses** ***Credits: 3*** *****
- **NURS 105 - Foundations in Nursing Practice 1** ***Credits: 4***
- **NURS 106 - Foundations in Nursing Practice 2** ***Credits: 4.5***

TOTAL CREDITS: 11.5♦

Winter Semester

- **NURS 107 - Medical-Surgical Nursing** ***Credits: 4.5***
- **NURS 108 - Surgical-Medical Nursing** ***Credits: 4.5***

ENGLISH COMMUNICATION - CREDITS: 3

+Select first General Education English Communication courses with a minimum grade of 2.0.

- Recommended: **ENG 101 - English Composition 1** ***Credits: 3***

TOTAL CREDITS: 12

Spring Session

- **NURS 128 - Maternal-Child Nursing 1** ***Credits: 5***

TOTAL CREDITS: 5♦

Summer Session

- **NURS 139 - Advanced Concepts in Practical Nursing** ***Credits: 3***

TOTAL CREDITS: 3♦

PROGRAM TOTAL: 44.5 CREDITS

**Students may also take the BIOL 237-BIOL 238 Anatomy and Physiology course sequence which may be preferred for BSN programs.

***PSYCH 201 - Introductory Psychology is a supportive course not a prerequisite course and may be taken later as long as it is completed by the start of the Nursing program.

****Mathematics - students should meet with an advisor to determine courses that satisfy academic goals and BSN program requirements.

*****NURS 104 - Pharmacology for Nurses may be taken the Winter or Spring semester before the Fall semester if desired or may be taken in the Fall semester (for students already accepted into the nursing program).

♦ Students should work with an advisor if more credits are needed per semester to qualify for financial aid.

+ Please check Schoolcraft General Education requirements to determine course options.

PROGRAMS REQUIRING LICENSURE

Federal regulations require Schoolcraft College to publicly disclose, for each educational program designed to meet the educational requirements for a specific professional license or certification required for employment in an occupation (or advertised as meeting a requirement for employment), information about whether program completion would meet those requirements in a state. These public disclosure requirements apply to all programs, regardless of their modality (i.e., on-ground, online, and hybrid programs).

Please see the disclosure related to the educational requirements for professional licensure and certification.

Nursing: Registered AAS Degree (RN)

Schoolcraft program code # AAS.0P000/AAS.00000

Nursing courses are open only to students who are officially admitted to the nursing career ladder curriculum.

The associate degree nursing program is approved by the Michigan Board of Nursing and the Accreditation Commission for Education in Nursing (ACEN). This program provides advanced nursing theory and clinical practice in caring for adults, children, and families to prepare graduates for entry-level positions in hospitals, long-term care facilities, medical offices, home health, and other community settings. Students who satisfactorily complete the associate degree nursing program are eligible to apply to take the National Council Licensure Examination-Registered Nurse (NCLEX-RN) as a step in obtaining licensure as a registered nurse (RN).

Students need to complete the prerequisite courses and meet other admission requirements. Students may defer their admission only one time, otherwise, the student will need to reapply and meet the application requirements at that time. Students who do not meet nursing department deadlines or have been accepted to the program and then are "no call, no show" to start the program will be canceled and not eligible to reapply to the program in the future. After August 1 for fall start cohorts, and after October 1 for winter start cohorts, preference will be given for students to be pulled up to spots vacated at the last minute by other students, with students who have completed the NURS 104 - Pharmacology for Nurses course or the NATP 115 - Nursing Assistant Course or are currently enrolled in either course and have current passing status.

Nursing courses must be taken in sequence. Courses typically include one day of theory with two days of clinical. Clinical sessions are offered on day or afternoon shifts with the potential for weekend rotations. Clinical rotation schedules will be determined dependent upon clinical site availability. A minimum grade of 80% in each nursing course is required for progression to the next course. Academic courses, other than nursing, must be completed according to application requirements. Computer lab use and computer testing are required in this program. Students will need to have a computer device for home and on-campus use that meets the requirements provided prior to entry to the program. See Information Security Policy 1090 at www.schoolcraft.edu for more information. Students must furnish and maintain uniforms and supplies as required by the department and clinical facilities. Students must meet health and clinical requirements, have a negative drug screen on the first attempt (marijuana use still prohibited), and pass a criminal background check. This program is offered at the Livonia Main Campus. Students are admitted at the beginning of the fall semester or the winter semester.

Students who satisfactorily complete all college and program requirements qualify for an associate of applied science degree. This program requires students to complete a specific list of requirements before being officially admitted into the program. Students are listed in a pre-program code while the application requirements are being met. The full program start date and implementation of the program code may be dependent on space availability. Requirements are listed online at https://www.schoolcraft.edu/admissions/apply-to-sc/students-with-selective-admissions/ or the Nursing: Nursing Career Ladder Curriculum Program Application Information catalog page. Contact the Admissions and Welcome Center at 734-462-4426 or admissions@schoolcraft.edu to complete an application.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

ADMISSION PREREQUISITES AND SUPPORTIVE COURSES

*COLLS 130 - Applied Learning Theory for Nursing Majors is a suggested elective for pre-nursing students to develop study skills and success strategies.

- **BIOL 236 - Human Anatomy and Physiology** ***Credits: 5*** **
- **PSYCH 201 - Introductory Psychology** ***Credits: 4*** ***

Mathematics

**** Select one of the following, or a higher Mathematics course, with a minimum grade of 2.0

- **MATH 102 - Technical Mathematics** ***Credits: 4***
- **MATH 111 - Applications - Utility of Math** ***Credits: 4***
- **MATH 113 - Intermediate Algebra for College Students** ***Credits: 4***

TOTAL CREDITS: 13

FIRST YEAR

Nursing: Registered AAS Degree (RN) (continued)

Fall Semester

- **NURS 104 - Pharmacology for Nurses** ***Credits: 3*** *****
- **NURS 105 - Foundations in Nursing Practice 1** ***Credits: 4***
- **NURS 106 - Foundations in Nursing Practice 2** ***Credits: 4.5***
- Humanities - Credits: 1 - Select General Education Humanities course with a minimum grade of 2.0.
    - Recommended: **HUM 106 - Introduction to Art and Music** ***Credits: 1***

TOTAL CREDITS: 12.5

Winter Semester

- **NURS 107 - Medical-Surgical Nursing** ***Credits: 4.5***
- **NURS 108 - Surgical-Medical Nursing** ***Credits: 4.5***
- English Communication - Credits: 3 - +Select first General Education English Communication course with a minimum grade of 2.0.
    - Recommended: **ENG 101 - English Composition 1** ***Credits: 3***

TOTAL CREDITS: 12

Spring Session

- **NURS 128 - Maternal-Child Nursing 1** ***Credits: 5***

TOTAL CREDITS: 5♦

SECOND YEAR

Fall Semester

- **NURS 205 - Advanced Medical Surgical Nursing** ***Credits: 4.5***
- **NURS 248 - Maternal-Child Nursing 2** ***Credits: 5***
- English Communication - Credits: 3 - +Select second General Education English Communication course with a minimum grade of 2.0.
    - Recommended: **ENG 102 - English Composition 2** ***Credits: 3***

TOTAL CREDITS: 12.5

Winter Semester

- **NURS 246 - Psychiatric Mental Health Nursing** ***Credits: 4***
- **NURS 250 - Advanced Concepts in Registered Nursing** ***Credits: 4.5***

TOTAL CREDITS: 8.5♦

PROGRAM TOTAL: 63.5 CREDITS

**Students may also take the BIOL 237-BIOL 238 Anatomy and Physiology course sequence which may be preferred for BSN programs.

***PSYCH 201 - Introductory Psychology is a supportive course not a prerequisite course and may be taken later as long as it is completed at the start of the Nursing Program.

****Mathematics - students should meet with an advisor to determine courses that satisfy academic goals and BSN program requirements.

*****NURS 104 - Pharmacology for Nurses may be taken the Winter or Spring semester before the Fall semester if desired or may be taken in the Fall semester (for students already accepted into the nursing program).

♦ Students should work with an advisor if more credits are needed per semester to qualify for financial aid.

+ Please check Schoolcraft General Education requirements to determine course options.

PROGRAMS REQUIRING LICENSURE

Federal regulations require Schoolcraft College to publicly disclose, for each educational program designed to meet the educational requirements for a specific professional license or certification required for employment in an occupation (or advertised as meeting a requirement for employment), information about whether program completion would meet those requirements in a state. These public disclosure requirements apply to all programs, regardless of their modality (i.e., on-ground, online, and hybrid programs).

Please see the disclosure related to the educational requirements for professional licensure and certification.

Schoolcraft College®

2024-2025 Credential Year

Nursing: Licensed Practical Nurse to Registered Nurse Option (LPN to RN) Program Application Information

Schoolcraft College offers an option for Michigan Licensed Practical Nurses (LPNs) who are interested in becoming Registered Nurses (RNs) with an Associate of Applied Science (AAS) in nursing education. This is not a separate program but an advanced placement option within the Nursing Career Ladder Curriculum (NCLC).

- Following successful completion of the RN program requirements, students are eligible to take the NCLEX-RN exam and apply for licensure as a Registered Nurse (RN).
- Students should meet with an Academic Advisor to review general education courses that may be transferred toward the degree. Students are accepted after pre-admission requirements are met and as space is available.
- Applications are accepted on a continual basis for Fall semester each year and the number of placements varies per year.

The Nursing Career Ladder Curriculum (NCLC) is rigorous and challenging. It requires a high level of student commitment and mastery of content in many academic areas. Essential information about the Nursing Career Ladder Curriculum:

- Nursing courses are offered during day/afternoon sessions at the Livonia campus. Second year courses are scheduled into four 7-week sessions.
- Computer use and computerized testing are required for all nursing courses.
- In addition to course lectures, laboratory and clinical practice are required. Computer use and computerized testing are required for each course. Students will need to have a computer device for home and on campus use that meets the requirements as provided at the time of entry. Courses typically include one day of theory and two days of clinical. Clinical sessions are offered on day or afternoon shifts with potential weekend rotations. The clinical days may not be sequential days of the week and will vary based on clinical site availability. Students must meet all requirements as designated by the department, college, and clinical facilities.
- Nursing courses must be taken in sequence or assigned rotation. A minimum grade of 80% in each nursing course and satisfactory clinical performance is required for progression to the next nursing course.

The RN-AAS nursing program is approved by the Michigan Board of Nursing and has received additional national Accreditation Commission for Education in Nursing (ACEN). For more information on MI-Board of Nursing approval and licensure please contact:

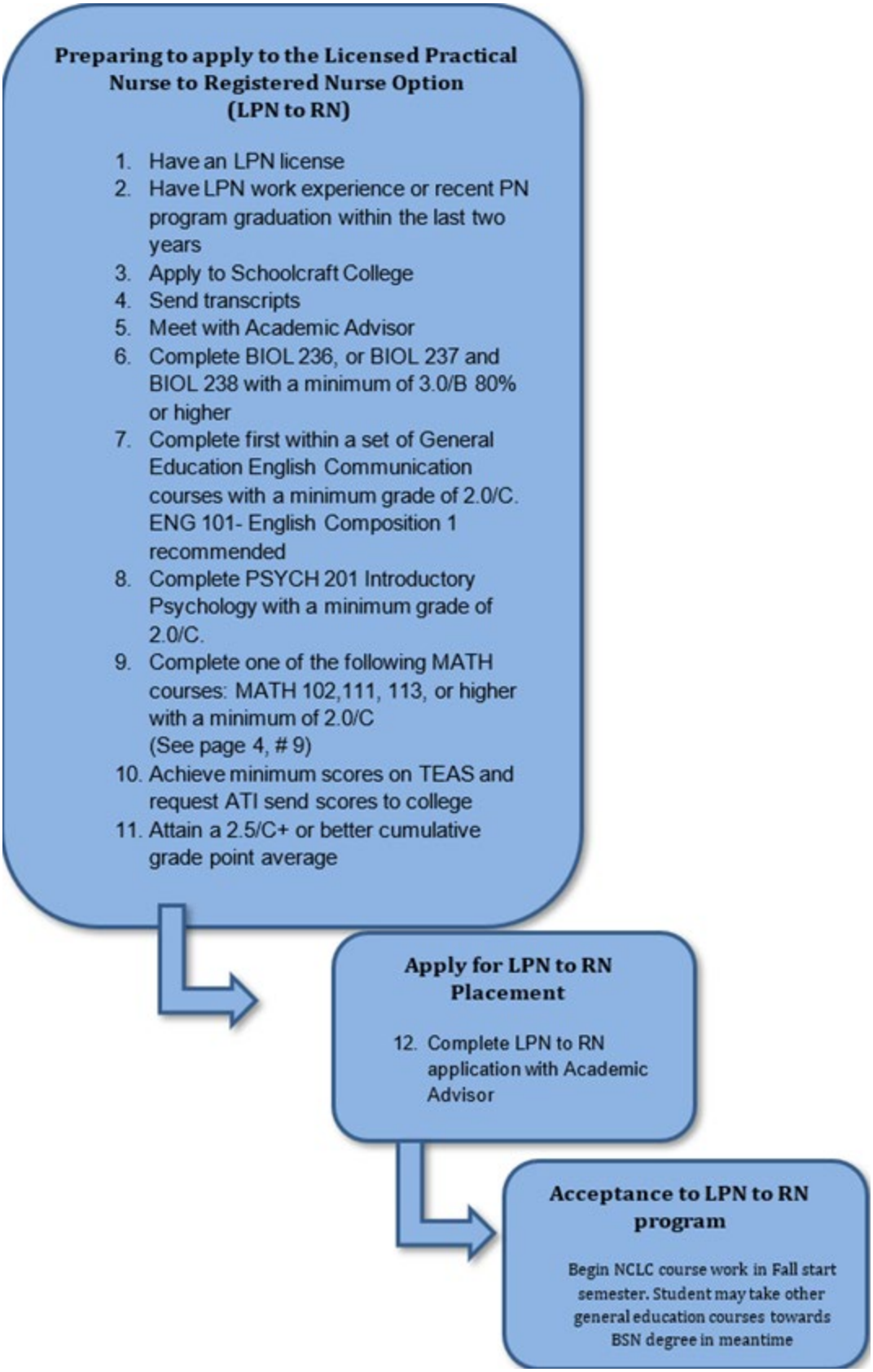
LARA Department of Licensing and Regulatory Affairs
Bureau of Health Care Services Board of Nursing
611 West Ottawa Street
P.O. Box 30670
Lansing, MI 48909-8170
517-335-0318
bhcsinfo@michigan.gov
www.michigan.gov/LARA

The nursing associate degree program at Schoolcraft College at the Livonia campus located in Livonia, MI is accredited by the:

Accreditation Commission for Education in Nursing (ACEN)
3343 Peachtree Road NE, Suite 850
Atlanta, GA 30326
404-975-5000
info@acenursing.org

The most recent accreditation decision made by the ACEN Board of Commissioners for the associate degree nursing program is Continuing Accreditation.

Completion of program requirements provides students with eligibility to take the NCLEX-RN exam. Students who wish to be licensed in another state should check the National Council of State Boards of Nursing to clarify requirements in that state https://www.ncsbn.org/14730.htm.



APPLICATION REQUIREMENTS

Please complete the LPN to RN Option application after reviewing and meeting the following requirements:

1. LPN License	Hold an active, unrestricted LPN license in the State of Michigan. Students having licensure in states other than Michigan should contact the LARA Department of Licensing and Regulatory Affairs to complete the reciprocity process.
2. LPN Work Experience	Have current work experience as an LPN or recent graduate from a practical nurse program within the last two years. Attach an updated copy of your resume (including the job description and nursing activities) and a pay stub indicating the number of hours worked.
3. Apply to Schoolcraft College	Apply to Schoolcraft College online at www.schoolcraft.edu.
4. Transcripts	It is recommended you request official undergraduate transcripts from all colleges and universities previously attended. Transcripts must be sent directly from the issuing college or university to the Schoolcraft College Record's Office. To confirm that transcripts have been received, contact the Answer Center & Help Line at 734-462-4426.
5. Advising	The nursing program requires minimum assessment levels of coursework in the areas of math, reading, and writing. Students should meet with an academic advisor to develop an academic plan and retain a copy of their degree audit for submission with this application. Students with prior college-level work or a degree may be exempt from general college placement testing. Students who have submitted ACT or SAT scores that are less than three years old to the Records Office may also be exempt from assessment testing. Contact the Academic Advising Center at 734-462-4429 to make an appointment to discuss an academic plan and preparation for the TEAS (nursing entrance) exam. Nursing students should possess and maintain the following to be able to adequately communicate, make decisions, manipulate equipment, perform procedures, and provide indirect or direct quality care for clients in a variety of healthcare settings: 1. Sufficient intellectual, psychological, and emotional capabilities 2. Sufficient capacity to concentrate for sustained periods of time. 3. Sufficient communication skills 4. Sufficient visual acuity 5. Sufficient auditory perception 6. Sufficient gross and fine motor coordination 7. Sufficient physical abilities and strength required to push, pull, transfer, or move objects/clients utilizing safe patient handling techniques; ability to lift 35 pounds. 8. Sufficient physical stamina to remain standing for prolonged periods of time. Students potentially needing accommodations may review further information at https://www.schoolcraft.edu/dss/. Students may also schedule an appointment with Disability Support Services at 734-462-4330 regarding options to ensure equal access to programs and activities.
6. Anatomy and Physiology Prerequisite	• Complete BIOL 236 - Human Anatomy and Physiology with a minimum grade of *3.0/B*. ***- or -*** • Complete BIOL 237 - Principles of Human Anatomy and Physiology 1 with a minimum grade of 3.0/B. ***AND*** BIOL 238 - Principles of Human Anatomy and Physiology 2 with a minimum grade of 3.0/B. *(Students should meet with an academic advisor to determine the biology courses recommended for students planning to pursue a BSN in the future. There are no expiration dates for acceptable BIOL courses. Students who plan to transfer to a baccalaureate program should take the BIOL 237 and 238 sequence.)*
7. English Communication Prerequisite	Select first within a set of General Education English Communication courses with a minimum grade of 2.0. • ENG 101 - English Composition 1 recommended.
8. Introductory Psychology Prerequisite	• Complete PSYCH 201 - Introductory Psychology with a minimum grade of 2.0/C.
9. Mathematics Prerequisite	Select one Mathematics course from the following list: • MATH 102 - Technical Mathematics with a minimum grade of 2.0/C. • MATH 111 - Applications - Utility of Math with a minimum grade of 2.0/C. • MATH 113 - Intermediate Algebra for College Students with a minimum grade of 2.0/C. • OR higher Mathematics course with a minimum grade of 2.0/C. *Students should meet with an advisor to determine courses that satisfy academic goals and future BSN program requirements. Math 102 does not transfer toward a BSN degree.*

10. Admission Exam	The ATI TEAS Exam (Test of Essential Academic Skills) is a multiple-choice exam that must be taken using the online version. The TEAS Exam includes: • 31% Reading: Key Ideas & Details (15%), Craft & Structure (9%), Integration of Knowledge & Ideas (7%) • 16% English and Language: Convention of Standard English (6%), Knowledge of Language (6%), Vocabulary Acquisition (4%) • 31% Science: Human Anatomy & Physiology (21%), Life & Physical Science (5%), Scientific Reasoning (5%) • 22% Mathematics: Number & Algebra (16%), Measurement & Data (6%) • ***Minimum TEAS Exam scores required are Composite: 60% (Adjusted Individual Total Score), 68% Reading, 60% English, 60% Math, 50% Science.*** • As of September 1, 2022, all TEAS testing used for application must be completed ***in person, on campus*** at the Schoolcraft College Testing Center, • Successful TEAS score results are valid for a maximum of 2 years. • Four (4) TEAS attempts are the maximum number of attempts allowed for application to Schoolcraft's program (includes any exams taken at other institutions and Schoolcraft since 9/1/2022.) Any exam results taken at other sites (of the 4 attempts) will not be accepted for application. • Students may take the TEAS a maximum of 2 times within a 12-month period. Students may not take a third attempt until the first test attempt expires (Ex: TEAS #1 on September 5 and TEAS #2 on February 10. TEAS #3 cannot be taken until the next September on or after the 5th). • If the student does not pass a TEAS exam, the ATI website has study materials and practice exams available. The Schoolcraft College Learning Support Services Department also provides free personalized TEAS prep plans for success through one-on-one and group formats. To inquire about support for the TEAS, please contact teasprep@schoolcraft.edu (734-462-7330). • The highest successful score on each section of the TEAS Exam will be accepted from the two attempts within the 12-month period. Students must complete all sections of the TEAS exam to the best of their ability on each attempt for scores to be accepted. • The Composite score must be 60% or higher on at least one of the two attempts and the lowest composite score for the other attempt of these two attempts must be within a 55-60% range or higher. Students who may need academic testing accommodations should meet with Disability Support Services Office (734-462-4330) prior to taking the TEAS exam to determine potential accommodations. TEAS Exam attempts at Schoolcraft College must be scheduled in advance. Fees paid are non-refundable and non-transferable. Students needing to change testing dates will need to pay the full fee. Obtain more information regarding the TEAS exam: https://www.schoolcraft.edu/testingcenter/teas.
11. Cumulative GPA	Attain a cumulative grade point average of ***2.5/C+*** or better for all college-level prerequisites and supportive courses.
12. Apply for LPN to RN Placement	Complete the student portion of the application and meet with an academic advisor for academic planning and to sign off on the application. The advisor will submit the application and degree audit (received from Advising) to the Nursing Office. Applications are reviewed on a continual basis. The order of acceptance of qualified applicants will be based on the date the College receives a ***valid*** application for LPN to RN placement. An application is ***valid*** only if ***all*** the requirements listed in this document have been met. All prerequisites must be completed (with a final grade entered) ***PRIOR*** to submission of the application for the application to be considered for admission. In the event more than one qualified student applies on the same day, the applications will be ordered based on the highest cumulative grade point average in the prerequisite/supportive courses. Students who are accepted will receive an email confirmation indicating acceptance and the designated Fall start year. If all student spaces are full, students will be admitted to the next year's Fall start cohort and will also be eligible to move up to the current year (depending on application date placement), if other students defer or do not meet other requirement deadlines and admission is canceled. Students who do not respond to correspondence by deadlines will be canceled by the nursing department. No students are moved up after August 1 for any given academic year.

	Specific information on orientation and other requirements will be sent via Schoolcraft email when available (approximately 4 months before the start semester). Students are responsible for maintaining current contact information for all college communications. Students should get their college email forwarded to their primary email so as not to miss any communications. Students may defer their admission only one time, otherwise, the student will need to reapply and meet the application requirements at that time. Students who do not meet nursing department deadlines or have been accepted to the program and then are "no call, no show" to start the program, will be canceled and not eligible to reapply to the program in the future. Admission will be canceled if students do not meet nursing department deadlines for other pre-admission requirements such as orientation and health/clinical requirements and the ability to reapply will be determined upon the nursing department's review of the situation.
13. Begin NCLC course work in the Fall start semester	See the course schedule information for other general education/supportive courses required to fulfill requirements for the Associate of Applied Sciences in Nursing Degree-General Education Humanities course with a minimum grade of 2.0. • HUM 106 - Introduction to Art and Music. Select second within a set of General Education English Communication courses with a minimum grade of 2.0. • ENG 102 - English Composition 2 recommended.
14. Humanities*	Select General Education Humanities course with a minimum grade of 2.0. • HUM 106 - Introduction to Art and Music recommended (See LPN to RN Sample Course Schedule)
15. English Communication*	Select second within a set of General Education English Communication courses with a minimum grade of 2.0. • ENG 102 - English Composition 2 recommended (See LPN to RN Sample Course Schedule)

* These courses are supportive courses that must be completed before the end of NURS 250 - Advanced Concepts in Registered Nursing (the last nursing course). It is suggested that students take the supportive courses prior to starting the nursing courses if time permits but work with an academic advisor to develop a plan to complete these courses.

COLLEGE SUCCESS COURSE

To provide students an opportunity to develop further skills necessary for the demanding field of nursing education, the College offers a nursing specific section of COLLS 130 - Applied Learning Theory for Nursing Majors. This optional course provides instruction on reading efficiency and speed techniques, learning/study strategies, and critical thinking/test taking skills using nursing materials and concepts. Students can contact Academic Advising at 734-462-4429 for more information.

SAMPLE COURSE SCHEDULE

Click here to view the Nursing: Licensed Practical Nurse to Registered Nurse Options (LPN to RN) sample schedule.

This program schedule is subject to change based on Board of Nursing regulations, curricular changes, institutional policy, and program needs.

MANDATORY REQUIREMENTS PRIOR TO PROGRAM FALL REGISTRATION BY PROVIDED DEADLINES (REQUIREMENTS SUBJECT TO CHANGE.)

After acceptance, students will receive a packet of information via email regarding post admission requirements that must be completed prior to starting the nursing program. The packet will contain specific deadline dates and further details for the following requirements:

1. Participate in a mandatory LPN to RN Student Orientation session.
2. Schedule and meet with the Nursing Resource Instructor for a personal interview to discuss educational goals, learning techniques/strategies, and recommendations for success in the program.
3. Demonstrate satisfactory performance on clinical skills during a Skills Review session.
4. Complete the medication dosage calculations packet prior to the orientation, as a Medication Math Proficiency Exam (includes IV therapy calculations) will be completed at the orientation session. Each nursing course includes dosage calculations as part of the course testing.
5. Pay fees and complete any specified computerized assessments and required remediation by the designated deadlines.
6. Complete all health/clinical placement requirements and provide documentation including a health questionnaire/physical exam (dated within the last 12 months from the fall start of the nursing program), TB testing, immunization records including Measles, Mumps, Rubella (MMR), Tetanus, diphtheria, Pertussis (TDaP),

Varicella (chicken pox), Hepatitis B, flu vaccine (in season), COVID vaccine, a negative urine drug screen on first attempt (marijuana use is still prohibited), and pass a criminal background check by nursing office deadline dates provided in the emailed packet. Drug screens may need to be repeated throughout the program as required by clinical agencies. Students will also need to meet any other future health/clinical/agency requirements as specified by the agencies.

7. Students should have current American Heart Association Basic Life Support course for Professional Healthcare Providers. The course needs to include an in person return demonstration of performance skills (adult, child, infant, and AED use). 100% online courses are not accepted.
8. Students who do not meet the Nursing Department requirements/deadlines will be cancelled (see other notes).
9. An authorization permit to register for courses will be issued by the Nursing Office upon completion of any requirements as specified in email correspondence. Students are emailed when petitions are entered, and students may then register for courses.

PLEASE NOTE: Requirements for admission to the LPN to RN Option are subject to change at any time. If you have any questions or need updates on applicable changes, contact the Nursing Office at 734-462-4401 or nursing@schoolcraft.edu.

ESTIMATION OF TUITION AND FEES

LPN to RN			
2024-2025			
Program Credit Hours – 38			
	Resident	***Non-Resident***	***Out of State***
Tuition:	$ 5,282.00	$ 7,600.00	$ 10,260.00
Registration Fees: ($44 per semester)	$ 132.00	$ 132.00	$ 132.00
Service Fees: ($9 per credit hour)	$ 342.00	$ 342.00	$ 342.00
Instructional Equipment Fees: ($11 per credit hour)	$ 418.00	$ 418.00	$ 418.00
Infrastructure Fees: ($9 per credit hour)	$ 342.00	$ 342.00	$ 342.00
Course and Learning Management Fees: ($12 per class)	$ 120.00	$ 120.00	$ 120.00
Lab Fees: (varies according to individual class)	$ 145.00	$ 145.00	$ 145.00
Excess Contact Hour Fees: (varies according to individual class)	$ 2,502.00	$ 2,502.00	$ 2,502.00
Additional Expenses: (Approximate)			
Computerized Testing Package	$ 450.00	$ 450.00	$ 450.00
Background Check	$ 10.00	$ 10.00	$ 10.00
Drug Screen	$ 35.00	$ 35.00	$ 35.00
ACE MAPP	$ 50.00	$ 50.00	$ 50.00
Uniform	$ 150.00	$ 150.00	$ 150.00
Clinical Supplies	$ 90.00	$ 90.00	$ 90.00
Application fee for Licensure & NCLEX	$ 328.00	$ 328.00	$ 328.00
Total	$ 10,396.00	$ 12,714.00	$ 15,374.00

The above figures are based on 2024-2025 rates and are subject to change. A Resident student is one whose legal residence is in the school District of Clarenceville, Garden City, Livonia, Northville, Plymouth-Canton or parts of Novi. All other students are Non-Residents.

PLEASE NOTE:

Requirements for admission to the LPN to RN Option are subject to change at any time.

Ready to get started! Download the LPN to RN Student Checklist to get on track.	**Student Checklist**
Ready to apply? Download the Application Form and schedule a meeting with your Advisor.	**Application Form**

Please contact the Nursing Office for updates on any applicable changes.

Phone: 734-462-4401
Fax: 734-462-4473
Email: nursing@schoolcraft.edu
Web: www.schoolcraft.edu

It is the policy of Schoolcraft College that no person shall, on the basis of race, color, national origin, gender, age, marital status, creed, or handicap, be excluded from participating in, be denied benefits of, or be subjected to discrimination during any program or activity or in employment.

Schoolcraft College®

2024-2025 Credential Year

Nursing: Nursing Career Ladder Curriculum Program Application Information

The Nursing Career Ladder Curriculum (NCLC) offers options for practical nursing (PN) and registered nursing associate degree in applied sciences (RN-AAS) education. Students are admitted into the associate degree program and are eligible to apply for licensure as a licensed practical nurse (LPN) following successful completion of the PN program requirements at the end of the first academic year. Students who continue and successfully complete the AAS program are eligible to apply for licensure as a registered nurse (RN). Michigan licensed practical nurses (LPNs) may apply for advanced placement into the second year of the RN-AAS program.

The Nursing Career Ladder Curriculum (NCLC) is rigorous and challenging. It requires a high level of student commitment and mastery of content in many academic areas. Essential information about the Nursing Career Ladder Curriculum:

- Nursing courses are offered during the day/afternoon at the Livonia campus. First year courses are scheduled throughout the year with 7-week courses except for the nursing pharmacology course, which is a 12-week course. The optional PN course at the end of the first year of the nursing program is available during a 4-week summer session (the PN course is optional for RN students). To complete the RN-AAS degree, the second-year courses are scheduled into four 7-week sessions.
- In addition to course theory, laboratory and clinical practice are required. Computer use and computerized testing are required for each course. Students will need to have a computer device for home and on campus use that meets the requirements as provided at the time of entry. Courses typically include one day of theory with two days of clinical. Clinical sessions are offered on day or afternoon shifts with potential weekend rotations. The clinical days may not be sequential days of the week and will vary based on clinical site availability. Students must meet all requirements as designated by the department, college, and clinical agencies.
- Nursing courses must be taken in sequence or assigned rotation. A minimum grade of 80% in each nursing course and satisfactory clinical performance is required for progression to the next nursing course.

The PN and RN-AAS programs are approved by the Michigan Board of Nursing and have received additional national Accreditation Commission for Education in Nursing (ACEN). For more information on MI-Board of Nursing approval and licensure please contact:

LARA Department of Licensing and Regulatory Affairs
Bureau of Health Care Services
Board of Nursing
611 West Ottawa Street
P.O. Box 30670
Lansing, MI 48909-8170
517-335-0318
bhcsinfo@michigan.gov
www.michigan.gov/LARA

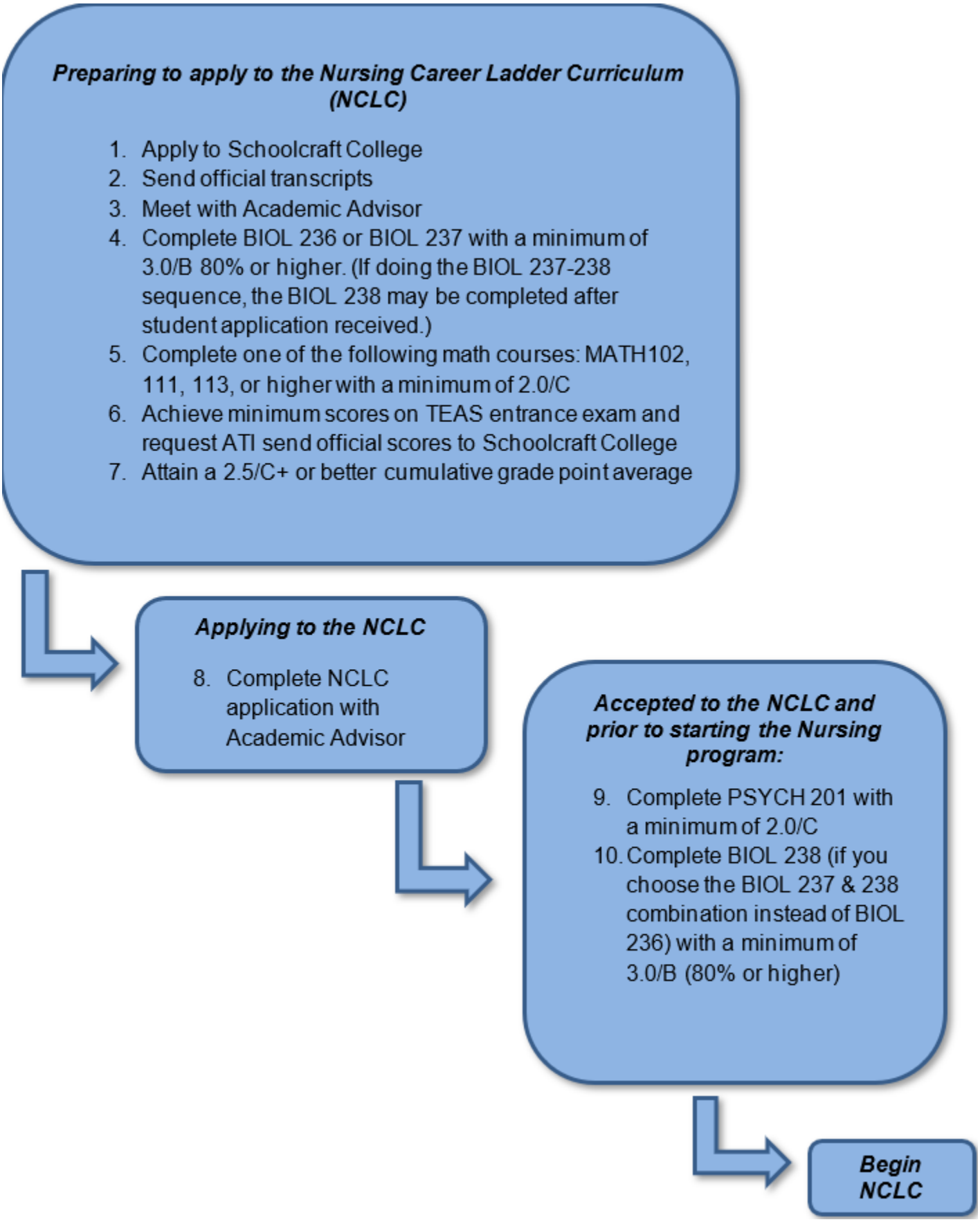
The nursing associate degree and practical programs at Schoolcraft College at the Livonia campus located in Livonia, MI are accredited by the:

Accreditation Commission for Education in Nursing (ACEN)
3343 Peachtree Road NE, Suite 850
Atlanta, GA 30326
404-975-5000
http://www.acenursing.org
info@acenursing.org

The most recent accreditation decision made by the ACEN Board of Commissioners for the associate and practical nursing programs is Continuing Accreditation.

Completion of program requirements provides students with eligibility to take the NCLEX-RN or NCLEX-PN exams. Students who wish to be licensed in another state should check the National Council of State Boards of Nursing website https://www.ncsbn.org/14730.htm to clarify requirements in that state.

PREPARING TO APPLY TO THE NURSING CAREER LADDER CURRICULUM (NCLC)



Preparing to Apply to the Nursing Career Ladder Curriculum (NCLC)

1. Apply to Schoolcraft College	Apply to Schoolcraft College online at www.schoolcraft.edu
2. Transcripts	It is recommended you request official undergraduate transcripts from all colleges and universities previously attended. Transcripts must be sent directly from the issuing college or university to the Schoolcraft College Record's Office. To confirm that transcripts have been received, contact the Answer Center & Help Line at 734-462-4426.
3. Advising	The nursing program requires minimum assessment levels of coursework in the areas of math, reading, and writing. Students should meet with an academic advisor to develop an academic plan. Students with prior college-level work or a degree may be exempt from general college placement testing. Students who have submitted ACT or SAT scores that are less than three years old to the Records Office may also be exempt from assessment testing. Contact the Academic Advising Center at 734-462-4429 to make an appointment to discuss an academic plan and preparation for the TEAS (nursing entrance) exam. Nursing students should possess and maintain the following to be able to adequately communicate, make decisions, manipulate equipment, perform procedures, and provide indirect or direct quality care for clients in a variety of healthcare settings: 1. Sufficient intellectual, psychological, and emotional capabilities 2. Sufficient capacity to concentrate for sustained periods of time. 3. Sufficient communication skills 4. Sufficient visual acuity 5. Sufficient auditory perception 6. Sufficient gross and fine motor coordination 7. Sufficient physical abilities and strength required to push, pull, transfer, or move objects up to approximately 35 pounds utilizing safe patient handling techniques. 8. Sufficient physical stamina to remain standing for prolonged periods of time. Students potentially needing accommodations may review further information at http://www.schoolcraft.edu/dss/disability-support-services. Students may also schedule an appointment with Disability Support Services at 734-462-4330 regarding options to ensure equal access to programs and activities.
4. Anatomy and Physiology College Prerequisite	• Complete BIOL 236 - Human Anatomy and Physiology with a minimum grade of 3.0/B (80% or higher). ***- or -*** • Complete BIOL 237 - Principles of Human Anatomy and Physiology 1 with a minimum grade of 3.0/B (80% or higher) (before application) *and* BIOL 238 - Principles of Human Anatomy and Physiology 2 with a minimum grade of 3.0/B (80% or higher). (Before starting NCLC See #10 below) *Students should meet with an academic advisor to determine the biology courses recommended for students planning to pursue a BSN in the future. There are no expiration dates for acceptable BIOL courses.*
5. Mathematics	Select one Mathematics course from the following list (must be completed before application, see #5 below): • MATH 102 - Technical Mathematics with a minimum grade of 2.0/C. • MATH 111 - Applications - Utility of Math with a minimum grade of 2.0/C. • MATH 113 - Intermediate Algebra for College Students with a minimum grade of 2.0/C. • OR higher Mathematics course with a minimum of 2.0/C *Students should meet with an advisor to determine courses that satisfy academic goals and future BSN program requirements. MATH 102 - Technical Mathematics does not transfer toward a BSN degree.*
6. Admission Exam	The ATI TEAS Exam (Test of Essential Academic Skills) is a multiple-choice exam that must be taken using the online version. The TEAS Exam includes: • 31% Reading: Key Ideas & Details (15%), Craft & Structure (9%), Integration of Knowledge & Ideas (7%) • 16% English and Language: Convention of Standard English (6%), Knowledge of Language (6%), • Vocabulary Acquisition (4%)

	• 31% Science: Human Anatomy & Physiology (21%), Life & Physical Science (5%), Scientific Reasoning (5%) • 22% Mathematics: Number & Algebra (16%), Measurement & Data (6%) • ***Minimum TEAS Exam scores required: Composite: 60% (Adjusted Individual Total Score), 68% Reading, 60% English, 60% Math, 50% Science.*** • As of September 1, 2022, all TEAS testing used for application must be completed ***in person, on campus*** at the Schoolcraft College Testing Center. • Successful TEAS score results are valid for a maximum of 2 years. • Four (4) TEAS attempts are the maximum number of attempts allowed for application to Schoolcraft's program (includes any exams taken at other institutions and Schoolcraft since 9/1/2022.) Any exam results taken at other sites (of the 4 attempts) will not be accepted for application. • Students may take the TEAS a maximum of 2 times within a 12-month period. Students may not take a third attempt until the first test attempt expires (Ex: TEAS #1 on September 5 and TEAS #2 on February 10. TEAS #3 cannot be taken until the next September on or after the 5th). • If the student does not pass a TEAS exam, the ATI website has study materials and practice exams available. The Schoolcraft College Learning Support Services Department also provides free personalized TEAS prep plans for success through one-on-one and group formats. To inquire about support for the TEAS, please contact teasprep@schoolcraft.edu (734-462-7330). • The highest successful score on each section of the TEAS Exam will be accepted from the two attempts within the 12-month period. Students must complete ***all*** sections of the TEAS exam to the best of their ability on each attempt for scores to be accepted. • The Composite score must be 60% or higher on at least one of the two attempts and the lowest composite score for the other attempt of these two attempts must be within a 55-60% range or higher. Students who may need academic testing accommodations should meet with Disability Support Services Office (734-462-4330) prior to taking the TEAS exam to determine potential accommodations. TEAS Exam attempts at Schoolcraft College must be scheduled in advance. Fees paid are non-refundable and non-transferable. Students needing to change testing dates will need to pay the full fee. Obtain more information regarding the TEAS exam: https://www.schoolcraft.edu/testingcenter/teas
7. Cumulative GPA	Attain a 2.5/C+ or better *cumulative* grade point average for all nursing program supportive and prerequisite courses.

APPLYING TO THE NCLC

8. Apply to the NCLC	This program requires students to complete a specific list of requirements listed in the application packet before being officially admitted into the program. Students are listed in a pre-program code while the application requirements are being met. The full program start date and implementation of program code may be dependent on space availability. Complete the student portion of the application and meet with an academic advisor for academic planning and to sign off on the application. The academic advisor will submit the application packet to the Admissions and Welcome Center. Applications are reviewed on a continual basis and students will receive an acceptance letter via email from the Admissions Department which states the year and cohort the student will be able to start the nursing program. Students who do not respond to correspondence by deadlines will be cancelled by the Admissions Department. All required prerequisites must be completed (with final course grade on transcript) ***prior to submitting application.***

ACCEPTANCE TO THE NCLC AND PRIOR TO STARTING THE NURSING PROGRAM

- The order of acceptance of qualified applicants will be based on the date the College receives a ***valid*** application. An application is ***valid*** only if ***all*** the requirements listed in this document have been met.
- Any incomplete applications received from a student will be returned. Applications may be resubmitted when all the requirements have been met.

- In the event more than one qualified student applies on the same day, the applications will be ordered based on the highest cumulative grade point average in the prerequisite/supportive courses.
- Accepted students will be emailed an information packet from the nursing department to Schoolcraft College email only. Information will be emailed approximately two months prior to the start semester. Students are responsible for maintaining current contact information for all college communications. Students should get their college email forwarded to their primary email so as not to miss any communications.
- Students may defer their admission only one time, otherwise, the student will need to reapply and meet the application requirements at that time.
- Students who do not meet nursing department deadlines or have been accepted to the program and then are "no call, no show" to start the program, will be cancelled and not eligible to reapply to the program in the future.
- After August 1 for fall start cohorts, and after October 1 for winter start cohorts, preference will be given for students to be pulled up to spots vacated, with students who have completed the NURS 104 - Pharmacology for Nurses course or the NATP 115 - Nursing Assistant Course OR are currently enrolled in either course and have current passing status.

9. Introductory Psychology Supportive Course	Complete PSYCH 201 - Introductory Psychology with a minimum grade of 2.0/C before starting the nursing program or by the end of the first year of the nursing program.
10. Anatomy and Physiology College Prerequisite	Complete BIOL 238 - Principles of Human Anatomy and Physiology 2 with a minimum grade of 3.0/B (80% or higher) if the BIOL 237/238 sequence was selected.
11. Optional COLLS 130 Course	To provide students an opportunity to develop the skills necessary for the demanding field of nursing education, the College offers a nursing specific section of COLLS 130 - Applied Learning Theory for Nursing Majors. This course provides instruction on reading efficiency and speed techniques, learning/study strategies, and critical thinking/test taking skills using nursing materials and concepts. Students can contact Academic Advising at 734-462-4429 for more information.
12. Hepatitis B Vaccine	Students who do not have the Hepatitis B vaccine three shot series already completed, should begin the series while waiting to start the nursing program.
13. CPR Course for Healthcare Professionals	Students should wait to complete an American Heart Association Basic Life Support course for Professional Healthcare Providers until approximately 2 months prior to starting the nursing program. Students need to complete a course that includes an in-person demonstration of the performance skills (adult, child, infant and AED use). 100% online courses are not accepted.
14. Other Nursing Program Requirements	Students will be emailed additional information about Orientation sessions and other health/clinical/program requirements approximately two months prior to student's program start date. Correspondence will only be sent to Schoolcraft College email.

REQUIREMENTS PRIOR TO NCLC PROGRAM REGISTRATION AND BEGINNING THE NCLC

(Requirements subject to change. Students will be sent emails with requirements to Schoolcraft College emails only.)

- Participate in a mandatory NCLC Student Orientation session.
- Schedule and meet with the Nursing Resource Instructor for a personal interview to discuss educational goals, learning techniques/strategies, and recommendations for success in the program by nursing department deadline dates.
- Complete all health/clinical placement requirements and provide documentation including a health questionnaire/physical exam (dated within the last 12 months from the fall start of the nursing program), TB testing, immunization records including Measles, Mumps, Rubella (MMR), Tetanus, diphtheria, Pertussis (TdaP), Varicella (chicken pox), Hepatitis B, flu vaccine (in season), COVID vaccine, a negative urine drug screen on first attempt (marijuana use is still prohibited), and pass a criminal background check by nursing office deadline dates provided in the emailed packet. Drug screens may need to be repeated throughout the program as required by clinical agencies. Students will also need to meet any other future health/clinical/agency requirements as specified by the agencies.
- An authorization to register is only issued by the Nursing Office upon completion of the any specified requirements. Further questions may be addressed to the Nursing Office by contacting nursing@schoolcraft.edu or 734-462-4401.

BEGIN NCLC

See a sample schedule of courses following the Nursing: Registered AAS Degree (RN) catalog page.

Students should work with their advisor if more credits are needed per semester to qualify for financial aid. Please check Schoolcraft General Education requirements to determine course options.

PLEASE NOTE: The NCLC program and application requirements are subject to change based on Board of Nursing regulations, curricular changes, Institutional policy, and program needs. Students are responsible for checking for any admission updates.

ESTIMATION OF TUITION AND FEES

RN-AAS Degree			
2024-2025			
Program Credit Hours – 59.5			
	Resident	***Non-Resident***	***Out of State***
Tuition:	$8,270.50	$11,900.00	$16,065.00
Registration Fees: ($44 per semester)	$220.00	$220.00	$220.00
Service Fees: ($9 per credit hour)	$535.50	$535.35	$535.50
Instructional Equipment Fees: ($11 per credit hour)	$654.50	$654.50	$654.50
Infrastructure Fees: ($9 per credit hour)	$535.50	$535.50	$535.50
Course and Learning Management Fees:($12 per class)	$168.00	$168.00	$168.00
Lab Fees: (varies according to individual class)	$295.00	$295.00	$295.00
Excess Contact Hour Fees: (varies according to individual class)	$5,143.00	$5,143.00	$5,143.00
Additional Expenses (Approximate):			
ACE MAPP	$50.00	$50.00	$50.00
Uniform	$150.00	$150.00	$150.00
Clinical Supplies	$90.00	$90.00	$90.00
Application fee for Licensure & NCLEX	$326.00	$326.00	$326.00
Total	$16,438.00	$20,067.50	$24,232.50
The above figures are based on 2024-2025 rates and are subject to change. A Resident student is one whose legal residence is in the school District of Clarenceville, Garden City, Livonia, Northville, Plymouth-Canton or parts of Novi. All other students are Non-Residents.			

LPN-Certificate Degree			
2024-2025			
Program Credit Hours – 44.5			
	Resident	***Non-Resident***	***Out of State***
Tuition:	$ 6,185.50	$ 8,900.00	$ 12,015.00
Registration Fees: ($44 per semester)	$ 176.00	$ 176.00	$ 176.00
Service Fees: ($9 per credit hour)	$ 400.50	$ 400.50	$ 400.50
Instructional Equipment Fees: ($11 per credit hour)	$ 489.50	$ 489.50	$ 489.50
Infrastructure Fees: ($9 per credit hour)	$ 400.50	$ 400.50	$ 400.50
Course and Learning Management Fees: ($12 per class)	$ 132.00	$ 132.00	$ 132.00
Lab Fees: (varies according to individual class)	$ 205.00	$ 205.00	$ 205.00
Excess Contact Hour Fees: (varies according to individual class)	$ 3,336.00	$ 3,336.00	$ 3,336.00
Additional Expenses (Approximate):			
ACE MAPP	$ 50.00	$ 50.00	$ 50.00
Uniform	$ 150.00	$ 150.00	$ 150.00
Clinical Supplies	$ 90.00	$ 90.00	$ 90.00
Application fee for Licensure & NCLEX	$ 326.00	$ 326.00	$ 326.00
Total	$ 11,941.00	$ 14,655.50	$ 17,770.50
The above figures are based on 2024-2025 rates and are subject to change. A Resident student is one whose legal residence is in the school District of Clarenceville, Garden City, Livonia, Northville, Plymouth-Canton or parts of Novi. All other students are Non-Residents.			

PLEASE NOTE:

Requirements for admission to the Nursing Career Ladder Curriculum are subject to change at any time.

Ready to get started! Download the Nursing Career Ladder Curriculum Student Checklist to get on track.	**Student Checklist**
Ready to apply? Download the Application Form and schedule a meeting with your Advisor.	**Application Form**

Please contact the Admissions and Welcome Center for updates on any applicable changes.

Phone: 734-462-4426
Fax: 734-462-4553
E-mail: admissions@schoolcraft.edu
Web: www.schoolcraft.edu

It is the policy of Schoolcraft College that no person shall, on the basis of race, color, national origin, gender, age, marital status, creed, or handicap, be excluded from participating in, be denied benefits of, or be subjected to discrimination during any program or activity or in employment.

Schoolcraft College®

2024-2025 Credential Year

Nutrition and Food Science

Nutrition and Food Science (NFS) is the multidisciplinary study of the chemical and microbiological attributes of food, coupled with the investigation of the metabolic and physiological response of the body to food. NFS focuses on such areas as food sustainability, development of therapeutic meal plans, analysis of specialized diets, and understanding nutritional requirements for each phase of a person's lifecycle. NFS is the focal point of the Culinary and Dietary Operations Management BS Degree and is useful for students interested in working in the food service, health care, or dietary management fields. Courses include:

- Evolution of Dietary Needs Throughout the Lifecycle
- Introduction to Specialized Diets
- Ensuring a Sustainable Food Supply
- Exploring Specialized Diets
- Clinical Nutrition

In addition, a Clinical Nutrition internship course and a Culinary and Dietary Operations capstone course are required for the Culinary and Dietary Operations Management Bachelor of Science Degree. These experiential courses provide students with real-world experience in the development of diet plans and nutritional menus based on the understanding of human physiology and the dietary needs and restrictions of consumers.

Courses

- NFS 320 - Evolution of Dietary Needs throughout the Lifecycle
- NFS 360 - Ensuring a Sustainable Food Supply
- NFS 440 - Exploring Specialized Diets
- NFS 480 - Clinical Nutrition
- NFS 491 - Clinical Nutrition Internship

2024-2025 Credential Year

Occupational Safety and Health

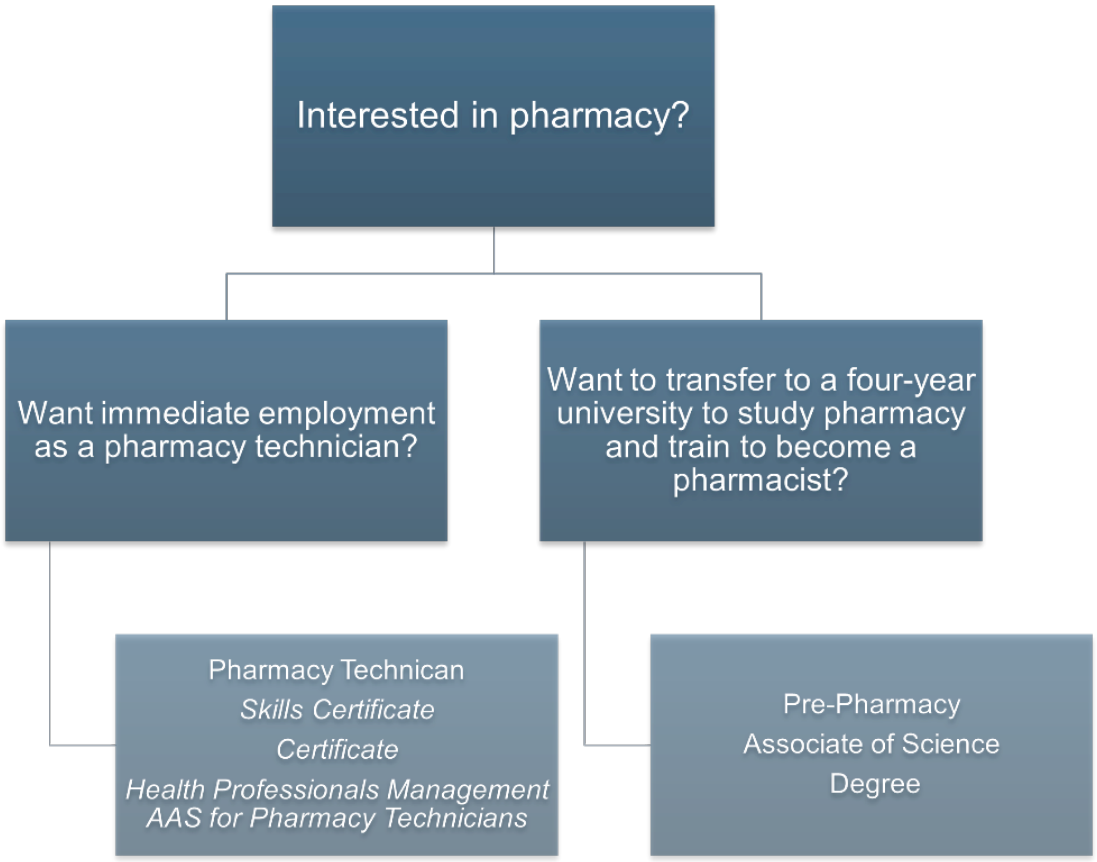
Understanding how the standards set by the Occupational Safety and Health Administration (OSHA) impact the workplace is the focus of two Schoolcraft courses offered in the Manufacturing and Technology program. The OSHA-authorized Occupational Safety and Health courses for General Industry and Construction cover employee rights and employer responsibilities, how to file an OSHA complaint, and ways to identify and prevent job-related hazards. Completion of these courses also makes students eligible for the OSHA 30-hour card in General Industry or Construction.

Courses

- OSH 111 - Occupational Safety and Health for General Industry
- OSH 112 - Occupational Safety and Health for Construction

2024-2025 Credential Year

Pharmacy



The practice of Pharmacy is focused on ensuring the safe and effective use of medications through a pharmacy team comprised of both ***Pharmacists*** and ***Pharmacy Technicians***. ***Pharmacists*** use their professional judgment as a vital part of the health care team by providing input and expertise into monitoring patient care therapies. ***Pharmacy Technicians*** work in various practice settings under the direct supervision of pharmacists and assist pharmacists in preparing and dispensing oral, topical, intravenous, and other prescription medications to patients or other healthcare professionals. Educational options at Schoolcraft College in the professional field of pharmacy include:

- ***Pharmacy Technician Skills Certificate*** (Entry-level Pharmacy Technician): An entry-level Pharmacy Technician receives training in a single practice setting. In a community pharmacy setting, such as drug stores, or an institutional setting, such as a hospital, pharmacy technicians will assist pharmacists in entering patient data into a computerized database, as well as preparing and dispensing medications. Additional responsibilities of a pharmacy technician in a community practice setting may include billing for medications, understanding and applying insurance requirements for billing of patient medications or supplies, interacting with patients, and working as an integral part of the pharmacy team. Additional responsibilities of a pharmacy technician working in an institutional practice setting may include making medications that are administered to patients intravenously. The Pharmacy Technician Skills Certificate will allow the students to select coursework for either the community or institutional practice setting. This coursework will prepare the student to work in their chosen pharmacy environment through a combination of classroom learning, simulation lab training, and hands-on experience. After completing the course requirements of the Skills Certificate program, the student will be eligible and prepared to take the Pharmacy Technician Certification Board (PTCB) exam, that if successfully passed, will earn the student national Certification as a pharmacy technician. After earning Certification, the student is then eligible to apply for licensure as a pharmacy technician in the State of Michigan. This program is nationally accredited by the

Pharmacy Technician Accreditation Commission which is a collaborative effort between the American Society of Health System Pharmacists and the Accreditation Council for Pharmacy Education.
    - To enroll in the Pharmacy Technician Skills Certificate program, students will need to meet admission requirements as described in the Admissions Packet for this program.
- ***Pharmacy Technician Certificate*** (Advanced-level Pharmacy Technician): An advanced-level Pharmacy Technician receives expanded training for any practice setting and beginning, managerial skills for supervisory positions. This program will build upon those skills learned in the Skills Certificate program and prepare students to work as a pharmacy technician in any practice setting, including a community, hospital, compounding, or specialty pharmacy. Students who complete this program will have completed the first requirement of eligibility to become recognized as a PTCB Compounded Sterile Preparation Technician. To become recognized as a PTCB Compounded Sterile Preparation Technician, completion of (or enrollment in) a PTCB-recognized sterile compounding training program and one year of full-time continuous compounded sterile preparation (CSP) work experience, is required. These advanced-level practice settings require additional skills that will be taught in this program through a combination of classroom learning, simulation lab training, and hands-on experience. Students who are currently licensed as a pharmacy technician, may be eligible to apply their work experience toward the completion of this certificate. This program is nationally accredited by the Pharmacy Technician Accreditation Commission which is a collaborative effort between the American Society of Health System Pharmacists and the Accreditation Council for Pharmacy Education.
    - To enroll in the Pharmacy Technician Certificate program, students will need to meet admission requirements as described in the Admissions Packet for this program.
- ***Health Professionals Management Associate of Applied Science for Pharmacy Technicians:*** Any student wishing to pursue an associate degree can apply all credits from the Pharmacy Technician Skills Certificate or Certificate programs toward an Associate of Health Professionals Management for Pharmacy Technicians degree. This degree may be desirable for students seeking to expand their knowledge and skills, and potentially lead to Pharmacy Technician supervisory roles. Students may be eligible to earn credits for professional experiences and previously completed courses.
- ***Associate of Science in Pre-Pharmacy:*** This Pre-Pharmacy associate degree is comprised of courses that are required for a student to apply to a college of pharmacy; a majority of Pre-pharmacy courses in this degree program are designed to be transferrable to a university pharmacy program. Students should consult with an academic advisor to ensure that their Schoolcraft courses will transfer to the desired university pharmacy program. Pharmacists can find positions in a variety of settings, such as community pharmacies, hospitals, clinics, long-term care facilities, and armed services. They can also find employment in academic, research, pharmaceutical manufacturers, and public health organizations.

Credentials

- Pharmacy Technician Certificate
- Pharmacy Technician Skills Certificate
- Pharmacy: Health Professionals Management AAS for Pharmacy Technicians
- Pre-Pharmacy AS Degree

Selective Admissions: Program Application Information

- Pharmacy Technician Program Application Information

Pharmacy Technician Certificate

Schoolcraft program code # 1YC.0P249/1YC.00249

The ***Pharmacy Technician Certificate*** (advanced-level pharmacy technician) program is a nationally accredited program designed to prepare pharmacy technicians to work in any practice setting. Pharmacy Technicians with an advanced skill set can work alongside pharmacists in any practice setting, including drug stores, hospitals, compounding, specialty, and other medical settings to help prepare and distribute all medication types, including compounded medications, such as intravenous, chemotherapy, or nuclear medications, to patients and other health care professionals. In this advanced practice program, technicians will build on the knowledge gained in the Skills Certificate program and learn advanced skills, such as screening prescription orders for accuracy and completeness, checking the work of other technicians before a final check by a pharmacist, or reconciling medications for patients admitted into a complex medical environment.

There are two ways to complete the Pharmacy Technician Certificate:

1. The traditional route of completing all courses.
2. Individuals who are currently certified as Pharmacy Technicians may be able to apply up to 16 credits toward the completion of the Pharmacy Technician Certificate. Contact the Pharmacy Technician Program Coordinator for further details.

Students who satisfactorily complete the program requirements with a minimum of a 2.5 grade in each class will qualify for a certificate of program completion.

This program requires students to complete a specific list of requirements before being officially admitted into the program. Students are listed in a pre-program code while the application requirements are being met. The full program start date and implementation of the program code may be dependent on space availability. Requirements are listed online at https://www.schoolcraft.edu/admissions/apply-to-sc/students-with-selective-admissions ***or the*** Pharmacy Technician Program Application Information ***catalog page. Contact the Admissions and Welcome Center at 734-462-4426 or*** admissions@schoolcraft.edu ***to complete an application.***

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **PHT 102 - Pharmacy Practice and Healthcare** ***Credits: 4***
- **PHT 104 - Pharmacology for Pharmacy Technicians** ***Credits: 3***
- Select One Set
  - **PHT 114 - Community Pharmacy Simulation Lab** ***Credits: 5 AND***
  - **PHT 117 - Community Pharmacy Practicals** ***Credits: 4***

OR

  - **PHT 124 - Hospital Pharmacy Simulation Lab** ***Credits: 5 AND***
  - **PHT 127 - Hospital Pharmacy Practicals** ***Credits: 4***

TOTAL CREDITS: 16

Winter Semester

- **PHT 122 - Advanced Pharmacy Practice** ***Credits: 4***
- Select One Set - (Not previously taken)
  - **PHT 114 - Community Pharmacy Simulation Lab *Credits: 5 AND***
  - **PHT 117 - Community Pharmacy Practicals *Credits: 4***

OR

  - **PHT 124 - Hospital Pharmacy Simulation Lab *Credits: 5 AND***
  - **PHT 127 - Hospital Pharmacy Practicals *Credits: 4***

TOTAL CREDITS: 13

PROGRAM TOTAL: 29 CREDITS

PHARMACY TECHNICIAN CERTIFICATE - WITH CURRENT PHARMACY TECHNICIAN CERTIFICATION

This certificate program is designed to allow students who possess current Pharmacy Technician Certification to apply up to 16 credits of their prior learning experiences toward the credits needed for the Pharmacy Technician Certificate. Contact the Pharmacy Technician Program Coordinator for further details.

CURRENT PHARMACY TECHNICIAN CERTIFICATION

The following courses will be accepted as completed based on current Pharmacy Technician Certification (16 credits):

- **PHT 102 - Pharmacy Practice and Healthcare** ***Credits: 4***
- **PHT 104 - Pharmacology for Pharmacy Technicians** ***Credits: 3***

- **PHT 114 - Community Pharmacy Simulation Lab** ***Credits: 5 AND***
- **PHT 117 - Community Pharmacy Practicals** ***Credits: 4***

OR

- **PHT 124 - Hospital Pharmacy Simulation Lab** ***Credits: 5 AND***
- **PHT 127 - Hospital Pharmacy Practicals** ***Credits: 4***

Total Credits: 16

REMAINING REQUIRED PROGRAM COURSES

- **PHT 122 - Advanced Pharmacy Practice** ***Credits: 4***

- **PHT 114 - Community Pharmacy Simulation Lab** ***Credits: 5 AND***
- **PHT 117 - Community Pharmacy Practicals** ***Credits: 4***

OR

- **PHT 124 - Hospital Pharmacy Simulation Lab** ***Credits: 5 AND***
- **PHT 127 - Hospital Pharmacy Practicals** ***Credits: 4***

Total Credits: 13

PROGRAMS REQUIRING LICENSURE

Federal regulations require Schoolcraft College to publicly disclose, for each educational program designed to meet the educational requirements for a specific professional license or certification required for employment in an occupation (or advertised as meeting a requirement for employment), information about whether program completion would meet those requirements in a state. These public disclosure requirements apply to all programs, regardless of their modality (i.e., on-ground, online, and hybrid programs).

Please see the disclosure related to the educational requirements for professional licensure and certification.

Pharmacy Technician Skills Certificate

Schoolcraft program code # CRT.0P349/CRT.00349

The ***Pharmacy Technician Skills Certificate*** (entry-level pharmacy technician) program is a nationally accredited program designed to prepare students interested in starting a career as a licensed pharmacy technician in either a community (drug store) pharmacy or institutional (hospital) practice setting. Classroom education is combined with the direct application of principles in a simulation pharmacy lab. Through simulated case studies, pharmacy technician students will learn how to assess prescription orders as well as how to process and prepare these orders using order entry systems and medication dispensing techniques. Basic level math skills will be reviewed and utilized for calculating accurate medication dosing and other calculations required as part of the practice setting. Students will learn, first-hand, those skills required for the practice setting in which they wish to work. The program will combine simulation lab practice with actual practical experience that will provide hands-on training.

Students who satisfactorily complete the program requirements with a minimum of a 2.5 grade in each class will qualify for a certificate of program completion.

This program requires students to complete a specific list of requirements before being officially admitted into the program. Students are listed in a pre-program code while the application requirements are being met. The full program start date and implementation of the program code may be dependent on space availability. Requirements are listed online at https://www.schoolcraft.edu/admissions/apply-to-sc/students-with-selective-admissions/ ***or the*** Pharmacy Technician Program Application Information ***catalog page. Contact the Admissions and Welcome Center at 734-462-4426 or*** admissions@schoolcraft.edu ***to complete an application.***

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **PHT 102 - Pharmacy Practice and Healthcare** ***Credits: 4***
- **PHT 104 - Pharmacology for Pharmacy Technicians** ***Credits: 3***

SELECT ONE SET

- **PHT 114 - Community Pharmacy Simulation Lab** ***Credits: 5 AND***
- **PHT 117 - Community Pharmacy Practicals** ***Credits: 4***

OR

- **PHT 124 - Hospital Pharmacy Simulation Lab** ***Credits: 5 AND***
- **PHT 127 - Hospital Pharmacy Practicals** ***Credits: 4***

TOTAL CREDITS: 16

PROGRAM TOTAL: 16 CREDITS

PROGRAMS REQUIRING LICENSURE

Federal regulations require Schoolcraft College to publicly disclose, for each educational program designed to meet the educational requirements for a specific professional license or certification required for employment in an occupation (or advertised as meeting a requirement for employment), information about whether program completion would meet those requirements in a state. These public disclosure requirements apply to all programs, regardless of their modality (i.e., on-ground, online, and hybrid programs).

Please see the disclosure related to the educational requirements for professional licensure and certification.

Pharmacy: Health Professionals Management AAS for Pharmacy Technicians

Schoolcraft program code # AAS.00229

The ***Health Professionals Management AAS for Pharmacy Technicians*** is designed to prepare health professionals to expand their knowledge and skill base potentially leading to a supervisory and/or training position. Additional credits, based on professional experience and other courses completed, may be applied on a case-by-case basis, not to exceed 45 credits total. Contact the appropriate instructional administrator for further details.

There are two ways to complete the Health Professionals Management AAS:

1. Individuals who hold certification as a Pharmacy Technician may be able to apply credits of their prior learning experiences toward the credits needed toward the completion of this AAS degree. Contact the Pharmacy Technician Program Coordinator for further details.
2. The traditional route of completing all courses.

WITH PRIOR LEARNING EXPERIENCE

Students who have successfully passed the Pharmacy Technician Certification Board (PTCB) exam or the Exam for the Certification of Pharmacy Technicians (ExCPT) qualify for credit for prior learning and should contact the Program Coordinator or appropriate instructional administrator for more information.

CURRENT PHARMACY TECHNICIAN CERTIFICATION

The following courses will be accepted as completed based on current Pharmacy Technician Certification:

- **HIT 104 - Medical Terminology** ***Credits: 4***
- **PHT 102 - Pharmacy Practice and Healthcare** ***Credits: 4***
- **PHT 104 - Pharmacology for Pharmacy Technicians** ***Credits: 3***

COURSES MAY BE ACCEPTED AS COMPLETED

The following courses may be accepted as completed based on current Pharmacy Technician Certification:

- **PHT 114 - Community Pharmacy Simulation Lab** ***Credits: 5 AND***
- **PHT 117 - Community Pharmacy Practicals** ***Credits: 4***
  AND/OR
- **PHT 124 - Hospital Pharmacy Simulation Lab** ***Credits: 5 AND***
- **PHT 127 - Hospital Pharmacy Practicals** ***Credits: 4***
- Additional credits may be evaluated on a case-by-case basis.

REMAINING PROGRAM REQUIRED TECHNICAL COURSES

- **CIS 120 - Software Applications** ***Credits: 3***
- **HIT 120 - Foundations of Health Information Management Technology** ***Credits: 3***
- **HIT 130 - Legal Aspects of Health Information** ***Credits: 3***
- **BUS 101 - Introduction to Business** ***Credits: 3***
- **BUS 220 - Organizational Behavior** ***Credits: 3***
- **BUS 230 - Human Resource Management** ***Credits: 3***
- Electives - Select from list (minimum 9 credits) ***Credits: 9***

Total Credits: 27

REMAINING PROGRAM REQUIRED GENERAL EDUCATION COURSES

- Mathematics ***Credits: 3-5***
- Natural Science ***Credits: 3-5***
- English Communication - Credits: 6
  - **ENG 101 - English Composition 1** ***Credits: 3***
  - AND **ENG 102 - English Composition 2** ***Credits: 3***
  - OR **ENG 106 - Business English** ***Credits: 3***
- Social Science - Credits: 3-4
  - Recommended: **PSYCH 153 - Human Relations** ***Credits: 3***
- Humanities - Credits: 1-4
  - Recommended: **HUM 106 - Introduction to Art and Music** ***Credits: 1***

Pharmacy: Health Professionals Management AAS for Pharmacy Technicians (continued)

TRADITIONAL PATH (NO PRIOR LEARNING)

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **PHT 102 - Pharmacy Practice and Healthcare** ***Credits: 4***
- **PHT 104 - Pharmacology for Pharmacy Technicians** ***Credits: 3***
- Select One Set
    - **PHT 114 - Community Pharmacy Simulation Lab** ***Credits: 5 AND***
    - **PHT 117 - Community Pharmacy Practicals** ***Credits: 4***

OR

    - **PHT 124 - Hospital Pharmacy Simulation Lab** ***Credits: 5 AND***
    - **PHT 127 - Hospital Pharmacy Practicals** ***Credits: 4***

TOTAL CREDITS: 16

Winter Semester

- **ENG 101 - English Composition 1** ***Credits: 3***
- Mathematics - Select General Education Mathematics Course ***Credits: 3 - 5*** *
- **HIT 104 - Medical Terminology** ***Credits: 4***
- Social Science - Credits: 3-4 - Select General Education Social Science course. *
    - Recommended: **PSYCH 153 - Human Relations** ***Credits: 3***
- Humanities - Credits: 1-4 - Select General Education Humanities course. *
    - Recommended: **HUM 106 - Introduction to Art and Music** ***Credits: 1***

TOTAL CREDITS: 14 - 20

Spring/Summer Semester

- **BUS 101 - Introduction to Business** ***Credits: 3***
- **CIS 120 - Software Applications** ***Credits: 3***

TOTAL CREDITS: 6

SECOND YEAR

Fall Semester

- **HIT 120 - Foundations of Health Information Management Technology** ***Credits: 3***
- Electives - Select any combination from the list below (minimum 9 credits) ***Credits: 9***

TOTAL CREDITS: 12

Winter Semester

- **HIT 130 - Legal Aspects of Health Information** ***Credits: 3***
- **BUS 220 - Organizational Behavior** ***Credits: 3***
- **BUS 230 - Human Resource Management** ***Credits: 3***
- Natural Science - Select General Education Science Course ***Credits: 3-5*** *
- English Communication - Credits: 3 - Select one:
    - **ENG 102 - English Composition 2** ***Credits: 3***
    - OR **ENG 106 - Business English** ***Credits: 3***

TOTAL CREDITS: 15 - 17

PROGRAM TOTAL: 63-71 CREDITS

* Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor.

Pharmacy: Health Professionals Management AAS for Pharmacy Technicians (continued)

Electives

- **ACCT 103 - Introduction to Accounting** ***Credits: 4***
  OR
- **ACCT 201 - Principles of Accounting 1** ***Credits: 4***
- **PHT 114 - Community Pharmacy Simulation Lab** ***Credits: 5 AND***
- **PHT 117 - Community Pharmacy Practicals** ***Credits: 4*** (if not previously taken)
  OR
- **PHT 124 - Hospital Pharmacy Simulation Lab** ***Credits: 5 AND***
- **PHT 127 - Hospital Pharmacy Practicals** ***Credits: 4*** (if not previously taken)
- **PHT 122 - Advanced Pharmacy Practice** ***Credits: 4***
- **CIS 180 - Spreadsheet Applications - Current Software** ***Credits: 3***
- **CIS 215 - Advanced Software Applications** ***Credits: 3***
- **MA 134 - Medical Insurance Coding** ***Credits: 3***
- **MA 140 - Medical Office Procedures** ***Credits: 3***
- **MA 155 - Medical Insurance Billing** ***Credits: 3***
- **BUS 217 - Business Management** ***Credits: 3***

PROGRAMS REQUIRING LICENSURE

Federal regulations require Schoolcraft College to publicly disclose, for each educational program designed to meet the educational requirements for a specific professional license or certification required for employment in an occupation (or advertised as meeting a requirement for employment), information about whether program completion would meet those requirements in a state. These public disclosure requirements apply to all programs, regardless of their modality (i.e., on-ground, online, and hybrid programs).

Please see the disclosure related to the educational requirements for professional licensure and certification.

Pre-Pharmacy AS Degree

Schoolcraft program code # AS.00403

The pre-pharmacy transfer program is designed for students interested in a transferable degree that provides appropriate science content and competencies that will help them as they pursue further study in the field of pharmacy. Students will be introduced to the roles, job opportunities, and some of the timely and important issues in the field of pharmacy.

The pre-pharmacy program provides general education courses at the freshman and sophomore level, with an emphasis on the sciences, in preparation for admission to a university doctoral pharmacy program. Admission to university doctoral pharmacy programs is highly competitive and the transferring institution must be consulted for additional pre-admission requirements.

This program outline provides the framework for a pre-pharmacy program, but it does not represent a final academic plan for any specific four-year college or university. Students need to be aware that many health profession educational programs require background screening. Students who satisfactorily complete all college and program requirements qualify for an Associate of Science degree.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them.

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

Completion of the pre-pharmacy program does not guarantee admission into a transfer institution's pharmacy program.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **PHARM 101 - Introduction to Pharmacy** ***Credits: 3***
- **MATH 150 - Calculus with Analytic Geometry 1** ***Credits: 5***
- **BIOL 120 - Principles of Biology 1** ***Credits: 5***
- **CHEM 111 - General Chemistry 1** ***Credits: 4***

TOTAL CREDITS: 17

Winter Semester

- **ENG 101 - English Composition 1** ***Credits: 3***
- **BIOL 130 - Principles of Biology 2** ***Credits: 5***
- **CHEM 117 - General Chemistry 2 and Qualitative Analysis** ***Credits: 5***
- Social Science - Select General Education Social Science Course ***Credits: 3-4*** *

TOTAL CREDITS: 16-17

Spring Session

- Humanities - Select General Education Humanities Course ***Credits: 1-4*** *
- Social Science - Select General Education Social Science Course ***Credits: 3-4*** *

TOTAL CREDITS: 4-8

SECOND YEAR

Fall Semester

- **CHEM 213 - Organic Chemistry 1** ***Credits: 5***
- **BIOL 237 - Principles of Human Anatomy and Physiology 1** ***Credits: 4***
- **ENG 102 - English Composition 2** ***Credits: 3***
- **PHYS 181 - General Physics 1** ***Credits: 4***

TOTAL CREDITS: 16

Winter Semester

- **CHEM 214 - Organic Chemistry 2** ***Credits: 5***
- **BIOL 238 - Principles of Human Anatomy and Physiology 2** ***Credits: 4***
- **PHYS 182 - General Physics 2** ***Credits: 4***
- Humanities - Select General Education Humanities Course ***Credits: 3-4*** *

Pre-Pharmacy AS Degree (continued)

TOTAL CREDITS: 16-17

Spring Session

- **BIOL 243 - Microbiology** ***Credits: 4***
- **PHARM 201 - Capstone - Portfolio Preparation** ***Credits: 1***

TOTAL CREDITS: 5

PROGRAM TOTAL: 74-80 CREDITS

Schoolcraft College®

2024-2025 Credential Year

Pharmacy Technician Program Application Information

The Pharmacy Technician Skills Certificate (entry-level pharmacy technician) program is designed to prepare students interested in starting a career as a licensed pharmacy technician in either a community (drug store) pharmacy or institutional (hospital) practice setting. The program will combine simulation lab practice with actual practical experience that will provide hands-on training in a single practice setting.

Completion of the Pharmacy Technician Skills Certificate program will prepare students to take the Pharmacy Technician Certification Board (PTCB) exam. Students who successfully complete this skills certificate program and pass the PTCB exam will have earned national designation as a Certified Pharmacy Technician (CPhT) and are eligible to apply for licensure as a pharmacy technician in the State of Michigan. Once national certification and State licensure are obtained, twenty (20) hours of continuing education are required every two (2) years to maintain national certification and licensure.

The Pharmacy Technician Certificate (advanced-level pharmacy technician) program is designed to prepare pharmacy technicians to work in any practice setting, including drug stores, hospitals, compounding, specialty, and other medical settings to help prepare and distribute all medication types, including compounded medications. In this advanced practice program, technicians will build on the knowledge gained in the Skills Certificate program and learn advanced skills in an additional practice setting, such as screening prescription orders for accuracy and completeness, checking the work of other technicians before a final check by a pharmacist, or reconciling medications for patients admitted into a complex medical environment.

Individuals who are currently certified as a Pharmacy Technician may be able to apply up to 16 credits toward the completion of the Pharmacy Technician Certificate. Contact the Pharmacy Technician Program Coordinator for details.

Students who complete this program will have completed the first requirement of eligibility to become recognized as a PTCB Compounded Sterile Preparation Technician. To become recognized as a PTCB Compounded Sterile Preparation Technician, completion of (or enrollment in) a PTCB-recognized sterile compounding training program and one year of full-time continuous compounded sterile preparation (CSP) work experience is required.

Classes for both programs will be taught at the Health Science Center on the Livonia campus. Students can start in the fall or winter semester.

Students must achieve a 2.5 or higher grade in all Pharmacy Technician courses to progress in the program.

APPLICATION REQUIREMENTS

The Pharmacy Technician Skills Certificate and Certificate Programs requires students to complete a specific list of requirements before being officially admitted into the program. Students are listed in a pre-program code while the application requirements are being met. The full program start date and implementation of program code may be dependent on space availability. To be admitted to the program the student must complete the following:

1. Apply to Schoolcraft College	Apply to Schoolcraft College on-line at www.schoolcraft.edu/apply.
2. Transcripts	It is recommended that you request official undergraduate transcripts from all colleges and universities previously attended. Transcripts must be sent directly from the issuing college or university to Schoolcraft College. To confirm that transcripts have been received, contact the Answer Center at 734-462-4426.
3. Academic Advising and Assessment	These programs require minimum assessment levels or course work in the areas of math, reading and writing. Students need to meet with an academic advisor to develop an academic plan. They can determine if an assessment test is necessary and if foundation courses are needed. Students with prior college level work or a degree may be exempt from placement testing. Students who have submitted SAT or ACT scores that are less than three years old to the Admissions and Welcome Center may also be exempt from assessment testing. Contact the Academic Advising Office at 734-462-4429 to make an appointment.
4. Cumulative GPA	Attain a cumulative grade point average of 2.0 or better for all Schoolcraft College courses.

5. Apply to Pharmacy Technician Program	Submit the Pharmacy Technician Skills Certificate or Certificate Restricted Enrollment Program Change Form to Academic Advising with appropriate signatures. Required forms may be obtained from Academic Advising.
6. Program Requirements	After meeting the admission requirements for the Pharmacy Technician Skills Certificate or Certificate Program, students must successfully meet the requirement of the criminal background check and drug screen on the first attempt prior to starting the practical components of the program. Please note marijuana is still prohibited. Additional requirements may need to be completed prior to program practical depending on the location. *Required forms may be obtained from the Health Professional Office room HS510 and must be returned by the deadline: 734-462-4770 or healthprofessions@schoolcraft.edu*

PROGRAM REQUIREMENT

Criminal Background Check

Schoolcraft College will process a criminal background check just prior to the start of the practical components of the program.

Drug Screen Test

Students are required to have a negative urine drug screen on the first attempt just prior to the start of the practical components of the program. Test expires after 12 months. Drug screens may need to be repeated throughout the program as required by clinical agencies. Marijuana use is prohibited.

Additional Requirements

Depending on the location that the student completes the practical portion of the program, they may be required to provide proof of vaccinations (e.g. Proof of immunity to measles, mumps, rubella and varicella as well as a record of a Tetanus shot and COVID 19 Vaccination; if there is any risk of blood or body fluid exposure, proof of a hepatitis B vaccination, a positive titer or a signed declination may be required); costs for these additional requirements are the responsibility of the student and not included in the cost of the program.

ESTIMATE OF TUITION AND FEES

Pharmacy Technician Skills Certificate			
2024-2025			
Program Credit Hours – 16			
	Resident	***Non-Resident***	***Out of State***
Tuition:	$ 2,224.00	$ 3,200.00	$ 4,320.00
Registration Fees: ($44 per semester)	$ 44.00	$ 44.00	$ 44.00
Service Fees: ($9 per credit hour)	$ 144.00	$ 144.00	$ 144.00
Instructional Equipment Fees: ($11 per credit hour)	$ 176.00	$ 176.00	$ 176.00
Infrastructure Fees: ($9 per credit hour)	$ 144.00	$ 144.00	$ 144.00
Course and Learning Management Fees: ($12 per class)	$ 48.00	$ 48.00	$ 48.00
Lab Fees: (varies according to individual class)	$ 179.40	$ 179.40	$ 179.40
Excess Contact Hour Fees: (varies according to individual class)	$ -	$ -	$ -
Additional Expenses:			
Fingerprint Fee ($63.00)	$ 63.00	$ 63.00	$ 63.00
BLS Fee ($32.50)	$ 32.50	$ 32.50	$ 32.50
State Pharmacy License ($150.00)	$ 150.00	$ 150.00	$ 150.00
Total	$ 3,204.90	$ 4,180.90	$ 5,300.90
The above figures are based on 2024-2025 rates and are subject to change. A Resident student is one whose legal residence is in the school District of Clarenceville, Garden City, Livonia, Northville, Plymouth-Canton or parts of Novi. All other students are Non-Residents.			

Pharmacy Technician Certificate			
2024-2025			
Program Credit Hours – 29			
	Resident	***Non-Resident***	***Out of State***

Tuition:	$ 4,031.00	$ 5,800.00	$ 7,830.00
Registration Fees: ($44 per semester)	$ 88.00	$ 88.00	$ 88.00
Service Fees: ($9 per credit hour)	$ 261.00	$ 261.00	$ 261.00
Instructional Equipment Fees: ($11 per credit hour)	$ 319.00	$ 319.00	$ 319.00
Infrastructure Fees: ($9 per credit hour)	$ 261.00	$ 261.00	$ 261.00
Course and Learning Management Fees: ($12 per class)	$ 84.00	$ 84.00	$ 84.00
Lab Fees: (varies according to individual class)	$ 279.40	$ 279.40	$ 279.40
Excess Contact Hour Fees: (varies according to individual class)	$ -	$ -	$ -
Additional Expenses:			
Fingerprint Fee	$ 63.00	$ 63.00	$ 63.00
BLS Fee	$ 32.50	$ 32.50	$ 32.50
State Pharmacy License	$ 150.00	$ 150.00	$ 150.00
Total	$ 5,568.90	$ 7,337.90	$ 9,367.90
The above figures are based on 2024-2025 rates and are subject to change. A Resident student is one whose legal residence is in the school District of Clarenceville, Garden City, Livonia, Northville, Plymouth-Canton or parts of Novi. All other students are Non-Residents.			

PLEASE NOTE:

Requirements for admission to the Pharmacy Technician Program are subject to change at any time.

Ready to get started! Download the Pharmacy Technician Program Student Checklist to get on track.	**Student Checklist**
Ready to apply? Download the Application Form and schedule a meeting with your Advisor.	**Application Form**

Please contact the Admissions and Welcome Center for updates on any applicable changes.

Phone: (734) 462-4683
Fax: (734) 462-4552
E-mail: admissions@schoolcraft.edu

It is the policy of Schoolcraft College that no person shall, on the basis of race, color, national origin, gender, age, marital status, creed, or handicap, be excluded from participating in, be denied benefits of, or be subject to discrimination during any program or activity or in employment.

2024-2025 Credential Year

Philosophy

Schoolcraft's courses in philosophy include the study of ethical issues and the use of logic that can be utilized both in everyday life and business. Students will gain insight into how to think critically and then strengthen these skills that are so important in today's society. The study of philosophy also provides a sound foundation for a variety of careers, including business, communications, education, public relations, and the law. Credits earned may count toward a Schoolcraft associate degree and transfer towards a bachelor's degree at a four-year institution.

Courses

- PHIL 243 - An Introduction to Philosophy
- PHIL 247 - Logic
- PHIL 257 - Bioethics
- PHIL 265 - Philosophy of Religion
- PHIL 277 - Ethical Problems

2024-2025 Credential Year

Physical Education

The Movement Science program is designed to begin preparing students for the work and challenges facing the kinesiology professional. Academic preparation in kinesiology provides the foundation for a wide range of careers in fields that are projected to grow, including, but not limited to, exercise physiologist, personal trainer, fitness manager, worksite wellness coordinator, physical therapist, physical therapist assistant, athletic trainer, and group exercise instructor. The Movement Science programs meet the needs of both students seeking career training programs leading to an industry-accepted credential (e.g., personal trainer or group exercise instructor), and those seeking transfer to a four-year institution.

Students will gain an understanding of the principles of exercise physiology and motor development and have the opportunity to apply that knowledge to fitness assessment and exercise techniques. The entrepreneurial aspects of fitness careers will also be explored.

Credentials

- MiTransfer Pathway - Exercise Science
- Physical Education Movement Science AAS Degree
- Physical Education Movement Science Certificate

MiTransfer Pathway - Exercise Science

Community colleges and universities in Michigan have simplified the transfer process by developing Transfer Pathways. These pathways build on the Michigan Transfer Agreement (MTA), which makes it easier for students to transfer their general education courses taken at Schoolcraft to participating four-year schools.

MITRANSFER PATHWAY COURSES

The following courses at Schoolcraft College are guaranteed to transfer to exercise science programs of participating institutions.

- **BIOL 237 - Principles of Human Anatomy and Physiology 1** ***Credits: 4***
- **BIOL 238 - Principles of Human Anatomy and Physiology 2** ***Credits: 4***
- **CHEM 111 - General Chemistry 1** ***Credits: 4***
- **PE 112 - Introduction to Exercise Physiology** ***Credits: 3***
- **PSYCH 201 - Introductory Psychology** ***Credits: 4***

SCHOOLCRAFT COLLEGE DEGREE REQUIREMENTS

Students may earn an associate degree at Schoolcraft! By taking the MiTransfer Pathways courses and completing MTA, students need to complete the remaining electives to get to 60 credits to earn the following degrees:

- Associate of General Studies (AGS) Degree
- Associate of Science (AS) Degree

Note that these remaining courses to receive your associate degree may not be accepted for transfer by universities participating in the agreement.

TRANSFER INSTITUTION DEGREE REQUIREMENTS

Learn more about the transfer institution degree requirements by meeting with one of our ***academic advisors*** who can help you understand the transfer guides and agreements.

Andrews University	Eastern Michigan University	Northern Michigan University
Central Michigan University	Grand Valley State University	Oakland University
Concordia University Ann Arbor	Michigan State University	Saginaw Valley State University
Cornerstone University	Michigan Technological University	Spring Arbor University

Physical Education Movement Science AAS Degree

Schoolcraft program code #AAS.00284

The associate degree in Movement Science provides students with a solid foundation to begin a career in the fitness field. It offers a combination of theory and applied classes, combined with an internship in the fitness field. Students completing this program will be well positioned to transfer to a four-year institution in fields such as exercise science, kinesiology, athletic training, and sports management, among others. Students also will be well prepared to take national certification exams for personal fitness trainers and group exercise instructors.

Students who satisfactorily complete all college and program requirements qualify for an associate of applied science degree.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **BIOL 101 - General Biology** ***Credits: 4***
- **PE 111 - Introduction to Kinesiology** ***Credits: 3***
- **ENG 101 - English Composition 1** ***Credits: 3***
- **PE 112 - Introduction to Exercise Physiology** ***Credits: 3***

TOTAL CREDITS: 13

Winter Semester

- **BIOL 237 - Principles of Human Anatomy and Physiology 1** ***Credits: 4***
- **PE 143 - Fitness Tests and Measurements** ***Credits: 3***
- **PE 147 - Exercise Techniques** ***Credits: 3***
- **PE 202 - Lifestyle Fitness - Wellness** ***Credits: 2***

TOTAL CREDITS: 12

Spring/Summer Session

- **PSYCH 153 - Human Relations** ***Credits: 3***
- Mathematics - Select any general education mathematics course ***Credits: 3-5*** *

TOTAL CREDITS: 6-8

SECOND YEAR

Fall Semester

- **BIOL 238 - Principles of Human Anatomy and Physiology 2** ***Credits: 4***
- **PE 207 - Facilities Operations** ***Credits: 3***
- English Communication - Credits: 3 - Select second General Education English Communication course.
    - Recommended for students desiring transfer: **ENG 102 - English Composition 2** ***Credits: 3***
- Business - Select One:
    - **BUS 101 - Introduction to Business** ***Credits: 3***
    - **BUS 103 - Organizing a Small Business** ***Credits: 3***
    - **BUS 120 - Strategic Selling** ***Credits: 3***

TOTAL CREDITS: 13

Physical Education Movement Science AAS Degree (continued)

Winter Semester

- **PE 212 - Applied Exercise Physiology** ***Credits: 3***
- **COMA 103 - Fundamentals of Speech** ***Credits: 3***
- **PE 225 - Motor Development** ***Credits: 3***
- **PE 121 - First Aid and Personal Safety** ***Credits: 2*** **
- Elective ***Credits: 2-3*** ***

TOTAL CREDITS: 13-14

Spring/Summer Session

- **PE 291 - Movement Science Internship** ***Credits: 3***

TOTAL CREDITS: 3

PROGRAM TOTAL: 60-63 CREDITS

*Students planning to transfer should take MATH 111, MATH 119, or higher.

** Students may be granted credit for this course for prior certification and content knowledge. See the Prior Learning Credit webpage for general information. Contact the Dean's office for information specific to this course.

ELECTIVES

***Recommended electives include any other PE class or BIOL 115 - Nutrition. Students interested in group exercise may want to consider PE 115 - Aerobic Dance Fitness and students interested in education may want to consider PE 240 - Physical Education for Elementary Teachers Students planning to transfer may want to consider an MTA-approved Social Science course.

- **BIOL 115 - Nutrition** ***Credits: 3***
- **PE 104 - Physical Fitness and Conditioning** ***Credits: 2***
- **PE 106 - Beginning Swimming** ***Credits: 2***
- **PE 115 - Aerobic Dance Fitness** ***Credits: 2***
- **PE 116 - Intermediate Swimming** ***Credits: 2***
- **PE 132 - Beginning Tennis** ***Credits: 2***
- **PE 141 - Basketball** ***Credits: 2***
- **PE 194 - Weight Training** ***Credits: 2***
- **PE 240 - Physical Education for Elementary Teachers** ***Credits: 3***

Physical Education Movement Science Certificate

Schoolcraft program code # 1YC.00214

The certificate in Movement Science prepares students for entry level positions in the fitness field. Students will have significant preparation toward certification testing as a personal trainer or group exercise instructor. The certificate coursework can later be incorporated in the associate degree if students are interested in furthering their education.

Students who successfully complete all program courses qualify for a certificate of program completion.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **BIOL 101 - General Biology** ***Credits: 4***
- **PE 111 - Introduction to Kinesiology** ***Credits: 3***
- **PE 112 - Introduction to Exercise Physiology** ***Credits: 3***
- **PE 121 - First Aid and Personal Safety** ***Credits: 2*** *

TOTAL CREDITS: 12

Winter Semester

- **BIOL 237 - Principles of Human Anatomy and Physiology 1** ***Credits: 4***
- **PE 202 - Lifestyle Fitness - Wellness** ***Credits: 2***
- **PE 143 - Fitness Tests and Measurements** ***Credits: 3***
- **PE 147 - Exercise Techniques** ***Credits: 3***

TOTAL CREDITS: 12

PROGRAM TOTAL: 24 CREDITS

*Students may be granted credit for this course for prior certification and content knowledge. See the Prior Learning Credit webpage for general information. Contact the Dean's office for information specific to this course.

Schoolcraft College®

2024-2025 Credential Year

Physics

Schoolcraft offers courses in basic, applied, general, and engineering physics, including courses that range from the introduction to astronomy to physics for scientists and engineers. In addition, through lab work and lectures students will learn about other aspects of physics, including optics, harmonics, magnetism, and momentum.

There is currently no certificate or degree program offered in Physics. Some or all of the courses listed below may be required/recommended or applied toward a certificate or degree program in another area of study. These courses may also be taken for personal or professional interest or for transfer to a four-year college or university.

Courses

- PHYS 104 - Introduction to Astronomy
- PHYS 123 - Applied Physics
- PHYS 181 - General Physics 1
- PHYS 182 - General Physics 2
- PHYS 211 - Physics for Scientists and Engineers 1
- PHYS 212 - Physics for Scientists and Engineers 2

2024-2025 Credential Year

Plastic Technology

Developed in conjunction with the area's leading plastic manufacturing companies, the Plastic Technology programs prepare students for employment in one of the largest manufacturing fields in the country. Plastic Technology courses in this program are taught by professionals in the industry, providing real-world experience so that students can acquire the working knowledge and skills to become a competent molding process technician. Students will learn techniques and processes involved in making and testing plastic parts as they gain hands-on experience with plastics manufacturing equipment.

Credentials

- Plastic Technology AAS Degree
- Plastic Technology Certificate
- Plastic Technology Skills Certificate

Plastic Technology AAS Degree

Schoolcraft program code # AAS.00220

Please Note: The Plastic Technology program is on hold pending inactivation. Students interested in this program should speak with Academic Advising at 734-462-4429 or email eadvise@schoolcraft.edu.

If you are interested in exploring additional manufacturing & engineering technology programs, please visit our Manufacturing & Engineering Pathway catalog page.

The Plastic Technology AAS degree is designed to provide the student with skills in many of the critical facets of plastic manufacturing. The program includes the study of the most widely used thermoplastic processes with an emphasis on injection molding and on the most frequently used thermoplastic materials. Topics covered include thermoplastic process troubleshooting, plastic materials and applications, mold/part design, quality improvement programs, process controls, CAD and metal finishing. The combined educational background will give the student an opportunity to meet the many needs of today's plastic manufacturing industry. This includes employment as a mold or part designer, process technician or entry level plastic process engineer.

Protective shop clothing and eye protection supplies required for the program will be purchased by the student.

Students who satisfactorily complete the program requirements qualify for an associate of applied science degree. All program required courses must be completed with a grade of 2.0 or better.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **PLAST 130 - Introduction to Plastic Materials** ***Credits: 3***
- **MATH 102 - Technical Mathematics** ***Credits: 4***
- **QM 106 - Introduction to Quality Improvement Tools** ***Credits: 3***
- **PLAST 131 - Introduction to Plastic Processing** ***Credits: 3***

TOTAL CREDITS: 13

Winter Semester

- **CAD 120 - Mechanical Blueprint Reading with Sketching** ***Credits: 3***
- **MET 216 - Mechanical Testing** ***Credits: 3***
- **MFG 102 - Basic Machining Processes** ***Credits: 3***
- **PLAST 150 - Plastic Injection Molding Technology** ***Credits: 3***

TOTAL CREDITS: 12

Spring/Summer Session

- Social Sciences: Credits 3-4 - Select Social Science course.
  - Recommended: **PSYCH 153 - Human Relations** ***Credits: 3***
- English Communication - Credits: 3 - Select first English Communication course.
  - Recommended: **ENG 101 - English Composition 1** ***Credits: 3***

TOTAL CREDITS: 6-7

SECOND YEAR

Plastic Technology AAS Degree (continued)

Fall Semester

- **PLAST 251 - Applied Injection Molding** ***Credits: 3***
- **CHEM 104 - Fundamentals of Chemistry** ***Credits: 4***
- CAD Elective - Select one:
    - **CAD 210 - CATIA - 3D and 2D Applications** ***Credits: 4***
    - **CAD 220 - SolidWorks - 3D and 2D Applications** ***Credits: 4***
    - **CAD 230 - NX - 3D and 2D Applications** ***Credits: 4***
- English Communication - Credits: 3 - Select second English Communication course.
    - Recommended: **ENG 116 - Technical Writing** ***Credits: 3***

TOTAL CREDITS: 14

Winter Semester

- **PLAST 160 - Process Control Systems for Plastic Manufacturing** ***Credits: 3***
- **PLAST 215 - Plastic Part and Mold Design** ***Credits: 3***
- **PLAST 240 - Advanced Plastic Processing** ***Credits: 3***
- Elective - Select from list below so that the AAS program total credits meets 60 credit minimum or higher ***Credits: 3-6***
- Humanities - Credits: 3-4 - Select General Education Humanities course.
    - Recommended: **COMA 103 - Fundamentals of Speech** ***Credits: 3***

TOTAL CREDITS: 15-19

PROGRAM TOTAL: 60-65 CREDITS

ELECTIVES

Select courses not previously taken from the classes listed below to fulfill the elective requirement:

- **CAD 130 - Geometric Dimensioning and Tolerance** ***Credits: 3***
- **CAD 210 - CATIA - 3D and 2D Applications** ***Credits: 4***
- **CAD 212 - CATIA - Advanced Topics** ***Credits: 4***
- **CAD 220 - SolidWorks - 3D and 2D Applications** ***Credits: 4***
- **CAD 230 - NX - 3D and 2D Applications** ***Credits: 4***
- **CIS 120 - Software Applications** ***Credits: 3***
- **MET 160 - Composite Materials** ***Credits: 3***
- **MET 281 - Special Problems in Materials Science** ***Credits: 3***
- **PLAST 291 - Plastic Technology Internship** ***Credits: 3***
- **MFG 103 - Basic Computer Numerical Control (CNC)** ***Credits: 3***
- **MFG 105 - Manufacturing Processes** ***Credits: 4***
- **OSH 111 - Occupational Safety and Health for General Industry** ***Credits: 2***
- **WELD 110 - Introduction to Welding Basics for Fabrication** ***Credits: 3***

Plastic Technology Certificate

Schoolcraft program code # 1YC.00219

Please Note: The Plastic Technology program is on hold pending inactivation. Students interested in this program should speak with Academic Advising at 734-462-4429 or email eadvise@schoolcraft.edu.

If you are interested in exploring additional manufacturing & engineering technology programs, please visit our Manufacturing & Engineering Pathway catalog page.

The Plastic Technology certificate addresses the basic competencies and skills needed to meet the requirements for employment in the plastics industry. The program content is designed to train the student who is new to the plastics industry, and also to update the skills of seasoned workers in the plastic industry, with the most current technology. The curriculum will prepare the student to be employed in a quality or testing lab, as a production technician, or entry level process technician.

Protective shop clothing and eye protection supplies required for the program will be purchased by the student.

Students who satisfactorily complete the program requirements qualify for a certificate of program completion. All program required courses must be completed with a grade of 2.0 or better.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **PLAST 130 - Introduction to Plastic Materials** ***Credits: 3***
- **MATH 102 - Technical Mathematics** ***Credits: 4***
- **QM 106 - Introduction to Quality Improvement Tools** ***Credits: 3***
- **PLAST 131 - Introduction to Plastic Processing** ***Credits: 3***
- **CAD 120 - Mechanical Blueprint Reading with Sketching** ***Credits: 3***

TOTAL CREDITS: 16

Winter Semester

- **MET 216 - Mechanical Testing** ***Credits: 3***
- **MFG 102 - Basic Machining Processes** ***Credits: 3***
- **PLAST 150 - Plastic Injection Molding Technology** ***Credits: 3***
- **PLAST 160 - Process Control Systems for Plastic Manufacturing** ***Credits: 3***
- Elective - Select one from list below ***Credits: 2-4***

TOTAL CREDITS: 14-16

PROGRAM TOTAL: 30-32 CREDITS

ELECTIVES

- **CAD 130 - Geometric Dimensioning and Tolerance** ***Credits: 3***
- **CAD 210 - CATIA - 3D and 2D Applications** ***Credits: 4***
- **CAD 220 - SolidWorks - 3D and 2D Applications** ***Credits: 4***
- **CAD 230 - NX - 3D and 2D Applications** ***Credits: 4***
- **CIS 120 - Software Applications** ***Credits: 3***
- **MET 160 - Composite Materials** ***Credits: 3***
- **PLAST 291 - Plastic Technology Internship** ***Credits: 3***
- **MFG 103 - Basic Computer Numerical Control (CNC)** ***Credits: 3***
- **MFG 105 - Manufacturing Processes** ***Credits: 4***
- **OSH 111 - Occupational Safety and Health for General Industry** ***Credits: 2***

Plastic Technology Skills Certificate

Schoolcraft College Program # CRT.00340

Please Note: The Plastic Technology program is on hold pending inactivation. Students interested in this program should speak with Academic Advising at 734-462-4429 or email eadvise@schoolcraft.edu.

If you are interested in exploring additional manufacturing & engineering technology programs, please visit our Manufacturing & Engineering Pathway catalog page.

The Plastic Technology skills certificate introduces the student to the various processing techniques used to produce a finished plastic part. The student will also come away with knowledge of the different plastic materials most commonly used today. The program also includes an overview of the various quality improvement programs with an emphasis on teamwork and an overview of metal machining. This program will provide the student with the basic skills for employment at the entry level in the plastics industry.

Protective shop clothing and eye protection supplies required for the program will be purchased by the student.

Students who satisfactorily complete the program requirements qualify for a certificate of program completion. All program required courses must be completed with a grade of 2.0 or better.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **PLAST 130 - Introduction to Plastic Materials** ***Credits: 3***
- **QM 106 - Introduction to Quality Improvement Tools** ***Credits: 3***

TOTAL CREDITS: 6

Winter Semester

- **PLAST 131 - Introduction to Plastic Processing** ***Credits: 3***
- **MFG 102 - Basic Machining Processes** ***Credits: 3***
- **MATH 102 - Technical Mathematics** ***Credits: 4***

TOTAL CREDITS: 10

PROGRAM TOTAL: 16 CREDITS

Schoolcraft College®

2024-2025 Credential Year

Political Science

Courses in political science help students understand the fundamentals of the American government on the local, state, and federal levels, comparative government, the role of political parties, and international relations. Students can explore current political events as an important component of the coursework and take the Honors Political Science course, which offers firsthand experience with political projects. Many political science majors work for elected officials or have careers as community organizers, lobbyists, non-profit leaders, pollsters, professors, and attorneys.

Students interested in Political Science should talk to their Academic Advisor about transfer guides and articulation agreements with Schoolcraft College. Students interested in studying Political Science at a 4-year university may be interested in completing the Associate of Arts, Associate of General Studies, or the Associate of Science degree at Schoolcraft College.

Credentials

- Associate of Arts (AA) Degree
- Associate of General Studies (AGS) Degree
- Associate of Science (AS) Degree

Courses

- POLS 105 - Survey of American Government
- POLS 109 - State and Local Government
- POLS 205 - Political Parties
- POLS 207 - Comparative Government
- POLS 209 - International Relations
- POLS 298 - Political Science Honors Studies

Schoolcraft College®

2024-2025 Credential Year

Professional Culinary Arts

Schoolcraft's Culinary Arts program is nationally recognized for its commitment to hands-on education, and promotion of student development, and is supported by a team of dedicated and distinguished professional leaders. Students acquire professional skills in advanced culinary classrooms that are designed to enhance both individual and team learning experiences. Working with the highest quality foods, equipment, and facilities, the hands-on teaching labs are designed to confidently prepare students to be successful in their professional future. The American Harvest Restaurant promotes industry practices while fostering an educational atmosphere. In addition to these outstanding resources offered by the college, Schoolcraft is a publicly funded community college that provides a premier experience but maintains tuition rates and fees that are much lower than those of competitive four-year colleges and universities. The program is stackable to a Bachelor of Science Degree in Culinary and Dietary Operations.

The Culinary Arts program is certified by the American Culinary Federation Education Foundation (ACFEF). Accreditation assures that a program is meeting standards and competencies set for faculty, curriculum, and student services.

For more information on accreditation, please contact:

Kevin Roberts
American Culinary Federation
180 Center Place Way
St. Augustine, FL 32095 (904-824-4468) x249

Credentials

- Professional Culinary Arts AAS Degree
- Professional Culinary Arts Certificate
- Professional Culinary Arts Skills Certificate

Selective Admissions: Program Application Information

- Professional Culinary Arts Program Application Information

Professional Culinary Arts AAS Degree

Schoolcraft program code #AAS.0P400/#AAS.00400

The Professional Culinary Arts associate degree is designed to develop the advanced skill sets necessary to become successful in the dynamic field of the restaurant industry. Emphasis will be placed on foundational cooking principles, nutritional recipe composition, front and back-of-the-house procedures, baking and pastry concepts, professional restaurant operations, butchery, charcuterie fabrication, and international cuisines. Practical experience will be obtained by operating the American Harvest Restaurant and Main Street Cafe venues. Students in this program are prepared to immediately enter the workforce. Two elective courses, as well as two program-supportive courses for this degree, help expand the student's experience in the culinary field.

This program contains some courses restricted to students officially admitted to this program. Students are listed in a pre-program code while the application requirements are being met. The full program start date and implementation of the program code may be dependent on space availability. Requirements are listed online at https://www.schoolcraft.edu/admissions/apply-to-sc/students-with-selective-admissions/ or the Professional Culinary Arts Program Application Information catalog page. Additionally, CUL 102, Culinary Sanitation, or proof of current ServSafe certification as well as CUL 103, Introduction to Professional Cooking Skills and Techniques are pre-program requirements. Students with approved high school articulation agreements can waive the CUL 103 requirement.

Students who satisfactorily complete all college and program requirements qualify for an associate of applied science degree. The program is stackable to a Bachelor of Science Degree in Culinary and Dietary Operations Management.

The culinary arts program is accredited by the American Culinary Federation Education Foundation, Inc. Accrediting Commission. Accreditation assures that a program is meeting standards and competencies set for faculty, curriculum, and student services. For more information on accreditation, please contact:

Kevin Roberts
American Culinary Federation
180 Center Place Way
St. Augustine, FL 32095
904-824-4468 ext. 249

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an Academic Advisor. Number of credits may vary depending on the course selection.

ADMISSION PREREQUISITES

These courses are pre-program requirements and not included in degree program totals.

- **CUL 102 - Culinary Sanitation** ***Credits: 2*** *
- **CUL 103 - Introduction to Professional Cooking Skills and Technique** ***Credits: 4*** **

TOTAL CREDITS: 6

FIRST YEAR

Fall Semester

- **CUL 130 - Foundations of Cooking A - Dry Heat Cookery** ***Credits: 3***
- **CUL 140 - Purchasing and Cost Controls** ***Credits: 2***
- **CUL 150 - Baking** ***Credits: 2***
- **PSYCH 153 - Human Relations** ***Credits: 3***
- Select first General Education English Communication course.
    - *Recommended:* **ENG 101 - English Composition 1** ***Credits: 3*** (Recommended for students interested in the Bachelor of Science)

TOTAL CREDITS: 13

Professional Culinary Arts AAS Degree (continued)

Winter Semester

- **CUL 145 - Butchery** ***Credits: 2***
- **CUL 136 - Foundations of Classical and Contemporary Pastry** ***Credits: 3***
- **CUL 135 - Foundations of Cooking B - Moist Heat Cookery** ***Credits: 3***
- Elective - See list ***Credits: 3-4***

TOTAL CREDITS: 11-12

Spring/Summer Session

- **CHEM 100 - Introduction to the Chemistry of Food for Culinary Arts** ***Credits: 4***
- English Communication - Select second General Education English Communication course.
  Recommended:
  - **ENG 102 - English Composition 2** ***Credits: 3***
  - *OR* **ENG 221 - Advanced Composition** ***Credits: 3*** (ENG 102 or ENG 221 are recommended for students interested in the Bachelor of Science)
- Mathematics - Credits: 3-5 - Select General Education Mathematics course.
  Recommended:
  - **MATH 101 - Business Mathematics** ***Credits: 3***
  - *OR* **MATH 111 - Applications - Utility of Math** ***Credits: 4***
  - *OR* **MATH 122 - Elementary Statistics** ***Credits: 4*** (MATH 111 or MATH 122 are recommended for students interested in the Bachelor of Science)

TOTAL CREDITS: 10-12

SECOND YEAR

Fall Semester

- **CUL 245 - Foundations of Healthy Cooking** ***Credits: 3***
- **CUL 246 - Dining Room** ***Credits: 2***
- **CUL 230 - Modern American Cuisine** ***Credits: 6***
- Elective - See list ***Credits: 3-4***

TOTAL CREDITS: 14-15

Winter Semester

- **CUL 250 - International Cuisine** ***Credits: 6***
- **CUL 210 - Wine and Spirits** ***Credits: 1***
- **CUL 248 - Charcutière/Garde Manger** ***Credits: 4***
- Humanities - Select General Education Humanities Course ***Credits: 1-4***

TOTAL CREDITS: 12-15

PROGRAM TOTAL: 60-66 CREDITS

* If a student provides documentation of current ServSafe certification, CUL 102 is not required. This course is also open to any Schoolcraft student.

** Students with an approved high school articulation agreement can waive the CUL 103 requirement.

*** CUL 298 has a prerequisite of CUL 296 or consent of Instructor.

Professional Culinary Arts AAS Degree (continued)

ELECTIVES

Select two courses from the classes listed below to fulfill the elective requirement:

- **ART 120 - Drawing: Theory and Elements** ***Credits: 3***
- **BUS 122 - Advertising** ***Credits: 3***
- **BUS 220 - Organizational Behavior** ***Credits: 3***
- **CIS 120 - Software Applications** ***Credits: 3***
  (Recommended for students interested in the Bachelor of Science)
- **CM 109 - Hospitality Law** ***Credits: 3***
- **CM 203 - Restaurant Concepts and Design** ***Credits: 3***
- **CM 309 - Culinary Law** ***Credits: 3***
- **CUL 260 - Competitive Ice Carving** ***Credits: 3***
- **CUL 265 - Chocolatier** ***Credits: 3***
- **CUL 296 - Salon Competition 1** ***Credits: 3***
- **CUL 298 - Salon Competition 2** ***Credits: 4*** ***
- **NFS 360 - Ensuring a Sustainable Food Supply** ***Credits: 3***

Professional Culinary Arts Certificate

Schoolcraft Program Code #1YC.0P399/#1YC.00399

The Professional Culinary Arts Certificate is designed to develop the advanced skill sets necessary to become successful in the dynamic field of the restaurant industry. Emphasis will be placed on foundational cooking principles, nutritional recipe composition, baking, and pastry concepts, purchasing cost control, and butchery fabrication. Practical experience will be obtained by operating the American Harvest Restaurant and Main Street Cafe venues. Students in this program are prepared to immediately enter the workforce.

This program contains some courses restricted to students officially admitted to this program. Additionally, CUL 102, Culinary Sanitation, or proof of current ServSafe certification as well as CUL 103, Introduction to Professional Cooking Skills and Techniques are pre-program requirements. Students with an approved high school articulation agreement can waive the CUL 103 requirement.

Students who satisfactorily complete the program requirements qualify for a certificate of program completion. Upon completion of the certificate program, students may select the associate degree as their second-year option. All the requirements of that associate degree must be fulfilled, including all of the college requirements.

This program requires students to complete a specific list of requirements before being officially admitted into the program. Students are listed in a pre-program code while the application requirements are being met. The full program start date and implementation of the program code may be dependent on space availability. Requirements are listed online at https://www.schoolcraft.edu/admissions/apply-to-sc/students-with-selective-admissions/ or the Professional Culinary Arts Program Application Information catalog page. Contact the Admissions and Welcome Center at 734-462-4426 or admissions@schoolcraft.edu to complete an application.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor.

SAMPLE SCHEDULE OF COURSES

ADMISSION PREREQUISITES

- **CUL 102 - Culinary Sanitation** ***Credits: 2*** *
- **CUL 103 - Introduction to Professional Cooking Skills and Technique** ***Credits: 4*** **

TOTAL CREDITS: 6

FIRST YEAR

Fall Semester

- **CUL 130 - Foundations of Cooking A - Dry Heat Cookery** ***Credits: 3***
- **CUL 140 - Purchasing and Cost Controls** ***Credits: 2***
- **CUL 150 - Baking** ***Credits: 2***

TOTAL CREDITS: 7

Winter Semester

- **CUL 145 - Butchery** ***Credits: 2***
- **CUL 136 - Foundations of Classical and Contemporary Pastry** ***Credits: 3***
- **CUL 135 - Foundations of Cooking B - Moist Heat Cookery** ***Credits: 3***

TOTAL CREDITS: 8

Professional Culinary Arts Certificate (continued)

SECOND YEAR

Fall Semester

- **CUL 245 - Foundations of Healthy Cooking** ***Credits: 3***
- **CUL 246 - Dining Room** ***Credits: 2***
- **CUL 230 - Modern American Cuisine** ***Credits: 6***

TOTAL CREDITS: 11

Winter Semester

- **CUL 250 - International Cuisine** ***Credits: 6***
- **CUL 210 - Wine and Spirits** ***Credits: 1***
- **CUL 248 - Charcutière/Garde Manger** ***Credits: 4***

TOTAL CREDITS: 11

PROGRAM TOTAL: 43 CREDITS

* If a student provides documentation of current ServSafe certification, CUL 102 is not required. This course is also open to any Schoolcraft student.

** Students with an approved high school articulation agreement can waive the CUL 103 requirement.

Professional Culinary Arts Skills Certificate

Schoolcraft program code #CRT.0P398/#CRT.00398

The Professional Culinary Arts Skills Certificate is designed to develop the basic skill sets necessary to become successful in the dynamic field of the restaurant industry. Emphasis will be placed on foundational cooking principles, nutritional recipe composition, baking, and pastry concepts, purchasing cost control, and butchery fabrication. Practical experience will be obtained by operating the American Harvest Restaurant and Main Street Cafe venues. Students in this program are prepared to immediately enter the workforce.

This program contains some courses restricted to students officially admitted to this program. Additionally, CUL 102, Culinary Sanitation, or proof of current ServSafe certification as well as CUL 103, Introduction to Professional Cooking Skills and Techniques are pre-program requirements. Students with an approved high school articulation agreement can waive the CUL 103 requirement.

Students who satisfactorily complete the program requirements qualify for a certificate of program completion. Upon completion of the certificate program, students may select the certificate or associate degree as their second-year option. All the requirements of the certificate or associate degree must be fulfilled, including all of the college requirements.

This program requires students to complete a specific list of requirements before being officially admitted into the program. Students are listed in a pre-program code while the application requirements are being met. The full program start date and implementation of the program code may be dependent on space availability. Requirements are listed online at https://www.schoolcraft.edu/admissions/apply-to-sc/students-with-selective-admissions/ or the Professional Culinary Arts Program Application Information catalog page. Contact the Admissions and Welcome Center at 734-462-4426 or admissions@schoolcraft.edu to complete an application.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor.

SAMPLE SCHEDULE OF COURSES

ADMISSION PREREQUISITES

- **CUL 102 - Culinary Sanitation** ***Credits: 2*** *
- **CUL 103 - Introduction to Professional Cooking Skills and Technique** ***Credits: 4*** **

TOTAL CREDITS: 6

FIRST YEAR

Fall Semester

- **CUL 130 - Foundations of Cooking A - Dry Heat Cookery** ***Credits: 3***
- **CUL 140 - Purchasing and Cost Controls** ***Credits: 2***
- **CUL 150 - Baking** ***Credits: 2***

TOTAL CREDITS: 7

Winter Semester

- **CUL 145 - Butchery** ***Credits: 2***
- **CUL 136 - Foundations of Classical and Contemporary Pastry** ***Credits: 3***
- **CUL 135 - Foundations of Cooking B - Moist Heat Cookery** ***Credits: 3***

TOTAL CREDITS: 8

PROGRAM TOTAL: 21 CREDITS

* If a student provides documentation of current ServSafe certification, CUL 102 is not required. This course is also open to any Schoolcraft student.

** Students with an approved high school articulation agreement can waive the CUL 103 requirement.

Schoolcraft College®

2024-2025 Credential Year

Professional Culinary Arts Program Application Information

The Professional Culinary Arts Program prepares students for work in all areas of food service operations including food preparation, menu planning, purchasing food supplies, hiring staff, establishing safety and sanitation procedures, and promoting the business. Students learn and practice their art in the most advanced instructional kitchens in the Midwest, if not the entire country. Important information about the Culinary Arts Program:

- There are ninety-six (96) spots in the program each year. Most students start in the fall semester.
- Culinary Arts courses are offered at the main Livonia campus on Haggerty Road.
- The American Harvest restaurant, a student-run establishment, provides lunch and dinner prepared and presented by Culinary Arts students.
- Students are required to register for one rotation (3 courses) per fall and winter semesters. Culinary core courses are on 5-week rotations.
    - Click here to view the sample schedule for the Professional Culinary Arts Skills Certificate
    - Click here to view the sample schedule for the Professional Culinary Arts Certificate
    - Click here to view the sample schedule for the Professional Culinary Arts AAS Degree

APPLICATION REQUIREMENTS

The Professional Culinary Arts Program requires students to complete a specific list of requirements before being officially admitted into the program. Students are listed in a pre-program code while the application requirements are being met. The full program start date and implementation of the program code may be dependent on space availability. To be admitted to the program, the student must complete the following:

1. Apply to Schoolcraft College	Apply to Schoolcraft College online at www.schoolcraft.edu.
2. Transcripts	It is recommended you request official undergraduate transcripts from all colleges and universities previously attended. Transcripts must be sent directly from the issuing college or university to Schoolcraft College. To confirm that transcripts have been received, contact the Answer Center at 734-462-4426.
3. Academic Advising and Assessment	This program requires minimum assessment levels or coursework in the areas of math, reading, and writing. Students should have placement scores (Computer Placement Test, ACT, or SAT) submitted prior to meeting with an academic advisor. Students with prior college-level work or a degree may be exempt from placement testing. The Computer Placement Test (CPT) is taken in the Testing Center. ACT or SAT scores must be less than three years old. Contact the Academic Advising at 734-462-4429 to make an appointment.
4. Obtain a CUL 103 Permit	Once all assessment requirements have been met and any necessary foundation coursework is completed, students must meet with a Schoolcraft academic advisor to obtain a permit to register for CUL 103. Please note that CUL 103 is restricted to regularly admitted students; High School Dual Enrollment students are not eligible.
5. College Prerequisite Coursework - CUL 103	Complete CUL 103 - Introduction to Professional Cooking Skills and Technique with a grade of *2.5* or better. Your grade must be posted to your transcript before you submit a program application. Application to the program must be made within five years of completing the CUL 103 course.
6. Obtain a Sanitation Certificate	Submit proof of a valid ServSafe Food Protection Manager Certificate earned within the last five years to the Admissions and Welcome Center prior to applying to the Culinary Arts Program. Students may prepare to complete this requirement by taking Schoolcraft's CUL 102 Culinary Sanitation course, Continuing Education class, or other opportunities outside of Schoolcraft (Michigan Restaurant Association).
7. Cumulative GPA	Attain a cumulative grade point average of *2.0* or better for all Schoolcraft College courses.

8. Apply to the Culinary Arts Program	Meet with your Academic Advisor to complete and submit the Culinary Arts Program Restricted Enrollment Program Change Form with appropriate signatures.

CULINARY ARTS INFORMATION SESSION

The Culinary Arts Department highly recommends that you attend a culinary arts campus tour. This will include an information session to learn more about the culinary arts program, application process and a tour of the facilities. To find out more about how to schedule a tour go to schoolcraft.edu/admissions/visit-tour.

CUL 103 CLASS

In order to be eligible to register for CUL 103 you must first meet with an academic advisor who will verify that all CUL 103 prerequisites are met. Qualified students will be issued an electronic permit which will allow you to register for this course.

- The CUL 103 class tends to fill quickly. On the first day of registration, as early as possible, you may attempt to register for this course online through Ocelot Access at https://my.schoolcraft.edu/.

ENROLLMENT REQUIREMENTS

Once accepted to the program, you will receive information from the Culinary Arts department regarding which rotation you will be assigned. It is recommended that you meet with an academic advisor prior to discussing your overall educational plan.

ATTENDANCE POLICY

Culinary Arts classes are designed to provide students with the necessary time to successfully complete competencies. Students are expected to attend and arrive on time for all scheduled classes. In order to ensure students success, the Culinary Arts Program has established an attendance policy. If a student exceeds the maximum absence time they will be withdrawn from the course and will need to re-take the course to graduate. A copy of the attendance policy is available in the Culinary Department and will be provided to students during Culinary Orientation.

ESTIMATION OF TUITION AND FEES

Professional Culinary Skills Certificate			
2024-2025			
Program Credit Hours – 21			
	Resident	***Non-Resident***	***Out of State***
Tuition:	$ 2,919.00	$ 4,200.00	$ 5,670.00
Registration Fees: ($44 per semester)	$ 132.00	$ 132.00	$ 132.00
Service Fees: ($9 per credit hour)	$ 189.00	$ 189.00	$ 189.00
Instructional Equipment Fees: ($11 per credit hour)	$ 231.00	$ 231.00	$ 231.00
Infrastructure Fees: ($9 per credit hour)	$ 189.00	$ 189.00	$ 189.00
Course and Learning Management Fees: ($12 per class)	$ 96.00	$ 96.00	$ 96.00
Lab Fees: (varies according to individual class)	$ 1,430.00	$ 1,430.00	$ 1,430.00
Excess Contact Hour Fees: (varies according to individual class)	$ 1,573.00	$ 1,573.00	$ 1,573.00
Additional Expenses:			
Uniforms	$ 380.00	$ 380.00	$ 380.00
Knife Set	$ 159.99	$ 159.99	$ 159.99
Total	$ 7,298.99	$ 8,579.99	$ 10,049.99
The above figures are based on 2024-2025 rates and are subject to change. A Resident student is one whose legal residence is in the school District of Clarenceville, Garden City, Livonia, Northville, Plymouth-Canton, or parts of Novi. All other students are Non-Residents.			

Professional Culinary Certificate			
2024-2025			
Program Credit Hours – 43			
	Resident	***Non-Resident***	***Out of State***
Tuition:	$ 5,977.00	$ 8,600.00	$ 11,610.00
Registration Fees: ($44 per semester)	$ 220.00	$ 220.00	$ 220.00
Service Fees: ($9 per credit hour)	$ 387.00	$ 387.00	$ 387.00
Instructional Equipment Fees: ($11 per credit hour)	$ 473.00	$ 473.00	$ 473.00

Infrastructure Fees: ($9 per credit hour)	$ 387.00	$ 387.00	$ 387.00
Course and Learning Management Fees: ($12 per class)	$ 168.00	$ 168.00	$ 168.00
Lab Fees: (varies according to individual class)	$ 2,885.00	$ 2,885.00	$ 2,885.00
Excess Contact Hour Fees: (varies according to individual class)	$ 3,424.00	$ 3,424.00	$ 3,424.00
Additional Expenses:			
Uniforms	$ 380.00	$ 380.00	$ 380.00
Knife Set	$ 159.99	$ 159.99	$ 159.99
Total	$ 14,460.99	$ 17,083.99	$ 20,093.99
The above figures are based on 2024-2025 rates and are subject to change. A Resident student is one whose legal residence is in the school District of Clarenceville, Garden City, Livonia, Northville, Plymouth-Canton, or parts of Novi. All other students are Non-Residents.			

Professional Culinary AAS Degree			
2024-2025			
Program Credit Hours – 66			
	Resident	***Non-Resident***	***Out of State***
Tuition:	$ 9,174.00	$ 13,200.00	$ 17,820.00
Registration Fees: ($44 per semester)	$ 264.00	$ 264.00	$ 264.00
Service Fees: ($9 per credit hour)	$ 594.00	$ 594.00	$ 594.00
Instructional Equipment Fees: ($11 per credit hour)	$ 726.00	$ 726.00	$ 726.00
Infrastructure Fees: ($9 per credit hour)	$ 594.00	$ 594.00	$ 594.00
Course and Learning Management Fees: ($12 per class)	$ 264.00	$ 264.00	$ 264.00
Lab Fees: (varies according to individual class)	$ 3,135.00	$ 3,135.00	$ 3,135.00
Excess Contact Hour Fees: (varies according to individual class)	$ 3,933.00	$ 3,933.00	$ 3,933.00
Additional Expenses:			
Uniforms	$ 380.00	$ 380.00	$ 380.00
Knife Set	$ 159.99	$ 159.99	$ 159.99
Total	$ 19,223.99	$ 23,249.99	$ 27,869.99
The above figures are based on 2024-2025 rates and are subject to change. A Resident student is one whose legal residence is in the school District of Clarenceville, Garden City, Livonia, Northville, Plymouth-Canton, or parts of Novi. All other students are Non-Residents.			

PLEASE NOTE:

Requirements for admission to the Culinary Arts Program are subject to change at any time.

Ready to get started! Download the Culinary Arts Program Student Checklist to get on track.	**Student Checklist**
Ready to apply? Download the Application Form and schedule a meeting with your advisor.	**Application Form**

Please contact the Admissions and Welcome Center for updates of any applicable changes.

Phone: 734-462-4683
Fax: 734-462-4552
E-mail: admissions@schoolcraft.edu
Web: www.schoolcraft.edu

It is the policy of Schoolcraft College that no person shall, on the basis of race, color, national origin, gender, age, marital status, creed, or handicap, be excluded from participating in, be denied benefits of, or be subjected to discrimination during any program or activity or in employment.

2024-2025 Credential Year

Psychology

Studying psychology offers insight into the fascinating area of human behavior and provides a better understanding of why people act and think as they do. Schoolcraft offers courses in human relations, general psychology, child psychology, psychology of aging, and the psychology of adjusting to the personal and social environment. Students also have the opportunity to get involved in on-campus events and activities focused on raising awareness of mental health issues and promoting awareness of mental health resources and services.

Psychologists apply this insight to their work in fields as diverse as education, nursing, medicine, law, advertising, public relations, and communications.

MiTransfer Pathways

- MiTransfer Pathway - Psychology

Courses

- PSYCH 153 - Human Relations
- PSYCH 201 - Introductory Psychology
- PSYCH 205 - Psychology of Adjustment
- PSYCH 206 - Human Sexuality
- PSYCH 207 - Social Psychology
- PSYCH 209 - Child Psychology
- PSYCH 213 - Stereotypes, Prejudice and Discrimination
- PSYCH 219 - Adult Development
- PSYCH 229 - Lifespan Developmental Psychology
- PSYCH 239 - Abnormal Psychology
- PSYCH 249 - Educational Psychology
- PSYCH 252 - Introduction to Sport Psychology

MiTransfer Pathway - Psychology

Community colleges and universities in Michigan have simplified the transfer process by developing Transfer Pathways. These pathways build on the Michigan Transfer Agreement (MTA), which makes it easier for students to transfer their general education courses taken at Schoolcraft to participating four-year schools.

MITRANSFER PATHWAY COURSES

The following courses at Schoolcraft College are guaranteed to transfer to psychology programs of participating institutions.

- **PSYCH 207 - Social Psychology** ***Credits: 4***
- **PSYCH 229 - Lifespan Developmental Psychology** ***Credits: 4***
- **PSYCH 239 - Abnormal Psychology** ***Credits: 3***
- **PSYCH 201 - Introductory Psychology** ***Credits: 4***

SCHOOLCRAFT COLLEGE DEGREE REQUIREMENTS

Students may earn an associate degree at Schoolcraft! By taking the MiTransfer Pathways courses and completing MTA, students need to complete the remaining electives to get to 60 credits to earn the following degrees:

- Associate of Arts (AA) Degree

Note that these remaining courses to receive your associate degree may not be accepted for transfer by universities participating in the agreement.

TRANSFER INSTITUTION DEGREE REQUIREMENTS

Learn more about the transfer institution degree requirements by meeting with one of our academic advisors who can help you understand the transfer guides and agreements.

Alma College	Finlandia University	Saginaw Valley State University
Andrews University	Grand Valley State University	Siena Heights University
Baker College	Lake Superior State University	Spring Arbor University
Central Michigan University	Michigan State University	University of Detroit Mercy
Concordia University Ann Arbor	Michigan Technological University	University of Michigan-Ann Arbor
Cornerstone University	Northern Michigan University	University of Michigan-Dearborn
Eastern Michigan University	Oakland University	University of Michigan-Flint
Ferris State University	Rochester College	Wayne State University

2024-2025 Credential Year

Quality Management

With the importance of quality planning and team building for the manufacturing process, Schoolcraft offers a course in management that explores quality systems, quality planning and team building, statistical methods, Six Sigma Methods, and new programs used in the process and product development validation.

Courses

- QM 106 - Introduction to Quality Improvement Tools
- QM 107 - Quality Planning and Team Building

Schoolcraft College®

2024-2025 Credential Year

Real Estate Property Management

Real Estate Property Management involves the management of revenue-producing residential or commercial properties, including single-family homes, apartment complexes, office buildings, retail centers, medical facilities, and industrial warehouses. Property Management is a service industry in which property managers are expected to work closely with both the property owners and the residents of the property.

The primary responsibilities include:

1. Management of the physical property, including maintenance, operations, capital improvements, and sustainability
2. Human resources, including interacting with tenants, managing people who maintain and support the property's operations, and working with property owners.
3. Marketing and leasing, including developing marketing plans and strategy, advertising and preparing property for rent, showing the property, negotiating leases, and establishing rents.
4. Financial management, including budgeting, accounting, financial and investment analysis, and financing.
5. Legal and risk management, including insurance, emergency planning, government regulations, contracts, and leasing.

Property Management is a multifaceted industry that is becoming more reliant on technology to increase operating efficiencies, maximize revenue, and monitor property performance. Property managers use industry-specific programs to generate financial reports, and to track data related to marketing, maintenance, insurance, payments, and tenant services.

Credentials

- Real Estate Property Management AAS Degree
- Real Estate Property Management Certificate
- Real Estate Property Management Skills Certificate

Real Estate Property Management AAS Degree

Schoolcraft program code # AAS.00292

The Real Estate Property Management AAS program prepares students for a career in either residential or commercial property management. It is a multi-disciplinary curriculum, combining business, accounting, and real estate courses which prepares students for a successful career in property management by providing requisite skills in finance, marketing, law, communication, and human resources. In addition, students may participate in a property management internship to combine their knowledge with on-the-job experience.

Students who successfully complete all program requirements qualify for an Associate of Applied Science degree.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **RE 101 - Introduction to Property Management** ***Credits: 3***
- **CIS 120 - Software Applications** ***Credits: 3***
- **MATH 101 - Business Mathematics** ***Credits: 3***
- **PSYCH 153 - Human Relations** ***Credits: 3***
- **RE 110 - Real Estate Pre-Licensure** ***Credits: 4*** *

TOTAL CREDITS: 16

Winter Semester

- **ENG 101 - English Composition 1** ***Credits: 3***
- **BUS 101 - Introduction to Business** ***Credits: 3***
- **RE 150 - Residential and Commercial Property Management** ***Credits: 4***
- **ACCT 201 - Principles of Accounting 1** ***Credits: 4***

TOTAL CREDITS: 14

SECOND YEAR

Fall Semester

- **ENG 106 - Business English** ***Credits: 3***
- **BUS 207 - Business Law 1** ***Credits: 3***
- **BUS 226 - Principles of Marketing** ***Credits: 3***
- **ACCT 202 - Principles of Accounting 2** ***Credits: 4***
- Natural Science - Select any general education science class ***Credits: 3-5***

TOTAL CREDITS: 16-18

Winter Semester

- **COMA 200 - Interpersonal Communications** ***Credits: 3***
- **CIS 180 - Spreadsheet Applications - Current Software** ***Credits: 3***
- **BUS 220 - Organizational Behavior** ***Credits: 3***
- Elective - Select two courses from list ***Credits: 5-6***

TOTAL CREDITS: 14-15

PROGRAM TOTAL: 60-63 CREDITS

**Individuals with a current Michigan Real Estate Sales License qualify for credit for prior learning and should contact the Program Coordinator or appropriate instructional administrator for more information.*

Real Estate Property Management AAS Degree (continued)

ELECTIVES

- **RE 290 - Real Estate Property Management Internship** ***Credits: 3***
- **BUS 116 - Project Management** ***Credits: 3***
- **BUS 202 - Business Ethics** ***Credits: 3***
- **BUS 208 - Business Law 2** ***Credits: 3***
- **CAD 120 - Mechanical Blueprint Reading with Sketching** ***Credits: 3***
- **CIS 215 - Advanced Software Applications** ***Credits: 3***
- **OSH 112 - Occupational Safety and Health for Construction** ***Credits: 2***

PROGRAMS REQUIRING LICENSURE

Federal regulations require Schoolcraft College to publicly disclose, for each educational program designed to meet the educational requirements for a specific professional license or certification required for employment in an occupation (or advertised as meeting a requirement for employment), information about whether program completion would meet those requirements in a state. These public disclosure requirements apply to all programs, regardless of their modality (i.e., on-ground, online, and hybrid programs).

Please see the disclosure related to the educational requirements for professional licensure and certification.

Real Estate Property Management Certificate

Schoolcraft program code # 1YC.00291

The Real Estate Property Management Certificate provides a strong background in commercial and residential property management. The certificate program includes the curriculum classes that prepare students for work in entry-level residential and commercial property positions. All courses may be applied toward the Real Estate Property Management AAS Degree.

Students who successfully complete all program requirements qualify for a certificate of program completion.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **RE 101 - Introduction to Property Management** ***Credits: 3***
- **CIS 120 - Software Applications** ***Credits: 3***
- **MATH 101 - Business Mathematics** ***Credits: 3***
- **PSYCH 153 - Human Relations** ***Credits: 3***
- **RE 110 - Real Estate Pre-Licensure** ***Credits: 4 ****

TOTAL CREDITS: 16

Winter Semester

- **ENG 101 - English Composition 1** ***Credits: 3***
- **BUS 101 - Introduction to Business** ***Credits: 3***
- **RE 150 - Residential and Commercial Property Management** ***Credits: 4***
- **ACCT 201 - Principles of Accounting 1** ***Credits: 4***

TOTAL CREDITS: 14

PROGRAM TOTAL: 30 CREDITS

**Individuals with a current Michigan Real Estate Sales License qualify for credit for prior learning and should contact the Program Coordinator or appropriate instructional administrator for more information.*

PROGRAMS REQUIRING LICENSURE

Federal regulations require Schoolcraft College to publicly disclose, for each educational program designed to meet the educational requirements for a specific professional license or certification required for employment in an occupation (or advertised as meeting a requirement for employment), information about whether program completion would meet those requirements in a state. These public disclosure requirements apply to all programs, regardless of their modality (i.e., on-ground, online, and hybrid programs).

Please see the disclosure related to the educational requirements for professional licensure and certification.

Real Estate Property Management Skills Certificate

Schoolcraft College Program # CRT.00290

The Real Estate Property Management Skills Certificate provides a basis in the fundamentals of real estate. It introduces concepts related to property management and includes essential courses for a career in the property management industry. All courses may be applied toward the Real Estate Property Management Certificate and AAS Degree.

Students who successfully complete all program requirements qualify for a certificate of program completion.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **RE 101 - Introduction to Property Management** ***Credits: 3***
- **CIS 120 - Software Applications** ***Credits: 3***
- **MATH 101 - Business Mathematics** ***Credits: 3***
- **PSYCH 153 - Human Relations** ***Credits: 3***
- **RE 110 - Real Estate Pre-Licensure** ***Credits: 4*** *

PROGRAM TOTAL: 16 CREDITS

**Individuals with a current Michigan Real Estate Sales License qualify for credit for prior learning and should contact the Program Coordinator or appropriate instructional administrator for more information.*

PROGRAMS REQUIRING LICENSURE

Federal regulations require Schoolcraft College to publicly disclose, for each educational program designed to meet the educational requirements for a specific professional license or certification required for employment in an occupation (or advertised as meeting a requirement for employment), information about whether program completion would meet those requirements in a state. These public disclosure requirements apply to all programs, regardless of their modality (i.e., on-ground, online, and hybrid programs).

Please see the disclosure related to the educational requirements for professional licensure and certification.

Schoolcraft College®

2024-2025 Credential Year

Sociology and Social Work

The basis of sociology is about understanding and helping people and communities. Schoolcraft offers a variety of courses in this discipline, including the principles of sociology, social problems, marriage and family, cultural diversity, urban sociology, and the individual, giving students insight into what rules govern our behavior in group situations. These courses help students understand economic, social, political, and religious customs and societal issues like racism, sexism, and crime.

Students can also get hands-on experience by getting involved with campus events and organizations as part of their coursework, or by engaging in service-learning and social work job shadowing. Courses in sociology can help prepare students for careers in social work, criminal justice, child welfare, international relations, healthcare, or gerontology.

Students interested in studying Sociology should talk to their Academic Advisor about transfer guides and articulation agreements with Schoolcraft College. Students interested in studying Sociology at a 4-year university may be interested in completing the Associate of Arts or Associate of Science degree at Schoolcraft College.

MiTransfer Pathways

- MiTransfer Pathway - Public Health
- MiTransfer Pathway - Social Work

Courses

- SOC 101 - Introduction to Social Work
- SOC 201 - Principles of Sociology
- SOC 205 - Social Problems
- SOC 209 - Marriage and Family
- SOC 210 - Cultural Diversity
- SOC 211 - Sociology of Gender
- SOC 220 - Urban Sociology
- SOC 290 - The Individual and Community - An Honors Capstone Course

MiTransfer Pathway - Public Health

Community colleges and universities in Michigan have simplified the transfer process by developing Transfer Pathways. These pathways build on the Michigan Transfer Agreement (MTA), which makes it easier for students to transfer their general education courses taken at Schoolcraft to participating four-year schools.

MITRANSFER PATHWAY COURSES

The following courses at Schoolcraft College are guaranteed to transfer to public health programs of participating institutions.

- **BIOL 115 - Nutrition** ***Credits: 3***
- **PE 121 - First Aid and Personal Safety** ***Credits: 2***
  OR
- **PE 202 - Lifestyle Fitness - Wellness** ***Credits: 2***
- **PSYCH 201 - Introductory Psychology** ***Credits: 4***
- **SOC 201 - Principles of Sociology** ***Credits: 3***

Please note that pathway courses in "Introduction to Public Health" and "Community Health" are not currently available at Schoolcraft College.

SCHOOLCRAFT COLLEGE DEGREE REQUIREMENTS

Students may earn an associate degree at Schoolcraft! By taking the MiTransfer Pathways courses and completing MTA, students need to complete the remaining electives to get to 60 credits to earn the following degrees:

- Associate of Arts (AA) Degree
- Associate of Science (AS) Degree

Note that these remaining courses to receive your associate degree may not be accepted for transfer by universities participating in the agreement.

TRANSFER INSTITUTION DEGREE REQUIREMENTS

Learn more about the transfer institution degree requirements by meeting with one of our ***academic advisors*** who can help you understand the transfer guides and agreements.

Andrews University	Ferris State University	University of Michigan-Flint
Central Michigan University	Northern Michigan University	Wayne State University
Eastern Michigan University	University of Michigan-Dearborn	Western Michigan University

MiTransfer Pathway - Social Work

Community colleges and universities in Michigan have simplified the transfer process by developing Transfer Pathways. These pathways build on the Michigan Transfer Agreement (MTA), which makes it easier for students to transfer their general education courses taken at Schoolcraft to participating four-year schools.

MITRANSFER PATHWAY COURSES

The following courses at Schoolcraft College are guaranteed to transfer to social work programs of participating institutions.

- **BIOL 105 - Basic Human Anatomy and Physiology** ***Credits: 4***
- **PSYCH 201 - Introductory Psychology** ***Credits: 4***
- **SOC 101 - Introduction to Social Work** ***Credits: 3***
- **SOC 201 - Principles of Sociology** ***Credits: 3***

SCHOOLCRAFT COLLEGE DEGREE REQUIREMENTS

Students may earn an associate degree at Schoolcraft! By taking the MiTransfer Pathways courses and completing MTA, students need to complete the remaining electives to get to 60 credits to earn the following degrees:

- Associate of Arts (AA) Degree
- Associate of Science (AS) Degree

Note that these remaining courses to receive your associate degree may not be accepted for transfer by universities participating in the agreement.

TRANSFER INSTITUTION DEGREE REQUIREMENTS

Learn more about the transfer institution degree requirements by meeting with one of our ***academic advisors*** who can help you understand the transfer guides and agreements.

Andrews University	Grand Valley State University	
Central Michigan University	Michigan State University	University of Detroit Mercy
Concordia University Ann Arbor	Northern Michigan University	University of Michigan-Flint
Cornerstone University	Oakland University	Wayne State University
Eastern Michigan University	Saginaw Valley State University	Western Michigan University
Ferris State University	Spring Arbor University	

2024-2025 Credential Year

Sound Recording Technology

If you want to pursue a career in Sound Recording or enhance your personal recording skills, Schoolcraft offers both an associate degree and a certificate program that can help you reach your recording goals. Our options include:

- An associate degree that prepares students to earn a bachelor's degree in recording engineering at a four-year institution or to work at a recording studio or other media outlet.
- A certificate program that provides students skills to enable them to work at a recording studio or to improve live recording in their home studio.

Credits earned in the certificate program may also count towards an associate of applied science degree or transfer toward a bachelor's degree at a four-year institution.

Credentials

- Sound Recording Technology AAS Degree
- Sound Recording Technology Certificate

Sound Recording Technology AAS Degree

Schoolcraft program code # AAS.00244

The Sound Recording Technology associate degree program is designed to prepare the student for transfer to institutions offering a bachelor's degree in Recording Engineering or for apprenticeships at recording studios and various media venues. The program will teach the student the fundamentals and techniques relative to live concert and studio recording.

Understanding the musical perspective is an important focus of the program. The required music courses will assist the recording engineer in better understanding what the performing musician is experiencing and will in turn improve the recording outcome.

Technological changes directly related to the recording industry are frequently introduced. The program is committed to staying current and will help the student understand new directions in the technology. Students who satisfactorily complete all college and program requirements qualify for an associate of applied science degree.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **MUSIC 104 - Basic Materials in Music Theory** ***Credits: 3***
- **MUSIC 121 - Class Piano 1** ***Credits: 2***
- **SRT 121 - Basic Sound and Recording Techniques 1** ***Credits: 3***
- Mathematics - Select one:
  - **MATH 102 - Technical Mathematics** ***Credits: 4***
  - **MATH 113 - Intermediate Algebra for College Students** ***Credits: 4***
- English Communication - Credits: 3 - Select first General Education English Communication course*
  - Recommended: **ENG 101 - English Composition 1** ***Credits: 3***

TOTAL CREDITS: 15

Winter Semester

- **SRT 110 - Keyboard Skills for Recording Engineers** ***Credits: 1***
- **SRT 122 - Basic Sound and Recording Techniques 2** ***Credits: 3***
- **PHYS 123 - Applied Physics** ***Credits: 5***
- **SRT 150 - Ear Training for Recording Engineers** ***Credits: 2***
- Music - Select one:
  - **MUSIC 117 - Choir 1** ***Credits: 2***
  - **MUSIC 168 - Synthesizer Ensemble 1** ***Credits: 3***
  - **MUSIC 141 - Wind Ensemble 1** ***Credits: 2***
  - **MUSIC 142 - Jazz Band 1** ***Credits: 2***

TOTAL CREDITS: 13-14

Spring/Summer Session

- **English Communication - Credits: 3 -** Select second General Education English Communication course. *
  - Recommended: **ENG 102 - English Composition 2** ***Credits: 3***

TOTAL CREDITS: 3

Sound Recording Technology AAS Degree (continued)

SECOND YEAR

Fall Semester

- **MUSIC 171 - Music Technology 1** ***Credits: 3***
- **SRT 221 - Advanced Audio Production 1** ***Credits: 3***
- **MUSIC 137 - Sight Singing and Ear Training 1** ***Credits: 2***
- **ELECT 131 - Basic Measurement and Reporting Skills** ***Credits: 3***
- Social Science - Credits: 3-4 - Select General Education Social Science course. *
    - Recommended: **PSYCH 153 - Human Relations** ***Credits: 3***

TOTAL CREDITS: 14-15

Winter Semester

- **MUSIC 138 - Sight Singing and Ear Training 2** ***Credits: 2***
- **MUSIC 172 - Music Technology 2** ***Credits: 3***
- **SRT 222 - Advanced Audio Production 2** ***Credits: 3***
- MUSIC - Select MUSIC courses not previously take to reach minimum of 60 credits total. ***Credits: 4***
- Music - Select one:
    - **MUSIC 105 - Music Appreciation** ***Credits: 3***
    - **MUSIC 149 - Popular Music Culture in America** ***Credits: 3***

TOTAL CREDITS: 15

PROGRAM TOTAL: 60-62 CREDITS

**Please check Schoolcraft General Education requirements to determine course options.*

Sound Recording Technology Certificate

Schoolcraft program code # 1YC.00144

The sound recording technology certificate will provide the student with skills important to the apprentice at recording studios and for quality home-studio production. The program will prepare the student to understand the functions of audio signals and the sound reproduction equipment. The program will also acquaint the student with emerging audio formats. Listening in the manner of a recording engineer will be stressed as well as some fundamental music skills important to the musician's point of view. Technological changes directly related to the recording industry are frequently introduced. The program is committed to staying current and will help the student understand new directions in technology.

Students who satisfactorily complete the program requirements qualify for a certificate of program completion.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **MUSIC 104 - Basic Materials in Music Theory** ***Credits: 3***
- **MUSIC 105 - Music Appreciation** ***Credits: 3***
- **MUSIC 121 - Class Piano 1** ***Credits: 2***
- **SRT 121 - Basic Sound and Recording Techniques 1** ***Credits: 3***
- **ELECT 131 - Basic Measurement and Reporting Skills** ***Credits: 3***

TOTAL CREDITS: 14

Winter Semester

- **SRT 110 - Keyboard Skills for Recording Engineers** ***Credits: 1***
- **MUSIC 171 - Music Technology 1** ***Credits: 3*** *
- **MUSIC 172 - Music Technology 2** ***Credits: 3*** *
- **SRT 122 - Basic Sound and Recording Techniques 2** ***Credits: 3***
- **SRT 150 - Ear Training for Recording Engineers** ***Credits: 2***

TOTAL CREDITS: 12

Spring Session

- **SRT 221 - Advanced Audio Production 1** ***Credits: 3***

TOTAL CREDITS: 3

Summer Session

- **SRT 222 - Advanced Audio Production 2** ***Credits: 3***

TOTAL CREDITS: 3

PROGRAM TOTAL: 32 CREDITS

** MUSIC 171 is a prerequisite to MUSIC 172. Students are encouraged to take the 7-week section of MUSIC 171 followed by the 7-week section of MUSIC 172. Students who do not follow this path could face additional semesters to degree completion.*

2024-2025 Credential Year

Supply Chain Management

The Supply Chain Management (SCM) program incorporates the involvement of all related activities from Operations, Logistics, Distribution, and Purchasing to effectively manage the organization's process of design through delivery of goods and services throughout the world.

This involves carefully managed planning and coordination with both internal and external business partners to ensure value is added through an efficient supply chain system.

Credentials

- Supply Chain Management AAS Degree
- Supply Chain Management Certificate
- Supply Chain Management Skills Certificate

Supply Chain Management AAS Degree

Schoolcraft program code # AAS.00341

The Supply Chain Management (SCM) Associate of Applied Science (AAS) program prepares students for employment opportunities within Supply Chain Management as well as the potential to transfer to a bachelor's program. This program will prepare students to become leaders within this industry toward career opportunities from design through to final distribution. Students will learn how to effectively manage all activities throughout the SCM industry. Included in this program will be the study of specific key interconnected areas such as supplier selection and sourcing, manufacturing, warehousing/inventory management, and efficiency in material distribution.

Students who satisfactorily complete the program requirements qualify for an associate of applied science degree. All program required courses must be completed with a grade of 2.0 or better.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **BUS 101 - Introduction to Business** ***Credits: 3***
- **CIS 120 - Software Applications** ***Credits: 3***
- **ENG 101 - English Composition 1** ***Credits: 3***
- **MATH 113 - Intermediate Algebra for College Students** ***Credits: 4***
- **SCM 100 - Introduction to Supply Chain Management** ***Credits: 3***

TOTAL CREDITS: 16

Winter Semester

- **CIS 180 - Spreadsheet Applications - Current Software** ***Credits: 3***
- **COMA 103 - Fundamentals of Speech** ***Credits: 3***
- **MATH 122 - Elementary Statistics** ***Credits: 4***
- **SCM 200 - Supply Chain Logistics and Distribution** ***Credits: 3***
- **SCM 220 - Supply Chain Purchasing** ***Credits: 3***

TOTAL CREDITS: 16

SECOND YEAR

Fall Semester

- **ACCT 201 - Principles of Accounting 1** ***Credits: 4***
- **ECON 202 - Principles of Microeconomics** ***Credits: 4***
- **QM 106 - Introduction to Quality Improvement Tools** ***Credits: 3***
- **SCM 230 - Supply Chain Operations** ***Credits: 3***
- English Communication - Credits: 3 - Select One
    - **ENG 102 - English Composition 2** ***Credits: 3***
    - **ENG 106 - Business English** ***Credits: 3***

TOTAL CREDITS: 17

Supply Chain Management AAS Degree

Winter Semester

- **QM 107 - Quality Planning and Team Building** ***Credits: 3***
- Natural Science - Select General Education Science Course ***Credits: 3-5***
- Elective - select one not previously taken ***Credits: 2-4***
- Social Science - Credits: 3-4 - Select One
    - **PSYCH 153 - Human Relations** ***Credits: 3***
    - **GEOG 133 - World Regional Geography** ***Credits: 4***

TOTAL CREDITS: 11-16

PROGRAM TOTAL: 60-65 CREDITS

ELECTIVES

Select one course from the classes listed below to fulfill the elective requirement:

- **BUS 116 - Project Management** ***Credits: 3***
- **BUS 202 - Business Ethics** ***Credits: 3***
- **BUS 207 - Business Law 1** ***Credits: 3***
- **CIS 171 - Introduction to Networking** ***Credits: 3***
- **ECON 201 - Principles of Macroeconomics** ***Credits: 4***
- **GEOG 133 - World Regional Geography** ***Credits: 4***
- **PSYCH 153 - Human Relations** ***Credits: 3***
- **OSH 111 - Occupational Safety and Health for General Industry** ***Credits: 2***
- **SCM 291 - Supply Chain Management Internship** ***Credits: 3***

Supply Chain Management Certificate

Schoolcraft program code # 1YC.00339

The Supply Chain Management (SCM) Certificate program prepares students for employment opportunities within Supply Chain Management or those already working in the field that wish to further develop their skills and knowledge.

The students that are able to complete this certificate program will be in a position to successfully perform tasks within the SCM organization. Students will be able to enhance their knowledge and skills in communications, business, economics, and quality, while gaining practical knowledge and basic functions in the areas of Logistics, Distribution, and Purchasing.

Students who satisfactorily complete the program requirements qualify for a certificate of program completion. All program required courses must be completed with a grade of 2.0 or better.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **BUS 101 - Introduction to Business** ***Credits: 3***
- **CIS 120 - Software Applications** ***Credits: 3***
- **ENG 101 - English Composition 1** ***Credits: 3***
- **MATH 113 - Intermediate Algebra for College Students** ***Credits: 4***
- **SCM 100 - Introduction to Supply Chain Management** ***Credits: 3***

TOTAL CREDITS: 16

Winter Semester

- **CIS 180 - Spreadsheet Applications - Current Software** ***Credits: 3***
- **COMA 103 - Fundamentals of Speech** ***Credits: 3***
- **MATH 122 - Elementary Statistics** ***Credits: 4***
- **SCM 200 - Supply Chain Logistics and Distribution** ***Credits: 3***
- **SCM 220 - Supply Chain Purchasing** ***Credits: 3***

TOTAL CREDITS: 16

PROGRAM TOTAL: 32 CREDITS

Supply Chain Management Skills Certificate

Schoolcraft College Program # CRT.00338

The Supply Chain Management (SCM) Skills Certificate program prepares students for employment opportunities within Supply Chain Management or those already working in the field that wish to further develop their skills and knowledge.

Areas of focus within the program will concentrate on fundamental skills and knowledge in business, math, interpersonal communications, and spreadsheet skills.

Students who satisfactorily complete the program requirements qualify for a certificate of program completion. All program required courses must be completed with a grade of 2.0 or better.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **BUS 101 - Introduction to Business** ***Credits: 3***
- **CIS 120 - Software Applications** ***Credits: 3***
- **ENG 101 - English Composition 1** ***Credits: 3***
- **MATH 113 - Intermediate Algebra for College Students** ***Credits: 4***
- **SCM 100 - Introduction to Supply Chain Management** ***Credits: 3***

PROGRAM TOTAL: 16 CREDITS

2024-2025 Credential Year

Surgical Services

Surgical Services is a designated area located in most healthcare facilities that offer integrative support of diagnostic, procedural, and surgical intervention. Multidisciplinary health systems utilize team efforts to coordinate and deliver high-quality patient care. Team members include representation from all aspects of the healthcare delivery process including but not limited to the central services department (sterile processing), operating room suites, preoperative holding, and post-operative anesthesia unit. The Schoolcraft Surgical Services area will offer programs to allow the prospective student the opportunity to explore the healthcare field with the following option(s):

- The Sterile Processing skills certificate will prepare the future healthcare employee for an entry-level position in the central services department with the opportunity to sit for the national CRCST (Certified Registered Central Service Technicians) exam.
- The Associate of General Studies using Sterile Processing allows the student to apply their Sterile Processing coursework to the AGS degree.
- The Surgical Technology AAS will prepare competent entry-level surgical technologists in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains while preparing to sit for the national CST (Certified Surgical Technologist) exam to earn their credential.

Credentials

- Associate of General Studies using Sterile Processing Skills Certificate
- Sterile Processing Skills Certificate
- Surgical Technology AAS

Selective Admissions: Program Application Information

- Surgical Technology AAS Program Application Information

Associate of General Studies using Sterile Processing Skills Certificate

Schoolcraft program code # AGS.00042

Any student wishing to pursue an associate degree can apply all 19-21 credits from the Sterile Processing Skills Certificate toward an Associate of General Studies (AGS) degree. Depending on the desired career path, discuss other options for an associate degree with an academic advisor. As another option, all except the Sterile Processing clinical courses lead into the Surgical Technology AAS. All program-required courses must have been completed with a grade of 3.0 or better.

The goal of the Sterile Processing curriculum is to facilitate a quality training program that will produce Certified Registered Central Service Technicians (CRCST). The curriculum will combine classroom and lab instruction in the areas of decontamination, disinfection, sterilization, packaging, and distribution for healthcare facility supplies and equipment. The CRCST is an integral part of a multidisciplinary healthcare environment that works as a division of Surgical Services. Students will demonstrate knowledge of surgical instrumentation, supplies, and equipment as well as safe handling and environmental controls. All students will acquire safety training measures for physical, chemical, and biological hazards prior to entering a clinical experience. The clinical portion of the program will expand upon introduced concepts and prepare students for entry-level positions in the field of sterile processing.

A competency practicum demonstration will be required with successful completion prior to students entering the clinical internship. Graduates will be eligible to sit for the CRCST certification exam offered through the Healthcare Sterile Processing Association (HSPA), as the Sterile Processing program includes the required 400 clinical hours.

Clinical internships begin in the fall of the first term in the second 7 weeks for students who successfully pass SURG 101. Clinical days are Tuesday & Thursday for 8 hours.

Clinical internship days in the winter are Monday, Tuesday, & Thursday for 8 hours.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

Sterile Processing Mandatory Orientation is Monday Week 12 from noon- 4:00pm of the Spring/Summer term. This meeting discusses clinical placement requirements and qualifications. *Students without clinical documentation will not qualify for placement.*

Surgical Services informational sessions will be available each Fall and Spring during the 5th week of the term on Monday at 4:00 pm.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **BIOL 101 - General Biology** ***Credits: 4*** *
- **SURG 101 - Sterile Processing** ***Credits: 3*** *
- **SURG 110 - Sterile Processing Clinical 1** ***Credits: 2*** *
- Select one*: Credits 2-4
  - **HIT 100 - Introduction to Medical Terminology** ***Credits: 2***
  - **HIT 104 - Medical Terminology** ***Credits: 4***
- Humanities: Credits 1-4 - Select General Education Humanities course**

  Recommended for continuing to the Surgical Technology AAS:
  - **PHIL 257 - Bioethics** ***Credits: 3***

TOTAL CREDITS: 12-17

Associate of General Studies using Sterile Processing Skills Certificate (continued)

Winter Semester

- **BIOL 243 - Microbiology** ***Credits: 4*** *
- **SURG 120 - Sterile Processing Clinical 2** ***Credits: 2*** *
- **SURG 130 - Sterile Processing Clinical 3** ***Credits: 2*** *
- Social Science - Select General Education Social Science course** - ***Credits: 3-4***
- English Communication - Credits: 3 - Select first General Education English Communication course**
  Recommended for continuing to the Surgical Technology AAS
  - **ENG 101 - English Composition 1** ***Credits: 3***
  - OR **ENG 102 - English Composition 2** ***Credits: 3***

TOTAL CREDITS: 14-15

SECOND YEAR

Fall Semester

- English Communication - Credits: 3 - Select second General Education English Communication course**
  Recommended for continuing to the Surgical Technology AAS
  - **ENG 102 - English Composition 2** ***Credits: 3***
  - OR **ENG 221 - Advanced Composition** ***Credits: 3***
- Mathematics - Credits: 3-5 - Select General Education Mathematics course**
  Recommended for continuing to the Surgical Technology AAS:
  - **MATH 102 - Technical Mathematics** ***Credits: 4***
  - OR **MATH 111 - Applications - Utility of Math** ***Credits: 4***
- Social Sciences: Credits 3-4 - Select General Education Social Science course**
  Recommended for continuing to the Surgical Technology AAS:
  - **PSYCH 201 - Introductory Psychology** ***Credits: 4***
  - OR **SOC 201 - Principles of Sociology** ***Credits: 3***
  - OR **SOC 205 - Social Problems** ***Credits: 3***
  - OR **SOC 210 - Cultural Diversity** ***Credits: 3***
  - OR **SOC 220 - Urban Sociology** ***Credits: 3***
- Electives - Select courses supportive of occupational and academic goals ***Credits: 8***

TOTAL CREDITS: 14-17

Winter Semester

- Humanities - Select General Education Humanities course** ***Credits: 3-4***
- Social Science - Select General Education Social Science course** ***Credits: 3-4***
- Electives - Select courses supportive of occupational and academic goals to get to 60 total credits. ***Credits: Varies, up to 11 credits***

TOTAL CREDITS: 8-17

PROGRAM TOTAL: 60 CREDITS

*Courses apply to the Sterile Processing Program.

**Please check Schoolcraft General Education requirements to determine course options.

Sterile Processing Skills Certificate

Schoolcraft program code # CRT.00285

The goal of the Sterile Processing Skills Certificate is to facilitate a quality training program that will produce Certified Registered Central Service Technicians (CRCST). The program will combine classroom and lab instruction in the areas of decontamination, disinfection, sterilization, packaging, and distribution of healthcare facility supplies and equipment. The CRCST is an integral part of a multidisciplinary healthcare environment that works as a division of Surgical Services. Students will demonstrate knowledge of surgical instrumentation, supplies, and equipment as well as safe handling and environmental controls. All students will acquire safety training measures for physical, chemical, and biological hazards prior to entering a clinical experience. The clinical portion of the program will expand upon introduced concepts and prepare students for entry-level positions in the field of sterile processing.

Program-supportive and sterile processing courses can be completed in two semesters as shown in the sample schedule below, however, students may complete program-supportive courses prior to taking the sterile processing courses. A competency practicum demonstration will be required with successful completion prior to students entering the clinical internship. Graduates will be eligible to sit for the CRCST certification exam offered through the Healthcare Sterile Processing Association (HSPA), as the Sterile Processing program includes the required 400 clinical hours.

Clinical internships begin in the fall of the first term in the second 7 weeks for students who successfully pass SURG 101. Clinical days are Tuesday & Thursday for 8 hours.

Clinical internship days in the winter are Monday, Tuesday, & Thursday for 8 hours.

Students who satisfactorily complete the program requirements with a minimum of a 3.0 grade in each class will qualify for a certificate of program completion.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

Sterile Processing Mandatory Orientation is Monday Week 12 from noon-4:00pm of the Spring/Summer term. This meeting discusses clinical placement requirements and qualifications. *Students without clinical documentation will not qualify for placement.*

Surgical Services informational sessions will be available each Fall and Spring during the 5th week of the term on Monday at 4:00 pm.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **BIOL 101 - General Biology** ***Credits: 4***
- **SURG 101 - Sterile Processing** ***Credits: 3***
- **SURG 110 - Sterile Processing Clinical 1** ***Credits: 2***
- Select one: Credits 2-4
  - **HIT 100 - Introduction to Medical Terminology** ***Credits: 2***
  - **HIT 104 - Medical Terminology** ***Credits: 4***

TOTAL CREDITS: 11-13

Winter Semester

- **BIOL 243 - Microbiology** ***Credits: 4***
- **SURG 120 - Sterile Processing Clinical 2** ***Credits: 2*** (First Seven Weeks)
- **SURG 130 - Sterile Processing Clinical 3** ***Credits: 2*** (Second Eight Weeks)

TOTAL CREDITS: 8

PROGRAM TOTAL: 19-21 CREDITS

Surgical Technology AAS

Schoolcraft program code # AAS.0P286/AAS.00286

The goal of the Surgical Technology degree is to prepare entry-level Surgical Technologists who are competent in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains to enter the profession.

The Surgical Technology degree will offer the student an opportunity to become an integral member of the surgical team as well as an allied health professional. This program will utilize a combination of classroom, lab, and clinical experiences to facilitate student learning. Multiple teaching delivery methods will cover concepts such as the principles of asepsis, application of sterile technique, and surgical pharmacology. Students will demonstrate competency knowledge of perioperative case management prior to entering a clinical internship. The clinical experience will continue the education of the student by offering hands-on surgical patient care through multiple surgical service specialties. Students will work under the auspice of the surgeon as well as the surgical team to gain the scrub experience required for eligibility to sit for the national CST (Certified Surgical Technologist exam) credentialing exam offered through the NBSTSA (National Board of Surgical Technology and Surgical Assisting).

The didactic and clinical learning experiences require *approximately 40 hours of participation per week in the second year of the program*. This program requires students to complete a specific list of requirements before being officially admitted into the program. Students are listed in a pre-program code while the application requirements are being met. The full program start date and implementation of the program code may be dependent on space availability. Requirements are listed online at https://www.schoolcraft.edu/admissions/apply-to-sc/students-with-selective-admissions/ or the Surgical Technology AAS Program Application Information catalog page. Students must complete all program-specific courses once accepted into the program, or they will not be able to continue in the program. Students may complete program-supportive courses before program application. Students must maintain successful completion of all courses to remain in the program.

Students who satisfactorily complete the program requirements with a minimum of a 3.0 grade in each designated class will qualify for an associate of applied science degree.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

*Admission Prerequisites: These courses must be completed prior to admission to the Surgical Technology AAS program. Students must achieve a 3.0 or higher in HIT 100/HIT 104, SURG 100, and BIOL 243 for acceptance.

FIRST YEAR

Fall Semester

- **BIOL 101 - General Biology** ***Credits: 4***
- **SURG 100 - Introduction to Surgical Technology** ***Credits: 2*** *
- English Communication* - Select One:
  - **ENG 101 - English Composition 1** ***Credits: 3***
  - **ENG 102 - English Composition 2** ***Credits: 3***
- Mathematics* - Credits: 3-5 - Select General Education Mathematics course**
  Recommended:
  - **MATH 102 - Technical Mathematics** ***Credits: 4***
  - OR **MATH 111 - Applications - Utility of Math** ***Credits: 4***

TOTAL CREDITS: 12-14

Surgical Technology AAS (continued)

Winter Semester

- **BIOL 243 - Microbiology** ***Credits: 4*** *
- **PHIL 257 - Bioethics** ***Credits: 3*** *
- Select one: *
    - **HIT 100 - Introduction to Medical Terminology** ***Credits: 2***
    - **HIT 104 - Medical Terminology** ***Credits: 4***
- Social Science* - Select One:
    - **PSYCH 201 - Introductory Psychology** ***Credits: 4***
    - **SOC 201 - Principles of Sociology** ***Credits: 3***
    - **SOC 205 - Social Problems** ***Credits: 3***
    - **SOC 210 - Cultural Diversity** ***Credits: 3***
    - **SOC 220 - Urban Sociology** ***Credits: 3***

TOTAL CREDITS: 12-15

Spring/Summer Session

****Admission to the program is required for all SURG courses below, except SURG 101.***

- **BIOL 237 - Principles of Human Anatomy and Physiology 1** ***Credits: 4***
- **SURG 102 - Surgical Patient Care** ***Credits: 3*** *** (Twelve Week Course)

TOTAL CREDITS: 7

SECOND YEAR

Fall Semester

- **BIOL 238 - Principles of Human Anatomy and Physiology 2** ***Credits: 4***
- **SURG 101 - Sterile Processing** ***Credits: 3*** **** (First Seven Weeks)
- English Communications - Select One:
    - **ENG 221 - Advanced Composition** ***Credits: 3***
    - **ENG 102 - English Composition 2** ***Credits: 3***

TOTAL CREDITS: 10

Winter Semester

All four of the SURG courses offered this semester must be taken simultaneously. Registration requires both acceptance to the Surgical Technology AAS program and a 3.0 or higher in SURG 101, SURG 102, BIOL 237, and BIOL 238.

- **SURG 201 - Surgical Procedures** ***Credits: 4*** ***
- **SURG 202 - Perioperative Case Management** ***Credits: 4*** ***
- **SURG 210 - Surgical Pharmacology** ***Credits: 2*** ***
- **SURG 220 - Surgical Pathology** ***Credits: 2*** ***

TOTAL CREDITS: 12

Spring/Summer Session

- **SURG 203 - Advanced Surgical Procedures** ***Credits: 2*** *** (Twelve Week Course)
- **SURG 250 - Surgical Technology Clinical 1** ***Credits: 3.5*** *** (Twelve Week Course)
- **COMA 103 - Fundamentals of Speech** ***Credits: 3***

TOTAL CREDITS: 8.5

THIRD YEAR

Surgical Technology AAS (continued)

Fall Semester

- **SURG 260 - Surgical Technology Clinical 2** ***Credits: 4*** ***
- **SURG 290 - Surgical Technology Capstone** ***Credits: 2*** ***

TOTAL CREDITS: 6

PROGRAM TOTAL: 67.5 - 72.5 CREDITS

**Mathematics - students should meet with an advisor to determine courses that satisfy future professional goals, such as nursing program requirements.

**** If the student is a Certified Registered Central Service Technician (CRCST) through the Healthcare Sterile Processing Association (HSPA), they may be eligible to earn Prior Learning Credit for SURG 101. Please consult the Program Director for more information.

If a student is a current Certified Surgical Technologist, (CST) through the National Board of Surgical Technology and Surgical Assisting, NBSTSA, they may be eligible to earn Prior Learning Credit for all listed SURG courses (31.5 credits) plus BIOL 243, and BIOL 237-BIOL 238. The remaining credits must be earned at Schoolcraft College to obtain an AAS. Please consult the Program Director for more information.

Schoolcraft College®

2024-2025 Credential Year

Surgical Technology AAS Program Application Information

The objective of the Surgical Technology degree is to offer the student an opportunity to become an integral member of the surgical team as well as an allied health professional. This program will utilize a combination of classroom, lab, and clinical experiences to facilitate student learning. Multiple teaching delivery methods will cover concepts such as the principles of asepsis, the application of sterile technique, and surgical pharmacology. Students will demonstrate competency knowledge of perioperative case management prior to entering a clinical internship. The clinical experience will continue the education of the student by offering hands-on surgical patient care through multiple surgical service specialties. Students will work under the auspice of the surgeon as well as the surgical team to gain the scrub experience required for eligibility to sit for the national CST (Certified Surgical Technologist exam) credentialing exam offered through the NBSTSA (National Board of Surgical Technology and Surgical Assisting).

The didactic and clinical learning experiences require *approximately 40 hours of participation per week in the second year of the program*. Educational facilities located within Schoolcraft College include state-of-art classroom and clinical training resources designed to promote an exceptional educational experience.

Click to view the full program description and Sample Schedule of Courses for Surgical Technology AAS.

APPLICATION REQUIREMENTS

This program requires students to complete a specific list of requirements before being officially admitted into the program. Students are listed in a pre-program code while the application requirements are being met. The full program start date and implementation of program code may be dependent on space availability. To be admitted to the program you must complete the following:

1. Apply to Schoolcraft College	Apply to Schoolcraft College online at https://www.schoolcraft.edu/admissions/apply-to-sc.
2. Transcripts	Submit requested official transcripts from all colleges and universities previously attended. Transcripts must be sent directly from the issuing college or university to Schoolcraft College. To confirm that transcripts have been received, contact the Answer Center at 734-462-4426.
3. Academic Advising Assessment	This program requires minimum assessment levels or coursework in the areas of math, reading, and writing. You need to meet with an academic advisor to develop an academic plan. The advisor can determine if an assessment test is necessary and if foundation courses are needed. Students with prior college-level work or a degree may be exempt from placement testing. Students who have submitted SAT or ACT scores that are less than three years old to the Admissions and Welcome Center may also be exempt from assessment testing. Contact the Academic Advising Office at 734-462-4429 to make an appointment.
4. College Prerequisite Coursework	• Complete HIT 100 or HIT 104 or equivalent with a grade of 3.0/B or higher. • Complete BIOL 243 Microbiology or equivalent with a grade of 3.0/B or higher. • Complete MATH 102, MATH 111, or other General Education Mathematics course with a grade of 2.0/C or higher. • Complete SURG 100 Introduction to Surgical Technology with a grade of 3.0/B or higher. • Complete PHIL 257 Bioethics or equivalent with a grade of 2.0/C or higher. • Complete ENG 101 or ENG 102 or equivalent with a grade of 2.0/C or higher. • Complete a Social Science course from the list with a grade of 2.0/C or higher (PSYCH 201, SOC 201, SOC 205, SOC 210, or SOC 220).
5. Cumulative GPA	Attain a cumulative grade point average at Schoolcraft of 2.5/C+ or higher.
6. Apply to the Surgical Technology Program	Meet with your Academic Advisor to complete the Surgical Technology Restricted Enrollment forms.

OPEN/SUPPORTING COURSES

Admission to the Surgical Technology Program is not necessary to register for the SURG courses listed below. The following courses are open to all Schoolcraft students who have met the course prerequisite(s) (see the College Catalog).

- **SURG 100 - Introduction to Surgical Technology** ***Credits: 2***
- **SURG 101 - Sterile Processing** ***Credits: 3***

ESTIMATE OF TUITION AND FEES

Surgical Technology			
2024-2025			
Program Credit Hours – 68.5			
	Resident	*Non-Resident*	*Out of State*
Tuition:	$ 9,521.50	$ 13,700.00	$ 18,342.00
Registration Fees: ($44 per semester)	$ 308.00	$ 308.00	$ 308.00
Service Fees: ($9 per credit hour)	$ 616.50	$ 616.50	$ 616.50
Instructional Equipment Fees: ($11 per credit hour)	$ 753.50	$ 753.50	$ 753.50
Infrastructure Fees: ($9 per credit hour)	$ 616.50	$ 616.50	$ 616.50
Course and Learning Management Fees: ($12 per class)	$ 264.00	$ 264.00	$ 264.00
Lab Fees: (varies according to individual class)	$ 960.00	$ 960.00	$ 960.00
Excess Contact Hour Fees: (varies according to individual class)	$ 2,224.00	$ 2,224.00	$ 2,224.00
Additional Expenses:			
Application Fee for Certification Exam (optional)	$ 225.00	$ 225.00	$ 225.00
Total	$ 15,489.00	$ 19,667.50	$ 24,084.50
The above figures are based on 2024-2025 rates and are subject to change. A Resident student is one whose legal residence is in the school District of Clarenceville, Garden City, Livonia, Northville, Plymouth-Canton, or parts of Novi. All other students are Non-Residents.			

PLEASE NOTE:

Requirements for admission to the Surgical Technology AAS are subject to change at any time.

Ready to get started! Download the Surgical Technology Student Checklist to get on track.	**Student Checklist**
Ready to apply? Download the Application Form and schedule a meeting with your Advisor.	**Application Form**

Please contact the Admissions and Welcome Center for updates on any applicable changes:

Phone: (734) 462-4683
Fax: (734) 462-4552
E-mail: admissions@schoolcraft.edu
Web: www.schoolcraft.edu

It is the policy of Schoolcraft College that no person shall, on the basis of race, color, national origin, gender, age, marital status, creed, or handicap, be excluded from participating in, be denied benefits of, or be subject to discrimination during any program or activity or in employment.

- Eligibility for SURG 202 *Perioperative Case Management* and SURG 250 *Surgical Technology Clinical 1* registration requires the issuance of an electronic permit by the Health Professions Office. To request a permit email healthprofessions@schoolcraft.edu or call 734-462-4770.

2024-2025 Credential Year

Theatre

Schoolcraft's theatre program balances live stage experience with liberal arts classes that may count toward an associate of arts degree and transfer toward a bachelor's degree at a four- year institution. Whether you want to be on stage or behind the scenes, the program provides students with a solid theatrical background, including:

- Acting
- Stagecraft
- Lighting
- Stage Makeup
- Theatre History

Students can gain additional experience by taking part in the two on-campus theatre productions each year and prepare to join the many Schoolcraft graduates who now work in the theatre, television, and film industries.

Credentials

- Theatre Program AA Degree

Theatre Program AA Degree

Schoolcraft program code # AA.00042

The theatre program is designed to provide students with a balanced curriculum of theatre and liberal arts courses that will prepare them to transfer to a four-year institution. This program includes performance and the technical aspects of theatre, including theory and practical experiences in theatre.

Students who satisfactorily complete all college and program requirements qualify for an associate of arts degree.

Note: The Theatre Department has adopted a dinner-theatre format for production with two plays produced annually.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **ENG 101 - English Composition 1** ***Credits: 3***
- **BIOL 101 - General Biology** ***Credits: 4***
- **THEA 120 - Theatre Activities 1** ***Credits: 1***
- **THEA 210 - Acting 1 - Theory and Elements** ***Credits: 3***
- **THEA 101 - Introduction to Theatre** ***Credits: 3*** *

TOTAL CREDITS: 14

Winter Semester

- **ENG 102 - English Composition 2** ***Credits: 3***
- **THEA 121 - Theatre Activities 2** ***Credits: 1***
- **THEA 207 - Stagecraft and Lighting** ***Credits: 3***
- **THEA 211 - Acting 2 - Theory and Elements** ***Credits: 3***
- Mathematics - Select any four-credit 100-level course ***Credits: 4***

TOTAL CREDITS: 14

SECOND YEAR

Fall Semester

- **THEA 220 - Theatre Activities 3** ***Credits: 1***
- **COMA 103 - Fundamentals of Speech** ***Credits: 3***
- **HIST 153 - Contemporary America - U.S. History** ***Credits: 3***
- **ENG 248 - Introduction to Literature - Shakespeare** ***Credits: 3*** *
- **POLS 105 - Survey of American Government** ***Credits: 3***
- **THEA 231 - History of Theatre 1** ***Credits: 3*** *

TOTAL CREDITS: 16

Winter Semester

- **THEA 221 - Theatre Activities 4** ***Credits: 1***
- **THEA 241 - Oral Interpretation of Literature** ***Credits: 3*** *
- **ENG 245 - Introduction to Literature - Drama** ***Credits: 3***
- **PSYCH 201 - Introductory Psychology** ***Credits: 4***
- **THEA 232 - History of Theatre 2** ***Credits: 3*** *
- **THEA 204 - Stage Makeup** ***Credits: 2***

TOTAL CREDITS: 16

PROGRAM TOTAL: 60 CREDITS

*These classes are offered on a rotational basis. Contact Liberal Arts office for current offerings.

2024-2025 Credential Year

Welding Technology

Schoolcraft's welding program provides students with both hands-on welding skills and knowledge of metallurgy and other materials. The program offers two welding certificates in addition to an associate degree in applied science. Class sizes are limited so instructors can work closely with students to provide hands-on training and relay knowledge of analytical skills required by modern industrial technology.

- The welding fabrication certificate prepares students for jobs involving metal inert gas and tungsten inert gas welding, as well as providing knowledge of plasma, arc and oxy-gas cutting technologies.
- Schoolcraft's welding joining technology associate of applied science degree prepares students for a job in industrial, prototype and machine tool building, heavy equipment, construction, and emerging green and sustainable technologies.
- The welding pre-apprenticeship certificate, through a partnership with local trade unions, will help ensure that students have the skills, knowledge and training necessary to be safe on the jobsite, competitive in the workplace and satisfied in their careers.

Credentials

- Welding: Fabrication Certificate
- Welding: Fabrication Technology AAS Degree
- Welding: Pre-Apprenticeship Certificate

Welding: Fabrication Certificate

Schoolcraft program code # 1YC.00127

The welding fabrication program prepares students for employment under classifications such as welders and/or industrial fabrications. The program includes joining materials, using weldments, special techniques, equipment and other recognized fastening methods. Students acquire skills in the broad categories of welding and fabrication with added emphasis upon support technical subjects.

Students are required to purchase protective clothing, protective (safety) shoes and eye protection equipment.

Students who satisfactorily complete the program requirements qualify for a certificate of program completion.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **WELD 110 - Introduction to Welding Basics for Fabrication** ***Credits: 3***
- **WELD 113 - Shielded Metal Arc Welding (S.M.A.W.)** ***Credits: 3***
- **WELD 115 - Gas Metal Arc Welding (G.M.A.W./M.I.G.)** ***Credits: 3***
- **WELD 119 - Gas Tungsten Inert Arc Welding (G.T.A.W./ T.I.G.)** ***Credits: 3***

TOTAL CREDITS: 12

Winter Semester

- **WELD 120 - Advanced Processes - Stick Electrode and M.I.G. Welding** ***Credits: 3***
- **WELD 130 - Advanced Processes - Gas Tungsten** ***Credits: 3***
- **MET 103 - Introduction to Materials Science** ***Credits: 3***
- **WELD 205 - Welder's Print Reading** ***Credits: 2***
- Mathematics - Credits: 3-5 - Select General Education Mathematics course.
    - Recommended: **MATH 102 - Technical Mathematics** ***Credits: 4***

TOTAL CREDITS: 14-16

Spring Session

- **WELD 206 - Welding Inspection and Qualification** ***Credits: 2***
- **WELD 223 - Fabrication** ***Credits: 4***
- Exam Preparation - Select from list ***Credits: 3***

TOTAL CREDITS: 9

PROGRAM TOTAL: 35-37 CREDITS

EXAM PREPARATION

(Select one)

- **WELD 210 - Preparation for Welder Certification in Shielded Metal Arc Welding** ***Credits: 3***
- **WELD 211 - Preparation for Welder Certification in Gas Metal Arc Welding** ***Credits: 3***
- **WELD 212 - Preparation for Welder Certification in Gas Tungsten Arc Welding G.T.A.W./T.I.G.** ***Credits: 3***
- **WELD 214 - Preparation for Welder Certification in Pipe Welding** ***Credits: 3***
- **WELD 225 - Pre-Apprenticeship Welder Certification** ***Credits: 3***

Welding: Fabrication Technology AAS Degree

Schoolcraft program code #AAS.00082

There is an ever-increasing need for persons today that possess skills, both in welding and metallurgy. Materials of industry and new technology require highly skilled persons that understand material sciences, metallurgy, and the joining processes used to produce optimum quality fabrications. The quality conscience industry of today demands certified people that can perform tasks from the simplest, to more complex technical applications. The courses selected in this program will give the student the required skills needed to perform, both hands-on and analytical tasks required by modern industrial technology.

Students who satisfactorily complete all college and program requirements qualify for an associate of applied science degree. Students seeking transfer to a baccalaureate program should request transfer guides provided by the department.

Exams will also be provided on an individual basis. Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **MET 103 - Introduction to Materials Science** ***Credits: 3***
- **WELD 110 - Introduction to Welding Basics for Fabrication** ***Credits: 3***
- **WELD 113 - Shielded Metal Arc Welding (S.M.A.W.)** ***Credits: 3***
- **WELD 115 - Gas Metal Arc Welding (G.M.A.W./M.I.G.)** ***Credits: 3***
- English Communication - Credits: 3 - Select first General Education English Communication course.
    - Recommended: **ENG 100 - Communication Skills** ***Credits: 3***

TOTAL CREDITS: 15

Winter Semester

- **WELD 119 - Gas Tungsten Inert Arc Welding (G.T.A.W./ T.I.G.)** ***Credits: 3***
- **WELD 120 - Advanced Processes - Stick Electrode and M.I.G. Welding** ***Credits: 3***
- **WELD 205 - Welder's Print Reading** ***Credits: 2***
- Mathematics - Credits: 3-5 - Select General Education Mathematics course.
    - Recommended: **MATH 102 - Technical Mathematics** ***Credits: 4***
- English Communication - Credits: 3 - Select second General Education English Communication course.
    - Recommended: **ENG 116 - Technical Writing** ***Credits: 3***

TOTAL CREDITS: 14-16

Spring Session

- **WELD 206 - Welding Inspection and Qualification** ***Credits: 2***
- Social Science - Credits: 3-4 - Select General Education Social Science course.
    - Recommended: **PSYCH 153 - Human Relations** ***Credits: 3***

TOTAL CREDITS: 5-6

SECOND YEAR

Welding: Fabrication Technology AAS Degree (continued)

Fall Semester

- **MFG 102 - Basic Machining Processes** ***Credits: 3***
- **WELD 130 - Advanced Processes - Gas Tungsten** ***Credits: 3***
- OSH - Select one:
    - **OSH 111 - Occupational Safety and Health for General Industry** ***Credits: 2***
    - **OSH 112 - Occupational Safety and Health for Construction** ***Credits: 2*** (recommended)
- Humanities - Credits: 3-4 - Select General Education Humanities course.
    - Recommended: **COMA 103 - Fundamentals of Speech** ***Credits: 3***

TOTAL CREDITS: 11-12

Winter Semester

- **WELD 223 - Fabrication** ***Credits: 4***
- **WELD 262 - Welding Metallurgy** ***Credits: 3***
- Natural Science - Select General Education Science Course ***Credits: 3-5***
- Elective - Select one
    - **WELD 291 - Welding Internship** ***Credits: 3***
    - **WELD 240 - Computer Numerical Control** ***Credits: 4***

TOTAL CREDITS: 13-16

Spring Session

- Exam Preparation - Select from list ***Credits: 3*** *

TOTAL CREDITS: 3

PROGRAM TOTAL: 61-68 CREDITS

EXAM PREPARATION

*Select one

- **WELD 210 - Preparation for Welder Certification in Shielded Metal Arc Welding** ***Credits: 3***
- **WELD 211 - Preparation for Welder Certification in Gas Metal Arc Welding** ***Credits: 3***
- **WELD 212 - Preparation for Welder Certification in Gas Tungsten Arc Welding G.T.A.W./T.I.G.** ***Credits: 3***
- **WELD 214 - Preparation for Welder Certification in Pipe Welding** ***Credits: 3***
- **WELD 225 - Pre-Apprenticeship Welder Certification** ***Credits: 3***

Welding: Pre-Apprenticeship Certificate

Schoolcraft program code #1YC.00129

The road to becoming a welding Journeyman starts with apprenticeship training. Schoolcraft College accomplishes that mission by providing training, leadership, and partnership with local trade unions in order to uphold union values and the principles of service and professionalism. Coursework will prepare students for union apprenticeship by providing instruction in fundamental welding equipment and techniques, project planning, layout, fabrication, safety and technical math. Students completing the coursework successfully will also earn American Welding Society certification in at least one welding procedure. The pre-apprenticeship certificate will help ensure that students have the skills, knowledge, and training necessary to be safe on the jobsite, competitive in the workplace and satisfied in their careers. This certificate creates an option for entry into the welding fabrication certificate and the welding joining technology associate degree.

Students are required to purchase protective clothing, protective (safety) shoes and eye protection equipment.

Students who satisfactorily complete the program requirements qualify for a certificate of program completion.

Exams for certificate will be provided on an individual basis.

Not all courses are offered each semester. Students should work with an academic advisor to develop a schedule that will work for them. Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor. Number of credits may vary depending on the course selection.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR

Fall Semester

- **WELD 110 - Introduction to Welding Basics for Fabrication** ***Credits: 3***
- **WELD 113 - Shielded Metal Arc Welding (S.M.A.W.)** ***Credits: 3***
- **WELD 115 - Gas Metal Arc Welding (G.M.A.W./M.I.G.)** ***Credits: 3***
- **MATH 102 - Technical Mathematics** ***Credits: 4***

TOTAL CREDITS: 13

Winter Semester

- **WELD 120 - Advanced Processes - Stick Electrode and M.I.G. Welding** ***Credits: 3***
- **WELD 205 - Welder's Print Reading** ***Credits: 2***
- **WELD 225 - Pre-Apprenticeship Welder Certification** ***Credits: 3***
- OSH - Select one:
  - **OSH 111 - Occupational Safety and Health for General Industry** ***Credits: 2***
  - **OSH 112 - Occupational Safety and Health for Construction** ***Credits: 2***

TOTAL CREDITS: 10

Spring Session

- **WELD 223 - Fabrication** ***Credits: 4***

TOTAL CREDITS: 4

PROGRAM TOTAL: 27 CREDITS

Schoolcraft College®

2024-2025 Credential Year

World Languages: Arabic, Chinese, French, Italian, Spanish

Learning a world language can help prepare students to communicate more effectively in today's global society. At Schoolcraft College, we offer courses in elementary and intermediate:

- Arabic
- Chinese
- French
- German
- Italian
- Spanish

Being multilingual opens up many career opportunities abroad as well as qualifies students for a variety of language-related jobs, including educators, interpreters, international relations, or linguistics.

Courses

Arabic

- ARB 101 - Elementary Arabic 1
- ARB 102 - Elementary Arabic 2
- ARB 201 - Intermediate Arabic 1
- ARB 202 - Intermediate Arabic 2

Chinese

- CHIN 101 - Elementary Chinese 1
- CHIN 102 - Elementary Chinese 2

French

- FR 101 - Elementary French 1
- FR 102 - Elementary French 2
- FR 201 - Intermediate French 1
- FR 202 - Intermediate French 2

German

- GER 101 - Elementary German 1
- GER 102 - Elementary German 2
- GER 201 - Intermediate German 1
- GER 202 - Intermediate German 2

Italian

- ITAL 101 - Elementary Italian 1
- ITAL 102 - Elementary Italian 2

Spanish

- SPAN 101 - Elementary Spanish 1
- SPAN 102 - Elementary Spanish 2
- SPAN 201 - Intermediate Spanish 1
- SPAN 202 - Intermediate Spanish 2

Schoolcraft College®

2024-2025 Credential Year

Course Descriptions

Schoolcraft College offers over 700 courses to help you reach your personal and professional goals. Students can take classes taught by our highly qualified faculty members and earn credits toward a certificate or degree at any of our three locations in Livonia or through a variety of online options. Learn more about our Course Formats at https://www.schoolcraft.edu/registration/course-formats/.

ACCT - Accounting

ACCT 103 - Introduction to Accounting

Credits: 4
Lecture Contact Hours: 4
Description: In this course you will learn about the basic accounting cycle for a sole proprietorship in the service or merchandising industry. You will account for cash, sales, purchases, payroll, and payroll taxes.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

ACCT 138 - Income Tax Preparation

Credits: 2
Lecture Contact Hours: 2
Description: This is an introductory course in Federal and Michigan individual income tax laws and return preparation. Special emphasis will be given to Federal Tax Form 1040 with accompanying Schedule A (itemized deductions). In addition, the course will include preparation of Michigan Tax Form MI-1040 and City of Detroit returns.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

ACCT 139 - Michigan Taxes

Credits: 2
Lecture Contact Hours: 2
Description: This is an introductory course in Michigan personal and business taxes. In addition, the individual income taxes of several Michigan cities will be covered. The course provides both non-accounting and accounting majors with knowledge of the Michigan tax structure. Special emphasis will be on regulations and tax requirements for income taxes, sales and use taxes, unemployment taxes, business tax and real and personal property taxes. Students will prepare tax returns while reviewing tax planning strategies.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

ACCT 201 - Principles of Accounting 1

Credits: 4
Lecture Contact Hours: 4
Description: In this course, you will learn the principles of accounting with emphasis on the accounting cycle for a sole proprietorship in the service and merchandising business. You will apply internal controls to an accounting system, account for cash, accounts receivable, bad debts, inventories, long lived assets, current liabilities and payroll. In addition, you will demonstrate how to account for partnerships. This course will integrate a Web-based learning system which requires the use of a computer to complete some of the learning activities and assessments. This course MAY also include the use of Excel.

Prerequisites: None.
Corequisites: None.
Recommended: CIS 120. MATH 045 or ACCT 103, or overall high school GPA of 2.8 or higher, or a minimum score of 16 ACT-Math, 22 SAT-Math, 60 CPT-Arithmetic or 240 NGA-Arithmetic. COLLS 050 or ACCT 103, or overall high school GPA of 2.8 or higher, or a minimum score of 15 ACT-Reading, 22 SAT-Reading, 57 CPT-Reading Comprehension or 237 NGA-Reading.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

ACCT 202 - Principles of Accounting 2

Credits: 4
Lecture Contact Hours: 4
Description: This course is a continuation of Accounting 201, expanding your exposure to accounting principles, financial statements, methods and applications. In this course, you will focus on accounting for corporations,

stockholder's equity, liabilities and investments. You will prepare the statement of cash flows. You will analyze and interpret financial statements and other accounting information used in decision making. You will also explore managerial accounting and its applications in planning and controlling costs. This course will integrate a web-based learning system which requires the use of a computer to complete some of the learning activities and assessments. This course MAY also include the use of Microsoft Excel.

Prerequisites: ACCT 201. CIS 120
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

ACCT 206 - Accounting Internship
Credits: 3
Lecture Contact Hours: 1
Off Site Contact Hours Without Faculty: 12 - 40
Description: The Accounting Internship Course offers a unique opportunity for aspiring accountants to gain practical experience and invaluable insights into the world of business. This hands-on internship is designed to complement academic learning with real-world applications, providing students with a comprehensive understanding of accounting principles, practices, and professional behavior. Employment will be approximately 12 to 40 hours per week off-campus at the employer's location within an accounting department. The final grade will be based on a joint evaluation by your instructor and employer. To register for the course, the student must complete the prerequisites and secure employment. The instructor and career services can assist with job placement. Students registered in this internship course are considered Schoolcraft College students with all rights, responsibilities, and privileges of a student. Internships may be paid or unpaid based upon placement. Department approval is required before registering for this course.

Prerequisites: ACCT 201 with a minimum grade of 3.0, an overall GPA of 2.5, and consent of department.

To register for the course the student must complete the prerequisites and secure employment. The instructor and career services can assist with job placement. Department approval is required before registering for this course.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

ACCT 221 - Intermediate Accounting 1
Credits: 4
Lecture Contact Hours: 4
Description: This course further explores these accounting principles used by publicly traded companies, including the methods used to measure and report the financial transactions of corporations. The course focuses on the valuation of assets, such as cash and receivables, investments, inventory and operational assets, but will also include preparation of financial statements, review of financial disclosures and measurement of income and time value of money concepts.

Prerequisites: ACCT 202
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall Only

ACCT 222 - Intermediate Accounting 2
Credits: 4
Lecture Contact Hours: 4
Description: In this course you will learn the current accounting methods for liabilities, bond amortization, leases, pensions, income taxes, shareholders' equity and stock-based compensation. You will prepare the statement of cash flows and statement of shareholders' equity. In addition, you will learn to allocate income tax expense and compute earnings per share information.

Prerequisites: ACCT 202
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

ACCT 226 - Cost Accounting
Credits: 4
Lecture Contact Hours: 4
Description: Concepts of cost accounting as a management tool to support business decision making, control and planning will be introduced. The course will explore understanding cost behavior and how to use that understanding to predict future costs. The course focuses on actual and standard cost methods as applied to job and process cost systems; accounting for materials, labor and manufacturing overhead; direct costing method; variance analysis; and cost accounting cases. The use of accounting information to make managerial decisions will be covered.

Prerequisites: ACCT 202. CIS 180
Corequisites: None.
Recommended: ACCT 263

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

ACCT 238 - Federal Tax Accounting
Credits: 4
Lecture Contact Hours: 4
Description: In this course, you will examine federal income tax laws and procedures that relate to individuals, partnerships and corporations. The course

will focus on gaining practical skills by preparing tax forms and conducting basic tax research and tax planning.

Prerequisites: None.
Corequisites: None.
Recommended: ACCT 201

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

ACCT 262 - Payroll Accounting
Credits: 3
Lecture Contact Hours: 3
Description: In this course you will gain first-hand experience in calculating payroll, completing payroll taxes, and preparing payroll records and reports. You will cover the various phases of the Social Security Taxes, Federal Income Taxes, State Income Taxes and Unemployment Compensation Insurance. You will complete a manual and computerized payroll simulation.

Prerequisites: CIS 120. ACCT 201
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Spring, Fall

ACCT 263 - Computerized Accounting Using QuickBooks
Credits: 3
Lecture Contact Hours: 3
Description: In this course, you will gain hands on experience in setting up an accounting information system for a small business using QuickBooks software. This course will apply the financial accounting concepts learned in your previous courses using the QuickBooks Software. Using the software, you will create vendor, customer and employee accounts; record transactions in special purpose journals and the general ledger; create invoices; process payroll; create and print reports; and perform bank reconciliations.

Prerequisites: ACCT 103 or ACCT 201
Corequisites: None.
Recommended: CIS 120

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

ACCT 330 - Managerial Accounting for a Food Service Operation
Credits: 3
Lecture Contact Hours: 3
Description: In this course you will apply managerial accounting concepts utilized in planning, analyzing and interpreting the results of a business within a food service operation. This course will include operating budgets, cost controls for inventory, labor and other expense, variance analysis, financial performance evaluation and problem solving. This course will integrate web-based learning tools and spreadsheet applications.

Prerequisites: ACCT 103 or ACCT 201. CIS 120.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

AHE - Allied Health Education

AHE 101 - Introduction to Healthcare
Credits: 1
Lecture Contact Hours: 1
Description: This course provides a comprehensive review of the healthcare industry. Trends and changes related to healthcare facilities such as acute care hospitals, specialty hospitals, nursing homes, health maintenance organizations, hospice and home healthcare will be covered. The course will also deal with the impact and use of computers in the delivery and documentation of healthcare and the role of the medical professional in response to the healthcare delivery system.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: As Needed

ANTH - Anthropology

ANTH 112 - Introduction to Anthropology
Credits: 3
Lecture Contact Hours: 3
Description: Anthropology is the scientific study of humans - in all times and all places. This course introduces the discipline by surveying its four subfields: cultural anthropology, physical or biological anthropology, archaeology and linguistics. Students will explore methods, perspectives and theories for each subfield and how they are applied to solve global issues in today's complex and rapidly changing world.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Social Science
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

ANTH 117 - Introduction to Archaeology
Credits: 3
Lecture Contact Hours: 3

Description: This course provides a general survey of anthropological archaeology. Topics include a history of the discipline and the theories and methods employed. Emphasis is placed on the interpretation of archaeological data and the reconstruction of past cultures. Contemporary ethical and legal issues are considered as well as how archaeology can address modern social problems.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Social Science
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall Only

ANTH 120 - Introduction to Biological Anthropology
Credits: 3
Lecture Contact Hours: 3
Description: This course provides a survey of biological anthropology - the study of human beings and their ancestors within an evolutionary framework. Topics include the basics of genetics, the development of evolutionary theory, nonhuman primate physical and social characteristics, and contemporary human biological variation. This evidence will be used to trace the fossil record of human evolution from the earliest primates to the first bipedal hominids and modern humans. A biocultural approach highlights the ways biology, culture, and behavior interact.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Social Science
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall Only

ANTH 201 - Cultural Anthropology
Credits: 3
Lecture Contact Hours: 3
Description: This course provides an introduction to the anthropological concepts, theories and methods used in the study of sociocultural systems throughout the world. Topics such as linguistics, subsistence, economics, family and marriage, kinship, religion and politics are examined to reveal both commonalities and diversity among cultures. The course focuses on the role of anthropology in understanding modern problems such as inequality, globalization, the environment, human health and illness.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Social Science
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Summer, Fall

ANTH 211 - Myth, Magic, World Religions
Credits: 3
Lecture Contact Hours: 3
Description: This course provides a survey of religious traditions, including magic and witchcraft, using anthropological concepts and theories. Ethnographic and archaeological examples from both indigenous and world religions are compared, showing commonalities and diversity among cultures. Topics include the function and meaning of religious elements such as myth, ritual, symbols, altered states of consciousness and religious specialists. The historical background and cultural context of religious traditions are emphasized, including perspectives of both cultural insiders and outsiders. The role of religion in culture change, conflict and peace is explored.

Prerequisites: None.
Corequisites: None.
Recommended: ANTH 112 or ANTH 201

Course Category: Liberal Arts | Social Science
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

ANTH 214 - Native American Traditions
Credits: 3
Lecture Contact Hours: 3
Description: This course provides a survey of Native American cultures from both Native and non-Native perspectives. Social, linguistic, and spiritual traditions from diverse culture areas are examined. The course focuses on pre-Columbian traditions, highlighting cultural change and adaptations to regional environments. Topics such as how humans first migrated to the Americas, contact with non-Native populations, the impact of federal government policies, and important current issues for indigenous communities are also included.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Social Science

This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter Only

ANTH 220 - Environmental Anthropology
Credits: 3
Lecture Contact Hours: 3
Description: This course is an introduction to environmental topics from a holistic and cross-cultural perspective. Environmental anthropology focuses on how diverse populations understand and adapt to the natural world. This course highlights the interplay of human populations and their ecosystems, including topics like globalization, structural discrimination, conservation and sustainability. Anthropological concepts and methods offer a unique perspective on past, current and future environmental challenges.

Prerequisites: None
Corequisites: None
Recommended: None

Course Category: Liberal Arts | Social Science
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall

ANTH 230 - Medical Anthropology
Credits: 3
Lecture Contact Hours: 3
Description: This course provides a survey of medical anthropology - the study of disease, illness and health from a cross-cultural perspective. Anthropological concepts and methods offer a unique perspective on interactions of cultural frameworks, lived experiences and health care institutions. This course highlights a biocultural approach, including topics such as cultural change, globalization, adaptation, social inequality, nutrition and public health. Examples from around the world and over time illustrate the commonalities and diversity among cultural constructions about what it means to be sick or well.

Prerequisites: None
Corequisites: None
Recommended: None

Course Category: Liberal Arts | Social Science
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter

ANTH 290 - The Individual and Community - An Honors Capstone
Credits: 3
Lecture Contact Hours: 3
Description: This course offers a conclusion to the Schoolcraft Scholars Honors Program. In this course, students conduct community-focused fieldwork and present a capstone project. Concepts, methods, and perspectives from multiple social sciences will be used. The analysis focuses on social-cultural structures and dynamics at the individual, group, community, and global levels. Students reflect on contemporary social issues and their experiences in service learning.

Prerequisites: HUM 190
Corequisites: None
Recommended: None

Course Category: Liberal Arts | Social Science
This course counts toward Schoolcraft's General Education Requirements
This course counts toward a Michigan Transfer Agreement General Education Requirement

This Course is Typically Offered: Winter Only

ARB - Arabic

ARB 101 - Elementary Arabic 1
Credits: 4
Lecture Contact Hours: 4
Description: This course is intended for students who have no previous education in Arabic. The course will cover basic vocabulary and grammar patterns and will build competence in all four skill areas: speaking, listening, reading and writing. Through activities, emphasis will be placed on oral proficiency and communication. An appreciation of the cultures of the Middle East will be an integral part of the course.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall, Winter

ARB 102 - Elementary Arabic 2
Credits: 4
Lecture Contact Hours: 4
Description: This course is a continuation of ARB 101 and continues to review basic Arabic vocabulary and grammar patterns and to build competence in all four skill areas: speaking, listening, reading and writing. Through varied activities, emphasis will be placed on oral proficiency and communication. An appreciation of the cultures of the Middle East will be an integral part of the course.

Prerequisites: None.

Corequisites: None.
Recommended: ARB 101 with a minimum grade of 2.0 or one year of high school Arabic or equivalent language knowledge.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall, Winter

ARB 201 - Intermediate Arabic 1
Credits: 4
Lecture Contact Hours: 4
Description: This course is a continuation of ARB 102 and continues to cover vocabulary and grammar patterns and to build competence in all four skill areas: speaking, listening, reading, and writing. Through varied activities, emphasis will be placed on oral proficiency and communication. An appreciation of the cultures of the Middle East will be an integral part of the course.

Prerequisites: None.
Corequisites: None.
Recommended: ARB 102 with a minimum grade of 2.0 or two years of high school Arabic or equivalent language knowledge.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall Only

ARB 202 - Intermediate Arabic 2
Credits: 4
Lecture Contact Hours: 4
Description: This course is a continuation of ARB 201 and continues to cover vocabulary and grammar patterns and to build competence in all four skill areas: speaking, listening, reading and writing. Through varied activities, emphasis will be placed on oral proficiency and communication. An appreciation of the cultures of the Middle East will be an integral part of the course.

Prerequisites: None.
Corequisites: None.
Recommended: ARB 201 with a minimum grade of 2.0 or three years of high school Arabic or equivalent language knowledge

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: As Needed

ART – Art and Design

ART 113 - Art Education
Credits: 3
Lecture Contact Hours: 3
Description: This course is a study of child growth and development through creativity. Students will study techniques and materials appropriate for use at various elementary grade levels. Emphasis will be placed on methods to stimulate children's creative interests. This course requires all students must meet the requirements of a criminal background check.

Prerequisites: None.
Corequisites: None.
Recommended: PSYCH 249

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This Course is Typically Offered: Winter, Spring, Fall

ART 115 - Art History 1
Credits: 4
Lecture Contact Hours: 4
Description: This art history course examines the development of western art from Prehistory through the 14th century with emphasis on various societies, artists and art forms including painting, sculpture and architecture.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Fall

ART 116 - Art History 2
Credits: 4
Lecture Contact Hours: 4
Description: This art history course examines the development of western art from the early Renaissance through contemporary art with emphasis on various societies, artists and art forms including painting, sculpture and architecture.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter Only

ART 117 - Foundations of Metal Sculpture
Credits: 3
Lecture Contact Hours: 3
Description: This course will explore the theory of contemporary sculpture with metal. Emphasis will be on theory of sculpture and how the different methods of welding, fabricating and forming metal apply to the principles of design in sculpture. The required assignments will help develop an understanding of fabrication techniques, conceptual thinking as well as artistic insight. This class is flexible enough to accommodate the entry-level or the advanced artist.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Fall

ART 120 - Drawing: Theory and Elements
Credits: 3
Lecture Contact Hours: 3
Description: This course examines the elements of drawing in noted art works. Students study how artists use spatial and value relationships to create art and then summarize basic approaches to drawing and media.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

ART 121 - 2D Design: Elements and Principles of Two-Dimensional Design
Credits: 3
Lecture Contact Hours: 3
Description: This course examines the elements and theories of two-dimensional design. Students investigate two-dimensional works of art for effective application of the elements and principles of design. In addition, color theory is studied.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Fall

ART 122 - 3D Design: Elements and Principles of Three-Dimensional Design
Credits: 3
Lecture Contact Hours: 3
Description: This course provides an introduction to the elements and principles of three-dimensional design. Students analyze three-dimensional works of art for the effective application of the elements and principles of three-dimensional design.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall, Winter

ART 127 - Illustration: Theory and Elements
Credits: 3
Lecture Contact Hours: 3
Description: This course introduces students to illustration as an art form. Students examine the theories, purposes, techniques and applications of illustration. Students study art works of professional illustrators on how they used various techniques to tell a story or express an idea.

Prerequisites: ART 120 or consent of department
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall, Winter

ART 128 - The Human Figure in Art 1: Theory and Elements
Credits: 3
Lecture Contact Hours: 3
Description: This course introduces how the human form has been represented by various artists throughout history. In addition, students study the superficial muscular and skeletal systems of the human form as revealed by various contexts of light and shadow.

Prerequisites: ART 120 or consent of department
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Fall

ART 133 - Ceramics 1: Theory and Elements
Credits: 3
Lecture Contact Hours: 3
Description: This course introduces the theories, elements and applications that identify ceramics as an art form. Students study the basic techniques used by published clay artists and those in art history sources.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

ART 134 - Ceramics 2: Theory and Elements
Credits: 3
Lecture Contact Hours: 3
Description: This course is a continuation of ART 133 where theories and elements comprising the art form of ceramics are interpreted. Students examine advanced techniques and materials utilized by published artists and those in art history sources.

Prerequisites: ART 133
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

ART 150 - Introduction to Fine Arts Entrepreneurship
Credits: 3
Lecture Contact Hours: 3
Description: This course is an introduction to the fine arts industry. It is designed to help artists discover the different career opportunities, including entrepreneurship, and develop skills and resources to help achieve their goals. Students will explore sales of personal artwork, evaluate techniques for the display of artwork, examine online and traditional art venues and resources and investigate how and why good images of artwork are important. Students will be expected to build a professional portfolio.

Prerequisites: None
Corequisites: None
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Fall

ART 180 - Foundations of Jewelry and Design
Credits: 3
Lecture Contact Hours: 1
Lab Contact Hours: 2
Description: This course will examine elements of design and creation for jewelry and small metal objects. Students will explore different surface finishes, materials and tools, as well as metal casting and metal joining techniques to make their designs come to life. Students will apply different techniques and use various materials in the creation of their own designs.

Prerequisites: None
Corequisites: None
Recommended: None

Course Category: Applied Liberal Arts
This Course is Typically Offered: Fall, Winter

ART 201 - Art Appreciation
Credits: 3
Lecture Contact Hours: 3
Description: This course provides an introduction to the vast and complex world of the visual arts produced throughout history. Students will explore the art, artifact and architecture created in "prehistoric" times through the early 21st century. Students will also investigate various methods and materials utilized by artists, makers and builders throughout time.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

ART 216 - Women in Art
Credits: 4
Lecture Contact Hours: 4
Description: This course explores the role of women in the history of Western art with emphasis on art forms including painting, sculpture and architecture. Special

consideration is given to women as patrons, artists and subjects and their impact in each of these realms.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This Course is Typically Offered: As Needed

ART 217 - Advanced Metal Sculpture
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 3
Description: This studio course is designed for the advanced artist. Emphasis will be on the different methods of welding, fabricating, and forming of metal and how these methods are applied to the principles of design in sculpture. Students will have the opportunity to investigate alternative metal fabrication techniques and processes for sculpture.

Prerequisites: ART 117
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

ART 221 - Watercolor Painting 1: Theory and Elements
Credits: 3
Lecture Contact Hours: 3
Description: This course examines the fundamental theories, techniques and processes utilized in watercolor and water-based media. In addition, students study the elements watercolor artists incorporated into their published works of art.

Prerequisites: ART 120 or Consent of department
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Fall

ART 222 - Watercolor Painting 2: Theory and Elements
Credits: 3
Lecture Contact Hours: 3
Description: This course is a continuation of ART 221 where emphasis is on critiquing published works of art for watercolor and water-based media techniques and processes. Students also investigate how artists utilize the elements in watercolor and water-based media to create a variety of effects.

Prerequisites: ART 221
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Fall

ART 227 - Outdoor Metal Sculpture
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 3
Description: This studio course will explore the world of outdoor metal sculpture. Emphasis will be on metal fabrication, how materials weather, installation of sculpture, and an understanding of how sculpture interacts with an outdoor space. Students will apply fabrication and sculptural design skills to create outdoor sculpture.

Prerequisites: ART 117
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Spring Only

ART 228 - The Human Figure in Art 2: Theory and Elements
Credits: 3
Lecture Contact Hours: 3
Description: This course furthers the study of the role of the human form in the history of art by analyzing modern works. In addition, students critique figure drawings of accomplished artists on how the superficial muscular and skeletal systems of the human form affect the surface topography in various contexts.

Prerequisites: ART 128
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Fall

ART 231 - Painting 1: Theory and Elements
Credits: 3
Lecture Contact Hours: 3
Description: This course introduces the student to painting as an art form. Students examine theories, techniques and processes utilized in abstract,

conceptual and representational compositions of renowned artists.

Prerequisites: ART 120 or Consent of department
Corequisites: None.
Recommended: ART 128

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall, Winter

ART 233 - Ceramics 3: Theory and Elements
Credits: 3
Lecture Contact Hours: 3
Description: This course is a continuation of ART 134 where theories and elements of ceramics as an art form are critiqued. Students analyze advanced techniques used by published clay artists when creating complex works of art.

Prerequisites: ART 134
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

ART 234 - Ceramics 4: Theory and Elements
Credits: 3
Lecture Contact Hours: 3
Description: This course is a continuation of ART 233 where multiple theories, elements and applications of ceramics are synthesized. In addition, students analyze and critique published complex ceramic works of art for theories, techniques and applications.

Prerequisites: ART 233
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

ART 235 - Painting 2: Theory and Elements
Credits: 3
Lecture Contact Hours: 3
Description: This course is a continuation of ART 231. Students will critique the techniques and processes utilized by published artists. In addition, students explore how artists develop a focused approach both thematically and technically in their work.

Prerequisites: ART 231
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall, Winter

ART 246 - Sculpture 1: Theory and Elements
Credits: 3
Lecture Contact Hours: 3
Description: This course explores sculptures as an art form in art history. Students study materials, processes and methods used to create important sculptural works, utilizing both traditional and experimental methods.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall, Winter

ART 247 - Sculpture 2: Theory and Elements
Credits: 3
Lecture Contact Hours: 3
Description: This course is a continuation of ART 246 where students analyze elements and techniques of renowned artists' sculptures. In addition, sculptural media and advanced techniques used in various forms are evaluated.

Prerequisites: ART 246
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall, Winter

ART 248 - Portfolio Preparation
Credits: 1
Lecture Contact Hours: 1
Description: This class enables the student to prepare a portfolio tailored to the specific entrance requirements of

art schools and Bachelor of Fine Art Programs offered at four-year colleges or universities. Strengths and weaknesses of existing student work will be addressed along with suggestions for possible further study to improve the content of the portfolio.

Prerequisites: Consent of department
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: All

BDT – Brewing and Distillation Technology

BDT 101 - Brewing Science
Credits: 4
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: This course is designed to cover concepts of biology, biochemistry, chemistry and physics that are key to brewing and distillation processes. Special attention will be given to the biology, chemistry and physics of the brewing process, including enzymatic and biochemical reactions associated with malting, mashing, fermentation and maturation. The byproducts of cellular metabolism, chemical reactions and physical processes that influence flavor development and flavor defects in finished craft beverages will be explored.

Prerequisites: Students must be at least 18 years of age to take this course [MCL 436.1703 Section 703, (13)].
Corequisites: None.
Recommended: BIOL 101. MATH 047

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

BDT 110 - Brewhouse Operations and Technology
Credits: 4
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: This course provides students with the knowledge and skills required to successfully plan, develop, maintain, manage and operate the facilities and specialized equipment in a commercial brewery. Production operation of a working brewery, safety, regulatory compliance and application of the brewing process to a commercial brewing operation will be the focus. Product development, large batch material handling, cleaning, sanitation and maintenance will also be covered. Content areas are covered in lectures, while practical skills are practiced in a brewery setting. The course requires the student to complete 30 lab hours which must be scheduled with the instructor outside of lecture time in the Production Brewery Lab.

Prerequisites: Students must be at least 18 years of age to take this course [MCL 436.1703 Section 703, (13)].
Corequisites: None.
Recommended: BDT 101 or consent of department

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

BDT 121 - Beer Styles and Flavor Evaluation
Credits: 3
Lecture Contact Hours: 3
Description: This course introduces the history of beer, beer styles and the factors contributing to flavor development and flavor defects. Focus will be given to understanding and evaluating foundation and modern beer styles and the role of ingredients and the brewing process on the final products' characteristics. Students will critically evaluate 50 beer styles as catalogued by the Beer Judge Certification Program, and their ingredients, using a sensory evaluation process.

Prerequisites: Students must be at least 18 years of age to take this course [MCL 436.1703 Section 703, (13)].
Corequisites: None.
Recommended: BDT 101

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

BDT 140 - Marketing and Operations Management
Credits: 2
Lecture Contact Hours: 2
Description: This course provides students with an introduction to the business of commercial alcoholic beverage production; its historical development and the planning and resources required to market and distribute brewed or distilled products. Emphasis is placed on the nature of the craft beverage market including trends that drive the industry and the consumer. The history of the 3-Tier System, Control State regulations and liquor control laws that shape the nature of manufacturing, distributing and retailing alcoholic beverages and their effects on marketing strategies are examined, including development of strategies and how to set appropriate levels of promotional effort, pricing and other considerations for generating sales.

Prerequisites: Students must be at least 18 years of age to take this course [MCL 436.1703 Section 703, (13)].
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

BDT 210 - Cellaring, Packaging and Quality Management
Credits: 4
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: This course will cover aspects of fermentation management, packaging and analytical techniques that result in a quality finished product. Management of the brewhouse systems, fermentation processes, finishing, carbonating, packaging and related

quality management procedures are emphasized. Techniques and equipment used to assess quality are covered, with emphasis on managing the fermentation process from yeast pitching to final packaging.

Prerequisites: Students must be at least 18 years of age to take this course [MCL 436.1703 Section 703, (13)]. BDT 110 or may be taken concurrently.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

BDT 220 - Advanced Brewing and Distillation
Credits: 4
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: This course focuses on advanced brewing processes and the relationship of brewing to distillation. Specialty beer production, formula development and scaling, quality control and management of a craft beverage production facility are covered. Topics include original recipe development, brewing specialty beers using advanced brewing techniques, lab analysis, production techniques and packaging. The principles and production techniques involved in the distillation of grains, fruits and other fermented products associated with craft beverage production, distillation technology, sensory evaluation, quality control, engineering and craft distillery management are also covered.

Prerequisites: Students must be at least 18 years of age to take this course [MCL 436, 1703 Section 703, (13)]. BDT 101. BDT 110.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

BDT 231 - Craft Beer Management and Service
Credits: 4
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: This course introduces service and management of beverages served in hospitality operations, especially draft beer. The course is designed to give students the tools necessary in order to work in or manage a craft beer-centric restaurant, bar or brewery tasting room. Topics include the history of the three-tier system, Control State regulations and liquor control, beer service, procurement, beer styles, beer and food pairing, draft system selection, maintenance and troubleshooting, staff training and responsible alcohol service. Students prepare for and take the Cicerone® Certification Program's Beer Server Certificate exam and TIPS® ("Training for Intervention Procedures") alcohol server certification as part of this course. Lab hours include mandatory beer service in the American Harvest Brewpub and attending one three-hour line cleaning session.

Prerequisites: Students must be at least 18 years of age to take this course [MCL 436.1703 Section 703, (13)]. BDT 101 or BDT 121
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

BIOL - Biology

BIOL 100 - Introduction to Biology
Credits: 4
Lecture Contact Hours: 4
Lab Contact Hours: 3
Description: This course introduces the non-science major to the concepts of modern biology and to the principles of scientific inquiry. Major concepts such as the scientific method, biological chemistry, organization of cells, energy transformation in living systems, DNA and inheritance, evolution, the diversity of life and ecology are examined. Emphasis is placed on processes common to all organisms, with special reference to humans. Related topics such as human evolution and human impacts on the environment will also be explored. This course provides the framework for making informed decisions regarding pertinent biological issues in society. Students participate in four hours of instruction and three hours of laboratory each week. Students going into allied health fields or majoring in science are required to take BIOL 101 or BIOL 120.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Science with Lab
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Fall

BIOL 101 - General Biology
Credits: 4
Lecture Contact Hours: 4
Lab Contact Hours: 3
Description: This course is a one-semester introductory course. This course introduces students to the scientific study of living organisms. Students will investigate biological concepts including the chemical basis of life, cell structure and function, metabolism, reproduction, genetics, evolution, biological diversity and classification, plant structure and function, animal structure and function and ecology. Students attend four hours of lecture and three hours of laboratory each week. Science majors seeking to fulfill a two-semester introductory biology sequence should enroll in BIOL 120 and BIOL 130.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Science with Lab
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

BIOL 103 - Health Education

Credits: 3
Lecture Contact Hours: 3
Description: This course explores health and wellness including the effects of stress, physical fitness, nutrition, body weight, substance abuse, infectious diseases and environmental factors. Other topics will include sexuality, cardiovascular health, cancer, chronic health conditions and how to make informed decisions related to health.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Science
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

BIOL 104 - Conservation and Natural Resources

Credits: 3
Lecture Contact Hours: 3
Description: This course introduces the basic principles of conservation biology as they relate to our critical need as global citizens to preserve and protect biodiversity and natural resources. In addition to studying the causes of extinction; habitat loss and restoration; management of populations, communities and ecosystems; students also explore philosophical issues in conservation values and ethics. This interdisciplinary course integrates contributions from the fields of law, political science, economics, history and sociology into the fundamental biological principles of conservation. Practical applications, personal stewardship and globally sustainable solutions are emphasized.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Science
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Fall

BIOL 105 - Basic Human Anatomy and Physiology

Credits: 4
Lecture Contact Hours: 4
Description: This course introduces fundamental terminology and concepts that will enable students to acquire a basic understanding of the structure and function of the human body. The anatomy and physiology of the major human organ systems and their association with health and disease is explored. BIOL 105 is intended for students in allied health programs that do not require a laboratory course in human anatomy and physiology.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Science with Lab
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

BIOL 107 - Introduction to Microbiology

Credits: 3
Lecture Contact Hours: 3
Description: This course is a non-laboratory study of the fundamentals of microbiology. Bacteria, fungi, protozoa, viruses and multicellular parasites are studied with special emphasis on those that cause human disease. Aspects of microbial classification, physiology, metabolism, genetics, growth, control mechanisms and antimicrobial chemotherapy are examined. The modes of infectious disease transmission and immune defenses of the human body against microbial pathogens are described. The application of scientific principles to healthcare settings and public health efforts to control infection, including vaccination and appropriate use of antimicrobics, will be explored.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Science with Lab
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall, Winter

BIOL 114 - Basic Human Nutrition

Credits: 1
Lecture Contact Hours: 1
Description: This course provides a basic study of human nutrition with emphasis on scientific principles, metabolism and the requirements for nutrients. The role of nutrition in optimizing health throughout the human life cycle will be explored. Disease processes that require special nutritional support are studied.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Science
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

BIOL 115 - Nutrition
Credits: 3
Lecture Contact Hours: 3
Description: This course provides a study of the nature and role of nutrition with emphasis on the changing needs in the human life cycle. The relationship between nutrition and health will be explored. Topics such as vegetarianism, food fads and fallacies, obesity, weight control and food additives are studied.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Science
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

BIOL 120 - Principles of Biology 1
Credits: 5
Lecture Contact Hours: 4
Lab Contact Hours: 3
Description: This is the first course of a two-semester introductory biology sequence for students interested in transferring to a four-year institution to pursue a degree in biology or other science-related discipline. Together, BIOL 120 and BIOL 130 provide science majors with a comprehensive introduction to biology. In this course, students will attend four hours of lecture and three hours of lab each week to study the process of scientific inquiry, biochemistry, cell structure, membrane transport, metabolism, cell reproduction, molecular genetics, biotechnology, principles of inheritance and evolution.

Prerequisites: BIOL 101 or successful completion (2.0 +) of introductory high school biology and chemistry
Corequisites: None.
Recommended: CHEM 111

Course Category: Liberal Arts | Science with Lab
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Fall

BIOL 130 - Principles of Biology 2
Credits: 5
Lecture Contact Hours: 4
Lab Contact Hours: 3
Description: This is the second course of a two-semester introductory biology sequence for students interested in transferring to a four-year institution to pursue a degree in biology or other science-related discipline. Together, BIOL 120 and BIOL 130 provide science majors with a comprehensive introduction to biology. In this course, students will attend four hours of lecture and three hours of lab each week to study the evolution and diversity of living organisms, plant and animal anatomy and physiology, animal behavior and ecology.

Prerequisites: BIOL 120 with a minimum grade of 2.0
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Science with Lab
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring

BIOL 140 - Scanning Electron Microscopy
Credits: 4
Lecture Contact Hours: 1
Lab Contact Hours: 3
Description: This course emphasizes the principles and modes of operation of the scanning electron microscope and X-ray analysis systems, electron-specimen interactions, elemental analysis, effects of microscope variables on images, image processing, routine maintenance, the use of microscope accessories and digital outputs. In the laboratory, students will prepare and examine inorganic and organic specimens using the secondary, backscatter and variable pressure detectors of the SEM. Students complete a project consisting of the preparation, imaging and analysis of a biological specimen.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Science with Lab
This course counts toward Schoolcraft's General

Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall, Winter

BIOL 236 - Human Anatomy and Physiology
Credits: 5
Lecture Contact Hours: 4
Lab Contact Hours: 3
Description: This one-semester course covers the gross and microscopic anatomy and physiology of the integumentary, skeletal, muscular, nervous, special senses, endocrine, circulatory, lymphatic, immune, respiratory, digestive, urinary and reproductive systems of the human body. Weekly instruction includes four hours of lecture and three hours of laboratory. The laboratory portion includes the use of prepared histological slides, anatomical models, bones, dissection of preserved specimens, blood typing, spirometry, urinalysis and blood pressure measurement. Students will also have an opportunity to examine a dissected cadaver.

Prerequisites: None.
Corequisites: None.
Recommended: BIOL 101 is strongly recommended. Institutional research has shown that students who successfully complete BIOL 101 prior to taking BIOL 236 perform significantly better in the course.

Course Category: Liberal Arts | Science with Lab
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

BIOL 237 - Principles of Human Anatomy and Physiology 1
Credits: 4
Lecture Contact Hours: 3
Lab Contact Hours: 2
Description: This is the first course in a two-semester sequence in the comprehensive study of the structure and function of the human body. Emphasis will be placed upon the anatomy and physiology of the integumentary, skeletal, muscular, nervous and endocrine systems. Labs reinforce units of study and include the use of prepared histological slides, anatomical models, bones, dissection of preserved specimens and computer simulations. In addition, students will have the opportunity to examine a dissected cadaver to enhance anatomical studies. BIOL 237 and BIOL 238 are designed for the student who plans to pursue a career in the health or biomedical field. Students attend three hours of lecture and two hours of lab each week.

Prerequisites: None.
Corequisites: None.
Recommended: BIOL 101 is strongly recommended. Institutional research has shown that students who successfully complete BIOL 101 prior to taking BIOL 236 perform significantly better in the course.

Course Category: Liberal Arts | Science with Lab
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

BIOL 238 - Principles of Human Anatomy and Physiology 2
Credits: 4
Lecture Contact Hours: 3
Lab Contact Hours: 2
Description: This is the second course in a two-semester sequence (continuation of BIOL 237) in the comprehensive study of the structure and function of the human body. Emphasis will be placed upon the anatomy and physiology of the circulatory, lymphatic, respiratory, digestive, urinary and reproductive systems. Labs reinforce units of study and include the use of prepared histological slides, anatomical models, dissection of preserved specimens, blood pressure measurement, spirometry, urinalysis and computer simulations. In addition, students will have the opportunity to examine a dissected cadaver to enhance anatomical studies. Students attend three hours of lecture and two hours of lab each week.

Prerequisites: BIOL 237
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Science with Lab
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

BIOL 243 - Microbiology
Credits: 4
Lecture Contact Hours: 3
Lab Contact Hours: 4
Description: This course covers the world of microbes including microbial structures and function, biochemistry, metabolism, genetics, control of microbial growth, infectious diseases, immunity, classification and epidemiology. Laboratory techniques commonly utilized in microbiology are introduced, including microscope

use, bacterial smears, staining methods, aseptic techniques, isolation of pure cultures, identification of unknown microorganisms and antibiotic testing.

Prerequisites: BIOL 101 or BIOL 120
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Science with Lab
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

BMET – Biomedical Engineering Technology

BMET 116 - Biomedical Instrumentation Terminology and Safety 1
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 1
Description: Students will acquire a knowledge of the language common to electronics and the medical profession based on spelling, pronunciation and definition of words and terms related to anatomy, medical equipment, electronic test equipment and safety. They will become acquainted with the fundamentals of medical equipment and testing concepts. Students will be introduced to the field of Biomedical Engineering Technology as a career.

Prerequisites: Acceptance into the Biomedical Engineering Technology Program (BMET).
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall Only

BMET 130 - Introduction to Biomedical Imaging
Credits: 3
Lecture Contact Hours: 3
Description: This is an introductory course for BMET students or professionals working in the field who want to learn about biomedical imaging. The students will explore the topics of biomedical imaging, including safety, standards, terminology and radiology modalities. They also will be introduced to a variety of clinical imaging applications in use today.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

BMET 204 - Biomedical Instrumentation Terminology and Safety 2
Credits: 4
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: This course is intended to provide students with knowledge of medical equipment in the hospital setting, equipment management, equipment maintenance and other fundamental principles related to Biomedical Engineering Technology.

Prerequisites: Acceptance into BMET program. BMET 116 with a minimum grade of 3.0.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

BMET 256 - Biomedical Equipment Internship 1
Credits: 3
Lecture Contact Hours: 1
Off Site Contact Hours Without Faculty: 24 - 40
Description: This is the first cooperative assignment for a Biomedical Engineering Technology student who has completed the prerequisites for this course. Employment will be approximately 24 to 40 hours per week off campus in a technical capacity with a hospital or an employer in the biomedical field. The faculty and the employer will jointly evaluate the student, which will then serve as a basis for a final grade. (Usually 15 weeks)

Prerequisites: Acceptance into BMET Program. BMET 116 with a minimum grade of 3.0 but can be taken concurrently.
Corequisites: BMET 204 with a minimum grade of 3.0 if not taken previously.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

BMET 257 - Biomedical Equipment Internship 2
Credits: 3
Lecture Contact Hours: 1
Off Site Contact Hours Without Faculty: 24 - 40
Description: This is the second cooperative assignment for a Biomedical Engineering Technology student who has completed one semester of internship. The conditions for assignment and evaluation are the same as for Biomedical Internship 1. The student is expected to handle an increased level of technical responsibility and may possibly serve the internship at a hospital, medical equipment manufacturer or a medical equipment service company. The faculty and the employer will jointly evaluate the student, which will then serve as a basis for a final grade. (Usually 15 weeks)

Prerequisites: Acceptance into BMET Program. BMET 116 with a minimum grade of 3.0. BMET 204 with a minimum grade of 3.0. BMET 256 with a minimum grade

of 3.0.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Spring Only

BUS - Business

BUS 101 - Introduction to Business
Credits: 3
Lecture Contact Hours: 3
Description: This course introduces principles, problems and practices of business in areas of organization, management, information related management and e-business, labor, production, human relations, marketing, finance, insurance, regulation and government.

Prerequisites: ENG 101 or may be taken concurrently or minimum score of 18 ACT-English, 25 SAT-Writing and Language, 71 CPT-Sentence Skills or 250 NGA-Writing
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Summer, Fall

BUS 103 - Organizing a Small Business
Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to explore the advantages and disadvantages of entrepreneurship for those who may be considering starting, operating or seeking employment in a small business. The course will emphasize the organization of the small business including the various forms of business ownership, business planning, starting the business, location, cash flow and marketing concepts.

Prerequisites: ENG 101 or may be taken concurrently or minimum score of 18 ACT-English, 25 SAT-Writing and Language, 71 CPT-Sentence Skills or 250 NGA-Writing
Corequisites: None.
Recommended: BUS 122

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

BUS 104 - Operating a Small Business
Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to explore the many considerations involved in owning and operating a small business. The course will emphasize the operation of a small business including insurance, employee relations, inventory control, purchasing, e-commerce, succession planning, financing, international business, legal and ethical issues.

Prerequisites: ENG 101 or minimum score of 22 ACT-English, 29 SAT-Writing and Language, 108 CPT-Sentence Skills or 276 NGA-Writing
Corequisites: None.
Recommended: BUS 103 or may be taken concurrently

Course Category: Occupational
This Course is Typically Offered: Winter, Summer, Fall

BUS 116 - Project Management
Credits: 3
Lecture Contact Hours: 3
Description: This course introduces the concepts and skills that are used to propose, plan, secure resources, budget and lead project teams to successful completion of their projects. The concepts and skills are universally applicable to projects of various size, in a variety of industries and a variety of organizational settings.

Prerequisites: None
Corequisites: None
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Winter, Fall

BUS 120 - Strategic Selling
Credits: 3
Lecture Contact Hours: 3
Description: Both the novice and the professional salesperson can benefit from this course. The personal selling process will be studied in detail, emphasizing topics ranging from prospecting and qualifying to closing the sale and after sale follow-up. Territory management, selling to organizational buyers and the techniques of ethical salesmanship will also be explored. Students will gain valuable experience with the selling process through case studies, role playing exercises and by creating a sales presentation for demonstration.

Prerequisites: ENG 101 or minimum score of 22 ACT-English, 29 SAT-Writing and Language, 108 CPT-Sentence Skills or 276 NGA-Writing.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

BUS 122 - Advertising
Credits: 3
Lecture Contact Hours: 3
Description: This course focuses on the information and skills required to create effective advertising. The student will learn to recognize effective advertising and gain an appreciation for the challenges advertisers face in trying to reach target audiences. The course also concentrates on market research, media strategy, integrated marketing communication and the impact of advertising on consumer behavior.

Prerequisites: ENG 101 or may be taken concurrently or minimum score of 18 ACT-English, 25 SAT-Writing and Language, 71 CPT-Sentence Skills or 250 NGA-Writing

Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Summer, Fall

BUS 123 - Consumer Behavior
Credits: 3
Lecture Contact Hours: 3
Description: This course explores the background of consumer behavior from the viewpoint of the individual, households, society and culture. Insights to individual behavior like personality, motivation and perception are covered. An exploration of social-cultural influences like economics, ethics and multiculturalism will provide an understanding of local, regional, national and global approaches to understanding consumers. In addition to consumer purchasing decisions, creating promotional strategies for customer retention and consumerism and public policy issues will be discussed.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

BUS 202 - Business Ethics
Credits: 3
Lecture Contact Hours: 3
Description: This course provides an overview of business ethics including its importance and its impact on stakeholders and society. The course will explore emerging ethical issues, the institutionalization of business ethics, the decision-making process and implementing business ethics in a global economy.

Prerequisites: BUS 101. ENG 101 or minimum score of 22 ACT-English, 29 SAT-Writing and Language, 108 CPT-Sentence Skills or 276 NGA-Writing.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Summer, Fall

BUS 204 - Personal Finance
Credits: 3
Lecture Contact Hours: 3
Description: This course is a practical study of problems and solutions facing the consumer in today's society. The major areas that are covered in this course include personal budgeting, bank and financial institution comparison, strategies in the use and application of credit, insurance alternatives, housing alternatives, large item purchasing (such as automobiles) and occupational choices.

Prerequisites: ENG 101 or minimum score of 22 ACT-English, 29 SAT-Writing and Language, 108 CPT-Sentence Skills or 276 NGA-Writing.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Summer, Fall

BUS 207 - Business Law 1
Credits: 3
Lecture Contact Hours: 3
Description: In this course you will learn how a business is impacted by the legal environment. You will be introduced to the key principles of business law including contracts, sales transactions, legal processes of crimes and torts, consumer rights and real-world cases showing these principles in action.

Prerequisites: ENG 101 or minimum score of 22 ACT-English, 29 SAT-Writing and Language, 108 CPT-Sentence Skills or 276 NGA-Writing.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

BUS 208 - Business Law 2
Credits: 3
Lecture Contact Hours: 3
Description: This course is a continuation of BUS 207 with emphasis on negotiable instruments, real and personal property, agency, partnerships, corporations, employment and wills and estates.

Prerequisites: BUS 207. ENG 101 or minimum score of 22 ACT-English, 29 SAT-Writing and Language, 108 CPT-Sentence Skills or 276 NGA-Writing.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: As Needed

BUS 215 - E-Commerce
Credits: 3
Lecture Contact Hours: 3
Description: This course introduces the student to the key business and technology elements of electronic commerce. Both the theory and practice of conducting business over the Internet and World Wide Web are presented. The major topics include technology infrastructure, planning and implementing a Web presence, marketing on the Web, business-to-business strategies, social networking, mobile commerce, online auctions, ethical and regulatory issues, Web server hardware/software, security and payment systems.

Prerequisites: BUS 101. ENG 101 or minimum score of 22 ACT-English, 29 SAT-Writing and Language, 108 CPT-Sentence Skills or 276 NGA-Writing.

Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

BUS 217 - Business Management
Credits: 3
Lecture Contact Hours: 3
Description: This course provides an overview of the skills and processes used in business management. The major focus will be on the management process which includes the following functions: planning and decision making, organizing, leading and controlling. We will explore topics including historical management perspectives, business structures and environments and organizational communication. We will also discuss the various levels at which managers operate and examine the skills necessary to accomplish the related tasks.

Prerequisites: BUS 101. ENG 101 or minimum score of 22 ACT-English, 29 SAT-Writing and Language, 108 CPT-Sentence Skills or 276 NGA-Writing.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Summer, Fall

BUS 220 - Organizational Behavior
Credits: 3
Lecture Contact Hours: 3
Description: In this course, you will discover how to become a successful and respected leader in the contemporary workplace. Besides assessing your current leadership traits, you will develop new skills addressing effective teamwork, staff motivation, communication methods, problem-solving techniques, decision making, conflict resolution, and human relations. You will explore real-world situations and learn strategies to overcome a variety of challenges facing leaders in a global and diverse workplace.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Summer, Fall

BUS 226 - Principles of Marketing
Credits: 3
Lecture Contact Hours: 3
Description: In this course, you will learn an integrated analytical approach to the marketing process and essential economic principles as they apply to the marketing process. You will also be introduced to the relationships of marketing decisions, marketing research, consumer behavior, product strategy, channels of distribution, promotion and pricing.

Prerequisites: BUS 101. ENG 101 or minimum score of 22 ACT-English, 29 SAT-Writing and Language, 108 CPT-Sentence Skills or 276 NGA-Writing.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Summer, Fall

BUS 230 - Human Resource Management
Credits: 3
Lecture Contact Hours: 3
Description: In this course, you will be introduced to the dynamic role of human resource management in supporting an organization's mission and objectives. You will explore the legal influences on selecting, managing and retaining human resources. You will prepare valid selection instruments to conduct effective interviews and performance reviews. We will discuss contemporary employment issues and global human resource concerns. You will become knowledgeable about the various systems and practices to help build a skilled and motivated workforce.

Prerequisites: BUS 101. ENG 101 or minimum score of 22 ACT-English, 29 SAT-Writing and Language, 108 CPT-Sentence Skills or 276 NGA-Writing.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

BUS 240 - International Business
Credits: 3
Lecture Contact Hours: 3
Description: This course focuses on the latest theories and concepts in international business while emphasizing the leading role culture plays in global commerce. The issues and challenges confronting international companies are explored along with the various strategies companies may pursue.

Prerequisites: BUS 101. ENG 101 or minimum score of 22 ACT-English, 29 SAT-Writing and Language, 108 CPT-Sentence Skills or 276 NGA-Writing.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

BUS 292 - Business Internship
Credits: 3
Lecture Contact Hours: 1
Off Site Contact Hours Without Faculty: 12 - 40
Description: This is an applied course within Occupational Programs specializing in the field of business and is a cooperative assignment for students who have completed the prerequisites for this course.

Employment will be approximately 12 to 40 hours per week off-campus at the employer's location. The final grade will be based on a joint evaluation by the faculty and the employer. Students registered in this internship course are considered Schoolcraft College students with all rights, responsibilities and privileges of a student. Internships may be paid or unpaid based upon placement. Department permission is required before registering for this course. The selection of eligible students to register for the course is a competitive process that includes attending a resume workshop at the Career Center, submission of a resume with a cover letter and interviews.

Prerequisites: BUS 101 with a minimum grade of 3.0 and two additional Schoolcraft Business courses, consent of Department and an overall GPA of 2.5.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

BUS 303 - Entrepreneurship 1
Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to prepare students to start a small business. Students will explore various forms of business ownership and approaches to starting a business. Students will develop a business plan including marketing strategies, financial projections and operating plans.

Prerequisites: BUS 101. ACCT 201 or ACCT 103
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

BUS 304 - Entrepreneurship 2
Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to prepare students to own and operate a small business. Students will explore and apply aspects of small business ownership including e-commerce, business ethics, business law, sources of financing, international business, inventory control, risk management and human resources.

Prerequisites: BUS 101
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall Only

BUS 426 - Marketing Strategies
Credits: 3
Lecture Contact Hours: 3
Description: In this course, rather than analyzing another company's marketing plan, you will develop your own original marketing plan for an approved company. Students will conduct marketing research, develop marketing objectives, identify target markets and segments, analyze the product mix and lines strategies, evaluate service quality, develop pricing strategies, create appropriate traditional and non-traditional promotional methods and research potential suppliers.

Prerequisites: BUS 101. BUS 103 or BUS 303
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

CAB – College and Beyond

CAB 100 - Success for Designated Populations Seminar
Credits: 1
Lecture Contact Hours: 1
Description: This course is designed for students from specific programs, such as Schoolcraft Partnership Programs, or other designated populations. It will introduce strategies to maximize success in college. Topics covered include college terminology, college resources, time management, note taking, college reading, study strategies and test-taking strategies. Registration for this course is reserved for those students who have been invited or recommended to take CAB 100.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Learning Support Services
This Course is Typically Offered: As Needed

CAB 102 - Student Success and Career Development
Credits: 2
Lecture Contact Hours: 2
Description: This course is designed to help all students, especially those new to the college experience. It will help to clarify education and career direction while maximizing potential for success in both college and the workplace. Students will explore personal learning styles, habits and strategies which can improve college and career performance. Further, students will enhance personal, education and career awareness through exploration of their interests, attitudes, traits and skills utilizing various activities and assessment tools. Topics covered include college terminology and resources, effective study techniques, time management, goal setting, decision making, professionalism, diversity, and exploration of college majors and potential careers. This course is an institutional requirement for all students who are attending college for the first time. Registration for this course is open to all students.

Prerequisites: None.

Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Learning Support Services
This Course is Typically Offered: Winter, Spring, Summer, Fall

CAD – Computer Aided Design

CAD 120 - Mechanical Blueprint Reading with Sketching
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 1
Description: This course is designed to introduce the student to the basic concepts and standard practices necessary for the graphical communication of technical data, which includes the reading and interpretation of engineering drawings, calculating surface area, calculating component volume, and technical sketching. Topics introduced include orthographic projection, pictorials, sectioning, auxiliary views, dimension and tolerance practices and various symbols.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

CAD 130 - Geometric Dimensioning and Tolerance
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 1
Description: The student will learn to interpret blueprints with emphasis placed on Geometric Dimensioning and Tolerance. This course will introduce national and international geometric standards of form, profile, orientation, runout and location tolerances used in the manufacturing processes. Curriculum includes emphasis on print reading and measurements. This course can be used to prepare for the ASME GD&T Certification exam.

Prerequisites: CAD 120. MATH 102 or MATH 113.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

CAD 140 - AutoCAD - 2D Application
Credits: 4
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: This course is designed for the proficient drafter who wants to obtain experience with Computer Aided Design (CAD). Topics to be covered include 2D drawing creation, drawing, editing and plotting as well as view manipulation. In addition, the student will learn the basics about file saving, retrieving and copying.

Prerequisites: CAD 120 or drafting knowledge/experience.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

CAD 210 - CATIA - 3D and 2D Applications
Credits: 4
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: This first level CATIA course will cover the basics of creating, editing and storing 3D models. The construction and constraining of assemblies will be covered as will the creation of detail and assembly drawings using the drafting package.

Prerequisites: CAD 120 or consent of Department
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Spring, Fall

CAD 212 - CATIA - Advanced Topics
Credits: 4
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: This course is designed to present higher level part modeling commands for CATIA Modeler. Particular attention will be paid to surfacing.

Prerequisites: CAD 210
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

CAD 220 - SolidWorks - 3D and 2D Applications
Credits: 4
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: This SolidWorks course will cover the basics of creating, editing and storing 3D models. The construction and constraining of assemblies will be covered as will the creation of detail and assembly drawings using the drafting package.

Prerequisites: CAD 120 or drafting knowledge/experience.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

CAD 230 - NX - 3D and 2D Applications
Credits: 4
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: This NX course will cover the basics of creating, editing and storing 3D models. The construction and constraining of assemblies will be covered as will the creation of detail and assembly drawings using the drafting package.

Prerequisites: CAD 120 or drafting knowledge/experience.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring

CAD 270 - Machine Elements and Design
Credits: 4
Lecture Contact Hours: 3
Lab Contact Hours: 1
Description: This course is designed to introduce the student to the various machine elements and the mechanical/working relationship between elements that make up a mechanism. The machine element concepts covered include fasteners, gears, cams, linkages and bearings. The introduction to the design process includes problem definition, needs analysis, design/performance objectives, cost analysis, design alternatives, feasibility analysis and design selection. Simulation is used to test design proposals for strength and reliability.

Prerequisites: CAD 210 or CAD 220 or CAD 230.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall Only

CAD 275 - Tool, Die and Fixture Design
Credits: 4
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: Tool, Die and Fixture Design is a specialized phase of mechanical or manufacturing engineering. This course will cover the development of jigs and fixtures, work holding devices and press working tools such as cutting dies, piercing dies, forming dies and drawing dies. Emphasis is placed on the types of tools, supporting and locating principles, clamping methods, construction methods, theory of metal cutting and metal forming. Design projects are used to reinforce theory and to provide an opportunity to gain practical experience. Sketching and CAD will be used to develop, create and design custom jigs, fixtures, dies and die types. ANSI/ASME Standards are followed for the creation of solid models, multi views, drawings, tolerances and dimensioning practices.

Prerequisites: CAD 130. CAD 270.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

CAD 280 - CAD Capstone Project
Credits: 3
Lecture Contact Hours: 1
Lab Contact Hours: 3
Description: This course utilizes a multidisciplinary capstone project to integrate the concepts of design, manufacturing and materials science. Working as individuals or a team, several design projects will be presented, requiring solutions that involve the management of the design process using the systematic engineering design process. The steps include project planning, research, modeling, analysis, prototype building, process mapping and material selection. The results of the project will be reported in written and oral format and presented to a panel for evaluation. This course simulates a position in an Engineering/Design department.

Prerequisites: MET 103. MFG 105. CAD 130. CAD 270
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

CAD 291 - Computer Aided Design Internship
Credits: 3
Lecture Contact Hours: 1
Off Site Contact Hours Without Faculty: 12 - 40
Description: This is an applied course within Occupational Programs specializing in the field of Computer-Aided Design (CAD) and is a cooperative assignment for students who have completed the prerequisites for this course. Employment will be approximately 12 to 40 hours per week off-campus at the employer's location within a mechanical design or engineering department. The final grade will be based on a joint evaluation by the faculty and the employer. Students registered in this internship course are considered Schoolcraft College students with all rights, responsibilities and privileges of a student. Internships may be paid or unpaid based upon placement. Department permission is required before registering for this course. The selection of eligible students to register for the course is a competitive process that includes testing, submission of a resume with a cover letter and interviews.

Prerequisites: ENGR 100. CAD 120. CAD 210 with a minimum grade of 3.0 or CAD 220 with a minimum grade of 3.0. Overall minimum GPA of 2.5. Consent of department.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

CBPA – Culinary Baking and Pastry Arts

CBPA 103 - Introduction to Baking and Pastry Skills and Techniques

Credits: 2
Lecture Contact Hours: 2
Description: This course will provide a broad orientation to aspiring bakers and pastry chefs in order to offer a better understanding of the specialized fields of baking and pastry. Discussions will include professionalism, safety and sanitation, equipment identification, function and maintenance. The fundamental baking processes, handling and function of ingredients will also be covered.

Prerequisites: ENG 050 with a minimum grade of 2.0; or overall high school GPA of 2.8 or higher; or minimum score of 15 ACT-English, 22 SAT-Writing and Language, 51 CPT-Sentence Skills or 237 NGA-Writing. COLLS 050 with a minimum grade of 2.0; or overall high school GPA of 2.8 or higher; or minimum score of 15 ACT-Reading, 22 SAT-Reading, 57 CPT-Reading Comprehension or 237 NGA-Reading. MATH 045 with a minimum grade of 2.0; or overall high school GPA of 2.8 or higher; or minimum score of 16 ACT-Math, 22 SAT-Math, 60 CPT-Arithmetic, 240 NGA-AR, 220 NGA-QRAS.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Spring Only

CBPA 125 - Pastries

Credits: 20
Lecture Contact Hours: 5
Lab Contact Hours: 15
Description: Upon successful completion of this course, students will have acquired professional skills in the art of pastry including recipe expansion and costing, use of hand tools and equipment, safety, sanitation and organization skills. Products introduced to the aspiring students include pies and tarts; French pastry; individual pastries; classical and contemporary tortes; warm, cold and frozen desserts; contemporary plated desserts; miniature pastries; chocolates; cake decoration; and decorative centerpieces.

Prerequisites: CBPA 103. CUL 102 or current ServSafe certification.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

CBPA 144 - Baking

Credits: 15
Lecture Contact Hours: 3.75
Lab Contact Hours: 11.25
Description: Upon successful completion of this course, students will have acquired professional skills in the art of baking. This course will cover basic elements including costing out recipes, expanding and reducing recipe sizes, proper usage of bakery equipment, using straight dough methods to produce French baguettes, soft and hard rolls, pan breads and many hearth breads, as well as production of various cookies, quick breads, muffins and biscuits. Advanced techniques will be taught including fermentation processes and how they contribute to flavor, mixing methods, the functionality of ingredients, and the study of various flours, as well as chemical reactions that take place while baking. The production of artisan breads, laminated doughs, savory baked goods, specialty baked goods, breakfast pastries, high ratio cakes and decorative centerpieces will be important aspects of this course.

Prerequisites: CBPA 103. CUL 102 or current ServSafe certification.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

CGT – Computer Graphics Technology

CGT 109 - Design Concepts and Technology

Credits: 3
Lecture Contact Hours: 3
Description: In order to succeed in any discipline within the Computer Graphics field students must have a strong sense of design. This course covers both the theoretical and the practical aspects of design theory, design process and software application. This course includes an introduction to design elements and principles - how they work together to create effective communication. It includes an understanding of typography, grid systems and color theory including physiological, emotional and cultural variations. Materials include a look at human perception and Gestalt theory to foster an understanding for visual communication. A variety of application programs are introduced in order to explore proper file types and tools and the strengths and limitations of a variety of digital media. The computer graphics industry is explored, and resources are provided for concept development and job search along with a brief introduction to intellectual property rights. This course provides foundation skills for all classes within the CGT curriculum. In this course students will use software at an introductory level, exploring vector and bitmapped images, page-layout, animation and interactive Web site development. Projects and exercises are designed to allow students to do both short skill building exercises and more complex

larger works.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

CGT 123 - Illustration - Illustrator
Credits: 3
Lecture Contact Hours: 3
Description: This course is intended to introduce students to the field of graphic design and illustration using professional computer drawing software. Emphasis is on learning the software and on applying basic design skills to the computer-generated image. Students are instructed in the fundamentals of drawing on the computer, working with color, working with type and combining type and image for effective communication. Students are expected to be familiar with basic functions of the computer before beginning the class.

Prerequisites: CGT 109 or may be taken concurrently.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

CGT 125 - Digital Imaging 1 - Photoshop
Credits: 3
Lecture Contact Hours: 3
Description: This course introduces students to the field of digital imaging and electronic photographic manipulation using Adobe Photoshop. Emphasis is placed on developing strong software and digital imaging skills plus reinforcement of design and creative skills. This will be accomplished through a series of progressively challenging assignments, which mirror professional studio projects. The class will progress the student's skills from basic application knowledge to advanced image manipulation techniques. The assignments will be applicable for both print and screen-based imagery. Students are expected to have some computer experience and be familiar with basic functions of the computer before beginning the class.

Prerequisites: CGT 109 or may be taken concurrently.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

CGT 127 - Publishing - InDesign
Credits: 3
Lecture Contact Hours: 3
Description: This course introduces students to the field of publishing design using Adobe InDesign. Emphasis is on learning the software and on applying basic design skills to computer generated design. Students will have the opportunity to learn the fundamentals of page-layout, typography, working with color and color separations and preparing documents for printing. Students are expected to have some computer experience and be familiar with basic functions of the computer before beginning the class.

Prerequisites: None.
Corequisites: CGT 109 if not taken previously.
Recommended: Computer Experience

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

CGT 134 - Interactive Design UI/UX Overview
Credits: 3
Lecture Contact Hours: 3
Description: This course covers techniques for creating and designing graphical layouts for future User Interface applications. The student will learn the principles of design and functionality as it pertains to User Interface (UI) design and layout and how to create the different image types for User Experiences (UX). The student will also be instructed on the methods of deconstructing a design to generate optimized image assets that can be used later in the implementation of sites UI/UX construction. In addition, skills in design image optimization techniques, color theory and an understanding of platform, optimizing interface usage and maximizing operational processes.

Prerequisites: CGT 109, if not taken previously. CGT 123, if not taken previously. CGT 125, if not taken previously.
Corequisites: None
Recommended: CGT 127, if not taken previously. Computer experience.

Course Category: Occupational
This Course is Typically Offered: Fall Only

CGT 136 - Interactive 1 UI Design
Credits: 3
Lecture Contact Hours: 3
Description: This course introduces the student to the unique design principles and standards for creating effective interactive media. Design processes will be introduced to aid in the basic planning, wireframing and construction of a project. An understanding of graphics will be integrated with its technical build. Students will design with emphasis on access and semantic markup. Basic authoring tools and image editing software will be used.

Prerequisites: None.
Corequisites: CGT 109 if not taken previously. CGT 123 if not taken previously. CGT 125 if not taken previously. CGT 163
Recommended: Computer experience. CGT 127 if not taken previously.

Course Category: Occupational
This Course is Typically Offered: Fall Only

CGT 141 - Interactive Animation 2 UI Design
Credits: 3
Lecture Contact Hours: 3
Description: This course is an introduction to the User Experience of interactive media. Students will learn how to make UI (User Interface) basic 2D animations and use basic scripting and prototype techniques to make interactive projects. Emphasis will be on solving the special design and production problems encountered when creating non-linear projects, along with animation techniques, basic scripting, memory management, importing/exporting considerations, basic sound, and video, project management, and production planning.

Prerequisites: CGT 136 with a minimum grade of 2.0
Corequisites: CGT 212
Recommended: Individuals currently in industry may be eligible to waive the prerequisites. Discuss options with the department. CGT 127 with a minimum grade of 2.0.

Course Category: Occupational
This Course is Typically Offered: Winter Only

CGT 149 - Typography
Credits: 3
Lecture Contact Hours: 3
Description: This course introduces the graphic design student to the principles of typography by investigating letter forms as both an element of design and as a medium of communication. Concentration is on typeface identification, effective use of type to convey information, measuring systems and application of typography to computer graphics.

Prerequisites: CGT 123 with a minimum grade of 2.0.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

CGT 158 - Sound Design
Credits: 3
Lecture Contact Hours: 3
Description: This course provides an introduction to the basic concepts of sound production for computer and video-based delivery systems. Also emphasized are the necessary hardware/software, sound recording and editing, file management and transfer concepts. Attention is also given to aesthetic considerations such as sound design in foreign films and video games.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

CGT 161 - History of Graphic Design
Credits: 3
Lecture Contact Hours: 3
Description: This course introduces the student to the history of graphic design and its application as a form of mass communication. Students examine how social, cultural and technical considerations have influenced the way information is designed for publication. Students learn how an understanding of historical, cultural and social influences leads to more effective graphic design in the modern world.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

CGT 163 - Interactive 1 UX Solutions
Credits: 3
Lecture Contact Hours: 3
Description: This course emphasizes the integration of design principles and software skills to create effective advanced interaction designs using industry standard design process. Students will explore design and development features using User Interface (UI) and User Experience (UX) Design forms and embedding various media types. Students will use UX research to construct valuable solutions to the needs and goals of the client with attentive focus on project descriptions, design compositions, site maps, wireframes, usability testing, project management and optimization. Students will study how to evaluate their design and development challenges, implement current industry standards and transfer local files to a working application. UI/UX software will be used.

Prerequisites: None.
Corequisites: CGT 136
Recommended: CGT 127 with a minimum grade of 2.0.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

CGT 166 - Photography
Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to instruct the student on photographic principles that affect exposure, image structure, composition, printing and the interface with digital media. Students will experience hands-on photography sessions that demonstrate lighting, visual effects and composition development based on contrast and focal point awareness. In conjunction with the camera, the student will explore advanced digital imaging options, the zone system and creative merging techniques. Course materials are designed for the student pursuing a graphic design career. The student will be required to have a 35mm camera and is responsible for film and processing costs or digital

equivalent.

Prerequisites: None.
Corequisites: None.
Recommended: Computer experience

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

CGT 168 - Storyboarding
Credits: 3
Lecture Contact Hours: 3
Description: This course provides the student a working knowledge of storyboarding. It integrates creative expressions, emotional impressions and production processes into a cohesive conclusion. It provides the student an opportunity to expand a creative understanding of audio, cinematography, lighting and staging. Storyboarding is a basic need for the student pursuing careers in multimedia, interactive and performance arts.

Prerequisites: CGT 109 with a minimum grade of 2.0. CGT 123 with a minimum grade of 2.0. CGT 125 with a minimum grade of 2.0. CGT 127 with a minimum grade of 2.0.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

CGT 208 - Digital Video Production
Credits: 3
Lecture Contact Hours: 3
Description: This course is an overview of skills required to create digital video productions. Students will develop video productions using pre-production planning, practical skills in camera usage, efficiencies in directing and production skills and refined non-linear editing. The productions developed during the semester will include informational, marketing and promotional materials.

Prerequisites: CGT 247 with a minimum grade of 2.0
Corequisites: CGT 168 or may be taken concurrently, or Consent of department
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall Only

CGT 210 - Visual Effects Production
Credits: 3
Lecture Contact Hours: 1
Lab Contact Hours: 2
Description: This course is designed to integrate video production techniques; 3D model building and computer graphics compositing. Students will develop the practical skills to coordinate the merger of these techniques into a consistent visual effects production. This course will enable the students to effectively calculate shooting angles, monitor film speeds, develop mattes and scale 3D models or miniatures into a final scene. Safe Practical Effects will be developed that can be used on a set to accomplish dramatic effects while maintaining visual continuity of composited digital images.

Prerequisites: CGT 208 or may be taken concurrently, or Consent of department.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

CGT 212 - Interactive Animation 2 UX Solutions
Credits: 3
Lecture Contact Hours: 3
Description: This course provides an in-depth exposure to User Experiences (UX) in interactive media. Students will learn to write, evaluate and test UI (User Interface) elements which enhance non-linear, computer-based projects. During the semester, each student will design and produce a complex, highly interactive project, such as a website, computer game or computer-based training module. Students will design the UI/UX elements of their project while incorporating scripting techniques.

Prerequisites: None.
Corequisites: CGT 141.
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Fall Only

CGT 213 - Interactive Animation 3 UI/UX
Credits: 3
Lecture Contact Hours: 3
Description: This course provides an in-depth understanding of UI/UX (User Interface/User Experience) based animation. Students will learn to extend their UI skills in a variety of animation and visual communication techniques. Students will learn to use UX criteria to manage an instructional-based animation project, creating a project for computer-based training, marketing or entertainment. Students should have a working knowledge of UI/UX principles and keyframe/tweening techniques before beginning this course.

Prerequisites: CGT 141 with a minimum grade of 2.0 or Consent of department
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall Only

CGT 215 - Motion Graphics 1-After Effects
Credits: 3
Lecture Contact Hours: 3
Description: This course develops creative freedom and control for designing sophisticated motion graphics and visual effects for film, video, multimedia and the Web.

Students will integrate previously learned applications into motion-graphics using Adobe After Effects and/or related applications. Students will develop an understanding of motion control and keying capabilities plus audio and visual effects.

Prerequisites: CGT 247 with a minimum grade of 2.0.
Corequisites: CGT 168 if not taken previously.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

CGT 226 - Digital Imaging 2 - Photoshop
Credits: 3
Lecture Contact Hours: 3
Description: This course will further explore the uses of photography and the digital image in the field of graphic design. Students will learn how object-oriented graphics and design can be enhanced with the dynamic range of Photoshop options. Students will develop advanced compositing skills, sensitivity to the selection of color modes plus channel and masking options, restoration and repair processes and an understanding of usable effects.

Prerequisites: CGT 109 with a minimum grade of 2.0. CGT 123 with a minimum grade of 2.0. CGT 125 with a minimum grade of 2.0. CGT 127 with a minimum grade of 2.0.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

CGT 231 - Electronic Publishing
Credits: 3
Lecture Contact Hours: 3
Description: This course emphasizes the integration of design and software skills to create more effective layouts for print media. Students will explore photography and digital imaging, illustration, graphic design and page layout. Students learn to use type effectively, create and integrate images and type, set up projects for printing and apply design principles to create effective and readable documents. Instruction in advanced software techniques and in the use of a variety of peripherals is featured. Emphasis will be on the application of software and design skills to a variety of realistic graphic design projects.

Prerequisites: CGT 226 with a minimum grade of 2.0
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

CGT 234 - Interactive Design 4 UI/UX
Credits: 3
Lecture Contact Hours: 3
Description: This course emphasizes the integration of front-end design and development principles and software skills to architect effective user-friendly UI/UX (User Interface/User Experience) media. Students will focus on advanced User Interface design and development features, such as scripting and the utilization of industry-standard frameworks. Students will apply software and development skills to realistic development projects. Students will explore common industry-based media to develop effective control panels and publish screen-based media using industry-based authoring and editing software. The student will look at user experience considerations, such as user interface architecture, usability, 508 compliance, and the standards specified by the World Wide Web Consortium (W3C) to produce an engaging end-user experience.

Prerequisites: CGT 163 with a minimum grade of 2.0
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

CGT 244 - History of Animation
Credits: 3
Lecture Contact Hours: 3
Description: This class will give students a context for understanding the rich and unique history of animation and graphic design. In addition to learning important milestones in these fields, students will develop their eye and their aesthetic appreciation of this kind of art. Students will be exposed to the historical contingencies that lead to different developments as well as to animations and graphic design from all over the world. This course will also stimulate students in their own creative endeavors in their chosen field.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

CGT 246 - Motion Graphics 2 - After Effects
Credits: 3
Lecture Contact Hours: 3
Description: This course will further explore the uses of audio, graphics and video in the field of motion graphics. Students will learn how object motion graphics programs can interrelate to develop informational and promotional media. Students will make extensive use of two- and three-dimensional motion and still graphics to design and create projects for video and/or multimedia applications.

Prerequisites: CGT 215 with a minimum grade of 2.0
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

CGT 247 - 3D Animation - Introduction
Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to increase the student's familiarity with the 3D interface, concepts of 3D space and animation. It will provide an introduction to primitives, some modifiers and box-modeling techniques. Students will be exposed to lighting, texture mapping concepts and basic animation techniques. Students will also develop skill sets to create simple animations.

Prerequisites: None.
Corequisites: CGT 109 if not taken previously. CGT 123 if not taken previously. CGT 125 if not taken previously. CGT 127 if not taken previously.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

CGT 250 - Practical Application
Credits: 3
Lecture Contact Hours: 3
Description: Students will work in teams to develop and execute graphic design media for professional organizations, internal promotions and information media. They will function within work groups based on production skills. The groups are defined by track structures: Print Graphics, Web Design, Motion Graphics and Interactive Media. Emphasis is on applying skills to real world projects and on developing a professional portfolio. Students are instructed in team building, project management, research and interviewing techniques.

Prerequisites: CGT 234 or may be taken concurrently, or CGT 252 or may be taken concurrently.
Corequisites: CGT 231 if not taken previously.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

CGT 252 - 3D Animation - Animating
Credits: 3
Lecture Contact Hours: 3
Description: This class adds to the skill sets that students were exposed to in CGT 247 Introduction to 3D Animation and CGT 254 Advanced Models and Textures. In this class, students will improve their understanding of the aesthetics and software technology involved in creating effective and convincing animation.

Prerequisites: CGT 254 with a minimum grade of 2.0
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

CGT 254 - 3D Animation - Advanced Models and Textures
Credits: 3
Lecture Contact Hours: 3
Description: This class follows up on the skill sets that students were exposed to in CGT 247 Introduction to 3D Animation. In this class students will learn modeling, texturing and lighting techniques at a more sophisticated level. These techniques will include polygon, patch, NURBS and subdivision surface modeling, creating custom textures, lighting and atmospheric effects. They will also learn the techniques of intelligent model building and issues in creating projects for a variety of delivery platforms.

Prerequisites: CGT 247 with a minimum grade of 2.0.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

CGT 256 - Portfolio 3D - Reel Development
Credits: 3
Lecture Contact Hours: 3
Description: This class prepares the student for finding a job in the field of 3D Animation or Video Production. In this course, students will assemble their previous work into a professional presentation. In doing so, the student's strengths and weaknesses will be discovered and discussed. At least one project will be assigned to specifically address the individual student's portfolio needs. During the course students will create a traditional resume.

Prerequisites: None.
Corequisites: CGT 246 if not taken previously
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

CGT 257 - Portfolio Preparation
Credits: 3
Lecture Contact Hours: 3
Description: This class prepares the student for finding a job in the field of graphic design. In this course, students will assemble their previous work into a professional portfolio/presentation. This is both a print-based and an electronic portfolio. Students will also create an identity logo, implementing it on their business card, resume and portfolio packaging. Students will explore job resources, interviewing skills and professional resources such as contracts and pricing guides.

Prerequisites: CGT 234 or may be taken concurrently
Corequisites: CGT 231 if not taken previously.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

CGT 271 - Computer Graphics Technology Internship

Credits: 3
Lecture Contact Hours: 1
Off Site Contact Hours Without Faculty: 12 - 40
Description: This is an applied course within Occupational Programs specializing in the field of Computer Graphics Technology and is a cooperative assignment for students who have completed the prerequisites for this course. Employment will be approximately 12 to 40 hours per week off-campus at the employer's location within a graphic design, media developer or similar position. The final grade will be based on a joint evaluation by the faculty and the employer. Students registered in this internship course are considered Schoolcraft College students with all rights, responsibilities and privileges of a student. Internships may be paid or unpaid based upon placement. Department permission is required before registering for this course. The selection of eligible students to register for the course is a competitive process that includes testing, submission of a resume with a cover letter and interviews.

Prerequisites: Consent of department. CGT 234 or may be taken concurrently or CGT 252 or may be taken concurrently. Overall minimum GPA of 2.5.
Corequisites: CGT 231 if not taken previously.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

CGT 298 - Honors Studies

Credits: 3
Lecture Contact Hours: 3
Description: An opportunity for the talented student to explore individually, in depth, under the guidance of a faculty member, a topic, issue or problem related to the field of Computer Graphics Technology. Available to Dean's List level students or equivalent and with the consent of the instructor. This course will not be listed in the schedule of classes. To enroll in this course, a candidate must submit a project plan to an instructor. The instructor will review the plan with the candidate and may recommend changes. When the project is approved, a course section will be created, and the student will be given permission to enroll.

Prerequisites: Consent of department. Minimum overall Schoolcraft GPA of 3.5. CGT 234 or may be taken concurrently, or CGT 252 or may be taken concurrently.
Corequisites: CGT 231 if not taken previously.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

CHEM - Chemistry

CHEM 100 - Introduction to the Chemistry of Food for Culinary Arts

Credits: 4
Lecture Contact Hours: 3
Lab Contact Hours: 2
Description: This course is designed to familiarize the culinary arts student with a basic understanding of scientific principles as they apply to foods and culinary processes. The course will include a basic introduction to various aspects of chemistry. Classes of foodstuffs will be examined on a molecular level to ascertain an understanding of the interactions that occur in culinary applications. The laboratory portion of the course will emphasize the relationships between chemical principles/techniques and food preparation.

Prerequisites: None.
Corequisites: None.
Recommended: Students will benefit from current or prior enrollment in 100-level or above core culinary classes.

Course Category: Liberal Arts | Science with Lab
This course counts toward Schoolcraft's General Education Requirements.
This Course is Typically Offered: Winter, Spring, Fall

CHEM 104 - Fundamentals of Chemistry

Credits: 4
Lecture Contact Hours: 4
Lab Contact Hours: 3
Description: This course is a conceptual based, 'real life' application, chemistry lab science course. The course provides an introduction to basic chemical principles including classifications of matter and characteristic properties, atomic and molecular theories, chemical symbolism and nomenclature, periodic table analysis, bonding models, thermodynamics, acid/base concepts, solutions, oxidation/reduction and fundamental organic chemistry, as well as the application of general mathematical principles to chemical systems.

Prerequisites: MATH 053, overall high school GPA of 2.8 or higher, or minimum score of 19 ACT-Math, 25 SAT-Math, 78 CPT-Elementary Algebra or 250 NGA-Quantitative Reasoning, Algebra and Statistics
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Science with Lab
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

CHEM 111 - General Chemistry 1

Credits: 4
Lecture Contact Hours: 4
Lab Contact Hours: 3
Description: This course is designed as the first course

in a traditional one-year program in general college chemistry and includes fundamental concepts such as chemical formulas, chemical equations, laws of chemical combination, and physical, chemical, and nuclear properties. Atomic and molecular structure, bonding, stoichiometry, periodicity, gases, solutions, acids, bases, oxidation-reduction, and nuclear chemistry are also covered in this course. Laboratory work correlates with the lecture and stresses the major concepts in this course.

Prerequisites: High school chemistry with a minimum grade of 2.0 or CHEM 104 with a minimum grade of 2.0.
Corequisites: MATH 113 or higher, if not taken previously.
Recommended: None.

Course Category: Liberal Arts | Science with Lab
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

CHEM 117 - General Chemistry 2 and Qualitative Analysis

Credits: 5
Lecture Contact Hours: 4
Lab Contact Hours: 4
Description: This course is the second course in a traditional one-year general college chemistry program and includes the study of kinetics, solution equilibria, solubility equilibria, hydrolysis, electrochemistry, coordination compounds, thermodynamics and qualitative analysis. A brief introduction to organic chemistry and quantitative analysis is also included. Laboratory work correlates with lecture and stresses the identification of common cations and anions by semi-micro methods.

Prerequisites: CHEM 111 with a minimum grade of 2.0.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Science with Lab
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Fall

CHEM 120 - Organic and Biochemistry

Credits: 4
Lecture Contact Hours: 3
Lab Contact Hours: 3
Description: This course is an introduction to both organic chemistry and biochemistry. Major topics covered include structures, functions and reactions of organic and biological compounds; the chemistry of metabolic processes; enzymatic processes; and related topics. The laboratory portion of the course includes exercises in organic and biochemistry designed to reinforce lecture topics.

Prerequisites: CHEM 104 or CHEM 111
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Science with Lab
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

CHEM 213 - Organic Chemistry 1

Credits: 5
Lecture Contact Hours: 4
Lab Contact Hours: 4
Description: This is the first semester of the two-semester sequence of Organic Chemistry. Course content emphasizes bonding and structure of carbon compounds, as well as a mechanistic understanding of organic reactions. Other topics include standardized nomenclature, acid-base behavior of organic molecules, classification of compounds based on functional groups and their characteristic reactions and structure/properties relationships. The laboratory portion of the course covers a range of techniques fundamental to the practice of organic chemistry. Students are also introduced to the use of modern spectroscopy for structural determination.

Prerequisites: CHEM 117 with a minimum grade of 2.0
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Science with Lab
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall, Winter

CHEM 214 - Organic Chemistry 2

Credits: 5
Lecture Contact Hours: 4
Lab Contact Hours: 4
Description: This is the second semester of the two-semester sequence of Organic Chemistry. Course content emphasizes characteristic reactions of aromatic compounds and a wide variety of more complex functional groups, including carbonyl compounds, carbonyl-derivatives and amines. Practical application of functional-group transformation reactions to organic synthesis is addressed, as is utilization of a number of spectroscopic methods for structural determination. The laboratory portion of the course continues development

of practical skills in organic transformations using more complex reaction techniques with application to organic synthesis.

Prerequisites: CHEM 213 with a minimum grade of 2.0
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Science with Lab
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall, Winter

CHIN - Chinese

CHIN 101 - Elementary Chinese 1
Credits: 4
Lecture Contact Hours: 4
Description: This course is intended for students who have no previous education in Chinese. The course will cover basic vocabulary and grammar patterns and will build competence in all four skill areas: speaking, listening, reading and writing. Through varied activities, emphasis will be placed on oral proficiency and communication. An appreciation of Chinese culture will be an integral part of the course.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall, Winter

CHIN 102 - Elementary Chinese 2
Credits: 4
Lecture Contact Hours: 4
Description: This course is a continuation of CHIN 101 and continues to review the basic vocabulary and grammar patterns and to build competence in all four skill areas: speaking, listening, reading and writing. Through varied activities, emphasis will be placed on oral proficiency and communication. An appreciation of Chinese culture will be an integral part of the course.

Prerequisites: None.
Corequisites: None.
Recommended: CHIN 101 with a minimum grade of 2.0 or one year of high school Chinese or equivalent language knowledge.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall, Winter

CIS – Computer Information Systems

CIS 115 - Introduction to Computer Based Systems
Credits: 3
Lecture Contact Hours: 3
Description: In today's world of rapid technological advances, the prevalence of computers in the home and the office increases the demand for computer literacy and competency. The intent of this course is to help you become competent and comfortable in using computers to achieve professionalism in your chosen field of endeavor, as well as in your personal life using your digital devices. A variety of topics will be addressed, such as computer hardware and software, the internet and Web resources, networking and security, databases and information systems and mobile computing.

Prerequisites: None.
Corequisites: None.
Recommended: Computer and keyboarding experience

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Summer, Fall

CIS 120 - Software Applications
Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to provide hands-on experience with a current office software package for the computer. Emphasis is in the area of word processing, spreadsheets, database management and a presentation software program.

Prerequisites: None.
Corequisites: None.
Recommended: Computer and keyboarding experience

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Summer, Fall
Students who already have this knowledge may qualify for prior learning credit. https://www.schoolcraft.edu/student-records/prior-learning-credits.

CIS 122 - Microsoft Outlook
Credits: 2
Lecture Contact Hours: 2
Description: This course is designed to provide practical, hands-on experience with Microsoft Outlook. Microsoft Outlook is a flexible messaging and personal information management program used to send and receive email, as well as to manage messages, appointments, contacts and tasks.

Prerequisites: CIS 120
Corequisites: None.

Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

CIS 129 - Introduction to Programming Logic
Credits: 3
Lecture Contact Hours: 3
Description: This is an introductory programming course where students will learn the fundamentals of program logic and design. Heavy emphasis is placed on program design techniques. Students will develop programs using top-down design, structured programming and modular development methods.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Summer, Fall

CIS 170 - Microsoft Windows
Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to explore the features of the latest Windows desktop operating system which includes modules such as digital media, electronic messaging, networking, remote assistance, etc. In addition to studying the features that are included in Windows, the class will also emphasize customizing Windows to meet the user's needs. The students will learn to work with the desktop environment, documents and folders, toolbars and taskbar, control panel, file and Web searching tools, help files and computer maintenance and performance optimization tools. It is recommended that students have experience using computers and have proficiency in keyboard and mouse usage.

Prerequisites: None.
Corequisites: None.
Recommended: Computer experience

Course Category: Occupational
This Course is Typically Offered: Winter Only
Students who already have this knowledge may qualify for prior learning credit. https://www.schoolcraft.edu/student-records/prior-learning-credits.

CIS 171 - Introduction to Networking
Credits: 3
Lecture Contact Hours: 3
Description: This course introduces students to the key concepts of data communications, telecommunications and networking. The course provides a solid introduction to networking fundamentals including key acronyms, protocols and components that are essential to understanding how networks operate today. Upon completion, the student will have a solid understanding of how information travels from a source computer to a destination computer across a complex network.

Prerequisites: None.
Corequisites: None.
Recommended: Computer experience

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall
Students who already have this knowledge may qualify for prior learning credit. https://www.schoolcraft.edu/student-records/prior-learning-credits

CIS 172 - Network Security Fundamentals
Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to provide students a fundamental understanding of network security principles and implementation. A variety of activities will reinforce the technologies used and principles involved in creating a secure computer network environment.

Prerequisites: CIS 171 or CNT 210
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter
Students who already have this knowledge may qualify for prior learning credit. https://www.schoolcraft.edu/student-records/prior-learning-credits

CIS 178 - Technical Microsoft Windows
Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to prepare students to administer and support Windows computers in a work environment according to Microsoft and industry best practices. A hands-on approach to common Windows applications and tools is used and include Windows fundamentals, command line interface use, installation and configuration of Windows and basic network configurations.

Prerequisites: None.
Corequisites: None.
Recommended: CIS 115. Basic knowledge of computer hardware and software.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

CIS 180 - Spreadsheet Applications - Current Software
Credits: 3
Lecture Contact Hours: 3
Description: This course addresses the use of spreadsheet applications as a means to solve problems. Students will analyze comprehensive problems and design a worksheet solution that conforms to established

criteria and goals. Emphasis is placed on thinking through problems and using a comprehensive host of tools and features in a popular spreadsheet software package to develop logical solutions.

Prerequisites: None.
Corequisites: None.
Recommended: CIS 120 or computer experience.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Summer, Fall

CIS 185 - Introduction to HTML
Credits: 3
Lecture Contact Hours: 3
Description: This course provides advanced instruction in the most important topics of HTML. The course begins with the basics of creating Web pages with graphics and links, using tables and controlling page layout with frames. Advanced topics covered include cascading style sheets, an introduction to programming with JavaScript and working with JavaScript objects and events. The student is instructed in elements of Web page design. Each student will produce a large-scale multimedia Web page as a semester project.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

CIS 211 - Introduction to C++
Credits: 2
Lecture Contact Hours: 2
Description: This course is an introduction to the C++ programming language. The student will learn the basics of the C++ language up through and including control structures, functions and pointers. This course is intended for those who want a general knowledge of the C++ language.

Prerequisites: CIS 129
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

CIS 215 - Advanced Software Applications
Credits: 3
Lecture Contact Hours: 3
Description: This course is designed for students who have a working knowledge of the computer and word processing, spreadsheet and database packages. Advanced features of the software are developed building on a foundation of a beginning software applications course.

Prerequisites: CIS 120
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

CIS 221 - Advanced C++
Credits: 2
Lecture Contact Hours: 2
Description: This course is a continuation of the Introduction to C++ programming language course. The student will learn the advanced concepts of the C++ language up through and including operator and function overloading, inheritance, virtual functions, polymorphism, stream I/O, templates, exception handling, file processing and data structures. This course is intended for those who desire an advanced knowledge of the C++ language.

Prerequisites: CIS 211
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

CIS 223 - Introduction to C#
Credits: 3
Lecture Contact Hours: 3
Description: This course is an introduction to the C# programming language. The student will learn the basics of the C# language up through Windows programming and including creating Web server form controls. This course is intended for those who want a general knowledge of the C# language, part of the Microsoft VisualStudio.NET.

Prerequisites: CIS 129
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

CIS 225 - Database Management Systems
Credits: 3
Lecture Contact Hours: 3
Description: This course covers a popular relational database, Microsoft Access, in depth. Emphasis is on creating, editing, sorting, linking and querying databases. Forms, switchboards and custom reports will be created. Advanced topics include designing and creating a complete application system, as well as programming in SQL. Emphasis will also be on understanding the concepts behind database management system design to prepare students to be both users and developers.

Prerequisites: None.
Corequisites: None.
Recommended: CIS 120 or computer experience.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Summer, Fall

CIS 235 - Managing and Troubleshooting PCs
Credits: 3
Lecture Contact Hours: 3
Description: Personal computer servicing and support will be covered within the following topics: physical and electrical concepts of motherboards, power supplies, BIOS and expansion buses; definitions and uses of microprocessors (CPUs), memory system resources and input/output devices; data storage devices and interfaces; cables, connectors and ports; basic networking fundamentals; operating system fundamentals; and DOS.

Prerequisites: None.
Corequisites: None.
Recommended: Windows experience

Course Category: Occupational
This Course is Typically Offered: As Needed

CIS 238 - JavaScript
Credits: 3
Lecture Contact Hours: 3
Description: JavaScript is a powerful, object-based scripting language that can be embedded directly into HTML pages. JavaScript allows you to create dynamic, interactive Web-based applications that run completely within a Web browser. This course covers JavaScript as a client-side scripting language.

Prerequisites: CIS 129
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

CIS 250 - Systems Development and Design
Credits: 4
Lecture Contact Hours: 4
Description: The student will be made aware of various tools available to the systems analyst in solving business problems. Basic tools are used by the student in the design of a system for a practical business application. Emphasis is placed on the communication between the systems analyst and the other levels of management. "Selling" of new systems and methods is stressed. Detailed steps of each phase of systems design are shown in their relationship to the overall study.

Prerequisites: Completed (9) nine total credit hours of Computer Information Systems (CIS) and/or Computer Networking Technology (CNT) courses.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

CIS 251 - IT Project Management
Credits: 3
Lecture Contact Hours: 3
Description: This course presents the fundamental principles, practices and tools necessary to effectively manage Information Technology projects. Nine project management knowledge areas will be applied including integration, scope, time, cost, quality, human resources, communications, risk and procurement. The five process groups - initiating, planning, executing, controlling and closing - will be employed in IT projects. Examples of various Microsoft projects will be utilized to help reinforce some of the concepts.

Prerequisites: None.
Corequisites: None.
Recommended: Basic knowledge and/or experience in the field of IT

Course Category: Occupational
This Course is Typically Offered: Winter Only

CIS 255 - Introduction to Linux
Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to prepare students to administer and support Linux computers in accordance with recommendations of the Linux Professional Institute's LPIC-1, Linux Administrator certification as well as the CompTIA Linux+ certification. A hands-on approach to common Linux applications is used and include Linux fundamentals, maintenance tasks on the command line, installation and configuration of Linux and basic network configurations.

Prerequisites: None.
Corequisites: None.
Recommended: Basic knowledge of computer hardware and software. CIS 115 or CNT 133

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

CIS 273 - TCP/IP and Network Architectures
Credits: 3
Lecture Contact Hours: 3
Description: This course introduces students to the key concepts of Transmission Control Protocol/Internet Protocol (TCP/IP). The world's largest network, the Internet, is also one of the world's most powerful communication tools. Students learn the underlying applications, components and protocols of TCP/IP and its necessary link to the Internet and how to identify TCP/IP layers, components and functions. Navigation tools, TCP/IP services and troubleshooting methodologies are also reviewed.

Prerequisites: CIS 171 or CNT 210.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

CIS 274 - Advanced Linux
Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to prepare students to administer small to medium-sized mixed networks with Linux operating systems in accordance with recommendations of the Linux Professional Institute's LPIC-2, Linux Engineer certification. Students will cover topics integral to administering larger networks such as system administration, storage, networking, security and fundamental services.

Prerequisites: CIS 255.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: As Needed

CIS 290 - Object-Oriented Programming with Java
Credits: 3
Lecture Contact Hours: 3
Description: This course provides an introduction to object-oriented programming using Java. Students will develop real world application programs and Web-based applets based on object-oriented programming concepts including encapsulation, inheritance and polymorphism.

Prerequisites: CIS 129
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

CJ – Criminal Justice

CJ 102 - Organization and Administration of Law Enforcement Agencies
Credits: 3
Lecture Contact Hours: 3
Description: This course will provide the student with an overview and understanding of law enforcement management and supervision to include an historical perspective and appropriate applications. Students will be exposed to managerial processes with regard to communication, decision making and problem solving that enable managers to effectively train and motivate subordinates. This course will identify how law enforcement managers effectively handle discipline, complaints, grievances, conflict and stress. This course will further identify how managers deploy resources, improve productivity and utilize performance appraisals and evaluations. Students will analyze challenges in managing law enforcement agencies in a changing environment.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

CJ 104 - Introduction to Security
Credits: 3
Lecture Contact Hours: 3
Description: This course examines the systems and organization of security with primary emphasis on the private sector. You will learn about the role of security, contemporary issues in security including legal authority, enhancing forms of physical security and security in multiple industries and institutional settings. Finally, we will evaluate the challenges and standards of the security profession and its expanding responsibilities.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

CJ 107 - Police Field Operations
Credits: 3
Lecture Contact Hours: 3
Description: This course is a practical study of purposes, methods, types and means of law enforcement patrol, accident prevention and effective traffic control interviewing techniques. Students will learn about crimes in progress, stress survival and use of force. Training will be received on proper methods of conducting preliminary investigations, unlawful assembly and riot control.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

CJ 113 - Introduction to Criminal Justice System
Credits: 3
Lecture Contact Hours: 3
Description: This course covers the overall system of criminal justice from crime detection to the release and revocation of prisoners. The student will examine the role of law enforcement officers, corrections officers, probation officers, defense attorneys, prosecutors and judges as they relate to the defendant. The student will analyze the components of the system (law enforcement, courts and corrections) with emphasis on their interrelationships and expectations.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Summer, Fall

CJ 201 - Criminal Investigation
Credits: 3
Lecture Contact Hours: 3
Description: This course is a study of criminal investigation techniques of surveillance, collection, recording and preservation of evidence. Students will study the analysis of evidence and use of science laboratories. This course will be conducted in cooperation with other law enforcement agencies.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

CJ 209 - Basic Criminalistics
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: This course acquaints students with proper techniques of criminalistics. Students will have an opportunity to perform investigations in simulated crime scene situations using scientific investigative techniques involving collection, presentation and interpretation of physical evidence.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

CJ 210 - Criminal Procedure
Credits: 3
Lecture Contact Hours: 3
Description: This course will give an overview of criminal procedure and the criminal justice system. It will deal with arrests, search, seizure and identification procedures. It will also deal with the trial, pre- and post-, as well as the appeal process. We will examine the 4th, 5th and 6th Amendments to the United States Constitution.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

CJ 211 - Criminal Law
Credits: 3
Lecture Contact Hours: 3
Description: This course is a study of the elements of criminal law, its purposes and function. Students will study the elements necessary to establish crime and criminal intent, sources of criminal law, criminal responsibility and general court procedures. Students will be able to explore the physical and mental requirements of a criminal act and compare the affirmative defenses available. The course will cover homicide and other assaultive crimes, sex offenses and other offenses to the family relationship, theft, robbery and burglary. Students will be able to recognize crimes such as forgery, false imprisonment, extortion and bribery, as well as crimes involving narcotic drugs and alcoholic beverages.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

CJ 212 - Criminology
Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to identify the theories of crime causation, behavioral systems in crime (organized white-collar crime) and the nature and extent of crime. Emphasis will be given to law as social control, history and philosophy of punishment and contemporary correctional techniques.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

CJ 221 - Juvenile Justice
Credits: 3
Lecture Contact Hours: 3
Description: The purpose of this course is to study problems of juvenile delinquency and the theories that explain juvenile delinquency. Attention will be given to the work of youth agencies, legislative involvement and new approaches to the prevention of juvenile crime.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

CJ 287 - Police Academy
Credits: 21
Lecture Contact Hours: 13
Lab Contact Hours: 40
Description: This course is designed to prepare recruits in the proper techniques of investigation, crime scene process, patrol procedures, operations, and techniques. Emphasis will be placed on conflict mediation, report writing, detention, and prosecution of prisoners. First aid, investigations, evidence collection, disaster control, civil disorders, and tactical operations will be covered in the course. (40 hrs. minimum weekly)

Prerequisites: Consent of department before acceptance to the Police Academy.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter
Students who already have this knowledge may qualify for prior learning credit. https://www.schoolcraft.edu/student-records/prior-learning-credits.

CM – Culinary Management

CM 107 - Food and Culture
Credits: 3
Lecture Contact Hours: 3
Description: This course is a cross cultural, interdisciplinary investigation in the relationships between the foods humans prepare and consume and the cultures they build. The course will demonstrate the ways intellectual, social, religious and political events affect the preparation of food in various civilizations and at various periods in human history.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

CM 109 - Hospitality Law
Credits: 3
Lecture Contact Hours: 3
Description: This course provides students with an overview of the general concepts of law as it relates to the hospitality industry. Contract, property, employee, guest, insurance, food and beverage responsibility and business operating structure issues will be covered. The emphasis will be on restaurant law, but applicability to other aspects of hospitality law, such as catering and hotel management, will be explored.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

CM 203 - Restaurant Concepts and Design
Credits: 3
Lecture Contact Hours: 3
Description: This course will explore new concepts for the entrepreneur in the restaurant industry. New trends and restaurant décor along with facility layout and design will be emphasized.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: As Needed

CM 309 - Culinary Law
Credits: 3
Lecture Contact Hours: 3
Description: This course provides students with an opportunity to interpret the general concepts of the law as related to culinary operations. Various aspects of the law will be explored, including torts, contracts, business structures and property rights. Emphasis will be on the ramifications of the law associated with the rights and responsibilities of employees, guests and restaurant owners under diverse situations.

Prerequisites: ENG 102
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

CNT – Computer Networking Technology

CNT 115 - Cybersecurity Fundamentals
Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to provide students with a fundamental understanding of cybersecurity in preparation for a career in information technology or related field. Students will cover topics integral to cybersecurity including key terms, concepts and technologies. Specific topics include threats and adversaries, cryptography, network defense and policy concerns.

Prerequisites: None.
Corequisites: None.
Recommended: CIS 115 or computer experience.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

CNT 130 - Computer Hardware and Troubleshooting
Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to prepare students for maintaining and troubleshooting personal computers (PCs) and other technology devices. Topics include hardware, networking, mobile devices and troubleshooting. Students will carry out hardware maintenance and device configuration with a focus on customer support fundamentals and meeting requirements.

Prerequisites: None.
Corequisites: None.
Recommended: CIS 115 or computer experience.

Course Category: Occupational

This Course is Typically Offered: Fall, Winter
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

CNT 133 - Computer Software and Troubleshooting
Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to prepare students for maintaining and troubleshooting personal computers (PCs) and other technology devices. Topics include operating systems, security, software troubleshooting and operational procedures. Students will explore software used to configure and troubleshoot devices with a focus on fundamental security concerns and operational best practices.

Prerequisites: None.
Corequisites: None.
Recommended: CIS 115 or computer experience.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

CNT 136 - Computer User Support
Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to prepare students for the dynamic and challenging environment of help desk and end user support. With a focus on communication and organizational skills, students are presented with best practices and procedures necessary for providing quality support for technology end users. Students will use help desk management software and be challenged with real-life scenarios encountered in business environments.

Prerequisites: CNT 130 or CNT 133.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

CNT 173 - Wireless Local Area Networks
Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to provide students a fundamental understanding of wireless data communication technologies, RF behavior, security aspects and network components as they apply to Wireless Local Area Network (WLAN) administration. Students will perform basic configuration and troubleshooting of WLAN hardware peripherals and protocols used in small business and enterprise deployments.

Prerequisites: CIS 171 or CNT 210
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

CNT 176 - Cloud Network Technologies
Credits: 3
Lecture Contact Hours: 3
Description: Cloud technologies have become an integral part of nearly every information technology infrastructure. This course is designed to provide students with the knowledge and skills to understand cloud networking technologies and use best practices related to implementing business technologies in cloud environments.

Prerequisites: CIS 171 or CNT 210
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

CNT 179 - Physical Networking
Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to introduce the student to physical aspects of networking technologies and telecommunication support that converge in modern integrated business data environment. The student will practice cabling fundamentals, industry best practices and maintaining a network/telecommunications system.

Prerequisites: None.
Corequisites: None.
Recommended: CIS 115 or computer experience.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

CNT 180 - Ethical Hacking and System Defense
Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to familiarize students with an offensive security mindset toward defending networks and systems from the bad actors in cyberspace. Students will explore ethical hacking techniques and tools to better understand how to protect resources from various adversaries and attacks. Additional areas of focus include legal considerations, defensive technologies and security incident response.

Prerequisites: CNT 115
Corequisites: None.
Recommended: CIS 255

Course Category: Occupational
This Course is Typically Offered: Fall Only

CNT 210 - CCNA Networking 1
Credits: 4
Lecture Contact Hours: 4
Description: This is the first of four courses designed to prepare students for the Cisco Certified Network Associate (CCNA) certification. Fundamental networking topics including structure, functions, components, media, addressing and common protocols are introduced. Students will perform basic network device configuration.

Prerequisites: None.
Corequisites: None.
Recommended: Basic knowledge and/or experience in the field of IT or successful completion of CIS 115.

Course Category: Occupational
This Course is Typically Offered: Fall Only
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

CNT 220 - CCNA Networking 2
Credits: 4
Lecture Contact Hours: 4
Description: This is the second of four courses designed to prepare students for the Cisco Certified Network Associate (CCNA) certification. Students will configure and troubleshoot switching and routing technologies used in small to medium networks. Topics include virtual LANs (VLANs), routing, dynamic routing protocols and basic security topics.

Prerequisites: CNT 210 with a minimum grade of 2.0.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

CNT 230 - CCNA Networking 3
Credits: 4
Lecture Contact Hours: 4
Description: This is the third of four courses designed to prepare students for the Cisco Certified Network Associate (CCNA) certification. In this course, network topics are expanded to include components, technologies and protocols that are used to create and manage larger and more complex networks. Students will implement and troubleshoot advanced routing configurations, technologies that improve the performance and reliability of local area networks and additional protocols needed within networks.

Prerequisites: CNT 220 with a minimum grade of 2.0.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

CNT 240 - CCNA Networking 4
Credits: 4
Lecture Contact Hours: 4
Description: This is the final course designed to prepare students for the Cisco Certified Network Associate (CCNA) certification. Course topics include wide area network (WAN) and virtual private network (VPN) technologies and other services such as Simple Network Management Protocol (SNMP) and NetFlow. Students will configure and troubleshoot network technologies that are required in complex networks.

Prerequisites: CNT 230 with a minimum grade of 2.0.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

CNT 244 - Cybersecurity Operations
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: This course is designed to provide students with the knowledge and skills needed to successfully handle the tasks, duties and responsibilities of an entry-level security analyst working in a Security Operations Center (SOC). Topics covered include operating systems and network infrastructure, network and endpoint attacks, cryptography, monitoring and analysis and incident response.

Prerequisites: CNT 115. CNT 220.
Corequisites: None.
Recommended: CIS 178. CIS 255. CIS 172.

Course Category: Occupational
This Course is Typically Offered: Winter Only
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

CNT 250 - Server Administration 1
Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to prepare students to implement a Windows server infrastructure in an existing business networking environment. Students will explore and perform tasks relating to the configuration and management of services and infrastructure using Windows server software.

Prerequisites: None.
Corequisites: None.
Recommended: CIS 115 or CNT 133. Basic knowledge of computer hardware and software.

Course Category: Occupational
This Course is Typically Offered: Winter Only

CNT 253 - Server Administration 2
Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to prepare students to administer a Windows server infrastructure in an enterprise networking environment. Students will explore and perform advanced tasks relating to the configuration and management of services and infrastructure using Windows server software.

Prerequisites: CNT 250
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: As Needed

CNT 260 - Information Assurance and Security
Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to supplement technical knowledge and skills with a fundamental understanding of information assurance (IA); security design principles; and the rules, guidelines and laws that must be observed when securing information systems. Specific topics include the security life cycle, access control models, vulnerability and risk assessment strategies, fundamental security design principles and other related concepts. Applicable laws and policies and responsibilities related to cyber defense are also covered.

Prerequisites: CNT 115
Corequisites: None.
Recommended: Completion of at least nine credit hours of CIS or CNT courses.

Course Category: Occupational
This Course is Typically Offered: Winter Only

CNT 262 - Perimeter Defense
Credits: 3
Lecture Contact Hours: 3
Description: This course builds upon a foundation of networking knowledge to cover network defense principles, technologies and methods used to secure the perimeters of networks that are becoming increasingly relied upon to provide shared access of resources between remote networks and devices. Topics covered include network security threats, layering of security mechanisms/Defense in Depth, access control and reporting, advanced TCP/IP concepts, placement of defenses and cryptography. Students will also explore network security components such as firewalls, intrusion detection and virtual private networks.

Prerequisites: CIS 172
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall Only

CNT 264 - Security Testing Methods
Credits: 3
Lecture Contact Hours: 3
Description: This course provides students with a deeper understanding of system security by exploring principles and techniques used to actively test systems for security weaknesses and their impact (often referred to as penetration testing). Topics covered include test planning, reconnaissance, execution, reporting and mitigation of weaknesses that occur from software misconfigurations or programming errors. Students will use open-source security testing software to carry out security testing in an appropriate environment.

Prerequisites: CNT 115. CIS 255.
Corequisites: None.
Recommended: CNT 180

Course Category: Occupational
This Course is Typically Offered: Winter Only

CNT 293 - Network Design
Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to build upon knowledge of network functionality and provide skills used to design routed and switched network infrastructures for small business or basic enterprise networks. Students will work through network design fundamentals including use of appropriate technologies and the importance of modularity, hierarchy, scalability, resiliency and other design considerations.

Prerequisites: CNT 220
Corequisites: None.
Recommended: CNT 230

Course Category: Occupational
This Course is Typically Offered: Winter Only

COLLS – Collegiate Skills

COLLS 050 - College Reading
Credits: 4
Lecture Contact Hours: 4
Description: This course focuses on developing vocabulary and comprehension skills in group and lab settings. Students will explore and develop reading strategies to improve reading and vocabulary fluency.

Prerequisites: Minimum score of 11 ACT-Reading, 18 SAT-Reading, 32 CPT-Reading Comprehension or 220

NGA-Reading
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Learning Support Services
This Course is Typically Offered: Winter, Spring, Fall

COLLS 053 - Critical Reading and Thinking Applications
Credits: 4
Lecture Contact Hours: 4
Description: This course focuses on developing brain-based comprehension strategies to actively read and process information from a variety of texts. Students will study test taking, including proper question/answer techniques. They will learn a variety of vocabulary strategies as well as strategies to critically analyze, synthesize and evaluate argumentative and expository essays.

Prerequisites: COLLS 050 or minimum score of 15 ACT-Reading, 22 SAT-Reading, 57 CPT-Reading Comprehension or 237 NGA-Reading
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Learning Support Services
This Course is Typically Offered: Winter, Spring, Fall

COLLS 105 - Learning Skills
Credits: 1
Lecture Contact Hours: 1
Description: This course is designed to provide students with the learning skills and support necessary to successfully balance academic and other life demands. Students will apply techniques to their personal situations and course load requirements.

Prerequisites: Consent of department.
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Learning Support Services
This Course is Typically Offered: Fall, Winter

COLLS 130 - Applied Learning Theory for Nursing Majors
Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to prepare nursing students for the demands of the nursing program. Emphasis will be placed on developing and applying critical reading, thinking and learning strategies to nursing content. Topics covered in the course are reading speed/comprehension, reading study system, lecture note taking, time/goal management, test preparation/test taking and mathematics, as well as assistance with TEAS preparation. This course will help students prepare to handle courses offered throughout the entire nursing program.

Prerequisites: COLLS 053 with a minimum grade of 2.0, overall high school GPA of 2.8 or higher, or minimum score of 18 ACT-Reading, 25 SAT-Reading, 70 CPT-Reading Comprehension or 250 NGA-Reading
Corequisites: None.
Recommended: BIOL 101

Course Category: Applied Liberal Arts | Learning Support Services
This Course is Typically Offered: Winter, Spring, Fall

COMA – Communication Arts

COMA 103 - Fundamentals of Speech
Credits: 3
Lecture Contact Hours: 3
Description: This course develops essential skills in constructing and delivering speeches for a variety of situations and audiences. This includes informative and persuasive speeches among other types of address. Students will explore the use of research, technology, and visuals as related to speech making. Effective listening skills also will be introduced.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | English or Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

COMA 105 - Introduction to Communication Studies
Credits: 3
Lecture Contact Hours: 3
Description: This survey course is designed to introduce students to Communication as a field of study. Students will learn about theories and research that are fundamental to human communication. Topics of study will include identity, persuasion and influence and how these ideas affect contexts like interpersonal, intercultural, small group and organizational communication, as well as the media. Students will also learn how to apply communication concepts in a variety of settings.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall, Winter

COMA 200 - Interpersonal Communications

Credits: 3
Lecture Contact Hours: 3
Description: This course lays the foundation for understanding interpersonal communication in personal, professional and social situations. Topics include, but are not limited to, nonverbal communication, perception of self and others, conflict management, listening skills, social media and interpersonal communication, construction of messages using appropriate language, relationships, the role of gender, and communication ethics. Students will explore interpersonal concepts through a variety of strategies and techniques which may include group work, individual presentations, personal reflections and essays that will enhance their understanding of interpersonal communication.

Prerequisites: None.
Corequisites: None.
Recommended: COMA 103 or COMA 105.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall, Winter

COMA 202 - Small Group Communication

Credits: 3
Lecture Contact Hours: 3
Description: This is a foundational course that introduces students to key concepts and theories of effective small group communication. Topics may include leadership models, characteristics of effective teams, decision making and problem-solving processes, group norms, cultural and team diversity and types and roles of teams. Students will explore concepts through a variety of team presentations and projects that will enhance their understanding of small group communication.

Prerequisites: None.
Corequisites: None.
Recommended: COMA 103 or COMA 105.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall, Winter

COMA 212 - Organizational Communication

Credits: 3
Lecture Contact Hours: 3
Description: This is an introductory course that covers key concepts and theories of organizational communication. Topics may include communication models for leaders and teams, the impact of globalization and technology, the role of power, decision-making, organizational culture and conflict management. Students will explore concepts through a variety of strategies and techniques which may include examining case studies, preparing team and individual presentations and writing essays that will enhance their understanding of organizational communication.

Prerequisites: None.
Corequisites: None.
Recommended: COMA 103 or COMA 105.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall, Winter

COMA 213 - Argumentation and Debate

Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to give students a foundational understanding of the key concepts, theories, and practice of argumentation and debate. Topics will include research skills, logic and reasoning, argument selection and construction, refutation and rebuttal, and evaluation of evidence. Students will explore these concepts through a variety of strategies and techniques, which include examining cases, engaging in debates, as well as team and individual presentations, personal reflections, and written essays.

Prerequisites: None.
Corequisites: None.
Recommended: COMA 103

Course Category: Liberal Arts | English or Humanities
This course counts toward Schoolcraft's General Education Requirements
This course counts toward a Michigan Transfer Agreement General Education Requirement

This Course is Typically Offered: Winter Only

COMA 215 - Introduction to Public Relations

Credits: 3
Lecture Contact Hours: 3
Description: This introductory course provides an overview of the field of public relations, as well as key theories, principles, and processes of public relations. Topics of study may include public relations tactics; historical and theoretical foundations of public relations; role and function of public relations in society today; media relations; types of organizations; ethics and legality; the role of the professional; research, writing, strategic planning, and implementation; managing conflict; and globalization. Students will explore concepts through a combination of real-world-oriented writing assignments, including press releases, examining case

studies, engaging in discussions, as well as participating in team presentations, projects, and campaigns.

Prerequisites: None.
Corequisites: None.
Recommended: COMA 103 or COMA 105

Course Category: Applied Liberal Arts | English or Humanities
This course counts toward Schoolcraft's General Education Requirements
This Course is Typically Offered: Fall Only

COMA 230 - Introduction to Mass Communication
Credits: 3
Lecture Contact Hours: 3
Description: Understanding media in today's world is more than a scholarly exercise; it is a necessary survival skill in a world that has been utterly changed by mass communication. All students, whether they will be practitioners, critics or consumers, have to be able to analyze the ways in which mass media is being used to change the world. This course provides the tools needed to accomplish this analysis.

Prerequisites: COMA 103
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter Only

COMA 240 - Intercultural Communication
Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to enhance foundational knowledge in the discipline of communication studies. Students will learn the value of studying intercultural communication in an increasingly diverse and interrelated world. Topics of study will also include how culture influence's identity, worldview, the global marketplace and the media, as well as conflict and barriers to effective communication across cultures. Students will practice skills necessary for cultural sensitivity and communication competence.

Prerequisites: COMA 105
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter Only

COMA 294 - Directed Study in Communication Arts
Credits: 3
Lecture Contact Hours: 1
Off Site Contact Hours Without Faculty: 2 - 40
Description: This course provides an opportunity for students to explore in-depth learning experiences in Communication Arts. Students may work off-campus in a cooperative paid or unpaid work assignment at an approved location; work with a mentor departmental faculty member to investigate a topic or issue; or complete another approved in-depth learning experience, activity or project. Students registered in this course are considered Schoolcraft College students with all rights, responsibilities and privileges of a student even when on- or off-campus. The instructor will meet with the student one hour per week for fifteen weeks. The instructor, in collaboration with the student, will determine the course focus and assessments. The final grade will be based on a variety of factors, depending on the nature of the learning experience. This course will not be listed in the schedule of classes. Permission is required before registering for this course and will only be granted to students who have a plan approved for the course by the facilitating instructor and appropriate administrator.

Prerequisites: Consent of department.
Corequisites: None
Recommended: None

Course Category: Applied Liberal Arts

COR – Correctional Science

COR 110 - Introduction to Corrections
Credits: 3
Lecture Contact Hours: 3
Description: This course blends theory and operational knowledge for corrections. Students learn about the early development of corrections, sentencing, prisons, probation, parole, prisoner rights, community corrections, the role of the correctional officer and current concerns.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

CTMI – Computed Tomography

CTMI 210 - Computed Tomography Principles and Instrumentation
Credits: 2
Lecture Contact Hours: 2
Description: This course focuses on physical principles and instrumentation used in Computed Tomography. Topics of discussion will include the history of computed

tomography, basic fundamentals of computed tomography, data acquisition, image reconstruction, instrumentation and quality assurance.

Prerequisites: Acceptance into the Computed Tomography Program. Registered radiologic technologist (ARRT), radiation therapist (ARRT) and nuclear medicine technologist (ARRT or NMTCB).
Corequisites: None
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Fall

CTMI 220 - Patient Care and Safety in Computed Tomography
Credits: 2
Lecture Contact Hours: 2
Description: This course focuses on patient care delivery in the Computed Tomography (CT) suite. Emphasis will be on radiation safety and contrast administration. Patient education, patient assessment, policies and procedures will also be covered in this course.

Prerequisites: Acceptance into the Computed Tomography Program. Registered radiologic technologist (ARRT), radiation therapist (ARRT) and nuclear medicine technologist (ARRT or NMTCB).
Corequisites: None
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Fall

CTMI 230 - Pathology and Cross-Sectional Anatomy
Credits: 3
Lecture Contact Hours: 3
Description: This course focuses on identifying anatomical structure produced by Computed Tomography (CT) scanners. An overview of pathologies commonly seen will be reviewed. A general understanding of descriptions, signs and symptoms and imaging characteristics of those pathologies will be discussed.

Prerequisites: Acceptance into the Computed Tomography Program. Registered radiologic technologist (ARRT), radiation therapist (ARRT) and nuclear medicine technologist (ARRT or NMTCB).
Corequisites: None
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Winter

CTMI 270 - Computed Tomography Clinical Education 1
Credits: 4
Lecture Contact Hours: 1
Off Site Contact Hours Without Faculty: 24 ***Description:*** First in a series of two clinical courses that provide students an opportunity to learn scanning skills in a clinical setting. Supervised clinical education will be focused on applying protocols, equipment operations and image quality. Patient comfort and safety and professional behavior and values will be stressed. This course will meet for a total of 360 clinical hours in eight-hour shifts.

Prerequisites: Acceptance into the Computed Tomography Program. Registered radiologic technologist (ARRT), radiation therapist (ARRT) and nuclear medicine technologist (ARRT or NMTCB).
Corequisites: CTMI 210, if not taken previously. CTMI 220, if not taken previously.
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Fall

CTMI 280 - Computed Tomography Clinical Education 2
Credits: 4
Lecture Contact Hours: 1
Off Site Contact Hours Without Faculty: 24 ***Description:*** Second in a series of two clinical courses that provide students an opportunity to demonstrate scanning skills in a clinical setting. This supervised clinical rotation will help the student perfect skills developed in Clinical Education I. Mastering scanning skills and assisting with interventional procedures will be the focus of this course. Patient comfort and safety, while adhering to ethical and professional guidelines, will continue to be evaluated. This course will meet for a total of 360 clinical hours in eight-hour shifts.

Prerequisites: CTMI 270 with a minimum grade of 3.0.
Corequisites: CTMI 230, if not taken previously.
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Winter

CTMI 290 - Computed Tomography Capstone
Credits: 1
Lecture Contact Hours: 1
Description: This course is designed as a capstone learning experience to prepare students for the American Registry of Radiologic Technologists (ARRT) post primary certification exam in Computed Tomography (CT). Students also prepare for professional employment by synthesizing knowledge, skills and attitudes learned in the Computed Tomography program. The ARRT Code of Ethics and Standards of Care will be reviewed.

Prerequisites: CTMI 270 with a minimum grade of 3.0.
Corequisites: CTMI 280, if not taken previously.
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Winter

CUL – Culinary Arts

CUL 102 - Culinary Sanitation

Credits: 2
Lecture Contact Hours: 2
Description: This course introduces the theory and practice of sanitation and safety and their relationship to the hospitality industry. Topics include the study of food-borne illnesses and safety: biological, chemical and physical hazards, cross-contamination, personal hygiene, sanitation, safety regulations and the use and care of equipment. Hazard Analysis Critical Control Point (HACCP) and Occupational Safety and Health Administration (OSHA) guidelines and standards, as they apply to the hospitality industry, will be introduced. Upon successful completion of this course, the student will be prepared to take the National Restaurant Association ServSafe Food Protection Manager Certification exam.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Summer, Fall
Students who already have this knowledge or certification may qualify for prior learning credit. https://www.schoolcraft.edu/records/prior-learning-credits/

CUL 103 - Introduction to Professional Cooking Skills and Technique

Credits: 4
Lecture Contact Hours: 1
Lab Contact Hours: 4
Description: This course will provide the aspiring chef a broad orientation to the culinary industry so that they will better understand what is required to succeed. Emphasis for discussion will be on professionalism, safety and sanitation standards, equipment identification, identification of food products, knife handling skills and a basic understanding of stock making and basic cooking techniques. Students will be required to purchase an initial set of hand tools for skills development. Students must receive an overall GPA of 2.5 to pass the class, as well as pass the final practical with a minimum of 2.5.

Prerequisites: ENG 050 with a minimum grade of 2.0; or overall high school GPA of 2.8 or higher; or minimum score of 15 ACT-English, 22 SAT-Writing and Language, 51 CPT-Sentence Skills or 237 NGA-Writing. COLLS 050 with a minimum grade of 2.0; or overall high school GPA of 2.8 or higher; or minimum score of 15 ACT-Reading, 22 SAT-Reading, 57 CPT-Reading Comprehension or 237 NGA-Reading. MATH 045 with a minimum grade of 2.0; or overall high school GPA of 2.8 or higher; or minimum score of 16 ACT-Math, 22 SAT-Math, 60 CPT-Arithmetic, 240 NGA-AR, 220 NGA-QRAS.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Summer, Fall
Students who already have this knowledge may qualify for prior learning credit. https://www.schoolcraft.edu/student-records/prior-learning-credits

CUL 130 - Foundations of Cooking A - Dry Heat Cookery

Credits: 3
Lecture Contact Hours: 1
Lab Contact Hours: 3.66
Description: This course is designed to introduce students to fundamental culinary terminology, methodology, processes and procedures as it relates to the professional kitchen with a focus on dry heat cooking methods. There will be an emphasis on kitchen safety, sanitation, equipment maintenance, operational procedures, station set up/breakdown and time management. Students will learn to apply these kitchen philosophies as they relate to the foundational cooking techniques of grilling, roasting, sauté and frying. Supporting techniques of stocks, sauce and soup development will also be included. Foundational cooking preparations for starches, grains and vegetable cookery will be established, along with nutritional concepts.

Prerequisites: CUL 102 or current ServSafe certification. CUL 103.
Corequisites: CUL 140. CUL 150.
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Fall, Winter
Students who already have knowledge may qualify for prior learning credit. https://www.schoolcraft.edu/student-records/prior-learning-credits.

CUL 135 - Foundations of Cooking B - Moist Heat Cookery

Credits: 3
Lecture Contact Hours: 1
Lab Contact Hours: 3.66
Description: This course is designed to introduce students to fundamental culinary terminology, methodology, processes and procedures as it relates to the professional kitchen with a focus on moist heat cooking methods and breakfast cookery. There will be an emphasis on kitchen safety, sanitation, equipment maintenance, operational procedures, station set up/breakdown and time management. Students will learn to apply these kitchen philosophies as they relate to the foundational cooking techniques of breakfast and egg cookery, shallow and submerge poach, steaming, papillote, stewing and braising. Supporting techniques of stocks, sauce and soup development will also be included. Foundational cooking preparations for starches, grains and vegetable cookery will be

established, along with nutritional concepts.

Prerequisites: CUL 102 or current ServSafe certification. CUL 103
Corequisites: CUL 136 CUL 145
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Fall, Winter
Students who already have this knowledge may qualify for prior learning credits.
https://www.schoolcraft.edu/student-records/prior-learning-credits.

CUL 136 - Foundations of Classical and Contemporary Pastry
Credits: 3
Lecture Contact Hours: 1
Lab Contact Hours: 5
Description: This course will teach students the necessary procedures and principles in the art of creating and producing classical pastries and present them in lighter and more contemporary formats. Upon successful completion of the course, the student will understand basic baking and pastry terminology, use of measuring equipment and equivalents and conversions; properly use hand tools and machinery; use various types of ovens; understand dietetic and nutritional preparations and concepts as it relates to pastry; and understand health, safety and sanitation of work areas. Various pies, puddings, pastries, cakes and tortes will be covered. This course also will cover the more intricate methods of producing fine pastries, mousses, cakes, tortes, ice cream desserts and chocolate work. Practical applications will be exercised by producing products for the American Harvest Restaurant and Main Street Café.

Prerequisites: CUL 102 or current ServSafe certification. CUL 103
Corequisites: CUL 135 CUL 145
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Fall, Winter
Students who already have this knowledge may qualify for prior learning credits.
https://www.schoolcraft.edu/student-records/prior-learning-credits.

CUL 140 - Purchasing and Cost Controls
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 2.33
Description: Upon successful completion of this course, the student will have a basic knowledge of purchasing, receiving, storage, issuing and inventory control through the use of culinary computer application software. The ability to run a more effective and profitable kitchen operation, including the preparation of financial and control related reports will be incorporated. Students will also demonstrate knowledge of specific product characteristics, market distributions, grading standards, quality differences and other selection factors. Practical application of competencies will be accomplished by working directly with the Culinary Arts Purchasing Department.

Prerequisites: CUL 102 or ServSafe Certificate. CUL 103
Corequisites: CUL 130 CUL 150
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Fall, Winter
Students who already have this knowledge may qualify for prior learning credits.
https://www.schoolcraft.edu/student-records/prior-learning-credits.

CUL 145 - Butchery
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 2.33
Description: Students will learn commercial meat preparation, its fabrication, portion control and the importance of safe sanitary butchery practices. Students will select and prepare quality meats, fish and poultry for industry consumption and retail use. The outline of quality and yield grades based on specification guidelines will be covered. Practical application will be done by preparing the butchery needs for numerous classes within the culinary program.

Prerequisites: CUL 102 or current ServSafe certification. CUL 103
Corequisites: CUL 135 CUL 136
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Fall, Winter
Students who already have this knowledge may qualify for prior learning credits.
https://www.schoolcraft.edu/student-records/prior-learning-credits.

CUL 150 - Baking
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 2.33
Description: This course explores the different varieties of flour used in a commercial bake shop, along with the chemical reactions of ingredients in yeast doughs and quick breads. Nutritional values of baked goods and how to use equipment for baking will also be covered. The understanding of the baking process of proofing and fermentation of yeast products, along with the different mixing methods are incorporated. The use of standard recipes and costing out a recipe to meet financial goals are highlighted. In addition, students will develop hands-on experience with bakery products by producing finished goods for the American Harvest Restaurant and Main Street Café.

Prerequisites: CUL 102 or current ServSafe certification. CUL 103
Corequisites: CUL 130 CUL 140
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Fall, Winter
Students who already have this knowledge may qualify for prior learning credits.
https://www.schoolcraft.edu/student-records/prior-learning-credits.

CUL 210 - Wine and Spirits
Credits: 1
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: This course will provide comprehensive information about the origins, production methods, characteristics and liability laws of culinary important types of alcoholic beverages, including beer, wine and distilled spirits. The student will gain an understanding of regional beverage styles of North America, the British Isles, France, Italy, Germany, the Iberian Peninsula and the Southern Hemisphere. Production practices and regulations, climatic and political influences, beverage characteristics and deductive evaluation methods will be studied. The development of food and wine pairing, as well as opening and closing procedures are incorporated. Upon successful completion of this course, the student will be prepared to take the ServSafe Alcohol exam.

Prerequisites: Students must be at least 18 years of age to take this course [MCL 436.1703 Section 703, (10)]. CUL 130 CUL 135 CUL 136 CUL 140 CUL 145 CUL 150
Corequisites: CUL 248 CUL 250
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Fall, Winter
Students who already have this knowledge may qualify for prior learning credits.
https://www.schoolcraft.edu/student-records/prior-learning-credits.

CUL 230 - Modern American Cuisine
Credits: 6
Lecture Contact Hours: 2
Lab Contact Hours: 7.33
Description: This is a comprehensive course on American regional cuisine. Various food regions of the United States and its territories are explored, providing students with traditional and modern approaches to techniques, recipes and interpretations of regional foods. Students will rotate through the roast, grill, sauté and garde manger stations, obtaining practical application of the preparation of food in a live restaurant service in the American Harvest Restaurant, as well as providing retail service in the Main Street Café.

Prerequisites: CUL 130. CUL 135.CUL 136. CUL 140. CUL 145. CUL 150.
Corequisites: CUL 245. CUL 246.
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Fall, Winter
Students who already have this knowledge may qualify for prior learning credits.
https://www.schoolcraft.edu/student-records/prior-learning-credits.

CUL 245 - Foundations of Healthy Cooking
Credits: 3
Lecture Contact Hours: 1
Lab Contact Hours: 3.66
Description: This combination course explores nutrition and the relationship between nutrition, specialty diets, healthy cooking philosophy and healthy cooking techniques. Lectures will focus on scientific nutritional concepts, while the culinary lab will emphasize the relationships between nutritional concepts and healthful food preparations. Topics such as nutritional balance, specialty diets, food fads, obesity, weight control and portion size are studied. Students will learn how to apply nutritional concepts in menu planning and cooking techniques in order to prepare healthful foods that are both pleasing to the eye and the palate.

Prerequisites: CUL 130. CUL 135. CUL 136. CUL 140. CUL 145. CUL 150.
Corequisites: CUL 230. CUL 246.
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Fall, Winter
Students who already have this knowledge may qualify for prior learning credits.
https://www.schoolcraft.edu/student-records/prior-learning-credits.

CUL 246 - Dining Room
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 2.33
Description: Upon successful completion of the course, the student should be able to apply dining room procedures, which include identifying the seven service types, basic hot and cold beverage services, professional ethics, good self-image, dependability, attitude, dedication, understanding the art and science of employee relationships and the value of customer relationships.

Prerequisites: CUL 130. CUL 135. CUL 136. CUL 140. CUL 145. CUL 150.
Corequisites: CUL 230. CUL 245.
Recommended: None

Course Category: Occupational

This Course is Typically Offered: Fall, Winter
Students who already have this knowledge may qualify for prior learning credits. https://www.schoolcraft.edu/student-records/prior-learning-credits.

CUL 248 - Charcutière/Garde Manger
Credits: 4
Lecture Contact Hours: 1
Lab Contact Hours: 5.66
Description: Students in this course will acquire professional skills in the production of various styles of hors d'oeuvres, sausage making, pâtés, terrines, galantines, as well as hot and cold smoked proteins. Accompanying cold sauces and condiments will also be explored. Additional garde manger competencies of salad composition, dressing production, hot and cold sandwich construction, cheese identification and cold appetizer development will be highlighted.

Prerequisites: CUL 130. CUL 135. CUL 136. CUL 140. CUL 145. CUL 150.
Corequisites: CUL 210. CUL 250.
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Fall, Winter
Students who already have this knowledge may qualify for prior learning credits. https://www.schoolcraft.edu/student-records/prior-learning-credits.

CUL 250 - International Cuisine
Credits: 6
Lecture Contact Hours: 2
Lab Contact Hours: 7.33
Description: Students will learn food culture, history and terminology of various international cuisines. In addition, they will study traditional and contemporary cooking techniques. Students will prepare regional entrées, salads, appetizers and soups based on industry trends and various buffet presentations. The menu items will be offered to the public and served in the American Harvest Restaurant.

Prerequisites: CUL 130. CUL 135. CUL 136. CUL 140. CUL 145. CUL 150.
Corequisites: CUL 210. CUL 248.
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Fall, Winter
Students who already have this knowledge may qualify for prior learning credits. https://www.schoolcraft.edu/student-records/prior-learning-credits.

CUL 260 - Competitive Ice Carving
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: This course will present safety procedures related to ice handling, tools and equipment used in ice carving. Qualities of carving ice, proper care and sharpening of tools are also covered. Use of templates and production of basic carvings will be accomplished. This is an elective course.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

CUL 265 - Chocolatier
Credits: 3
Lecture Contact Hours: 1
Lab Contact Hours: 4.66
Description: This course is designed to introduce the student on the history, manufacturing, and chocolate techniques. Students will learn how to store, handle and package chocolate. Students will learn techniques for producing chocolate decorations for plated desserts, decorated cakes and tortes, and French pastry. They will learn how to make various jellies, and ganache, and how to make hollow shells and dipped bonbons. Students will learn how to make and design chocolate centerpieces and sculptures for culinary competitions and pastry buffets.

Prerequisites: Current ServSafe certification, CUL 103, CBPA 103, or Consent of the department.
Corequisites: None
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

CUL 290 - Culinary Arts Internship
Credits: 3
Lecture Contact Hours: 1
Off Site Contact Hours Without Faculty: 12 - 40
Description: This is an applied course within Occupational Programs specializing in the field of Culinary Arts. This experience provides a practical application of the competencies and skills taught in the classrooms and labs. Students will work directly with industry professionals for validation of the training they have received. Employment will be approximately 12 to 40 hours per week at the employer's location within an approved culinary venue. Students registered in this internship course are considered Schoolcraft College students with all rights, responsibilities, and privileges of a student. Internships may be paid or unpaid based upon placement.

Prerequisites: CUL 103.

Current ServSafe Manager's Certificate or successful completion of the CUL 102 Sanitation course.

This is an elective course for currently enrolled culinary students and requires departmental approval.

Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered:
Winter/Spring/Summer/Fall

CUL 296 - Salon Competition 1
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 4.13
Description: In this course, students will build and refine culinary techniques. This first Salon course will introduce students to the skills and requirements necessary to successfully compete in culinary competitions. Students selected for this class may form the College Culinary Team. Off-campus field trips and training sessions may be scheduled.

Prerequisites: Consent of department
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

CUL 298 - Salon Competition 2
Credits: 4
Lecture Contact Hours: 2
Lab Contact Hours: 5.33
Description: A continuation of Salon Competition 1 for students who have decided to compete at state, national, and/or international level culinary competition(s). The students must have demonstrated proficiency for competition in Salon Competition 1 to be approved as participants in this advanced course. Selected students form a College Culinary Team and, as such, can represent Schoolcraft College in culinary competition(s). This course will require field trips and training sessions beyond the scheduled class time and an interdisciplinary collaborative approach will be utilized.

Prerequisites: CUL 296 or consent of Instructor.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: As Needed

CUL 303 - Culinary Program Practicals
Credits: 5
Lecture Contact Hours: 1
Lab Contact Hours: 4
Description: This course is designed to be an orientation to the culinary bachelor's degree programs. Students will demonstrate proper culinary skills. Learning strategies will focus on knife handling skills, team skills and professionalism, safety and sanitation, financial control practices, equipment utilization, identification of food products, nutritional guidelines, cold food garde-manger, butchery skills, an awareness of international cuisines and cultures and a high level of understanding of culinary techniques. Application of appropriate technology for a career in the Culinary Arts, along with critical research skills, will be addressed.

Prerequisites: Current ServSafe Certification. CIS 120.

Completion of an accredited ACFEF culinary program or consent of department.

College level reading, overall high school GPA of 2.8 or higher, or a minimum score of 18 ACT-Reading, 25 SAT-Reading, 70 CPT-Reading Comprehension or 250 NGA-Reading.

College level writing, overall high school GPA of 2.8 or higher, or a minimum score of 22 ACT-English, 29 SAT-Writing and Language, 108 CPT-Sentence Skills or 276 NGA-Writing.

College level math, overall high school GPA of 2.8 or higher, or a minimum score of 19 ACT-Math, 25 SAT-Math, 78 CPT-Elementary Algebra or 250 NGA-Quantitative Reasoning, Algebra and Statistics.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

CUL 350 - Food Safety Management
Credits: 3
Lecture Contact Hours: 3
Description: This course prepares the student to manage personnel and equipment to ensure food safety. Students will learn to purchase, receive, store and distribute food supplies and equipment following established sanitation and quality standards. They will utilize HACCP guidelines to protect food during all phases of preparation, holding and transportation. Application of safety and sanitation regulations related to physical resources and routine maintenance inspection of equipment will be covered. Management skills to assure employee compliance, safe workflow, training, proper food production and safe equipment use will be emphasized.

Prerequisites: CUL 102 or consent of department.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

CUL 360 - Purchasing Control
Credits: 2
Lecture Contact Hours: 2
Lab Contact Hours: 1
Description: Upon successful completion of this course, the student will have an advanced understanding of the purchasing cycle, business control plans, competitive bidding techniques, purchasing specifications, cash

control, budgetary planning, equipment purchasing, cost controls, bidding and receiving. This will be accomplished using industry specific software designed to create a more profitable business operation.

Prerequisites: CUL 303 or consent of department.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Spring Only

CUL 495 - Culinary and Dietary Operations Capstone
Credits: 1
Lecture Contact Hours: 1
Description: This capstone course allows students to develop diet plans and menus based on their understanding of human physiology and the dietary needs and restrictions of consumers. These diet plans and menus will present evidence of the student's ability to analyze financial and physical resources; demonstrate leadership, quantitative, technology and communication skills; and recommend proper safety methods. Successful completion of this course will exhibit the student's proficiency in optimizing operational activities within a culinary establishment while developing appropriate diet plans and menus using available resources.

Prerequisites: ACCT 330. BUS 220. CUL 350. CUL 360. NFS 320. NFS 480.
Corequisites: NFS 491 if not taken previously.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Spring Only

DMS – Diagnostic Medical Sonography

DMS 100 - Introduction to Diagnostic Medical Sonography
Credits: 3
Lecture Contact Hours: 3
Description: This course introduces the student to the field of Diagnostic Medical Sonography (ultrasound). Students learn the history of medical ultrasound, scope of practice, terminology, legal and ethical issues, patient care and sonography compared to other imaging modalities. Communication, professionalism, ergonomics, vitals, certification, infection control and accreditation are addressed.

Prerequisites: COLLS 053 with a minimum grade of 2.0, overall high school GPA of 2.8 or higher, or minimum score of 18 ACT-Reading, 25 SAT-Reading, 70 CPT-Reading Comprehension or 250 NGA-Reading. ENG 055 with a minimum grade of 2.0, overall high school GPA of 2.8 of higher, or minimum score of 18 ACT-English, 25 SAT-Writing and Language, 71 CPT-Sentence Skills or 250 NGA-Writing.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

DMS 110 - Sonography Physics and Instrumentation
Credits: 4
Lecture Contact Hours: 4
Description: This course provides history and knowledge of equipment operations for ultrasound. Fundamentals of acoustic physics, instrumentation, transducer types and parameters, biological effects and Doppler principles will be covered.

Prerequisites: Acceptance into Diagnostic Medical Sonography Program. PHYS 123 with a minimum grade of 3.0. DMS 100 with a minimum grade of 3.0.
Corequisites: DMS 116 DMS 152
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Spring, Summer
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

DMS 116 - Cross-Sectional Sonography
Credits: 3
Lecture Contact Hours: 3
Description: This course will present human cross-sectional anatomy relative to both the normal body structures and pathologic changes that will be demonstrated in multiple scan planes and directly associated with sonographic imaging. This is a lecture base course that will utilize textbook material, sonographic terminology and ultrasound images to identify cross-sectional anatomy of the abdomen, superficial structures, male pelvis, female pelvis, and obstetrics.

Prerequisites: Acceptance into Diagnostic Medical Sonography Program. DMS 100 with a minimum grade of 3.0.
Corequisites: DMS 110. DMS 152
Recommended:

Course Category: Occupational
This Course is Typically Offered: Spring, Summer
Students who already have this knowledge may qualify for prior learning credits.
https://www.schoolcraft.edu/student-records/prior-learning-credits.

DMS 120 - Abdominal Sonography
Credits: 3
Lecture Contact Hours: 3

Description: Study of the abdomen and small parts anatomy utilizing ultrasound. This includes physiology, pathology, pathophysiology, patient care and imaging techniques. The focus is on normal and abnormal anatomy sonographic patterns. Emphasis is placed on clinical history, physical assessment and correct exam protocol. This course will explore preparation for intraoperative surgical procedure scanning and infection control measures.

Prerequisites: Acceptance into Diagnostic Medical Sonography Program. DMS 110 with a minimum grade of 3.0. DMS 116 with a minimum grade of 3.0. DMS 152 with a minimum grade of 3.0.
Corequisites: DMS 202 DMS 212
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall Only
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

DMS 152 - Sonography Lab 1
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 3
Description: This lab experience will introduce students to sonographic imaging, equipment, transducer orientation and imaging concepts. This course covers the human anatomy from a cross-sectional perspective in the transverse, longitudinal, coronal and oblique planes. Emphasis will be on the abdomen, obstetrics and gynecologic ultrasound procedures.

Prerequisites: Acceptance into the Diagnostic Medical Sonography Program. DMS 100 with a minimum grade of 3.0
Corequisites: DMS 110. DMS 116.
Recommended:

Course Category: Occupational
This Course is Typically Offered: Spring, Summer
Students who already have this knowledge may qualify for prior learning credits.
https://www.schoolcraft.edu/student-records/prior-learning-credits

DMS 162 - Obstetrics Sonography
Credits: 3
Lecture Contact Hours: 3
Description: This course studies obstetric and fetal anatomy utilizing ultrasound. This includes physiology, pathology, pathophysiology, patient care and imaging techniques. The focus is on normal and abnormal anatomy sonographic patterns. Emphasis is placed on clinical history, physical assessment, and correct exam protocol.

Prerequisites: DMS 120 with a minimum grade of 3.0. DMS 202 with a minimum grade of 3.0. DMS 212 with a minimum grade of 3.0.
Corequisites: DMS 166. DMS 220.
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Winter, Fall
Students who already have this knowledge may qualify for prior learning credits.
https://www.schoolcraft.edu/student-records/prior-learning-credits.

DMS 166 - Gynecology Sonography
Credits: 2
Lecture Contact Hours: 2
Description: In this course, gynecology utilizing ultrasound are studied. This includes physiology, pathology, pathophysiology, patient care and imaging techniques. The focus is on normal and abnormal anatomy sonographic patterns. Emphasis is placed on clinical history, physical assessment, and correct exam protocol.

Prerequisites: DMS 152 with a minimum grade of 3.0
Corequisites: None
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Winter, Fall
Students who already have this knowledge may qualify for prior learning credits.
https://www.schoolcraft.edu/student-records/prior-learning-credits.

DMS 202 - Sonography Lab 2
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 3
Description: In this course, skills learned in Sonography Lab 1 are expanded. Experience is gained in advanced scanning to include vascular and small parts. Students will learn how to follow protocols and create technical impressions. Students analyze correlations with clinical diagnostic imaging techniques. The role of the sonographer, radiologist and referring physician in diagnostic patient care are discussed.

Prerequisites: DMS 152 with a minimum grade of 3.0. DMS 110 with a minimum grade of 3.0. DMS 116 with a minimum grade of 3.0.
Corequisites: DMS 212 with a minimum grade of 3.0
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Fall
Students who already have this knowledge may qualify for prior learning credits.
https://www.schoolcraft.edu/student-records/prior-learning-credits.

DMS 212 - Sonography Clinical 1
Credits: 3
Lecture Contact Hours: 1

Off Site Contact Hours Without Faculty: 24 - 30
Description: This clinical course provides students with the opportunity to learn scanning skills in a clinical setting. The student will be supervised by qualified sonographers. This is the first of three clinical courses that provides students with progressive experience and observation in a clinical rotation. This course will meet for 360-450 clinical hours in 8–10-hour shifts.

Prerequisites: DMS 110 with a minimum grade of 3.0. DMS 116 with a minimum grade of 3.0. DMS 152 with a minimum grade of 3.0.
Corequisites: DMS 120. DMS 202.
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Fall Only
Students who already have this knowledge may qualify for prior learning credits.
https://www.schoolcraft.edu/student-records/prior-learning-credits.

DMS 220 - Sonography Clinical 2
Credits: 6
Lecture Contact Hours: 3
Off Site Contact Hours Without Faculty: 32-40
Description: This course continues to add experience to the student's ability to perform ultrasound procedures under the direct supervision of a qualified sonographer. This is the second of three courses designed to broaden technical skills in a clinical setting. Clinical competencies will correspond to completed didactic work performed in the lab. Students will be evaluated utilizing performance standards. This course will meet for 480-600 clinical hours in 8–10-hour shifts.

Prerequisites: DMS 212 with a minimum grade of 3.0.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

DMS 230 - Sonography Clinical 3
Credits: 6
Lecture Contact Hours: 3
Off Site Contact Hours Without Faculty: 32-40
Description: In the final semester of clinical applications, students will be expected to perform advanced exams within the ultrasound department. Clinical competencies will correspond to completed didactic work performed in the lab. Students will be evaluated utilizing performance standards. This course will meet for 480-600 clinical hours in 8–10-hour shifts.

Prerequisites: DMS 220 with a minimum grade of 3.0.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Spring, Summer
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

DMS 252 - Advanced Sonography
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 1
Description: In this course, musculoskeletal and vascular ultrasound imaging are studied. Imaging of neonatal and infant brain and small body parts are also included. This includes physiology, pathology, pathophysiology, patient care and imaging techniques. The focus is on normal and abnormal anatomy sonographic patterns. Additionally, this course will review procedures performed with ultrasound guidance and interventional procedures.

Prerequisites: DMS 152 with a minimum grade of 3.0. DMS 166 with a minimum grade of 3.0. DMS 220 with a minimum grade of 3.0.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Fall
Students who already have this knowledge may qualify for prior learning credits.
https://www.schoolcraft.edu/student-records/prior-learning-credits.

EARTH – Earth and Environmental Science

EARTH 110 - Earth Systems
Credits: 4
Lecture Contact Hours: 3
Lab Contact Hours: 3
Description: This course examines environmental science from an Earth systems perspective that analyzes environmental problems caused by humans and natural hazards in the atmosphere, hydrosphere, geosphere and biosphere. In addition, physical geography and Earth systems concepts are utilized to investigate the physical nature of Earth and the anthropogenic influences on its environment. Topics include a survey of atmospheric processes, water resources, climate patterns and global climate change, surficial processes and landforms, soils, vegetation, ecosystems, pollution, waste management, energy resources, natural disasters and mitigation. Field trips may be taken as part of this course.

Prerequisites: None
Corequisites: None
Recommended: None

Course Category: Liberal Arts | Science with Lab
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Fall

EARTH 120 - Environmental Science
Credits: 3
Lecture Contact Hours: 3
Description: This course examines the environmental issues and challenges that we face in our world today. Students will analyze the human impact on the physical environment and investigate the causes and solutions to environmental problems using real world examples on the local, regional and global scale. Topics include human population distribution, habitats, biodiversity, pollution, waste management, energy resources, natural resources, climate change and sustainability.

Prerequisites: None
Corequisites: None
Recommended: None

Course Category: Liberal Arts | Science
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

EARTH 140 - Introductory Geology
Credits: 4
Lecture Contact Hours: 3
Lab Contact Hours: 3
Description: Geology is the study of the physical structures and processes that make and shape our planet. This course will provide a survey of minerals and igneous/sedimentary/metamorphic rocks, along with the processes involved in their formation. Topics also include the structure of Earth, plate tectonics, volcanism, earthquakes, deformation, weathering and erosion, deposition, rivers, groundwater, glaciers, geologic time and an overview of the local geological setting in the Great Lakes region. Laboratory exercises consist of the identification of minerals and rocks, interpretation of topographic/geologic maps and the analysis of earthquakes. Field trips may be included in this course.

Prerequisites: None
Corequisites: None
Recommended: None

Course Category: Liberal Arts | Science with Lab
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

EARTH 200 - Weather and Climate
Credits: 3
Lecture Contact Hours: 3
Description: This course provides an overview of the Earth's atmospheric and weather systems. Topics include energy, temperatures, atmospheric moisture, cloud formation, precipitation, atmospheric pressure, weather systems, weather forecasting, severe weather and global climate patterns and climate change. In addition, topics on air pollution and atmospheric phenomenon will be covered.

Prerequisites: None
Corequisites: None
Recommended: None

Course Category: Liberal Arts | Science
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Fall

EARTH 235 - Geographic Information Systems
Credits: 5
Lecture Contact Hours: 3
Lab Contact Hours: 4
Description: This course covers the principles of Geographic Information Systems (GIS) and its applications at the beginner and intermediate levels. GIS topics and skills involve digital mapping, spatial analysis, and data exploration. Applications in GIS include fields in the geosciences, social sciences, politics, humanities, urban planning, natural resources, land management, economics, and much more. The course will utilize modern GIS software that is commonly used by global institutions and industry, and topics include the application of map design, data incorporation, and GIS programming elements. Student requirements include the completion of a GIS project that encompasses data collection, database management, analysis, and presentation.

Prerequisites: None.
Corequisites: None.
Recommended: CIS 115 or Basic Computer Experience

Course Category: Liberal Arts | Science with Lab
This course counts toward Schoolcraft's General Education Requirements
This course counts toward a Michigan Transfer Agreement General Education Requirement

This Course is Typically Offered: Fall Only

EARTH 240 - Fossils and Earth History
Credits: 4
Lecture Contact Hours: 3
Lab Contact Hours: 3

Description: This course examines the historical geology and evolution of planet Earth through time. Geological concepts, methods and techniques are used to explore the history of Earth, including the identification and interpretation of fossils and the analysis of igneous, sedimentary and metamorphic rocks and their structures. Field trips may be included in this course.

Prerequisites: None
Corequisites: None
Recommended: EARTH 140

Course Category: Liberal Arts | Science with Lab
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter Only

EARTH 250 - Mineralogy
Credits: 4
Lecture Contact Hours: 3
Lab Contact Hours: 3
Description: This course studies the composition, structure, formation, occurrence and the environmental importance of minerals found on Earth. Topics include mineral classification, descriptive mineralogy, crystal and mineral chemistry, crystallography and optical mineralogy. Laboratory exercises include the identification of minerals and their properties, their crystal systems and thin section identification using a petrographic microscope. Field trips may be included in this course.

Prerequisites: EARTH 140
Corequisites: None
Recommended: CHEM 104 or higher.

Course Category: Liberal Arts | Science with Lab
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall Only

EARTH 294 - Directed Study in Earth Science
Credits: 3
Lecture Contact Hours: 1
Off Site Contact Hours Without Faculty: 2 - 40
Description: This course provides an opportunity for students to explore and apply their knowledge in the Earth and Environmental Science fields. Students may seek a directed study, on or off campus, in the form of a paid or unpaid work assignment, research project, investigation or other learning experience related to their specific interests. These experiences may include internships at public or private sectors, industry and undergraduate research assignments/projects at Schoolcraft or other colleges/universities. This directed study is initiated by the student with guidance from instructors in the department. Students are expected to contact the department at least one semester or earlier before they decide to pursue this directed study course. Students registered in this course are considered Schoolcraft College students with all rights, responsibilities and privileges of a student.

Prerequisites: Consent of Department
Corequisites:
Recommended:

Course Category: Applied Liberal Arts | Science
This Course is Typically Offered: Spring Only

ECE – Early Childhood Education

ECE 100 - Foundations of Early Childhood Education
Credits: 2
Lecture Contact Hours: 2
Description: Students will be provided an introduction to the field of Early Childhood Education. This introduction includes theories of child development, information on key professional and regulatory organizations, relevant laws and regulations, discussion on opportunities within this field, the National Association for the Education of Young Children (NAEYC) code of ethical conduct, the NAEYC Standards, the Michigan Core Competencies for the field, Child Protection Law and developmentally appropriate practices. Students will spend time observing and analyzing a variety of early childhood programs. Students will complete observations of five different early childhood settings. Michigan Central Registry Clearance by the Michigan Department of Human Services is required. This course requires all students must meet the requirements of a criminal background check.

Prerequisites: None.
Corequisites: ECE 110 if not taken previously or EDUC 110 if not taken previously
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

ECE 110 - Child Development
Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to provide students an overview of development from the prenatal time period through emerging adulthood. The course will concentrate on physical, cognitive, social and emotional development in the prenatal, infancy, toddler, preschool, middle childhood, adolescence and emerging adulthood. Emphasis is placed on understanding development in the context of educational settings. Students will complete observations of three different children. A Michigan Central Registry Clearance by the Michigan

Department of Human Services may be required. This course requires all students must meet the requirements of a criminal background check.

Prerequisites: Overall high school GPA of 2.8 or higher, or minimum score of 18 ACT-Reading, 25 SAT-Reading, 70 CPT-Reading Comprehension or 250 NGA-Reading. Overall high school GPA of 2.8 or higher, or minimum score of 18 ACT-English, 25 SAT-Writing and Language, 71 CPT-Sentence Skills or 250 NGA-Writing.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

ECE 120 - Creative Activities
Credits: 3
Lecture Contact Hours: 3
Description: The purpose of this course is to introduce students to the stages of creative development in children. Open-ended processes, multi-media materials and creative activities across the arts curriculum that are appropriate for children and persons with developmental challenges will be emphasized. Students will be exposed to the importance of the arts and aesthetic environments related to the educational experience.

Prerequisites: None.
Corequisites: ECE 110 if not taken previously or EDUC 110 if not taken previously.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

ECE 135 - Preschool Education with Field Experiences
Credits: 5
Lecture Contact Hours: 4
Off Site Contact Hours with Faculty: 1
Off Site Contact Hours Without Faculty: 4 ***Description:***
This course is designed to assist students in knowing and understanding the characteristics and needs of the preschool child and methods by which they are met. There will be a focus on stages of development and typical behaviors. Students will use their own knowledge and other resources to design, implement and evaluate meaningful, challenging curriculum for children. Students will have a 60-hour field experience working directly with preschool children. Michigan Central Registry Clearance by the Michigan Department of Human Services and a current TB test are required for this course. This course requires all students must meet the requirements of a criminal background check.

Prerequisites: ECE 110 or EDUC 110.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

ECE 145 - Infant and Toddler Education with Field Experiences
Credits: 5
Lecture Contact Hours: 4
Off Site Contact Hours with Faculty: 1
Off Site Contact Hours Without Faculty: 4 ***Description:***
This course is designed to prepare students to provide care for infants and toddlers in group settings. Students will learn the essential ingredients in infant and toddler education and will be exposed to matching teaching strategies to very young children as they develop. A holistic emphasis focuses on the development of a curriculum which provides for the physical, emotional, social and cognitive development of infants and toddlers. Students will have a 60-hour field experience working directly with infants and toddlers. Michigan Central Registry Clearance by the Michigan Department of Human Services and a current TB test are required for this course. This course requires all students must meet the requirements of a criminal background check.

Prerequisites: ECE 110 or EDUC 110.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

ECE 150 - Before and After School Programming for Children
Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to identify the developmental tasks of middle childhood (ages 6-12) and will provide strategies for supporting healthy growth and development. Emphasis will be on understanding the needs of students who attend before and after school programs. Programming that enhances creativity, independence and academic achievement will be explored. Students will complete an observation at a before and after school program. Michigan Central Registry Clearance by the Michigan Department of Human Services is required for this course. This course

requires all students must meet the requirements of a criminal background check.

Prerequisites: ECE 110 or EDUC 110.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

ECE 160 - Child Development Associate CDA Credential Assessment Preparation

Credits: 1
Lecture Contact Hours: 1
Description: This course is designed to support the CDA Candidate in preparation for the final assessment process. To be awarded the Child Development Associate - CDA - credential, a candidate must present evidence to The Council for Early Childhood Professional Recognition. The CDA credential is a national credential in the field of early childhood education for persons currently working in the field. For more information on the CDA Credential visit www.cda.council.org. Enrollment in this course is for students who are currently employed in the field of early childhood education. Michigan Central Registry Clearance is required for this course. This course requires all students must meet the requirements of a criminal background check.

Prerequisites: ECE 100. ECE 120. ECE 135 with a minimum grade of 2.5 or ECE 145 with a minimum grade of 2.5. Consent of department.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

ECE 170 - Curriculum, Assessment and Technology

Credits: 3
Lecture Contact Hours: 3
Description: The focus of this course is on understanding curriculum and its development, assessment methodologies and technology use in education. Students will be exposed to educational curricula, best assessment practices and resources for the educator for technology use within the classroom. Students will explore current tools and issues related to technology use in education.

Prerequisites: ECE 110 or EDUC 110.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

ECE 180 - Child and Family Welfare Services

Credits: 3
Lecture Contact Hours: 3
Description: This class explores the importance and complex characteristics of diverse families and communities. There will be a focus on identifying needs of families and strength-based methods through which those needs are met. Emphasis is placed on understanding the importance of child protection and the impact of abuse and neglect. This is a program required service-learning course. Michigan Central Registry Clearance by the Michigan Department of Human Services is required for this course. This course requires all students must meet the requirements of a criminal background check.

Prerequisites: None.
Corequisites: ECE 110 if not taken previously or EDUC 110 if not taken previously.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

ECE 230 - Classroom Behavior - Understanding Social Competence

Credits: 3
Lecture Contact Hours: 3
Description: The course is designed to introduce students to the role of social competence in the lives of children. Students are introduced to the development of social competence, principles of group functioning, behavior expectations and appropriate strategies of behavior management in the classroom and the impacts of trauma on children's behavior. In addition, the role of educators for promoting self-regulation, peer relationships and healthy problem-solving techniques for children is explored. Emphasis is placed on respecting children and understanding influences on child behavior. This is a program required service-learning course. Michigan Central Registry Clearance by the Michigan Department of Human Services is required for this course. This course requires all students must meet the requirements of a criminal background check.

Prerequisites: ECE 110 or EDUC 110.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

ECE 240 - Administration of Early Childhood Programs

Credits: 3
Lecture Contact Hours: 3
Description: This course will cover methods of administering an early childhood education program reflecting best practices in the field. Included will be current laws, regulations, ethical guidelines and other professional standards related to early childhood practice. Establishing an original program will be related to understanding the business need for comprehensive development of guidelines for children, staff and families taking part in the program. Students will interview an

administrator of an early childhood education program. Michigan Central Registry Clearance by the Michigan Department of Human Services is required for this course. This course requires all students must meet the requirements of a criminal background check.

Prerequisites: ECE 110 or EDUC 110.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

ECE 250 - Literacy and Numerical Thinking
Credits: 3
Lecture Contact Hours: 3
Description: This course explores literacy and numerical thinking in children. An emphasis will be placed on constructivist and sociolinguistic views of learning. Experiential exercises, course readings and activity development will provide students with opportunities to plan developmentally appropriate learning activities, to record observations of children and to generate analysis that support literacy and numerical thinking development. Students will have hands-on learning experiences to share their lessons on literacy and numerical thinking with children. Michigan Central Registry Clearance by the Michigan Department of Human Services is required for this course. This course requires all students must meet the requirements of a criminal background check.

Prerequisites: ECE 110 or EDUC 110.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

ECE 265 - Early Childhood Advanced Practical Experiences
Credits: 4
Lecture Contact Hours: 2
Off Site Contact Hours with Faculty: 1
Off Site Contact Hours Without Faculty: 10 ***Description:*** Students will have a supervised practical experience working directly with children in an early childhood preschool classroom. Students will spend 150 hours over the semester in their practical field placement. They will have increased responsibility planning and implementing activities for children as well as directing the overall day. Emphasis will be placed on working as a contributing member of a teaching team. Michigan Central Registry Clearance by the Michigan Department of Human Services and a current TB test are required for this course. This course requires all students must meet the requirements of a criminal background check.

Prerequisites: ECE 135 with a minimum grade of 2.5. ECE 145 with a minimum grade of 2.5.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

ECE 280 - Emerging Educator
Credits: 1
Lecture Contact Hours: 1
Description: This course is the final requirement in the Early Childhood Education and Special Needs Para Educator AAS Degree programs. Students will demonstrate competencies in their designated programs of study by creating a portfolio. Students need to contact the Early Childhood and Special Education department to confirm their eligibility to take this course prior to registration.

Prerequisites: Consent of department.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

ECON - Economics

ECON 103 - Introductory Economics
Credits: 3
Lecture Contact Hours: 3
Description: This course is a survey of the macroeconomic concerns of national income determinations, business cycles, unemployment, inflation and both fiscal and monetary policies to stabilize the aggregate economy. In addition, this course explores the microeconomic fundamentals of demand, supply, elasticity, consumer choice, the production costs of output and resource allocation of firms operating under various market structures and the international economy.

Prerequisites: MATH 047, overall high school GPA of 2.8 or higher, or a minimum score of 19 ACT-Math, 25 SAT-Math, 75 CPT-Arithmetic, 28 CPT-Elementary Algebra, 260 NGA-Arithmetic or 230 NGA-Quantitative Reasoning, Algebra and Statistics.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Social Science
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall, Winter

ECON 201 - Principles of Macroeconomics
Credits: 4
Lecture Contact Hours: 4
Description: Macroeconomics refers to that portion of economic analysis which is concerned with behavior of economy-wide issues, e.g., inflation, unemployment, etc. By means of theoretical reasoning and empirical

research, economists have identified a number of relationships or principles which are useful in explaining and predicting macroeconomics, their application to an understanding of current economic problems and their implication for economic policy. The intent of the course is to provide the student with a basic level of economic literacy essential for a well-informed citizenship in the years ahead. In economics, perhaps more than any other comparable discipline, things are not always what they appear to be. Indeed, many economic problems both past and present have resulted from the misunderstanding of fundamental economic relationships.

Prerequisites: MATH 047, or overall high school GPA of 2.8 or higher, or a minimum score of 19 ACT-Math, 25 SAT-Math, 75 CPT-Arithmetic, 28 CPT-Elementary Algebra, 260 NGA-Arithmetic or 230 NGA-Quantitative Reasoning, Algebra and Statistics.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Social Science
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

ECON 202 - Principles of Microeconomics
Credits: 4
Lecture Contact Hours: 4
Description: This course provides students with an introduction to the theory of consumer behavior, production theory, market structure in product and resource/factor markets and microeconomic policy.

Prerequisites: MATH 047, or overall high school GPA of 2.8 or higher, or a minimum score of 19 ACT-Math, 25 SAT-Math, 75 CPT-Arithmetic, 28 CPT-Elementary Algebra, 260 NGA-Arithmetic or 230 NGA-Quantitative Reasoning, Algebra and Statistics.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Social Science
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

EDUC - Education

EDUC 101 - Introduction to Education
Credits: 3
Lecture Contact Hours: 3
Description: This is an introductory course for prospective education majors, designed to explore the teaching profession. Students will gain insight into the practical elements of becoming an educator through an overview of the foundational philosophies of education, best practices, classroom management, education law and policies and trends. Students will be introduced to Michigan standards and requirements for teacher certification. Students will complete relevant fieldwork through video observations.

Prerequisites: Overall high school GPA of 2.8 or higher, or minimum score of 18 ACT-Reading, 25 SAT-Reading, 70 CPT-Reading Comprehension or 250 NGA-Reading. Overall high school GPA of 2.8 or higher, or minimum score of 18 ACT-English, 25 SAT-Writing and Language, 71 CPT-Sentence Skills or 250 NGA-Writing.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

EDUC 110 - Child Development
Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to provide students an overview of development from the prenatal time period through emerging adulthood. The course will concentrate on physical, cognitive, social and emotional development in the prenatal, infancy, toddler, preschool, middle childhood, adolescence and emerging adulthood. Emphasis is placed on understanding development in the context of educational settings. Students will complete observations of three different children. Michigan Central Registry Clearance by the Michigan Department of Human Services may be required for this course. This course requires all students must meet the requirements of a criminal background check.

Prerequisites: Overall high school GPA of 2.8 or higher, or minimum score of 18 ACT-Reading, 25 SAT-Reading, 70 CPT-Reading Comprehension or 250 NGA-Reading. Overall high school GPA of 2.8 or higher, or minimum score of 18 ACT-English, 25 SAT-Writing and Language, 71 CPT-Sentence Skills or 250 NGA-Writing
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

EDUC 200 - Children with Special Needs
Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to introduce students to the topic of children/students with special needs. Included is the exploration of cognitive impairments, emotional impairments, learning impairments, visual and hearing impairments, orthopedic and/or other health impairments, giftedness and instructional strategies for these special needs. Students

will complete three observations of children with special needs. Michigan Central Registry Clearance by the Michigan Department of Human Services may be required for this course. This course requires all students meet the requirements of a criminal background check.

Prerequisites: None.
Corequisites: ECE 110 if not taken previously or EDUC 110 if not taken previously
Recommended: Individuals who hold a current or prior teaching certificate or are enrolled in the Education Transfer Program may be eligible to substitute PSYCH 249 or waive the corequisite. Discuss options with the department.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

EDUC 205 - Promoting Learning in a Diverse Society, Using Family, School and Community Partnerships
Credits: 3
Lecture Contact Hours: 3
Description: Students will learn about the relationship between schools and society within the context of the culturally diverse American society, in addition to the role of the teacher in promoting educational equity and quality for all students. Emphasis will be placed on the theory and practice of supporting families, connecting with community resources and building partnerships in schools to promote student learning. Students will complete relevant fieldwork, which will be completed through video observations.

Prerequisites: EDUC 101.
Corequisites: None.
Recommended: Individuals who hold a current or prior teaching certificate may be eligible to waive the prerequisite. Discuss options with the department.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

EDUC 210 - Elementary Instructional Strategies
Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to provide in-depth exploration of and practice with essential elements associated with being a professional elementary educator. Students will gain knowledge of and practical experience with lesson planning, classroom management strategies, student motivation and learning, using technology to enhance learning and collaboration in the learning environment. Students will review current best practices in elementary instruction, assessment, curriculum design and community relationships. Students will complete relevant fieldwork through video observations.

Prerequisites: Admission to the Alternative Route to Interim Teacher Certification Program
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

EDUC 212 - Elementary Instructional Strategies in Grades PK-3
Credits: 2
Lecture Contact Hours: 2
Description: This course is designed to provide in-depth exploration of core teaching practices with essential elements associated with being a professional educator in grades PK-3. Teacher candidates will gain knowledge of the following: designing single lesson and sequence of lessons; long and short-term learning goals for students; explaining and modeling content, practices, and strategies; implementing norms and routines for classroom discourse and work; implementing organization routines; checking for student understanding during and at the conclusion of lessons; and eliciting and interpreting individual students' thinking. Students will review current best practices in early elementary instruction and assessment. Students will complete relevant fieldwork through video observations.

Prerequisites: Admission to the Alternative Route to Interim Teacher Certification Program.
Corequisites: None
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

EDUC 215 - Elementary Instructional Strategies in Grades 3-6
Credits: 2
Lecture Contact Hours: 2
Description: This course is designed to provide an in-depth exploration of core teaching practices with essential elements associated with being a professional educator in grades 3-6. Students will gain knowledge of the following: designing single lesson and sequence of lessons; long and short-term learning goals for students; explaining and modeling content, practices, and strategies; implementing norms and routines for classroom discourse and work; implementing organization routines; checking for student understanding during and at the conclusion of lessons; and eliciting and interpreting individual student's thinking. Students will review current best practices in elementary instruction and assessment. Students will complete relevant fieldwork through video observations.

Prerequisites: Admission to the Alternative Route to Interim Teacher Certification Program.
Corequisites: None
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

EDUC 220 - Secondary Instructional Strategies
Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to provide in-depth exploration of and practice with essential knowledge and skills for secondary educators. Students will review current research-based best practices in secondary instruction, assessment and curriculum design. Students will gain knowledge and skills to effectively plan and teach secondary lessons. Students will also study and observe the roles and attributes of successful secondary education teachers. Students will complete relevant fieldwork through video observations.

Prerequisites: Admission to the Alternative Route to Interim Teacher Certification Program
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

EDUC 230 - Teaching Literacy in the Elementary Classroom 1
Credits: 3
Lecture Contact Hours: 3
Description: This course will focus on the stages of literacy development, reading and writing processes and a comprehensive look at research-based literacy instruction in the elementary classroom. Instructional strategies to teach word recognition, reading comprehension and process writing will be examined in depth. The use of standards-based lesson planning and both formal and informal assessment to promote effective instruction is also covered. Students will learn how to utilize technology in the classroom to enhance literacy instruction and how to implement a system of management for comprehensive research-based literacy instruction. Strategies to identify and assist struggling readers will be explored. Students will complete relevant fieldwork through video observations.

Prerequisites: Admission to the Alternative Route to Interim Teacher Certification Program
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

EDUC 235 - Teaching Literacy and Numeracy in Grades PK-3
Credits: 2
Lecture Contact Hours: 2
Description: This course will focus on the stages of literacy and numeracy development, reading and writing processes and a comprehensive look at evidence and research-based instruction in the PK-3 classroom. Instructional strategies to teach numeracy, word recognition, reading comprehension and process writing will be examined in depth. The use of standards-based lesson planning and both formal and informal assessment to promote effective instruction is also covered. Students will learn how to utilize technology in the classroom to enhance literacy instruction and how to implement a system of management for comprehensive research-based literacy instruction. Students will complete relevant fieldwork through video observations.

Prerequisites: Admission to the Alternative Route to Interim Teacher Certification Program.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Summer

EDUC 238 - Teaching Literacy and Numeracy in Grades 3-6
Credits: 2
Lecture Contact Hours: 2
Description: This course will focus on the stages of literacy and numeracy development, reading and writing processes, and a comprehensive look at evidence and research-based literacy and numeracy instruction in the 3-6 classroom. Instructional strategies to teach numeracy, word recognition, reading comprehension, and process writing will be examined in depth. The use of standards-based lesson planning and both formal and informal assessment to promote effective instruction is also covered. Students will learn how to utilize technology in the classroom to enhance literacy instruction and how to implement a system of management for comprehensive evidence and research-based literacy instruction. Students will complete relevant fieldwork through video observations.

Prerequisites: Admission to the Alternative Route to Interim Teacher Certification Program.
Corequisites: None
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Summer

EDUC 240 - Teaching Literacy in the Elementary Classroom 2
Credits: 3
Lecture Contact Hours: 3
Description: This course will focus on analyzing current national literacy projects that identify instructional strategies to foster the most current evidence and research-based literacy skills. Course topics include identifying and assisting struggling readers and writers, creating instructional activities that meet the needs of culturally and academically diverse students, and evaluating assessments for the implementation of research-based practices. Knowledge of the stages of literacy development and its elements will be reinforced.

Prerequisites: EDUC 230, EDUC 235 or EDUC 238
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Spring Only

EDUC 245 - Effective Instruction for Today's Classroom

Credits: 2
Lecture Contact Hours: 2
Description: This course will focus on providing effective classroom instruction to meet the needs of diverse learners. Students will explore and use the principles of human thought and action with an emphasis on individuals in their environment. Diversity, equity, and inclusion will be analyzed as it impacts instructional planning and student learning, including an examination of Social Emotional Learning (SEL) and trauma. Family and community relationships will also be explored.

Prerequisites: Admission to the Alternative Route to Interim Teacher Certification Program.

Corequisites: None.

Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter/Spring

EDUC 250 - Teaching Literacy in the Secondary School

Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to provide in-depth exploration of disciplinary literacy in the secondary classroom. Students will explore strategies for teaching literacy in the secondary content areas for all learners, including those from diverse backgrounds and ESL learners, as well as struggling readers and writers. A variety of disciplinary literacy strategies will be discussed and demonstrated including identifying factors that impact successful implementation. Current research-based best practices in the field will be reviewed. Students will complete relevant fieldwork through video observations.

Prerequisites: Admission to the Alternative Route to Interim Teacher Certification Program
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

EDUC 255 - Eliciting Student Thinking in the Secondary Classroom

Credits: 2
Lecture Contact Hours: 2
Description: This course is designed to provide in-depth exploration of the core teaching practice, eliciting and interpreting student thinking in the secondary classroom. Students will review current research-based best practices in the development of questions that create an opportunity for students to share their thinking. Time will be spent deconstructing the practice while developing content specific resources. Students will complete relevant fieldwork through video observations.

Prerequisites: Admission to the Alternative Route to Interim Teacher Certification Program.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

EDUC 261 - Creating an Inclusive Classroom

Credits: 2
Lecture Contact Hours: 2
Description: This course is designed for individuals to develop an understanding of planning and implementing supports for children/students with special needs in the general education setting. The exceptional child and the variety of disabilities highlighted in the Individuals with Disabilities Act (IDEA) such as cognitive impairments, emotional impairments, visual and hearing impairments, otherwise health impaired, traumatic brain injury, learning disabilities, speech and language impairments and physical impairments in the K-12 setting are explored.

Prerequisites: Consent of department.
Corequisites:
Recommended:

Course Category: Occupational
This Course is Typically Offered: Winter, Spring

EDUC 270 - Instructional Technology

Credits: 3
Lecture Contact Hours: 1
Lab Contact Hours: 2
Description: Students will examine and apply the effective use of technology to student learning in grades K-12. They will evaluate instructional media materials, courseware and software for classroom use and develop materials using various software applications to support classroom instruction and professional communications. Students will create a professional learning portfolio. This is the capstone course for the Teacher Education Transfer Program.

Prerequisites: EDUC 101. EDUC 200. EDUC 205. EDUC 110 or PSYCH 249.
Corequisites: None.
Recommended: Individuals who hold a current or prior teaching certificate may be eligible to waive the prerequisites. Discuss options with the department.

Course Category: Occupational
This Course is Typically Offered: Winter Only

EDUC 280 - The Professional Educator
Credits: 1
Lecture Contact Hours: 1
Description: This course will address the knowledge, skills and dispositions which are demonstrated by a highly qualified, effective teacher. Students will collect, organize and reflect upon evidence that demonstrates their attitudes, skills, knowledge and abilities as an effective educator. This is the capstone course for the Alternative Route for Interim Teacher Certification Program.

Prerequisites: Consent of department.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Spring Only

EDUC 281 - Impacting the School Community
Credits: 2
Lecture Contact Hours: 2
Description: This course will address the knowledge, skills and dispositions which are demonstrated by a highly qualified, effective teacher. Students will collect, organize and reflect upon evidence that demonstrates their attitudes, skills, knowledge and abilities as an effective educator. This is the capstone course for the Alternative Route for Interim Teacher Certification Program.

Prerequisites: Consent of department.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Spring

EDUC 291 - Fieldwork Practicum
Credits: 2
Lecture Contact Hours: 1
Off Site Contact Hours with Faculty: 1
Off Site Contact Hours Without Faculty: 4 ***Description:***
Students will spend a minimum of 60 clock hours observing, assisting and teaching in a classroom under the supervision of a certified classroom teacher. Students will also participate in scheduled seminars throughout the semester. This course requires all students meet the requirements of a criminal background check.

Prerequisites: Consent of department.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Summer, Fall

EDUC 292 - Core Teaching Practices Practicum
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 0
Off Site Contact Hours with Faculty: 1
Off Site Contact Hours Without Faculty: 4 ***Description:***
Students will spend a minimum of 60 clock hours observing, assisting, and teaching in a classroom under the supervision of a certified classroom teacher. Students will also participate in scheduled seminars throughout the semester focusing on core teaching practices. Teacher candidates will connect theory to practice through in-depth reflection. This course requires all students meet the requirements of a criminal background check.

Prerequisites: Consent of department
Corequisites: None.
Recommended: None.

Course Category: Occupational

EDUC 293 - Core Teaching Practices
Credits: 1
Lecture Contact Hours: 1
Off Site Contact Hours Without Faculty: 2 ***Description:***
Students will spend a minimum of 15 clock hours of fieldwork observing classroom instruction and student behavior in a grade level that the student is seeking certification. Relevant fieldwork may be completed through video or in-person observations. Students will also participate in scheduled seminars throughout the semester. This course requires all students must meet the requirements of a criminal background check.

Prerequisites: Consent of department.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: As Needed

EDUC 296 - Education Field-Based Internship in Instruction
Credits: 2
Lecture Contact Hours: 1
Off Site Contact Hours Without Faculty: 4 ***Description:***
This course is focused on explaining and modeling content, practices and strategies in order to develop effective instructional skills. Teachers will utilize classroom observation and co-teaching models to explore core teaching practices. A maximum of sixty (60) contact hours at the teacher's school or a school arranged by the Alternate Route for Teacher Certification (ARC) program is required. Teachers in the ARC Individual Program Plan, ARC candidates seeking multiple endorsements and Interim Certified Teachers needing additional support are eligible to take this course. This course requires students to meet the requirements of a criminal background check.

Prerequisites: Consent of department.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Summer, Fall

EDUC 297 - Education Field-Based Internship in Assessment
Credits: 2
Lecture Contact Hours: 1
Off Site Contact Hours Without Faculty: 4 ***Description:*** The course is focused on developing effective learning assessment skills and requires a minimum of sixty (60) contact hours at the teacher's school or a school arranged by the Alternate Route for Teacher Certification (ARC) program. The final grade will be based on a joint evaluation by the course instructor and the College Instructional Coach. Students registered in this internship course are considered Schoolcraft College students with all rights, responsibilities and privileges of a student. A grade of 3.0 is required for successful completion of the course within the ARC program. This course requires all students meet the requirements of a criminal background check.

Prerequisites: Consent of department.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Summer, Fall

EDUC 298 - Education Field-Based Internship in Classroom Management
Credits: 2
Lecture Contact Hours: 1
Off Site Contact Hours Without Faculty: 4 ***Description:*** The course is focused on developing effective classroom management skills and requires a minimum of sixty (60) contact hours at the teacher's school or a school arranged by the Alternate Route for Teacher Certification (ARC) program. The final grade will be based on a joint evaluation by the course instructor and the College Instructional Coach. Students registered in this internship course are considered Schoolcraft College students with all rights, responsibilities and privileges of a student. A grade of 3.0 is required for successful completion of the course within the ARC program. This course requires all students meet the requirements of a criminal background check.

Prerequisites: Consent of department.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Summer, Fall

ELECT – Electronic Technology

ELECT 131 - Basic Measurement and Reporting Skills
Credits: 3
Lecture Contact Hours: 1
Lab Contact Hours: 2
Description: This course is designed for students who are pursuing a career in electronics or electronic related fields. The student will receive instruction on how to conduct career research and in the proper use of basic measuring instruments, such as the Digital Multimeter (DMM), the Volt-Ohm Meter (VOM), the sine wave generator and the oscilloscope. In the electronics laboratory, the student will make measurements, record data, maintain a logbook and develop conclusions based on the results. In the computer laboratory, students will learn how to organize and report their findings utilizing word processing, spreadsheet and presentation software.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Summer, Fall
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

ELECT 133 - Introduction to Battery Technology
Credits: 3
Lecture Contact Hours: 3
Description: Understanding batteries in today's commercial applications is becoming increasingly important. Batteries provide a means of storing energy for use in portable electronic devices ranging from personal entertainment to advanced medical, industrial applications, as well as a means to reduce emissions in electric and hybrid electric vehicles. The need to derive energy from solar, wind and other renewable forms of energy and store it underscores the importance of advanced energy storage solutions to the emerging global economy. This course will cover the principles and operation of batteries. The contrast between secondary and primary batteries will be studied. Specialized battery systems as well as fuel cells will also be covered.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: As Needed

ELECT 137 - DC Circuits and Mathematical Modeling
Credits: 5
Lecture Contact Hours: 2
Lab Contact Hours: 3

Description: This course is the study of basic DC Fundamentals and mathematical modeling for the electronics careers which includes Ohm's law, power law and Kirchhoff's laws with application to solving series, parallel and series-parallel combination circuits. Other topics will include resistors, color code, magnetism, electromagnetism and test equipment. The mathematics skills needed for an electronics career will also be covered in this course. The student will be prepared to enter the second semester course of ELECT 138 AC Fundamentals and Mathematical Modeling. Laboratory experiments and project(s) are utilized to teach the use of test equipment and to demonstrate the principals taught in lecture.

Prerequisites: MATH 053 or overall high school GPA of 2.8 or higher, or minimum score of 19 ACT-Math, 25 SAT-Math, 78 CPT-Elementary Algebra or 250 NGA-Quantitative Reasoning, Algebra and Statistics.
Corequisites: ELECT 131 if not taken previously or MECH 101.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Summer, Fall
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

ELECT 138 - AC Circuits and Mathematical Modeling
Credits: 5
Lecture Contact Hours: 2
Lab Contact Hours: 3
Description: This course is designed to explore the theory and application of AC Fundamentals. Sine wave generation and analysis will be studied. The theory of Kirchhoff's laws will be used to solve AC series, parallel and series-parallel circuits using the method of phasors. Other topics covered include capacitors, inductors, transformers, resonance, passive filters, RC and RL circuits. Laboratory experiments are utilized to teach the use of common test equipment and to demonstrate the principals taught in lecture.

Prerequisites: ELECT 137
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

ELECT 139 - Diodes and Transistors
Credits: 3
Lecture Contact Hours: 1
Lab Contact Hours: 2
Description: This course will introduce the students to various semiconductor devices starting with a discussion of internal construction, followed by circuit configurations, applications and troubleshooting techniques. Diodes will be discussed first and will include signal, rectifier, Zener and light emitting types. Transistor material will cover NPN and PNP bipolar types, J type FETs, enhancement and depletion MOSFETs. Finally, transistor switching circuits will be examined.

Prerequisites: None.
Corequisites: ELECT 138 if not taken previously.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

ELECT 144 - Introduction to Microcontrollers
Credits: 3
Lecture Contact Hours: 1
Lab Contact Hours: 2
Description: This course will introduce the student to the concepts of microcontroller architecture, block components, numbering systems and microprocessor program editing software. Representative microcontroller commands and elementary programming of a microcontroller will be studied. Students will work with hands-on experiments, which they will learn to expand and customize for their personal needs.

Prerequisites: None.
Corequisites: None.
Recommended: Computer and keyboarding experience highly recommended

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

ELECT 145 - Fluid Power
Credits: 4
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: This course emphasizes the understanding of the fundamentals of hydraulics and pneumatics. In this course, students will design, analyze, operate and maintain fluid power systems. Emphasis is placed on understanding the physics of fluids and how energy, power and force affect the devices that make up a hydraulic and pneumatic system.

Prerequisites: ELECT 138
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: As Needed
Students who already have this knowledge may qualify

for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

ELECT 180 - LabVIEW Programming CORE 1 and 2
Credits: 5
Lecture Contact Hours: 2
Lab Contact Hours: 3
Description: This course will introduce the student to the programming concepts, techniques, features and functions involved in writing a LabVIEW program. The student will learn to create programs used in test and measurements, data acquisition, instruments control and data logging. The course focuses on user interfaces, program structure, language syntax and implementation details.

Prerequisites: None.
Corequisites: None.
Recommended: Computer and keyboarding experience highly recommended

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

ELECT 215 - Operational Amplifiers and Linear Integrated Circuits
Credits: 4
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: This course will introduce the student to operational amplifiers (op amp) and linear integrated circuits. Op-amp circuit configurations, applications and troubleshooting techniques will be presented. Operational amplifiers will be presented with emphasis on applications and circuits such as inverting and non-inverting amplifiers, integrators, differentiators and filters. The coverage of linear integrated circuits includes voltage comparators, timers, oscillators, voltage regulators, special purpose amplifiers, communication circuits and data conversion circuits.

Prerequisites: ELECT 139
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

ELECT 218 - AC/DC Motors
Credits: 3
Lecture Contact Hours: 1
Lab Contact Hours: 2
Description: This course is designed to provide the student with a comprehensive understanding of motors used in industry. Principles and theories of magnetic fields and mechanical rotation will be covered. Basic through complex theories of rotor phase angles and effects on torque will be discussed. Magnetic and inductive theories, characteristics of various types of motors and speed control used in DC and AC type motors will be studied.

Prerequisites: ELECT 138
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

ELECT 219 - Digital Logic Circuits
Credits: 4
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: This course introduces students to Boolean algebra (emphasizing NAND and NOR) and various medium scale integrated circuits like exclusive or encoders, decoders, multiplexers, adders, counters and shift registers. Also explored are memory (core, RAM and ROM) and bidirectional line drivers. The laboratory work coincides with experiments utilizing digital integrated circuits.

Prerequisites: ELECT 139
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

ELECT 228 - Electronic Troubleshooting
Credits: 3
Lecture Contact Hours: 1
Lab Contact Hours: 2
Description: This course is a capstone which will apply the theory and practical application of the preceding electronics courses. The techniques of fault isolation and troubleshooting in solid state, analog, digital, motors and biomedical equipment and systems will be explored.

Prerequisites: ELECT 215. ELECT 219.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: As Needed

ELECT 251 - Programmable Logic and Industrial Controls
Credits: 4
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: The student will use Programmable Logic Controller (PLC) and Allen-Bradley RS Logix software to convert typical hardwired electrically controlled circuitry used in industry to a computer-controlled system. Emphasis will be placed on understanding the purpose and operating features of a PLC including input/output addressing and associated commands used in the PLC program. A computer will be used to write and download

a program to be tested for logical control. The student will use Linux software and networking to learn communication procedures for downloading a PLC program to the controller as well as the types of cable connections used. PanelView will be reviewed to understand its real time monitoring capability of the software. Various PLC commands will be used including internal relays, ON and OFF timers, UP and DOWN counters, subroutines, program control and math instructions.

Prerequisites: ELECT 138
Corequisites: None.
Recommended: Windows experience is highly recommended.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

ELECT 252 - Programmable Logic System Design
Credits: 4
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: The student will use Allen-Bradley RS Logix 500 software to be interfaced with RS Linx communication software and PanelView for control panel applications. Data Highway Plus will be used for network communications with other Programmable Logic Controllers (PLC) components. Emphasis will be placed on incorporating and combining programming commands, timers, counters, subroutines, data manipulation and mathematics into control process systems. Installing, wiring and networking PLC systems will be covered. Students will learn how to use troubleshooting features of the PLC software to find and diagnosis hardware, configuration and programming problems.

Prerequisites: ELECT 251
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: As Needed

ELECT 253 - Individual Student Projects
Credits: 3
Lecture Contact Hours: 1
Lab Contact Hours: 2
Description: Students will plan, organize, assemble or fabricate and test the project of their choice or one suggested by the instructor. Under guidance of the instructor, the electronic laboratory will be made available three hours a week in which time the student may perform tests.

Prerequisites: Consent of department.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: As Needed

EMT – Emergency Medical Technology

EMT 115 - Emergency Medical Technology - Basic
Credits: 10
Lecture Contact Hours: 7
Lab Contact Hours: 6
Description: The Basic Emergency Medical Technician course is a 264.5 hour Michigan Department of Health and Human Services Bureau of EMS, Trauma and Preparedness approved course that provides the information and experience necessary to prepare the student to take the National Registry Basic EMT Certification Exam. Students learn the role and responsibilities of an emergency medical technician in providing emergency care. Content areas are covered in lectures, practical skills practiced in a laboratory setting along with observations and experience that will be gained in a clinical and/or internship setting. Students must be at least 18 years of age to enroll in this course.

Prerequisites: Students must be at least 18 years of age to enroll in this course.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

EMT 185 - ECG Cardiac Monitor Technician
Credits: 4
Lecture Contact Hours: 4
Description: This 60-hour course prepares participants to work in the allied health field as a Cardiac Monitor Technician. The course covers the basics of cardiac anatomy and physiology while concentrating on the electrophysiology of the cardiac conduction system. Participants will learn how to apply and interpret basic three-lead cardiac rhythms. The course will end with basic cardiac management including Basic Life Support (CPR).

Prerequisites: None.
Corequisites: None.
Recommended: BIOL 101 with a minimum GPA or 3.0. BIOL 236 with a minimum GPA of 3.0. EMT 115 with a minimum GPA of 2.7.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

EMT 210 - Paramedic Technology - Module 1

Credits: 10
Lecture Contact Hours: 8
Lab Contact Hours: 4
Description: This course provides information and experience to prepare the student for EMT 220. In addition, the EMT 210 course is designed to give students extensive knowledge and practical application that adds to the knowledge and skills acquired in the Basic EMT course. This course includes advanced practice with a focus on preparatory entry-level paramedic skills. Content will be presented in the form of lectures, practical skills, which are practiced in a laboratory/simulation setting, along with observations and hands on experience in the clinical environment. This course has been approved by the State of Michigan, Department of Health and Human Services Bureau of EMS, Trauma and Preparedness. The program follows both the State of Michigan and the National EMS Education standards for the Paramedic level. Upon successful completion of all three semesters of the Paramedic Program and the Field Internship, the student will be eligible to take the National Registry Cognitive and Psychomotor Examinations. When the candidate successfully passes both the Cognitive and the Psychomotor exam, the candidate will be eligible for State Licensing.

Prerequisites: BIOL 101. BIOL 236. EMT 115.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

EMT 220 - Paramedic Technology - Module 2
Credits: 10.5
Lecture Contact Hours: 8
Lab Contact Hours: 5
Description: This course provides the information and experience to prepare the student for EMT 230. In addition, the EMT 220 course is designed to give students extensive practical application that builds upon knowledge and skills acquired in the EMT 210 course. This course includes advanced practice with a focus on patient assessment, cardiac, and medical emergencies. Content will be presented in the form of lectures and practical skills, which are practiced in a laboratory/simulation setting along with observations and hands-on experiences in the clinical environment. This course has been approved by the State of Michigan, Department of Health and Human Services Bureau of EMS, Trauma and Preparedness. The program follows both the State of Michigan and the National EMS Education standards for the Paramedic level. Upon successful completion of all three semesters of the Paramedic Program and the Field Internship, the student will be eligible to take the National Registry Cognitive and Psychomotor Examinations. When the candidate successfully passes both the Cognitive and the Psychomotor exams, the candidate will be eligible for State licensing.

Prerequisites: Valid and current State of Michigan Basic EMT License. EMT 210.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

EMT 230 - Paramedic Technology - Module 3
Credits: 9
Lecture Contact Hours: 6
Lab Contact Hours: 6
Description: This course provides the information and experience to prepare the student for the National Registry Examination. In addition, the EMT 230 course is designed to give students extensive practical application along with the knowledge and skills acquired in EMT 210 and 220. This course includes advanced practice with a focus on patient assessment and traumatic emergencies in addition to EMS operations. Content will be presented in the form of lectures and practical skills, which are practiced in a laboratory/simulation setting, along with observations and hands on experience in the clinical environment. This course has been approved by the State of Michigan, Department of Health and Human Services Bureau of EMS, Trauma and Preparedness. The program follows both the State of Michigan and the National EMS Education standards for the Paramedic level. Upon successful completion of all three semesters of the Paramedic Program and the Field Internship, the student will be eligible to take the National Registry cognitive and psychomotor examinations. When the candidate successfully passes both the cognitive and the psychomotor exams, the candidate will be eligible for State licensing.

Prerequisites: Valid and current State of Michigan Basic EMT License. EMT 220.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Spring, Fall
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

EMT 290 - Paramedic Field Internship
Credits: 2
Lecture Contact Hours: 1
Off Site Contact Hours Without Faculty: 20 - 40

Description: This final semester, formally known as the field internship, will serve as the capstone project for the paramedic program. During the capstone, the student will serve as a Team Leader. The Team Leader's responsibilities are delegated by direct observation and under the responsibility of an approved and trained preceptor who is appropriately licensed and credentialed to work in an approved EMS system. The student will be evaluated on his or her ability to perform skills as a competent entry-level paramedic. The capstone will serve as the final evaluation of the student prior to completion of the program and eligibility to take the National Registry of Emergency Medical Technicians-Paramedic credentialing exam. At the conclusion of the program, the expectation is the student will be prepared as a competent entry-level Emergency Medical Technician-Paramedic in knowledge, skills and behavior.

Prerequisites: EMT 230. Valid and current AHA Basic Life Support for Health Care Providers Certification. Valid and current AHA Advanced Life Support Provider Certification. Valid and current State of Michigan Basic EMT License.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

ENG - English

ENG 050 - Modern English Grammar
Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to prepare students for composition courses. The course content focuses on major grammatical concepts and writing. Students will develop basic writing and editing skills.

Prerequisites: Minimum score of 10 ACT-English, 17 SAT-Writing and Language, 35 CPT-Sentence Skills or 220 NGA-Writing.
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | English
This Course is Typically Offered: Winter, Spring, Fall

ENG 055 - Building Writing Skills
Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to prepare students for composition courses. The course focuses on the writing process, paragraph development, revision and grammar. Students will enhance their writing and editing skills.

Prerequisites: ENG 050 with a minimum grade of 2.0 or minimum score of 15 ACT-English, 22 SAT-Writing and Language, 51 CPT-Sentence Skills or 237 NGA-Writing.
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | English
This Course is Typically Offered: Winter, Spring, Summer, Fall

ENG 099 - English Composition 1 Support
Credits: 3
Lecture Contact Hours: 1.5
Lab Contact Hours: 1.5
Description: This course is designed to provide students with supplemental support and instruction to promote success in ENG 101. Instruction and activities will support the development of reading and writing strategies. Study skills such as time management, note-taking, and test preparation also will be covered. Students will be required to meet with an Academic Success or Writing Coach during the semester.

Prerequisites: Minimum score of 10 ACT-English, 17 SAT-Writing and Language, 35 CPT-Sentence Skills or 220 NGA-Writing. *Or* Minimum score of 11 ACT-Reading, 18 SAT-Reading, 32 CPT-Reading Comprehension or 220 NGA-Reading. *Or* Overall High School GPA below 2.7.
Corequisites: ENG 101
Recommended: None

Course Category: Liberal Arts | English
This Course is Typically Offered: Winter and Fall

ENG 100 - Communication Skills
Credits: 3
Lecture Contact Hours: 3
Description: This course deals with a variety of written and oral communication skills. Students learn about the application of interpersonal and intrapersonal communication, including but not limited to presentations, interviews, collaborative work and technological tools as used in personal, social and career communications.

Prerequisites: Overall high school GPA of 2.8 or higher, or minimum score of 15 ACT-English, 22 SAT-Writing and Language, 51 CPT-Sentence Skills or 237 NGA-Writing.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | English
This course counts toward Schoolcraft's General Education Requirements.
This Course is Typically Offered: Winter, Spring, Fall

ENG 101 - English Composition 1
Credits: 3
Lecture Contact Hours: 3
Description: This course teaches students to prepare and write a number of clear, well-developed essays using exposition and other rhetorical modes. This process assists students to build writing strategies and methodologies for college and professional writing.

Prerequisites: ENG 055 with a minimum grade of 2.0, or overall high school GPA of 2.8 or higher, or minimum score of 18 ACT-English, 25 SAT-Writing and Language, 71 CPT-Sentence Skills or 250 NGA-Writing.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | English
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

ENG 102 - English Composition 2
Credits: 3
Lecture Contact Hours: 3
Description: This course teaches students to conduct and integrate research and write the research paper. This process assists students in developing research and writing strategies to use in a variety of college and professional contexts.

Prerequisites: ENG 101 with a minimum grade of 2.0 or minimum score of 22 ACT-English, 29 SAT-Writing and Language, 108 CPT-Sentence Skills or 276 NGA-Writing.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | English
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

ENG 106 - Business English
Credits: 3
Lecture Contact Hours: 3
Description: This course examines verbal and nonverbal communication theories and methods relating to business. Students write business documents and apply a variety of methods for collecting and presenting data.

Prerequisites: ENG 055 with a minimum grade of 2.0,or overall high school GPA of 2.8 or higher, or minimum score of 18 ACT-English, 25 SAT-Writing and Language, 71 CPT-Sentence Skills or 250 NGA-Writing.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | English
This course counts toward Schoolcraft's General Education Requirements.
This Course is Typically Offered: Winter, Spring, Summer, Fall

ENG 107 - Introduction to Journalism
Credits: 3
Lecture Contact Hours: 3
Description: This course is an introductory survey of mass media such as newspapers, magazines (print and online), radio, TV, advertising, public relations and the World Wide Web. The course will emphasize newspapers and magazines while recognizing news and feature values, discovering audience, reporting, writing and planning content and format.

Prerequisites: ENG 101 with a minimum grade of 2.0 or minimum score of 22 ACT-English, 29 SAT-Writing and Language, 108 CPT-Sentence Skills or 276 NGA-Writing.
Corequisites: None.
Recommended: ENG 102.

Course Category: Liberal Arts | English
This course counts toward Schoolcraft's General Education Requirements.
This Course is Typically Offered: As Needed

ENG 116 - Technical Writing
Credits: 3
Lecture Contact Hours: 3
Description: This course provides practical instruction in speaking, listening and technical writing for business and industry. Students learn to apply the principles of organizational structure, resume writing, job hunting, interviewing and technical reporting.

Prerequisites: ENG 055 with a minimum grade of 2.0, or an overall high school GPA of 2.8 or higher, a minimum score of 18 ACT-English, 25 SAT-Writing, and Language, 71 CPT-Sentence Skills, or 250 NGA-Writing.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | English
This course counts toward Schoolcraft's General Education Requirements.
This Course is Typically Offered: Fall, Winter

ENG 120 - Introduction to Literary Studies
Credits: 3
Lecture Contact Hours: 3
Description: This survey course is designed to introduce students to the field of literary studies. Students will learn to analyze the fundamental genres of literature including fiction, poetry and drama from a variety of historical and cultural contexts. This course enables students to develop their critical thinking and writing skills as related to the reading and interpretation of literature.

Prerequisites: ENG 055 with a minimum grade of 2.0, or overall high school GPA of 2.8 or higher, or a minimum score of 18 ACT-English, 25 SAT-Writing and Language, 71 CPT-Sentence Skills or 250 NGA-Writing.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities

This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall, Winter

ENG 170 - Modern Literature by and About Women
Credits: 3
Lecture Contact Hours: 3
Description: Reading and discussion of fiction, poetry, drama and prose by women writers of the 20th and 21st centuries. Students use literary analysis to explore women's literature as well as the experiences, roles and art of modern women and women writers.

Prerequisites: ENG 055 with a minimum grade of 2.0, or overall high school GPA of 2.8 or higher, or a minimum score of 18 ACT-English, 25 SAT-Writing and Language, 71 CPT-Sentence Skills or 250 NGA-Writing.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: As Needed

ENG 200 - Introduction to Film
Credits: 4
Lecture Contact Hours: 4
Description: This course studies how film accomplishes its purposes, whether as simple entertainment, social commentary or complex art. Students will view and discuss selected films and explore the history, criticism, aesthetics and technique of film.

Prerequisites: ENG 101 with a minimum grade of 2.0 or minimum score of 22 ACT-English, 29 SAT-Writing and Language, 108 CPT-Sentence Skills or 276 NGA-Writing.
Corequisites: None.
Recommended: ENG 102 and college-level reading.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

ENG 203 - Children's Literature
Credits: 3
Lecture Contact Hours: 3
Description: This course surveys literature for children and adolescents in K-12 curriculum. By reading, analyzing and researching various genres of children's literature throughout the world, students gain a historical perspective and establish standards of critical evaluation.

Prerequisites: ENG 101 with a minimum grade of 2.0 or minimum score of 22 ACT-English, 29 SAT-Writing and Language, 108 CPT-Sentence Skills or 276 NGA-Writing.
Corequisites: None.
Recommended: ENG 102.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Fall

ENG 205 - Creative Writing 1
Credits: 3
Lecture Contact Hours: 3
Description: Students will explore different forms and genres of creative literature and writing. Focus will be on the examination of literary concepts and professional writing. Activities will include critical evaluation of student work in individual conferences and writing workshops.

Prerequisites: ENG 101 with a minimum grade of 2.0 or minimum score of 22 ACT-English, 29 SAT-Writing and Language, 108 CPT-Sentence Skills or 276 NGA-Writing.
Corequisites: None.
Recommended: ENG 102 and college-level reading.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall, Winter

ENG 206 - Creative Writing 2
Credits: 3
Lecture Contact Hours: 3
Description: Students will create different forms and genres of creative literature and writing. Focus will be on the evaluation and critique of literary concepts and professional writing. Activities will include critical evaluation of student work in individual conferences and writing workshops. Individual writing projects may be used to meet course requirements.

Prerequisites: ENG 101 with a minimum grade of 2.0 or minimum score of 22 ACT-English, 29 SAT-Writing and Language, 108 CPT-Sentence Skills or 276 NGA-Writing.
Corequisites: None.
Recommended: ENG 102 and college-level reading.

Course Category: Liberal Arts | Humanities

This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Summer Only

ENG 221 - Advanced Composition
Credits: 3
Lecture Contact Hours: 3
Description: This course provides advanced composition theory and practice for students to develop writing skills beyond ENG 101 and ENG 102. It emphasizes the writing process, revision strategies and standard research techniques. It also encourages peer collaboration and evaluation to reflect professional writing.

Prerequisites: ENG 101 with a minimum grade of 2.0 or minimum score of 22 ACT-English, 29 SAT-Writing and Language, 108 CPT-Sentence Skills or 276 NGA-Writing
Corequisites: None.
Recommended: ENG 102 and college-level reading.

Course Category: Liberal Arts | English
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: As Needed

ENG 243 - Introduction to Literature - Short Fiction
Credits: 3
Lecture Contact Hours: 3
Description: Using elements of fiction, this course develops standards for critical evaluation to increase understanding and appreciation of short stories. Students read and analyze short fiction and its forms from early to modern times.

Prerequisites: ENG 101 with a minimum grade of 2.0 or minimum score of 22 ACT-English, 29 SAT-Writing and Language, 108 CPT-Sentence Skills or 276 NGA-Writing.
Corequisites: None.
Recommended: ENG 102 and college-level reading.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall, Winter

ENG 244 - Introduction to Literature - Poetry
Credits: 3
Lecture Contact Hours: 3
Description: This course develops standards for critical evaluation to increase the understanding and appreciation of poetry. Students read and analyze poetry and its forms from early to modern times.

Prerequisites: ENG 101 with a minimum grade of 2.0 or minimum score of 22 ACT-English, 29 SAT-Writing and Language, 108 CPT-Sentence Skills or 276 NGA-Writing.
Corequisites: None.
Recommended: ENG 102 and college-level reading.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter Only

ENG 245 - Introduction to Literature - Drama
Credits: 3
Lecture Contact Hours: 3
Description: Students will read and discuss a number of plays, especially those written since 1850. This course is designed to develop standards for critical evaluation and increase understanding and appreciation of drama as a literary form.

Prerequisites: ENG 101 with a minimum grade of 2.0 or minimum score of 22 ACT-English, 29 SAT-Writing and Language, 108 CPT-Sentence Skills or 276 NGA-Writing.
Corequisites: None.
Recommended: ENG 102 and college-level reading.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter Only

ENG 246 - Introduction to Literature - Novel
Credits: 3
Lecture Contact Hours: 3
Description: The course examines classic, unique, and emerging examples of novels. Students use elements of fiction to critically evaluate novels, thereby expanding their understanding and appreciation for prose fiction.

Prerequisites: ENG 101 with a minimum grade of 2.0 or minimum score of 22 ACT-English, 29 SAT-Writing and Language, 108 CPT-Sentence Skills or 276 NGA-Writing.
Corequisites: None.
Recommended: ENG 102 and college-level reading.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: As Needed

ENG 248 - Introduction to Literature - Shakespeare
Credits: 3
Lecture Contact Hours: 3
Description: This course develops standards for critical evaluation using elements of drama and poetry. Students read and analyze selected Shakespearean works to understand and appreciate one of Western civilization's greatest playwrights.

Prerequisites: ENG 101 with a minimum grade of 2.0 or minimum score of 22 ACT-English, 29 SAT-Writing and Language, 108 CPT-Sentence Skills or 276 NGA-Writing.
Corequisites: None.
Recommended: ENG 102 and college-level reading.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall Only

ENG 251 - American Literature from Colonial Times to the Civil War
Credits: 3
Lecture Contact Hours: 3
Description: Students read and analyze significant literary works that illustrate the changing currents of thought and expression that dominated American life from colonial times to the Civil War.

Prerequisites: ENG 101 with a minimum grade of 2.0 or minimum score of 22 ACT-English, 29 SAT-Writing and Language, 108 CPT-Sentence Skills or 276 NGA-Writing.
Corequisites: None.
Recommended: ENG 102 and college-level reading.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: As Needed

ENG 252 - American Literature from the Late Nineteenth Century to the Present
Credits: 3
Lecture Contact Hours: 3
Description: Students read and analyze significant literary works that illustrate the changing currents of thought and expression that have dominated American life from the Civil War to the present.

Prerequisites: ENG 101 with a minimum grade of 2.0 or minimum score of 22 ACT-English, 29 SAT-Writing and Language, 108 CPT-Sentence Skills or 276 NGA-Writing.
Corequisites: None.
Recommended: ENG 102 and college-level reading.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: As Needed

ENG 275 - World Literature - Casebook Studies of Universal Themes
Credits: 3
Lecture Contact Hours: 3
Description: This course will examine a variety of international literary works pertaining to common literary themes. Such themes will be explored through poetry, drama, fiction and/or non-fiction. Works not originally written in English will be read in translation.

Prerequisites: ENG 101 with a minimum grade of 2.0 or minimum score of 22 ACT-English, 29 SAT-Writing and Language, 108 CPT-Sentence Skills or 276 NGA-Writing.
Corequisites: None.
Recommended: ENG 102 and college-level reading.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: As Needed

ENG 280 - The Nature of Language
Credits: 3
Lecture Contact Hours: 3
Description: This course is an investigation of the historical background and current status of the English language, including problems such as the changing nature of language, dialect differences, origins of standards for correctness and attempts to describe the language grammatically.

Prerequisites: ENG 101 with a minimum grade of 2.0 or minimum score of 22 ACT-English, 29 SAT-Writing and Language, 108 CPT-Sentence Skills or 276 NGA-Writing.
Corequisites: None.
Recommended: ENG 102 and college-level reading.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: As Needed

ENGR - Engineering

ENGR 100 - Introduction to Engineering and Technology

Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to introduce students to the fields of engineering and engineering technology. Students will learn about the different engineering disciplines and will participate in projects related to engineering. Electronic portfolios will be introduced in this course.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

ENGR 201 - Statics

Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to teach the student vector analysis of forces and moments in two- and three-dimensions. Equilibrium of particles and rigid bodies will be determined. Beams and trusses will be analyzed. Problems involving friction, center of gravity, moments of inertia and virtual work will be solved. This course is designed as an engineering transfer course. Transferability of this course into the desired engineering program should be confirmed with the transfer office.

Prerequisites: PHYS 211
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

ENGR 202 - Mechanics of Materials

Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to teach the students the fundamental concepts related to stress and strain of deformable bodies and their application to mechanical structures. This course is designed as an engineering transfer course. Transferability of this course into the desired engineering program should be confirmed with the transfer office.

Prerequisites: ENGR 201
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Spring Only

ENGR 203 - Dynamics

Credits: 4
Lecture Contact Hours: 4
Description: This course is designed to teach the student kinematics and kinetics of particles and rigid bodies including methods of motion relative to translating and rotating reference frames, force and acceleration, work and energy, impulse and momentum and vibrations. This course is designed as an engineering transfer course. Transferability of this course into the desired engineering program should be confirmed with the transfer office.

Prerequisites: ENGR 201
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

ESL – English as a Second Language

ESL 060 - Reading and Vocabulary 1

Credits: 4
Lecture Contact Hours: 3
Lab Contact Hours: 1
Description: This course for English-language learners is the first in a guided series of ESL reading and vocabulary skills classes. This course, taught in group and language lab settings, concentrates on reading and vocabulary development to foster adaptation to a new culture for personal, academic and professional purposes. Students will develop fundamental reading and vocabulary building strategies to build basic comprehension, efficiency and fluency.

Prerequisites: Placement is determined by test scores on the CPT Accuplacer English as a Second Language Test.
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Learning Support Services
This Course is Typically Offered: Fall, Winter

ESL 064 - Listening and Speaking 1

Credits: 4
Lecture Contact Hours: 3
Lab Contact Hours: 1
Description: This course for English-language learners is the first in a guided series of ESL listening and speaking skills classes. The content of this course, taught in group and language lab settings, builds listening and speaking skills in personal and social contexts. Students will learn and practice short conversations on personal and daily topics. Students develop vocabulary, grammar and improve fluency.

Prerequisites: Placement is determined by test scores on the CPT Accuplacer English as a Second Language Test. Students also may be required to complete a speaking skills assessment.
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Learning Support Services
This Course is Typically Offered: Fall, Winter

ESL 067 - Grammar and Writing 1
Credits: 4
Lecture Contact Hours: 3
Lab Contact Hours: 1
Description: This course for English-language learners is the first in a guided series of ESL grammar and writing classes. The content of this course, taught in group and language lab settings, focuses on the understanding and use of basic grammatical concepts, in both oral and written forms, including the parts of speech, basic tenses and sentence patterns. Students will be able to develop simple paragraphs demonstrating basic structure and pre-writing techniques.

Prerequisites: Placement is determined by test scores on the CPT Accuplacer English as a Second Language Test.
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Learning Support Services
This Course is Typically Offered: Fall, Winter

ESL 070 - Reading and Vocabulary 2
Credits: 4
Lecture Contact Hours: 3
Lab Contact Hours: 1
Description: This course for English-language learners is the second in a guided series of ESL reading and vocabulary skills classes. This course, taught in group and language lab settings, continues to prepare students for reading success through cultural awareness and increasing fluency in English. Students develop additional strategies using the reading process to improve comprehension and fluency. Students expand their word power base through additional guided vocabulary building skills.

Prerequisites: ESL 060 with a minimum grade of 2.0 or Placement is determined by test scores on the CPT Accuplacer English as a Second Language Test.
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Learning Support Services
This Course is Typically Offered: Winter, Spring, Fall

ESL 074 - Listening and Speaking 2
Credits: 4
Lecture Contact Hours: 3
Lab Contact Hours: 1
Description: This course for English-language learners is the second in a guided series of ESL listening and speaking skills classes. The content of this course, taught in group and language lab settings, teaches students to develop fluency and accuracy in speaking through group presentations and spoken interactions with teachers and classmates. They will learn to apply strategies for comprehending and processing short-spoken passages on familiar topics. Students improve their ability to talk about personal and informal topics in social and academic settings.

Prerequisites: ESL 064 with a minimum grade of 2.0 or Placement is determined by test scores on the CPT Accuplacer English as a Second Language Test. Students also may be required to complete a speaking skills assessment.
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Learning Support Services
This Course is Typically Offered: Winter, Spring, Fall

ESL 077 - Grammar and Writing 2
Credits: 4
Lecture Contact Hours: 3
Lab Contact Hours: 1
Description: This course for English-language learners is the second in a guided series of ESL grammar and writing classes. The content of this course, taught in group and language lab settings, focuses on developing basic English grammar and writing skills. Students will be able to write well developed paragraphs demonstrating the appropriate application of grammar rules.

Prerequisites: ESL 067 with a minimum grade of 2.0 or Placement is determined by test scores on the CPT Accuplacer English as a Second Language Test
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Learning Support Services
This Course is Typically Offered: Winter, Spring, Fall

ESL 078 - English for Business Purposes
Credits: 3
Lecture Contact Hours: 3
Description: This is an elective course for English-language learners which is designed for both pre-work and working ESL students who want to improve their communication in a professional setting. This course will focus on the cultural and professional aspects of American business interaction and help students develop some of the essential skills necessary for success. Using an integrative approach, business vocabulary, grammar and some pronunciation will also be included. Topics include interviewing, participating in a meeting and messaging. Special emphasis is placed on giving professional presentations.

Prerequisites: ESL 067 with a minimum grade of 2.0 or Placement is determined by test scores on the CPT Accuplacer English as a Second Language Test
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Learning Support Services
This Course is Typically Offered: Fall, Winter

ESL 079 - American English Pronunciation
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 1
Description: This is an elective course for English-language learners to improve speech intelligibility as well as understanding of American English. Students from a variety of language backgrounds will identify individual pronunciation needs, be instructed in the basics of English pronunciation, and be guided from controlled practice into natural communication. This class, taught in group and language lab settings, concentrates on building and improving pronunciation through the communicative approach.

Prerequisites: ESL 064 with a minimum grade of 3.0 or Placement is determined by test scores on the CPT Accuplacer English as a Second Language Test.
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Learning Support Services
This Course is Typically Offered: Fall Only

ESL 080 - Reading and Vocabulary 3
Credits: 4
Lecture Contact Hours: 3
Lab Contact Hours: 1
Description: This course for English-language learners is the third in a guided series of ESL reading and vocabulary skills classes. This course, taught in both group and language lab settings, focuses on academic reading and vocabulary development for college success in a new culture. Students will explore and develop higher level strategies to improve reading comprehension and efficiency, academic word power and critical thinking skills.

Prerequisites: ESL 070 with a minimum grade of 2.0 or Placement is determined by test scores on the CPT Accuplacer English as a Second Language Test
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Learning Support Services
This Course is Typically Offered: Fall, Winter

ESL 084 - Listening and Speaking 3
Credits: 4
Lecture Contact Hours: 3
Lab Contact Hours: 1
Description: This course for English-language learners is the third in a guided series of ESL listening and speaking skills classes. The content of this course focuses on students' increasing proficiency as they learn to use informal versus academic vocabulary and grammar in appropriate context. They develop a more critical stance toward their own oral interactions and those of their classmates and apply evaluative criteria to individual and group presentations.

Prerequisites: ESL 074 with a minimum grade of 2.0 or Placement is determined by test scores on the CPT Accuplacer English as a Second Language Test. Students also may be required to complete a speaking skills assessment.
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Learning Support Services
This Course is Typically Offered: Fall, Winter

ESL 087 - Grammar and Writing 3
Credits: 4
Lecture Contact Hours: 3
Lab Contact Hours: 1
Description: This course for English-language learners is the third in a guided series of ESL grammar and writing classes. In this class, taught in group and language lab settings, students continue to develop their knowledge of appropriate grammatical structures, academic vocabulary, and will begin essay writing.

Prerequisites: ESL 077 with a minimum grade of 2.0 or Placement is determined by test scores on the CPT Accuplacer English as a Second Language Test.
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Learning Support Services
This Course is Typically Offered: Fall, Winter

ESL 110 - Reading and Vocabulary 4
Credits: 4
Lecture Contact Hours: 3
Lab Contact Hours: 1
Description: This course for English-language learners is the fourth in a guided series of ESL reading and vocabulary skills classes. This course, taught in group and language lab settings, prepares students to successfully handle the necessary types of college level reading assignments. Students will refine reading comprehension strategies and second language vocabulary development skills using a variety of authentic materials to critically analyze and evaluate argumentative and expository authentic materials. Students will apply culturally appropriate techniques to selected projects and materials, test-taking tasks and textbooks.

Prerequisites: ESL 080 with a minimum grade of 2.0 or Placement is determined by test scores on the CPT Accuplacer English as a Second Language Test.
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Learning Support Services
This Course is Typically Offered: Fall, Winter

ESL 114 - Listening and Speaking 4
Credits: 4
Lecture Contact Hours: 3
Lab Contact Hours: 1
Description: This course for English-language learners is the fourth in a guided series of ESL listening and speaking skills classes. The content of this course, taught in group and language lab settings, focuses on communication skills for active participation in academic and social contexts. Students develop listening and speaking skills for classroom presentations and discussions, learn note-taking skills and practice using academic vocabulary and grammar forms appropriately in context.

Prerequisites: ESL 084 with a minimum grade of 2.0 or Placement is determined by test scores on the CPT Accuplacer English as a Second Language Test. Students also may be required to complete a speaking skills assessment.
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Learning Support Services
This Course is Typically Offered: Fall, Winter

ESL 117 - Grammar and Writing 4
Credits: 4
Lecture Contact Hours: 3
Lab Contact Hours: 1
Description: This course for English-language learners is the fourth in a guided series of ESL grammar and writing classes. In this class, taught in group and language lab settings, students will develop academic essays which integrate limited research.

Prerequisites: ESL 087 with a minimum grade of 2.0 or Placement is determined by test scores on the CPT Accuplacer English as a Second Language Test.
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Learning Support Services
This Course is Typically Offered: Fall, Winter

ESL 130 - Capstone Course
Credits: 4
Lecture Contact Hours: 3
Lab Contact Hours: 1
Description: This capstone course for English-language learners will provide ESL students with support as they simultaneously take non-ESL college level classes. As the culmination of ESL studies, this course, taught in group and language lab settings, will reinforce the precise English skills required for college success, including writing with research, specialized vocabulary, reading strategies, pronunciation and test-taking techniques.

Prerequisites: ESL 110 with a minimum grade of 2.0, ESL 114 with a minimum grade of 2.0 and ESL 117 with a minimum grade of 2.0 or Placement is determined by test scores on the CPT Accuplacer English as a Second Language Test. Students also may be required to complete a speaking skills assessment.
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Learning Support Services
This Course is Typically Offered: Fall, Winter

FIN - Finance

FIN 420 - Financial Management
Credits: 3
Lecture Contact Hours: 3
Description: In this course, you will apply financial concepts utilized in analyzing a business operation to improve performance and to facilitate decision making. This course will include financial management, financial analysis, time value of money techniques, financial markets, debt and equity financing, project and investment evaluation and decision making, capital structure, financial planning and forecasting and business risk. This course will integrate web-based learning tools and spreadsheet applications.

Prerequisites: BUS 304
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

FIRE – Fire Technology

FIRE 101 - Principles of Emergency Services
Credits: 3
Lecture Contact Hours: 3
Lab Contact Hours: 0
Description: This course provides an overview to fire protection and emergency services, career opportunities in fire protection and related fields. The culture and history of emergency services is explored. Students will learn to analyze fire loss. The organization and function of public and private fire protection services are examined. Fire departments as part of local government are examined as well as the laws and regulations affecting the fire service. Fire service nomenclature, specific fire protection functions, basic fire chemistry and physics are explored. Fire protection systems, fire strategy and tactics and life safety initiatives are examined. Students who successfully complete this course may apply to be recognized by the U.S. Fire Administration through the Fire and Emergency Services Higher Education (FESHE) initiative.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall Only

FIRE 105 - Fire Behavior and Combustion
Credits: 3
Lecture Contact Hours: 3
Description: This course explores the theories and fundamentals of how and why fires start, spread, and are controlled. This course explores the physical and chemical properties and characteristics of fire. Fire suppression agents, techniques and methods are discussed and explored. Students who successfully complete this course may apply to be recognized by the U.S. Fire Administration through the Fire and Emergency Services Higher Education (FESHE) initiative.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall Only

FIRE 113 - Fire Fighter 1 Basic Fire Suppression
Credits: 14
Lecture Contact Hours: 8
Lab Contact Hours: 6
Description: This course provides an introduction to basic fire suppression, prevention procedures, and skill development. FIRE 113 is provided as the first of two courses, which constitute the equivalent of the Basic Fire Academy and is offered for students who prefer to attend on a part-time basis. This course is for students who are currently employed by a Michigan Fire Marshall-recognized fire department or currently seeking employment and/or volunteer in a recognized fire district. This course meets the state-mandated requirements for preparing students to take the exam for state certification for entry-level on-call or volunteer fire fighters

Prerequisites: Michigan State Law mandates that persons taking this course must be at least 18 years of age and have a valid Michigan driver's license or valid Michigan ID, OR 16 years of age, a fire cadet with a Michigan organized fire department, and approval from their high school administrator.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter
Students who already have this knowledge may qualify for prior learning credit. https://www.schoolcraft.edu/student-records/prior-learning-credits

FIRE 120 - Fire Fighter 2 Advanced Fire Suppression
Credits: 10
Lecture Contact Hours: 7
Lab Contact Hours: 3
Description: Fire Fighter 2 is the second of two courses which together make up the equivalent of the Basic Fire Academy and is offered for students who prefer to attend on a part-time basis. This course explores advanced fire suppression techniques, including prevention procedures and skill development. This course is for students who are currently seeking employment and/or volunteer in a recognized fire district. This course meets the state-mandated requirements for preparing students to take the exam for state certification for entry-level career fire fighters.

Prerequisites: FIRE 113 with a grade of 2.0 or higher. Michigan state law mandates that persons taking this course must be at least 18 years of age and have a valid Michigan driver's license or valid Michigan ID, or 16 years of age, a cadet with a Michigan organized fire department, and approval from their current high school administrator.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

FIRE 125 - Building Construction for the Fire Service
Credits: 3
Lecture Contact Hours: 3
Description: This course examines the components of building construction related to firefighter and life safety. The elements of construction and design are explored. Analysis of these structural elements are shown to be key factors when inspecting buildings, preplanning fire operations and operating at emergencies. Students who successfully complete this course may apply to be recognized by the U.S. Fire Administration through the Fire and Emergency Services Higher Education (FESHE) initiative.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

FIRE 127 - Fire Academy
Credits: 24
Lecture Contact Hours: 15
Lab Contact Hours: 9
Description: The Fire Academy combines FIRE 113 and FIRE 120, providing comprehensive training in fire suppression, prevention procedures, and skill development. This course is for students who are currently employed by a Michigan Fire Marshall-recognized fire department, are currently seeking employment, and/or are a volunteer in a recognized fire district. Students must be able to attend on a full-time basis. This course meets the State-mandated

requirements for preparing students who intend to become professional Michigan fire fighters to take the State certification exam for entry-level career fire fighters.

Prerequisites: Michigan State Law mandates that persons taking this course must be at least 18 years of age and have a valid Michigan driver's license or a valid Michigan ID.
Corequisites: None
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Fall, Winter
Students who already have this knowledge or certification may qualify for prior learning credit. https://www.schoolcraft.edu/student-records/prior-learning-credits

FIRE 131 - Fire Fighting - Tactics and Strategy
Credits: 3
Lecture Contact Hours: 3
Description: This course examines firefighting tactics and strategies related to various types of fires in diverse locations. Topics include safety concepts, company operations, fire dynamics, types of construction, special fires and fire protection systems. Actions to be taken before and after an incident will be explored.

Prerequisites: None.
Corequisites: None.
Recommended: FIRE 112 OR FIRE 124

Course Category: Occupational
This Course is Typically Offered: Winter Only

FIRE 132 - Fire Prevention
Credits: 3
Lecture Contact Hours: 3
Description: This course provides fundamental knowledge relating to the field of fire prevention. Topics include history and philosophy of fire prevention, organization and operation of a fire prevention bureau, use and application of codes and standards, plans review, fire inspections, fire and life safety education and fire investigation. Students who successfully complete this course may apply to be recognized by the U.S. Fire Administration through the Fire and Emergency Services Higher Education (FESHE) initiative.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

FIRE 136 - Fire Protection Systems
Credits: 3
Lecture Contact Hours: 3
Description: This course provides information relating to the features of design and operation of fire alarm systems. This course explores water-based and special hazard fire suppression systems. This course also examines water supply for fire protection and the application of portable fire extinguishers. Students who successfully complete this course may apply to be recognized by the U.S. Fire Administration through the Fire and Emergency Services Higher Education (FESHE) initiative.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall Only

FIRE 205 - Fire Department Organization and Administration
Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to equip the student with knowledge to effectively tackle challenging management problems and deliver practical solutions for managing today's fire departments. This course provides guidance on leadership skills: motivating and disciplining personnel and accepting cultural diversity and unity. Also covered in this course is managing human resources, the use of computer technology for information management and strategic planning and budgeting.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

FIRE 221 - Principles of Fire and Emergency Services Safety and Survival
Credits: 3
Lecture Contact Hours: 3
Description: This course introduces the basic principles and history related to the national firefighter life safety initiatives. The class examines the need for cultural and behavior change throughout the emergency services. This class introduces the 16 Life Safety Initiatives. Students who successfully complete this course may apply to be recognized by the U.S. Fire Administration through the Fire and Emergency Services Higher Education (FESHE) initiative.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall Only

FIRE 277 - Fire Protection Hydraulics and Water Supply

Credits: 3
Lecture Contact Hours: 3
Description: This course provides the student with a foundation of theoretical knowledge to understand the principles of the use of water in fire protection and apply hydraulic principles to analyze and solve water supply problems. Students who successfully complete this course may apply to be recognized by the U.S. Fire Administration through the Fire and Emergency Services Higher Education (FESHE) initiative

Prerequisites: None.
Corequisites: None
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Fall Only

FR - French

FR 101 - Elementary French 1

Credits: 4
Lecture Contact Hours: 4
Description: This course is intended for students with no previous education in French. You will learn basic vocabulary and grammar patterns and will build competence in all four skill areas: speaking, listening, reading and writing. Through varied activities, emphasis will be placed on oral proficiency and communication. You will also gain an appreciation for the French and Francophone culture.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

FR 102 - Elementary French 2

Credits: 4
Lecture Contact Hours: 4
Description: This course is a continuation of FR 101 and continues to review the basic French vocabulary and grammar patterns and to build competence in all four skill areas: speaking, listening, reading and writing. Through varied activities, emphasis will be placed on oral proficiency and communication. An appreciation of the French and Francophone culture will be an integral part of the course.

Prerequisites: None.
Corequisites: None.
Recommended: FR 101 with a minimum grade of 2.0 or one year of high school French or equivalent language knowledge.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Summer

FR 201 - Intermediate French 1

Credits: 4
Lecture Contact Hours: 4
Description: This course is a continuation of FR 102 and continues to cover vocabulary and grammar patterns and to build competence in all four skill areas: speaking, listening, reading and writing. Through varied activities, emphasis will be placed on oral proficiency and communication. An appreciation of the French and Francophone culture will be an integral part of the course.

Prerequisites: None.
Corequisites: None.
Recommended: FR 102 with a minimum grade of 2.0 or one year of high school French or equivalent language knowledge.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall Only

FR 202 - Intermediate French 2

Credits: 4
Lecture Contact Hours: 4
Description: This course is a continuation of FR 201 with a broader emphasis on speaking (present-day spoken French), listening comprehension and reading. Through varied activities, the main focus will be on oral proficiency and communication as the course will be entirely conducted in French. An appreciation of the French and Francophone culture will be an integral part of the course.

Prerequisites: None.
Corequisites: None.
Recommended: FR 201 with a minimum grade of 2.0 or one year of high school French or equivalent language knowledge.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: As Needed

GEOG - Geography

GEOG 133 - World Regional Geography

Credits: 4
Lecture Contact Hours: 4
Description: World Regional Geography includes a systematic study of the world's geographic realms, including Europe, United States-Canada, Russia, Middle America, South America, Southwest Asia, Southeast Asia, East Asia, Sub-Saharan Africa and Australia-New Zealand. Geographic concepts, such as map reading and spatial analysis, are first introduced. Then, the world is classified into geographic realms using both physical and social criteria. Each realm results from a unique interaction between the human societies and the physical and biological environment. The physical, cultural, political and social features of each realm are studied, along with any special regional concerns or problems.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Social Science
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

GEOG 212 - Environmental Science

Credits: 3
Lecture Contact Hours: 3
Description: This course is an introductory environmental science course with no prerequisites. The course offers an in-depth examination of a variety of local, regional and global environmental concerns. The course focuses on the effects that human societies have on the physical environment and the global biosphere. Topics include human population distribution, growth rates and population explosion, biodiversity and deforestation, erosion and contamination of soil resources, degradation of water resources, air pollution, conventional and alternative energy sources, global climate change and waste management.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Science
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Fall

GER - German

GER 101 - Elementary German 1

Credits: 4
Lecture Contact Hours: 4
Description: This course is intended for students who have no previous education in German. The course will cover basic vocabulary and grammar patterns and will build competence in all four skill areas: speaking, listening, reading and writing. Through varied activities, emphasis will be placed on oral proficiency and communication. An appreciation of German culture will be an integral part of the course.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall, Winter

GER 102 - Elementary German 2

Credits: 4
Lecture Contact Hours: 4
Description: This course is a continuation of GER 101 and continues to review the basic vocabulary and grammar patterns and to build competence in all four skill areas: speaking, listening, reading and writing. Through varied activities, emphasis will be placed on oral proficiency and communication. An appreciation of German culture will be an integral part of the course.

Prerequisites: None.
Corequisites: None.
Recommended: GER 101 with a minimum grade of 2.0 or one year of high school German or equivalent language knowledge.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter Only

GER 201 - Intermediate German 1

Credits: 4
Lecture Contact Hours: 4
Description: This course is a continuation of GER 102 and continues to cover vocabulary and grammar patterns and to build competence in all four skill areas: speaking, listening, reading and writing. Through varied activities, emphasis will be placed on oral proficiency and communication. An appreciation of German culture will be an integral part of the course.

Prerequisites: None.
Corequisites: None.
Recommended: GER 102 with a minimum grade of 2.0 or

one year of high school German or equivalent language knowledge.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: As Needed

GER 202 - Intermediate German 2
Credits: 4
Lecture Contact Hours: 4
Description: This course is a continuation of GER 201 with a broader emphasis on speaking (present-day spoken German), listening comprehension and reading. Through varied activities, the main focus will be on oral proficiency and communication as the course will be entirely conducted in German. An appreciation of German culture will be an integral part of the course.

Prerequisites: None.
Corequisites: None.
Recommended: GER 201 with a minimum grade of 2.0 or one year of high school German or equivalent language knowledge.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: As Needed

HIST - History

HIST 134 - Ancient World
Credits: 4
Lecture Contact Hours: 4
Description: This course is a survey of prehistoric and ancient times: origins of human nature and culture; early gathering-hunting and planting-herding societies; origins of civilization in the Middle East, India, China, the Mediterranean and elsewhere; civilized-barbarian interaction and the rise of early Old World empires; rise of classical civilizations, especially Greece and Rome; rise of the higher religions, especially the Judeo-Christian traditions; and decline of classical civilizations with emphasis on the fall of Rome and the rise of medieval Europe, Byzantium and Islam.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities or Social Sciences
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

HIST 137 - Early Modern World
Credits: 4
Lecture Contact Hours: 4
Description: This course is a survey of the balance of world civilizations in medieval and early modern times: American and African peripheral regions; major civilizations of Asia and Europe in the Middle Ages; 14th-16th century crisis and renewal; expansion of Europe in the age of Renaissance, Reformation and discovery; rise of the Great Power system; the scientific revolution and Enlightenment; the democratic and industrial revolutions; emergence of modern ideologies and nations; and climax of European expansion in the age of imperialism to the late 19th century.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities or Social Sciences
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Summer, Fall

HIST 138 - Contemporary World
Credits: 3
Lecture Contact Hours: 3
Description: This course is a survey of the main themes in the history of the world in the last hundred years: the Eurocentric world order of 1900; World War I, communist revolution and fascist counter-revolution; the settlements of the 1920s and the renewal of world crisis in the 1930s; World War II and the onset of the Cold War in the 1940s-1960s; erosion and collapse of the postwar order in the 1970s-1980s; and the contemporary world order in historical context.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities or Social Sciences
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

HIST 141 - History of Michigan and the Great Lakes
Credits: 3
Lecture Contact Hours: 3
Description: This course is a general survey of the

historical development of Michigan from the primitive wilderness to the present; growth of certain political, economic, social and cultural institutions which contribute to understanding Michigan and the Great Lakes area today; and emphasis on relating the history of the state to that of both the area and the nation.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities or Social Sciences
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall, Winter

HIST 151 - Early America - U.S. History
Credits: 3
Lecture Contact Hours: 3
Description: This course is a survey of the origins of American civilization: native American societies in pre-Columbian and colonial times; European discovery, exploration, conquest and settlement of the Americas; Iberian, French and African elements in the early Americas; 17th and 18th century English colonial development; the Revolutionary era and the founding of the U.S.; and Federalist and Jeffersonian America to the early 19th century.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities or Social Sciences
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

HIST 152 - 19th Century America - U.S. History
Credits: 3
Lecture Contact Hours: 3
Description: This course is a survey of the expansion, crisis and renewal of the U.S. in the 19th century: demographic, economic, social and cultural change in Jacksonian America; the North and antebellum reform movements; the South and slavery; the West and territorial conquest and settlement; sectional struggle, the Civil War and Reconstruction; and emergence of modern, urban, industrial America to the beginning of the 20th century.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities or Social Sciences
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

HIST 153 - Contemporary America - U.S. History
Credits: 3
Lecture Contact Hours: 3
Description: This course is a survey of American civilization within the last hundred years: turn-of-the-century growth and crisis; the Progressive Era and World War I; the 1920s, the Great Depression and the New Deal; World War II and the emergence of the U.S. as a superpower; affluence, consensus and confrontation in the 1950s-1960s; malaise, drift and fragmentation in the 1970s-1980s; and the U.S. in the world of the late 20th century.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities or Social Sciences
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

HIST 230 - U.S. Business History - 1865 to Present
Credits: 3
Lecture Contact Hours: 3
Description: This course will provide students with an examination of major business and economic development in the U.S. from the Civil War to the present. Emphasis will be placed on the ideas, forces and personalities in the ever-changing role of business and economics and their impact on the nation and its citizens. This course is recommended for students majoring in business, economics and history.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities or Social Sciences
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: As Needed

HIT – Health Information Technology

HIT 100 - Introduction to Medical Terminology
Credits: 2
Lecture Contact Hours: 2
Description: This course is a basic overview of medical terminology. The students will be introduced to medical terminology used in healthcare. The topics in the course provide activities to allow the student to spell, define and pronounce medical terminology.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

HIT 104 - Medical Terminology
Credits: 4
Lecture Contact Hours: 4
Description: This course introduces the student to the fundamentals of the language of medicine. Definitions, pronunciations, spelling and abbreviations of anatomic, symptomatic, diagnostic and operative terms pertaining to each anatomical system of the body will be reviewed. Terms pertaining to pharmacology, clinical laboratory, radiology and pathology will also be explored.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Summer, Fall
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

HIT 114 - Pharmacology for Health Professionals
Credits: 2
Lecture Contact Hours: 2
Description: This course is designed to provide an overview of principles of pharmacology pertaining to treatment of diseases, physiological processes of the body related to drug therapy, legislation, classification and names of medications. Students will learn about medications through activities using medical documentation and internet resources.

Prerequisites: HIT 100 OR HIT 104
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

HIT 117 - ICD-10-CM/PCS
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: This course provides an introduction to basic ICD-10-CM/PCS coding theory. This course is designed for the classification of patient morbidity and mortality information for statistical purposes, for the indexing of health/medical records by disease and operation for data storage and retrieval and for reimbursement purposes. ICD-10-CM and PCS Official Guidelines for Coding and Reporting for hospital inpatient and outpatient services will be utilized. Laboratory activities focus on the application of the related skills with accuracy and completeness using manual and computerized methods.

Prerequisites: None.
Corequisites: HIT 118 if not taken previously. HIT 120 if not taken previously.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

HIT 118 - Human Diseases
Credits: 4
Lecture Contact Hours: 4
Description: This course includes the study of the pathology and general health management of diseases and injuries across the life span. Topics include the fundamental concepts and processes of human disease such as inflammation, infection, neoplasia, degeneration, aging, congenital and genetic disorders, immune deficiency and autoimmune disorders. Idiopathic, traumatic, stress-related, substance abuse-related and iatrogenic disorders will also be studied. The student will develop an understanding of common diagnostic workups including laboratory tests and imaging. The types of treatments for diseases, which may include pharmacology, surgery and other therapies, are also covered.

Prerequisites: BIOL 236. HIT 104.
Corequisites: None.
Recommended: CIS 120.

Course Category: Occupational
This Course is Typically Offered: Fall Only

HIT 120 - Foundations of Health Information Management Technology
Credits: 3
Lecture Contact Hours: 3
Lab Contact Hours: 1
Description: This course provides an introduction to the U.S. healthcare industry and to the health information management profession. Topics include an overview of the evolution of healthcare systems in the U.S. and

trends for the future. Health record content, documentation requirements, secondary data sources and the influence of accrediting and regulatory bodies that govern health information will be reviewed. Information processes and relationships among organizational departments and healthcare providers will also be addressed. The educational and certification requirements for health information professionals will be examined. Hands-on laboratory activities will help the student to gain proficiency in basic health information functions. Electronic health record applications will be utilized.

Prerequisites: CIS 120. HIT 104.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall Only
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

HIT 130 - Legal Aspects of Health Information
Credits: 3
Lecture Contact Hours: 3
Description: This course provides the student with an understanding of the American legal system, legal terminology and the requirements concerning the compilation and maintenance of health information. Topics include how health information is used and when it can be disclosed based on state and federal regulations and statutes, including the privacy and security rules resulting from the Health Insurance Portability and Accountability Act (HIPAA). The patient's right to privacy, patient consent and advance directives, retention directions, ethical issues in health care and health information management are also explored.

Prerequisites: HIT 120.
Corequisites: ENG 102 if not taken previously or ENG 106 if not taken previously
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

HIT 162 - Professional Practice Experience Simulation
Credits: 2
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: This course provides the Health Information student with simulated professional practice experience (PPE). The student will have the opportunity to observe and interact with Health Information Management professionals in a variety of healthcare settings both on-campus and off-campus. Virtual lab activities will be used to enhance the development of professional practices.

Prerequisites: ENG 101 with a minimum grade of 2.0. MATH 111 with a minimum grade of 2.0.
Corequisites: HIT 117 if not taken previously.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

HIT 210 - Healthcare Statistics for Health Information Management
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: This course introduces students to terminology, definitions and computational methodology most frequently used in health statistics. Descriptive statistical concepts are also explored. Topics examined include healthcare data collection, report generation, data analysis and interpretation, data presentation techniques, as well as measures of central tendency, frequency distribution and standard deviation.

Prerequisites: HIT 117. HIT 162.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall Only

HIT 213 - Health Information Technology Seminar
Credits: 1
Lecture Contact Hours: 1
Description: This course will assist the student in preparation for the Registered Health Information Technician (RHIT) certification examination. The student will develop a study plan to be utilized on an individual and/or group basis. The student will complete a mock certification examination. The student will also begin preparation for a job search. A research of job opportunities that are currently available will be identified. This course should be taken in the last semester of the student's program.

Prerequisites: None.
Corequisites: HIT 210 if not taken previously. HIT 224 if not taken previously. HIT 232 if not taken previously. HIT 234 if not taken previously. HIT 235 if not taken previously. HIT 240 if not taken previously. HIT 242 if not taken previously.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring

HIT 222 - Basic Ambulatory Coding
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: This course is designed to prepare a student to code in the ambulatory setting using Current Procedural Terminology (CPT). Topics include

ambulatory reporting requirements for codes and rules that apply to the reimbursement systems used by government payers and other health plans. The student will be introduced to computerized coding systems utilized in healthcare. The emphasis of the course will be coding for facility services and procedures.

Prerequisites: None.
Corequisites: HIT 118 if not taken previously. HIT 120 if not taken previously.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

HIT 224 - Quality Management in Healthcare
Credits: 2
Lecture Contact Hours: 2
Lab Contact Hours: 1
Description: This course is designed for the student to review methods by which a healthcare organization measures, assesses and improves the quality, safety and effectiveness of healthcare services. Topics explored include traditional quality assessment, performance improvement methodologies, utilization/resource/case management, risk management, infection control, credentialing and the role of oversight agencies. Patient satisfaction as an important and commonly used indicator for measuring the quality in health care will also be covered. Lab activities will include data abstraction and analysis for quality reporting and use of electronic applications.

Prerequisites: HIT 130. HIT 162.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall Only

HIT 231 - Ambulatory Coding Practicum
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: This course will provide practical hands-on experience with Current Procedural Terminology (CPT) coding of health/medical records and case scenarios. The student will apply official coding guidelines to a variety of clinical cases and record types such as ambulatory, emergency, outpatient and physician office and ancillary services. Evaluation and Management (E/M) leveling will be performed. HCPCS Level 2 codes will also be applied. The student will research references in solving coding problems. Manual and computerized systems for procedure and service coding will be reviewed.

Prerequisites: None.
Corequisites: HIT 117 if not taken previously. HIT 234 if not taken previously. HIT 240 if not taken previously.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring

HIT 232 - Computer Applications in Healthcare
Credits: 2
Lecture Contact Hours: 2
Description: This course is an introduction to the theory and practical methodology of healthcare information systems. Topics include basics of electronic health records (EHRs) and general healthcare computer systems. Common software applications, system selection and implementation, data quality, storage and retrieval, security and privacy are covered. Health information exchange and new roles in HIM will also be explored.

Prerequisites: HIT 162.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

HIT 234 - Intermediate Ambulatory Coding
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: This course includes advanced theory and practice in coding medical/health records in the hospital/ambulatory setting using Current Procedural Terminology (CPT) and Healthcare Financing Administration Common Procedure Coding System (HCPCS). The student will analyze clinical data for the purpose of coding and reimbursement in the ambulatory setting including the physician office. Manual and computerized methods for code assignment will be used.

Prerequisites: HIT 222
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

HIT 235 - Intermediate ICD-10-CM/PCS
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: This course is designed to prepare a student to code in the hospital setting using ICD-10-CM/PCS. The course will emphasize reporting requirements for codes and rules that apply to reimbursement systems used by government payers and other health plans. Students will further develop their skills in building codes in the ICD-10 procedure coding system. Students will accurately and ethically assign codes for diagnoses, services and procedures that are

documented in the health/medical record. Lab activities will include manual and electronic methods of code assignment.

Prerequisites: HIT 114. HIT 117
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

HIT 236 - ICD Coding Practicum
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: This course will provide practical hands-on experience in assigning ICD-10-CM/PCS codes to health/medical records and case scenarios. The student will apply official coding guidelines to a variety of clinical cases and record types such as hospital inpatient, outpatient surgery, physician office and ancillary services. The student will research references in solving coding problems. Manual and computerized systems for diagnosis and procedure coding and DRG grouping will be used.

Prerequisites: None.
Corequisites: HIT 235 if not taken previously. HIT 240 if not taken previously.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring

HIT 240 - Healthcare Reimbursement Methodologies
Credits: 2
Lecture Contact Hours: 2
Description: The course is designed to provide the student knowledge of the diverse reimbursement methodologies utilized by governmental and private insurance entities in the payment for healthcare delivery services. The course will present third-party payer and compliance/auditing issues, correct coding policy and government prospective payment systems. The terminology and principles for managed care, revenue cycle management and other healthcare plans will be covered.

Prerequisites: HIT 117. HIT 222.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

HIT 242 - Organization and Management
Credits: 3
Lecture Contact Hours: 3
Description: Health information professionals make decisions that demand sound planning, organization, motivation and communication skills. Effective supervision of human and other resources is also essential in today's changing world of healthcare. This course provides the health information technology student with basic management concepts and theories that are applied in the Health Information Services/Management environment. Emphasis will be on management of Human Resources and operations, as well as budgeting and operational financial management. The concept of management vs. leadership will be addressed. Project management and team leadership concepts will also be introduced.

Prerequisites: HIT 162
Corequisites: HIT 210 if not taken previously. HIT 224 if not taken previously.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

HIT 262 - Professional Practice Experience
Credits: 2
Lecture Contact Hours: 1
Off Site Contact Hours Without Faculty: 4 ***Description:*** This course provides a professional practice experience (PPE) of a minimum of 40 hours for the student under the guidance of a health information management professional. The student will have the opportunity to apply knowledge and skills learned in the classroom to real-world health information functions. Students will utilize technical skills necessary to maintain a health information service, observe employee interactions and interact with health care professionals. Students will learn about professionalism in the workplace and will be required to create a professional resume.

Prerequisites: Acceptance into the HIT Program. HIT 130.
Corequisites: HIT 222 if not taken previously.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

HS – Homeland Security

HS 101 - Introduction to Homeland Security
Credits: 3
Lecture Contact Hours: 3
Description: This course is an introduction to the concept of homeland security. The course will define and explain homeland security. The U.S. Department of Homeland Security will be thoroughly analyzed, and its mission will be investigated. This course will also address chemical, biological, radiological, nuclear, and explosive devices and the use of these weapons of mass destruction. The importance and basic elements of a planned response, methods used to prevent the importation of weapons of mass destruction into the U.S., and what can and is

being done to prevent another large-scale terrorist incident in the United States will be covered.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

HS 102 - Understanding Terrorism
Credits: 3
Lecture Contact Hours: 3
Description: This course will introduce students to the phenomena of contemporary terrorism and extremism. Students will see special emphasis on extremism as the foundation for terrorist behavior, types of terrorism and how governments and law enforcement agencies respond to terrorism. The first steps are to understand the mindset, the groups, the aims and the tools terrorist's use.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

HS 103 - Transportation and Border Security
Credits: 3
Lecture Contact Hours: 3
Description: This course addresses concerns associated with border and transportation security to include the potential threats to the passenger and cargo transportation systems. The course will cover the essential characteristics of national and international terrorism, with emphasis placed on significant transportation related terrorist threats and events. Emphasis will also be placed on the importance of technology and the interdependency of local, state, federal and international agencies to protect global trade. Students will be expected to solve problems as an individual and in a coordinated team setting.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

HS 201 - Organizational and Facility Security
Credits: 3
Lecture Contact Hours: 3
Description: The focus of this course will be on traditional methods of physical security hardware, risk assessments and business continuity. The course will also explore and assess developing security technology and its application to reduce internal and external threats to business.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

HS 202 - Introduction to Emergency Management
Credits: 3
Lecture Contact Hours: 3
Description: This course will provide an overview of emergency management as a career field, discipline and approach to dealing with all-hazards emergency/disaster response. This course will examine major disasters in history and concepts, theory and terminology associated with emergency management.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

HS 203 - Intelligence Analysis and Security Management
Credits: 3
Lecture Contact Hours: 3
Description: This course will provide a study of the U.S. government's intelligence community as well as an overview of intelligence processes. This study will include a historical look at intelligence and some of its milestones. Discussed will be key terms, concepts and perspectives. Students will be exposed to the relationship of intelligence with law enforcement and homeland security and how some intelligence processes may be applied to emergency management and pre-incident planning.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

HUM - Humanities

HUM 106 - Introduction to Art and Music
Credits: 1
Lecture Contact Hours: 1
Description: This course will cover the basic mechanical and aesthetic elements underlying the visual and aural arts. It will also include an overview of major periods, styles, composers and artists. The course also prepares students to develop an understanding of how to perceive music and art. This course provides an introductory, fundamental, audience-related approach to art and music. Definitions and concepts will be approached in a very basic manner. No prior knowledge or experience in music or arts is necessary.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

HUM 151 - World Masterpieces (Prehistory-1400)
Credits: 3
Lecture Contact Hours: 3
Description: This course serves as an introduction to some of the great works of art and music in the Western world from Greek civilization to 1400. The course will cover the major periods/styles in art and music history: Prehistory, Mesopotamian, Egyptian, Greek, Roman/Early Christian, Romanesque, Gothic and Proto-Renaissance. Art and music masterpieces to be studied will be selected from the main repertoire of significant works of the Western world. The course will also cover fundamentals of integrative art and music appreciation. A background in art and/or music is not required.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall Only

HUM 152 - World Masterpieces (1400-Present)
Credits: 3
Lecture Contact Hours: 3
Description: This course serves as an introduction to some of the great works of art and music in the Western world from 1400 to the present. The course will cover the major periods/styles in art and music history: Early, High and Late Renaissance, Baroque, Classical, Romantic, Modern (1900-1945), Post-Modern (1945-2000) and Contemporary. Art and music masterpieces to be studied will be selected from the main repertoire of significant works of the Western world. The course will also cover fundamentals of integrative art and music appreciation. A background in art and/or music is not required.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter Only

HUM 190 - Individual Humanism - An Honors Colloquium
Credits: 3
Lecture Contact Hours: 3
Description: A required introduction to the Schoolcraft Scholars Honors Program, this colloquium studies the individual and the community through multiple disciplines. Topics of the colloquium may include, but are not limited to, the human condition; individual Renaissance and enlightenment; the role of individuals in a society of change, transition and revolution; the unanswered question; and taking an active role on the social stage. Additionally, students in this course collaborate, practice critical thinking and explore both community issues and community-based organizations.

Prerequisites: Acceptance to the Schoolcraft Scholars Honors Program.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall Only

HUM 210 - The Art of Being Human
Credits: 3
Lecture Contact Hours: 3
Description: This course is an interdisciplinary introduction to the humanities as an overall approach to living. The course involves the student in the philosophies, religions and arts as avenues of human inquiry and expression.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

HUM 212 - Mass Media and Popular Culture
Credits: 3
Lecture Contact Hours: 3
Description: This course is an introduction into the nature of mass communication and their relationship with the public. The course will analyze, assess and

evaluate popular culture and mass media. Focus will be on the various forms of media to include radio, television, film, newspaper and advertising to determine how they influence and manipulate the ways you relate to yourself and others. Examination will include the history, economics, power and ethical consideration of media outlets.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Fall

HUM 215 - Humanities through the Arts
Credits: 3
Lecture Contact Hours: 3
Description: This course represents an exploratory approach to the humanities that focuses on the special role of the arts. The relation of the humanities to values is central to the purpose of the course. This approach provides a self-contained program for studying values as revealed in the arts.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall, Winter

ITAL - Italian

ITAL 101 - Elementary Italian 1
Credits: 4
Lecture Contact Hours: 4
Description: This course is intended for students who have no previous education in Italian. The course will cover basic vocabulary and grammar patterns and will build competence in all four skill areas: speaking, listening, reading and writing. Through varied activities, emphasis will be placed on oral proficiency and communication. An appreciation of the Italian culture will be an integral part of the course.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall, Winter

ITAL 102 - Elementary Italian 2
Credits: 4
Lecture Contact Hours: 4
Description: This course is a continuation of ITAL 101 and continues to review the basic Italian vocabulary and grammar patterns and to build competence in all four skill areas: speaking, listening, reading and writing. Through varied activities, emphasis will be placed on oral proficiency and communication. An appreciation of the Italian culture will be an integral part of the course.

Prerequisites: None.
Corequisites: None.
Recommended: ITAL 101 with minimum grade 2.0 or one year of high school Italian or equivalent language knowledge.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter Only

MA – Medical Assisting

MA 115 - Phlebotomy
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 1
Description: This course teaches basic technical skills necessary for a phlebotomist to draw blood in various healthcare settings such as hospital labs, doctor's offices, and clinics. Proper procedures are stressed for the safe collection and handling of clinical specimens obtained by venipuncture and capillary puncture from adults, children, and infants. This course also defines the role of the phlebotomist in the healthcare setting. Students will perform live draws on each other in this course.

Prerequisites: BIOL 105 or consent of department.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

MA 134 - Medical Insurance Coding
Credits: 3
Lecture Contact Hours: 3
Description: This course introduces the student to insurance coding guidelines developed for use with the International Classification of Diseases (ICD-10-CM) and Current Procedural Terminology (CPT). The course is designed to develop basic coding skills to record the services and procedures that are provided for the

patient. The importance of accurate coding will be discussed as it is an essential part of reimbursement.

Prerequisites: None.
Corequisites: HIT 104 if not previously taken.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

MA 140 - Medical Office Procedures
Credits: 3
Lecture Contact Hours: 3
Description: This course will focus on the basic concepts of the administrative role and function of the medical assistant. The course introduces personal and professional characteristics, legal and ethical standards, and other receptionist duties for the medical assistant. Professional and personal communications, time management, and workplace dynamics will be studied.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

MA 155 - Medical Insurance Billing
Credits: 3
Lecture Contact Hours: 3
Description: This course introduces the student to the various types of medical insurance including Blue Cross/Blue Shield, Medicare, Medicaid, Workers' Compensation and other third-party payers. The student will perform the tasks necessary to process claim forms for each type of medical insurance. Applying the guidelines of CPT, ICD-10 CM and the Health Insurance Portability and Accountability Act (HIPAA).

Prerequisites: MA 134. HIT 104.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

MA 161 - Phlebotomy Internship
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Off Site Contact Hours Without Faculty: 4 ***Description:*** The internship is structured to provide experience to students in performing the duties of a Phlebotomist and to prepare students to be eligible to take the certification exam with the National Center for Competency Testing (NCCT). Students will be placed at an office, hospital, or outpatient lab for their internship.

Only students who are enrolled in the Phlebotomy Certificate Program and are at least 18 years old are eligible to enroll in this course.

Prerequisites: MA 115 with a minimum grade of 2.0 and completion within the past three months or consent of the department. HIT 104.
Corequisites: CIS 120 if not taken previously. MA 140 if not taken previously.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

MA 175 - Medical Laboratory Techniques
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 1
Description: This course provides an opportunity for the student to practice techniques and perform laboratory procedures. The student will practice preparing the patient for tests, collecting samples, completing the tests, documenting and reporting the results to the physician. The student will practice performing a urinalysis, hematology, chemistry, immunology and microbiology tests. Students perform live tests on each other in this course.

Note: Students must begin MA 196 within six months of completing MA 175 and MA 180.

Prerequisites: HIT 104 with a minimum grade of 2.0.

MA 115 with a minimum grade of 2.0.

MA 134 with a minimum grade of 2.0.

MA 140 with a minimum grade of 2.0.
Corequisites: MA 180.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

MA 180 - Medical Office Clinical Procedures
Credits: 4
Lecture Contact Hours: 3
Lab Contact Hours: 3
Description: This course is designed to introduce the student to all clinical aspects of working in an ambulatory healthcare setting. The following is a short list of what students will learn in this course: examination techniques including vital signs, ECG, spirometry, medication administration, minor surgery procedures, injections, sterilization procedures, how to perform medical tests, first aid, and special dietary needs. Students will spend an additional three hours per week in a lab setting. Students practice live testing on each other in this course.

Note: Students must begin MA 196 within six months of completing MA 175 and MA 180.

Prerequisites: HIT 104 with a minimum grade of 2.0. MA 140 with a minimum grade of 2.0. MA 115 with a

minimum grade of 2.0. CIS 120 with a minimum grade of 2.0. MATH 045 with a minimum grade of 2.0, or overall high school GPA of 1.8 or higher, a minimum score of 16 ACT Math, 22 SAT Math, 60 CPT Math, or 220 NGA Quantitative Reasoning Algebra and Statistics. ENG 050 with a minimum grade of 2.0, or an overall high school GPA of 1.8 or higher, or a minimum score of 15 ACT English, 22 SAT Writing and Language, 51 CPT Sentence Skills, or 237 NGA Writing. COLLS 050 with a minimum grade of 2.0, or overall high school GPA of 1.8 or higher, or a minimum score of 15 ACT English, 22 SAT Writing and Language, 57 CPT Sentence Skills, or 237 NGA Writing.
Corequisites: HIT 114 if not taken previously. MA 155 if not taken previously. MA 175.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

MA 196 - Office Practicum
Credits: 3
Lecture Contact Hours: 1
Off Site Contact Hours Without Faculty: 12 ***Description:*** The student will participate in a 180-hour non-paid practicum under the direction of a physician and/or the office manager or supervisor. The practicum is structured to provide experience in performing administrative and clinical procedures in a physician's office, clinic, or ambulatory healthcare setting. The student will interact with other healthcare professionals performing and observing the skills of a medical assistant. It is an opportunity that will allow a student to apply theory to practice and become workforce ready.

Prerequisites: HIT 114 with a minimum grade of 2.0. MA 155 with a minimum grade of 2.0. MA 175 with a minimum grade of 2.0. MA 180 with a minimum grade of 2.0. All students must complete the following prior to registering background check, drug screen, physical and immunizations.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter/Spring/Fall

MAMM - Mammography

MAMM 210 - Mammography Procedures and Image Analysis
Credits: 3
Lecture Contact Hours: 3
Description: This course provides the fundamentals of positioning, image analysis and patient care in Mammography. Topics of discussion will include the history of Mammography and the anatomy, physiology, pathology and treatment of breast disease. Patient education, procedures and interventional procedures are reviewed.

Prerequisites: Acceptance into the Mammography Program. Registered Radiologic Technologist (ARRT).
Corequisites: None
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Fall

MAMM 220 - Instrumentation and Quality Assurance Mammography
Credits: 2
Lecture Contact Hours: 2
Description: This course focuses on Mammography instrumentation, physics, quality control and quality assurance of digital imaging systems. System components, imaging principles, Digital Breast Tomosynthesis (DBT), Full-Field Digital Mammography (FFDM) and exposure factors are discussed.

Prerequisites: Acceptance into the Mammography Program. Registered Radiologic Technologist (ARRT).
Corequisites: None
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Fall

MAMM 270 - Mammography Clinical Education
Credits: 4
Lecture Contact Hours: 1
Off Site Contact Hours Without Faculty: 24 ***Description:*** This course allows students to demonstrate and apply knowledge learned in the Mammography didactic courses to the clinical setting. Supervised clinical education will focus on patient care and positioning, mammographic procedures, interventional/special examinations, image analysis and quality control testing. Completion of the course and its prerequisites will satisfy federal regulations for specialized training in Mammography and prepare students for the American Registry of Radiologic Technologist (ARRT) post primary certification exam. This course will meet for a total of 360 clinical hours in eight-hour shifts.

Prerequisites: Acceptance into the Mammography Program. Registered Radiologic Technologist (ARRT). MAMM 210 with a minimum grade of 3.0 MAMM 220 with a minimum grade of 3.0
Corequisites: None
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Winter

MATH - Mathematics

MATH 011 - Applications - Utility of Math Support
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: This course is designed to provide students with supplemental support and instruction to promote

success in MATH 111. These topics include but are not limited to solving equations and inequalities, appropriate use and manipulation of formulas, analysis of mathematical verbiage, and using critical reading and writing to assess the correctness of solutions. Study skills such as time management, productive homework habits, note-taking, and problem-solving will also be covered.

Prerequisites: A minimum score of 11 ACT-Math, 15 SAT-Math, 23 CPT-Arithmetic, or 220 NGA-Arithmetic. *Or* Overall High School GPA of 2.7-1.8.
Corequisites: MATH 111.
Recommended: None

Course Category: Liberal Arts | Mathematics
This Course is Typically Offered: Winter and Fall

MATH 013 - Intermediate Algebra Support
Credits: 2.0
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: This course is designed to provide students with supplemental support and instruction to promote success in MATH 113. These topics include but are not limited to, fundamental operations with real numbers and polynomials, graphing, linear equations, factoring polynomials, rational expressions, exponents, and quadratic equations. Study skills such as time management, productive homework habits, note-taking, and problem-solving will also be covered.

Prerequisites: A minimum score of 16 ACT-Math, 22 SAT-Math, 75 CPT-Elementary Algebra, 230 NGA-Quantitative Reasoning, Algebra, and Statistics or overall High School GPA of 2.7-1.8 or higher.
Corequisites: Math 113
Recommended: None

Course Category: Liberal Arts | Mathematics
This Course is Typically Offered: Fall, Winter

MATH 022 - Elementary Statistics Support
Credits: 3
Lecture Contact Hours: 1.5
Lab Contact Hours: 1.5
Description: This course serves as a supplement to MATH 122 - Elementary Statistics. MATH 022 involves the review of basic arithmetic and algebraic techniques that are necessary for success in MATH 122. Additionally, the development of study skills, as well as the utilization of college resources, will be stressed throughout the course. Problem-solving skills and critical thinking skills will be developed throughout the course.

Prerequisites: MATH 047 with a minimum grade of 2.0 *or* 16 ACT, 22 SAT, 75 CPT-AR, 28 CPT-EA, 260 NGA-AR, 230 NGA-QRAS *or* Overall high school GPA of 2.7-1.8.
Corequisites: MATH 122
Recommended: None

Course Category: Liberal Arts | Mathematics
This Course is Typically Offered: Winter and Fall

MATH 045 - Basic Mathematics
Credits: 4
Lecture Contact Hours: 4
Description: The topics covered in this course include arithmetic with whole numbers, fractions, decimals, percentages and proportions. In addition, several topics from geometry are included.

Prerequisites: Minimum score of 11 ACT-Math, 15 SAT-Math, 23 CPT-Arithmetic or 220 NGA-Arithmetic. Competence with addition, subtraction, multiplication and division of whole numbers without the aid of a calculator.
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Mathematics
This Course is Typically Offered: Winter, Spring, Summer, Fall

MATH 047 - Prealgebra
Credits: 3
Lecture Contact Hours: 3
Description: Topics covered in this course include an introduction to variables, integers and algebraic expressions; simplifying algebraic expressions involving integers, fractions and decimals; solving algebraic equations involving integers, fractions, decimals and percents; ratio and proportions; applications using basic concepts from geometry; and introduction to graphing via point-plotting.

Prerequisites: MATH 045 with a minimum grade of 2.0 or a minimum score of 16 ACT-Math, 22 SAT-Math, 60 CPT-Arithmetic, 240 NGA-Arithmetic or 220 NGA-Quantitative Reasoning, Algebra and Statistics. Competence in arithmetic without the aid of a calculator.
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Mathematics
This Course is Typically Offered: Winter, Spring, Summer, Fall

MATH 053 - Beginning Algebra
Credits: 4
Lecture Contact Hours: 4
Description: This course will explore the real number system, fundamental operations with real numbers, graphing, linear equations, factoring polynomials, rational expressions, exponents, quadratic equations, applications and introduction to the function concept.

Prerequisites: MATH 047 with a minimum grade of 2.0 or a minimum score of 16 ACT-Math, 22 SAT-Math, 75-CPT-Arithmetic, 28 CPT-Elementary Algebra, 260 NGA-Arithmetic or 230 NGA-Quantitative Reasoning, Algebra and Statistics.

Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Mathematics
This Course is Typically Offered: Winter, Spring, Summer, Fall

MATH 101 - Business Mathematics
Credits: 3
Lecture Contact Hours: 3
Description: This course offers a review of fundamentals of arithmetic along with coverage of percentage, simple and compound interest, taxes, insurance, bonds and their applications to business practice.

Prerequisites: MATH 045 with a minimum grade of 2.0, or overall high school GPA of 2.8 or higher, a minimum score of 16 ACT-Math, 22 SAT-Math, 60 CPT-Arithmetic, or 240 NGA-Arithmetic
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Mathematics
This course counts toward Schoolcraft's General Education Requirements.
This Course is Typically Offered: Winter, Spring, Summer, Fall

MATH 102 - Technical Mathematics
Credits: 4
Lecture Contact Hours: 4
Description: Technical Mathematics provides the practical mathematics skills needed in a wide variety of occupational programs. Students in this course will address topics including measurement, basic algebra, geometry, right triangle trigonometry, graphing and statistics.

Prerequisites: MATH 047 with a minimum grade of 2.0, or overall high school GPA of 2.8 or higher, a minimum score of 16 ACT-Math, 22 SAT-Math, 75 CPT-Arithmetic, 28 CPT-Elementary Algebra, 260 NGA-Arithmetic or 230 NGA-Quantitative Reasoning, Algebra and Statistics
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Mathematics
This course counts toward Schoolcraft's General Education Requirements.
This Course is Typically Offered: Fall, Winter

MATH 105 - Mathematics for Elementary Teachers 1
Credits: 4
Lecture Contact Hours: 4
Description: This is the first of a two-course sequence designed for students who plan to enter elementary school teaching. The course examines elementary school math topics and mathematics curriculum from an advanced standpoint with an emphasis on conceptual understanding and problem solving. The course covers problem solving, number theory, sets, algebraic concepts and functions, numeration, the real numbers and their properties and operations.

Prerequisites: MATH 053 with a minimum grade of 2.5, or overall high school GPA of 2.8 or higher, a minimum score of 19 ACT-Math, 25 SAT-Math, 100 CPT-Elementary Algebra, 270 NGA-Arithmetic or 250 NGA-Quantitative Reasoning, Algebra and Statistics
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Mathematics
This course counts toward Schoolcraft's General Education Requirements.
This Course is Typically Offered: Fall, Winter

MATH 106 - Mathematics for Elementary Teachers 2
Credits: 4
Lecture Contact Hours: 4
Description: This is the second of a two-course sequence designed for students who plan to enter elementary school teaching. The course examines elementary school math topics and mathematics curriculum from an advanced standpoint with an emphasis on conceptual understanding and problem solving. The course covers geometry, measurement, statistics and probability.

Prerequisites: MATH 105 with a minimum grade of 2.0.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Mathematics
This course counts toward Schoolcraft's General Education Requirements.
This Course is Typically Offered: Fall, Winter

MATH 111 - Applications - Utility of Math
Credits: 4
Lecture Contact Hours: 4
Description: This course is intended for students who do not wish to pursue the study of mathematics by following the standard sequence of courses, but who need to develop some competency in mathematics for an Associate of Arts degree. This course includes the practical application of mathematics. Topics covered in the course include geometry, managing money, interest, installment buying, credit cards, loans, probability, statistics and graphing.

Prerequisites: MATH 047 with a minimum grade of 2.0, or overall high school GPA of 2.8 or higher, a minimum score of 16 ACT-Math, 22 SAT-Math, 75 CPT-Arithmetic, 28 CPT-Elementary Algebra, 260 NGA-Arithmetic or 230 NGA-Quantitative Reasoning, Algebra and Statistics.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Mathematics
This course counts toward Schoolcraft's General Education Requirements.

This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

MATH 113 - Intermediate Algebra for College Students

Credits: 4
Lecture Contact Hours: 4
Description: Review of algebraic operations; problem-solving strategies; integer and rational exponents; complex numbers; solving equations; function concepts; graphs and applications of linear, quadratic, exponential, and logarithmic functions; and systems of equations are the topics covered in this course.

Prerequisites: MATH 053 with a minimum grade of 2.0, or overall high school GPA of 2.8 or higher, a minimum score of 19 ACT-Math, 25 SAT-Math, 78 CPT-Elementary Algebra or 250 NGA-Quantitative Reasoning, Algebra and Statistics.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Mathematics
This course counts toward Schoolcraft's General Education Requirements.
This Course is Typically Offered: Winter, Spring, Summer, Fall

MATH 119 - Trigonometry

Credits: 3
Lecture Contact Hours: 3
Description: Trigonometric functions and their graphs, identities, equations and inverse functions and solutions of right and oblique triangles are the topics included in this course.

Prerequisites: MATH 113 with a minimum grade of 2.0 or a minimum score of 23 ACT-Math, 29 SAT-Math, 63 CPT-College-Level Math or 230 NGA-Advanced Algebra and Functions.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Mathematics
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

MATH 122 - Elementary Statistics

Credits: 4
Lecture Contact Hours: 4
Description: This course includes an introduction to statistics, statistical descriptions, frequency distributions, possibilities and probabilities, probability distributions, sampling and sampling distributions, testing hypotheses based on measurements, count data, paired data and use of nonparametric tests.

Prerequisites: MATH 113 with a minimum grade of 2.0 or a minimum score of 23 ACT-Math, 29 SAT-Math, 63 CPT-College-Level Math or 265 NGA-Quantitative Reasoning, Algebra and Statistics.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Mathematics
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

MATH 126 - College Algebra

Credits: 4
Lecture Contact Hours: 4
Description: The function concept, polynomial, rational, exponential and logarithmic functions, curve sketching, graphical analysis of functions, graphical solutions and business applications are the topics included in this course.

Prerequisites: MATH 113 with a minimum grade of 2.0 or a minimum score of 23 ACT-Math, 29 SAT-Math, 63 CPT-College-Level Math or 230 NGA-Advanced Algebra and Functions.
Corequisites: None.
Recommended: MATH 126 is recommended for business and social science majors

Course Category: Liberal Arts | Mathematics
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Fall

MATH 129 - Precalculus

Credits: 5
Lecture Contact Hours: 5
Description: Topics covered in this course include the function concept, polynomial, rational, exponential, logarithmic, rapid review of trigonometric and inverse trigonometric functions, solving equations, curve sketching, complex numbers, coordinate geometry and conic sections. The prevailing theme is applications and graphical solutions.

Prerequisites: MATH 113 with a minimum grade of 2.0 and MATH 119 with a minimum grade of 2.0 or Minimum score of 23 ACT-Math, 29 SAT-Math, 63 CPT-College-Level Math or 260 NGA-Advanced Algebra and Functions.
Corequisites: None.
Recommended: MATH 129 is recommended for

engineering, science and math majors.

Course Category: Liberal Arts | Mathematics
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

MATH 135 - Finite Mathematics
Credits: 4
Lecture Contact Hours: 4
Description: Matrices and their applications to linear equations and linear programming, the simplex method, elementary probability and mathematics of finance are the topics included in this course.

Prerequisites: MATH 126 with a minimum grade of 2.0 or a minimum score of 23 ACT-Math, 29 SAT-Math, 103 CPT-College-Level Math or 250 NGA-Advanced Algebra and Functions.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Mathematics
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall, Winter

MATH 145 - Calculus for Business and Social Science
Credits: 4
Lecture Contact Hours: 4
Description: The main topics of this course are differentiation of algebraic, exponential and logarithmic functions; curve sketching; optimization; constrained optimization; integration; introduction to functions of several variables; and applications.

Prerequisites: MATH 126 with a minimum grade of 2.0 or a minimum score of 23 ACT-Math, 29 SAT-Math, 103 CPT-College-Level Math or 250 NGA-Advanced Algebra and Functions.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Mathematics
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Fall

MATH 150 - Calculus with Analytic Geometry 1
Credits: 5
Lecture Contact Hours: 5
Description: This course is oriented to engineering, science and mathematics majors. Limits and continuity, derivatives and integrals of algebraic and some trigonometric functions, curve sketching with the aid of the graphing calculator and applications are the topics covered in this course.

Prerequisites: MATH 129 with a minimum grade of 2.0 or a minimum score of 23 ACT-Math, 29 SAT-Math, 103 CPT-College-Level Math or 280 NGA-Advanced Algebra and Functions.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Mathematics
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Fall

MATH 151 - Calculus with Analytic Geometry 2
Credits: 5
Lecture Contact Hours: 5
Description: This course includes the study of derivatives and integrals of transcendental functions, techniques of integration, indeterminate forms, improper integrals, infinite series, conics, polar coordinates and applications.

Prerequisites: MATH 150 with a minimum grade of 2.0.
Corequisites: None.
Recommended: MATH 230 may be taken concurrently.

Course Category: Liberal Arts | Mathematics
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Fall

MATH 230 - Linear Algebra
Credits: 4
Lecture Contact Hours: 4
Description: Topics covered in this course include systems of linear equations, matrices, determinants, Euclidean vector spaces, general vector spaces, inner product spaces, eigenvalues and eigenvectors, diagonalization, linear transformations and applications.

Prerequisites: MATH 150 with a minimum grade of 2.0
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Mathematics
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall, Winter

MATH 240 - Calculus with Analytic Geometry 3

Credits: 5
Lecture Contact Hours: 5
Description: Vectors in the plane, vectors in three-space, solid analytic geometry, partial derivatives, line integrals, multiple integrals and applications are the topics covered in this course.

Prerequisites: MATH 151 with a minimum grade of 2.0.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Mathematics
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Fall

MATH 252 - Differential Equations

Credits: 5
Lecture Contact Hours: 5
Description: Topics covered in this course include first order differential equations, second order linear equations, series solutions of second order linear equations, higher order linear equations, Laplace transform, systems of first order linear equations, numerical methods and qualitative theory of differential equations.

Prerequisites: MATH 240 with a minimum grade of 2.0.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Mathematics
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall, Winter

MECH - Mechatronics

MECH 101 - Introduction to Mechatronics

Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: This is the first in a series of two introductory mechatronics courses. It prepares the student to succeed in operations and assembly positions in modern production environments that use Industry 4.0 automation technologies. Students who complete this course will be prepared to take the Certified Industry 4.0 Basic Operations certification exam, which is ideal for individuals in related occupations who want to integrate automated equipment and processes.

Prerequisites: None
Corequisites: None
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Fall
Students who already have this knowledge may qualify for prior learning credits.
https://www.schoolcraft.edu/student-records/prior-learning-credits.

MECH 111 - Introduction to Industrial Control Systems

Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: This course is designed for students who are pursuing a career in mechatronics. It prepares the student to succeed in advanced operations positions in modern production environments that use Industry 4.0 automation technologies. Students who complete this course will be prepared to take the Certified Industry 4.0 Advanced Operations certification exam, which is also ideal for individuals in other related occupations, such as IT, seeking to become versed in factory floor automation and programming.

Prerequisites: MECH 101 .
Corequisites: None
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Winter
Students who already have this knowledge may qualify for prior learning credits.
https://www.schoolcraft.edu/student-records/prior-learning-credits.

MECH 131 - Industrial Internet of Things (IIoT)

Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: This course is designed for students who are pursuing a career in mechatronics. It prepares individuals to succeed in operations positions in modern production environments that use Industry 4.0 automation, IIoT (Industrial Internet of Things), optimization and data analytics technologies. It is also ideal for maintenance technicians and IT professionals seeking to become versed in these areas. Students will be prepared to sit for the Certified Industry 4.0 IIoT and Data Analytics certification exam.

Prerequisites: None
Corequisites: None
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Winter
Students who already have this knowledge may qualify for prior learning credits.
https://www.schoolcraft.edu/student-records/prior-learning-credits.

MET – Metallurgy and Materials Science

MET 103 - Introduction to Materials Science
Credits: 3
Lecture Contact Hours: 3
Lab Contact Hours: 1
Description: This course provides a broad introduction to materials science. Using the scientific method, the physical, mechanical and chemical properties of metallic, polymeric, ceramic and composite materials are related to their atomic structure and bonding.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

MET 116 - Introduction to Physical Metallurgy
Credits: 3
Lecture Contact Hours: 3
Description: This course introduces the physical metallurgy of ferrous and non-ferrous metals, the history and production of alloys and fabricated metal products, material selection and failure analysis. It provides the foundation for the subsequent laboratory-based courses.

Prerequisites: MET 103
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

MET 153 - Metallography
Credits: 3
Lecture Contact Hours: 1
Lab Contact Hours: 3
Description: This course provides experience in the use of laboratory equipment and methods for studying and reporting microstructures of ferrous, non-ferrous and specialty materials. Proper operation of equipment and instrumentation for sectioning, mounting, polishing, etching, microscopy and image analysis is emphasized, as are safety, etiquette and communication in the laboratory.

Prerequisites: MET 116, or maybe taken concurrently. MATH 102
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

MET 160 - Composite Materials
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: This course introduces the various classes, manufacturing methods and applications of composite materials used in industry. The mechanical, physical and chemical properties of reinforced polymer matrix, metal matrix and ceramic matrix composites are explored.

Prerequisites: MET 103.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: As Needed

MET 212 - Heat Treatment
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: This course explores the application of phase diagrams, time-temperature-transformation diagrams, thermal treatments and metallography to predict, control and characterize equilibrium and non-equilibrium structures resulting from thermally activated diffusive and displacive phase transformations.

Prerequisites: MET 153.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall Only

MET 216 - Mechanical Testing
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: This course applies theories of elasticity and plasticity as well as mechanisms of strengthening and fracture to the mechanical testing of materials by various loading and measurement techniques. In addition, common forming methods and environmental effects are discussed.

Prerequisites: *MET 153.*
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall Only

MET 232 - Metals Processing and Properties
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: This course will serve as an introduction to a variety of processes used in the production of metallic components. Casting, forging, forming, machining and joining technologies will be discussed, demonstrated and/or practiced, as appropriate. The focus will be on how physical and mechanical properties are influenced by the choice of manufacturing methods. Students will use shop equipment to create components and evaluate their properties using laboratory equipment.

Prerequisites: MET 153 and MET 216.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter

MET 248 - Scanning Electron Microscopy and X-ray Microanalysis
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: This course introduces the fundamentals of Scanning Electron Microscopy (SEM) and X-ray Microanalysis used for materials characterization and failure analysis. Topics include microscopy systems and components, safety and maintenance, applications in fractography and materials characterization and failure analysis.

Prerequisites: MET 153 or consent of department.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

MET 281 - Special Problems in Materials Science
Credits: 3
Lecture Contact Hours: 1
Lab Contact Hours: 3
Description: This course involves the execution of an applied research project involving materials processing and/or analysis. Literature review, hypothesis development, experimental design, experimentation and data analysis culminate in formal written and oral presentations.

Prerequisites: MET 212. MET 216.
Corequisites: MET 232 if not taken previously.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

MET 291 - Metallurgy Internship
Credits: 3
Lecture Contact Hours: 1
Off Site Contact Hours Without Faculty: 12 - 40
Description: This is an applied course within Occupational Programs specializing in the field of metallurgy (MET) and is a cooperative assignment for students who have completed the prerequisites for this course. Employment will be approximately 12 to 40 hours per week off-campus at the employer's location within a metallurgy or related department. The final grade will be based on a joint evaluation by the faculty and the employer. Students registered in this internship course are considered Schoolcraft College students with all rights, responsibilities and privileges of a student. Internships may be paid or unpaid based upon placement. Department permission is required before registering for this course. The selection of eligible students to register for the course is a competitive process that includes testing, submission of a resume with a cover letter and interviews.

Prerequisites: MET 153 with a minimum grade of 3.0, consent of department and an overall GPA of 2.5.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

MFG - Manufacturing

MFG 102 - Basic Machining Processes
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 4
Description: This course will cover fundamental manufacturing processes. The student will be exposed to manual machine operator skills. Particular course emphasis will be on machines, tools and measurements to produce an end product. This is a hands-on class with two-thirds of the time in the manufacturing lab.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

MFG 103 - Basic Computer Numerical Control (CNC)
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 4
Description: Students will be introduced to the operation of the CNC Mill through the use of the basic fundamental of "G" codes and "M" codes. Machine and tool set up will also be covered. As part of the class, students will make several small projects on the CNC machines. These machines are used in today's industrial manufacturing plants.

Prerequisites: MFG 102
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

MFG 105 - Manufacturing Processes

Credits: 4
Lecture Contact Hours: 4
Description: This course will serve as an introduction to a variety of manufacturing processes, such as casting, forming, plastics, machining and joining. It is meant to be an overview and will concentrate on the uniqueness of each process as it applies to materials and production capabilities. In addition, the student will have a brief exposure to the properties of materials as they relate to particular manufacturing processes and the concepts of measurement, inspection and tolerances.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

MFG 106 - Basic Mastercam
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: Students will further their CNC skills by using a CAD/CAM Mastercam software to generate CNC coding for mills and lathes. Using Mastercam involves three steps: First, the student will use Mastercam's CAD program to create the part geometry; secondly, the CAM program will be used to program machine information (feed rate, spindle speed, coolant control command, etc.); and finally, a postprocessor will be used to generate CNC coding. Also, tool paths will be verified by using a graphical (animation) solid-model tool path verification to detect potential machining errors. The students will also study drilling, solid modeling, pocketing and circle boring.

Prerequisites: MFG 102 or consent of department.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

MFG 202 - Advanced Machining Processes
Credits: 3
Lecture Contact Hours: 1
Lab Contact Hours: 3
Description: This course will cover advanced machining processes. The students will be exposed to advanced manual machine operator skills to prepare them for what they will experience in a real-world machining job environment. Particular course emphasis will be on developing skills related to precision machining processes, stamping die repair, maintaining machines, maintaining tools and producing an end product. There is a focus on using lathes, mills and grinders.

Prerequisites: MFG 102
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: As Needed

MFG 203 - Advanced Computer Numerical Control (CNC)
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 4
Description: This course will cover CNC machining as well as the advanced functions of the controller. All machine-based operational aspects of the CNC machine used in industrial manufacturing plants will be covered. This course will provide a more advanced machining experience.

Prerequisites: MFG 103
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Spring, Fall
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

MFG 206 - Advanced Mastercam
Credits: 3
Lab Contact Hours: 4
Description: The student will use CNC Mastercam software program. This course will address the following machining variables: machining parameters, constructing wire frame models, generating surface models with tool paths, engraving artworks and solid modeling. Operational parameters will be calculated to determine operating capacity of a cutting tool, spindle horsepower, the effects of different types of work piece material and rigidity of the part and respective fixture. The student will learn how to generate coding for 3D wire frame and multi-axis composite surfaces using various modeling techniques.

Prerequisites: MFG 106 or consent of department.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Spring, Fall

MFG 211 - 3D Computer Numerical Control
Credits: 3
Lab Contact Hours: 3
Description: Students will use the computer to develop the tool path for cut 3D surfaces on CNC machines. This method is used in mold shops in the industrial operation. Students must have a very good understanding of Mastercam and CNC machining.

Prerequisites: MFG 203. MFG 206.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Spring Only

MFG 212 - Coordinate Measuring Machine
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: This course will cover fundamental Coordinate Measuring Machine (CMM) processes. The students will be exposed to CMM machines for checking parts to prepare them for what they would experience in a real-world machining job environment. Particular course emphasis will be on setting up and operating a CMM machine to check parts. We will be using CMM software, including PC-DMIS and Zeiss, on Brown and Sharpe and FaroArm machines.

Prerequisites: MFG 102. CAD 130.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: As Needed

MFG 213 - Machining Speeds and Feeds
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: This course will cover machining speeds and feeds of various materials. The students will learn to calculate cutting speeds and feeds as they would experience in a real-world machining job environment. Particular course emphasis will be on calculating spindle speeds, feed rates, surface feet per minute and horsepower requirements for different materials. There also will be a focus on radial chip production and analysis.

Prerequisites: MFG 102. MFG 103. MFG 203.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: As Needed

MFG 291 - Manufacturing Internship
Credits: 3
Lecture Contact Hours: 1
Off Site Contact Hours Without Faculty: 12 - 40
Description: This is an applied course within Occupational Programs specializing in the field of manufacturing (MFG) and is a cooperative assignment for students who have completed the prerequisites for this course. Employment will be approximately 12 to 40 hours per week off-campus at the employer's location within a manufacturing or related department. The final grade will be based on a joint evaluation by the college and the employer. Students registered in this internship course are considered Schoolcraft College students with all rights, responsibilities and privileges of a student. Internships may be paid or unpaid based upon placement. Department permission is required before registering for this course. The selection of eligible students to register for the course is a competitive process that includes testing, submission of a resume with a cover letter and interviews.

Prerequisites: Minimum of three MFG courses with a minimum average grade of 3.0 and an overall minimum GPA of 2.5 or consent of department.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

MRI – Magnetic Resonance Imaging

MRI 210 - Magnetic Resonance Imaging Image Production
Credits: 3
Lecture Contact Hours: 3
Description: This course focuses on physical principles of Magnetic Resonance Imaging (MRI). Topics of discussion will include the history of MRI, instrumentation, imaging techniques and pulse sequences. Resonance, interaction of radiofrequency, gradients, data collection and image formation will be reviewed. Causes of image artifacts and quality control will be emphasized.

Prerequisites: Acceptance into the Magnetic Resonance Imaging Program. Registered radiologic technologist (ARRT), radiation therapist (ARRT), nuclear medicine technologist (ARRT or NMTCB) and sonographer (ARRT or ARDMS).
Corequisites: None
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Fall

MRI 220 - Magnetic Resonance Imaging Patient Care and Safety
Credits: 2
Lecture Contact Hours: 2
Description: This course focuses on patient care, contrast media, magnetic field safety and safety issues concerning patients and healthcare personnel. Screening skills, patient assessment and patient education will also be covered in this course.

Prerequisites: Acceptance into the Magnetic Resonance Imaging Program. Registered radiologic technologist (ARRT), radiation therapist (ARRT), nuclear medicine technologist (ARRT or NMTCB) and sonographer (ARRT or ARDMS).
Corequisites: None
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Fall

MRI 230 - Anatomy and Pathology

Credits: 2
Lecture Contact Hours: 2
Description: This course provides an overview of pathologies and identifies anatomy seen on Magnetic Resonance Imaging (MRI) images of the brain, spine, neck, chest, abdomen and pelvis and central nervous and musculoskeletal system. A basic understanding of the description, etiology, signs and symptoms, imaging characteristics, treatment and prognosis of those pathologies will be discussed.

Prerequisites: Acceptance into the Magnetic Resonance Imaging Program. Registered radiologic technologist (ARRT), radiation therapist (ARRT), nuclear medicine technologist (ARRT or NMTCB) and sonographer (ARRT or ARDMS).
Corequisites: None
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Winter

MRI 270 - Magnetic Resonance Imaging Clinical Education 1
Credits: 4
Lecture Contact Hours: 1
Off Site Contact Hours Without Faculty: 24 ***Description:*** First in a series of two clinical courses that provide students an opportunity to learn scanning skills in a clinical setting. Supervised clinical education will be focused on applying protocols, equipment operations and image quality. Patient comfort and safety and professional behavior and values will be stressed. This course will meet for a total of 360 clinical hours in eight-hour shifts.

Prerequisites: Acceptance into the Magnetic Resonance Imaging Program. Registered radiologic technologist (ARRT), radiation therapist (ARRT), nuclear medicine technologist (ARRT or NMTCB) and sonographer (ARRT or ARDMS).
Corequisites: MRI 210, if not taken previously. MRI 220, if not taken previously.
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Fall

MRI 280 - Magnetic Resonance Imaging Clinical Education 2
Credits: 4
Lecture Contact Hours: 1
Off Site Contact Hours Without Faculty: 24 ***Description:*** Second in a series of two clinical courses that provide students an opportunity to demonstrate scanning skills in a clinical setting. This supervised clinical rotation will allow the student to perfect skills developed in Clinical Education I. Mastering scanning skills and assisting with interventional procedures will be the focus of this course. Patient care and safety, while adhering to ethical and professional guidelines, will continue to be evaluated. This course will meet for a total of 360 clinical hours in eight-hour shifts.

Prerequisites: MRI 270, with a minimum grade of 3.0.
Corequisites: MRI 230, if not taken previously.
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Winter

MRI 290 - Magnetic Resonance Imaging Capstone
Credits: 1
Lecture Contact Hours: 1
Description: This course is designed as a capstone learning experience to prepare students for the American Registry of Radiologic Technologists (ARRT) post primary certification exam. Students also prepare for professional employment by synthesizing knowledge, skills and attitudes learned in the Magnetic Resonance Imaging program. The ARRT Code of Ethics and Standards of Care will be reviewed.

Prerequisites: MRI 270, with a minimum grade of 3.0.
Corequisites: MRI 280, if not taken previously.
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Winter

MUSIC - Music

MUSIC 104 - Basic Materials in Music Theory
Credits: 3
Lecture Contact Hours: 3
Description: This course provides a step by step approach to the fundamentals of music including notation, scales, intervals and triads.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall, Winter

MUSIC 105 - Music Appreciation
Credits: 3
Lecture Contact Hours: 3
Description: An introduction to music, designed especially to increase understanding and enjoyment of music through intelligent listening. No technical knowledge required, but outside listening and attendance at live performances are required.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Fall

MUSIC 107 - Music for Elementary Teachers
Credits: 4
Lecture Contact Hours: 3
Lab Contact Hours: 2
Description: This course will provide students with knowledge about fundamental concepts in music such as rhythm, harmony and form through participation in musical behaviors such as playing instruments, moving and singing. It also will provide opportunities for students to develop and execute lessons that address these concepts as well as employing music to facilitate learning in other academic areas such as math, science and language arts. The course is recommended for elementary education majors. This course requires all students must meet the requirements of a criminal background check.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This Course is Typically Offered: Fall, Winter

MUSIC 114 - Voice Class 1 Elements - Beginners
Credits: 2
Lecture Contact Hours: 2
Description: This is the first in a series of four voice classes for students interested in developing their vocal skills. This class is designed for young or beginning singers or for singers wishing to refresh their focus on the elements upon which the cultivation of the singing voice is built.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 116 - Voice Class 2 Cultivation - Intermediate
Credits: 2
Lecture Contact Hours: 2
Description: This is the second in a series of four voice classes for students interested in developing their vocal skills. This is a voice class for singers of intermediate level or for singers wishing to refresh their understanding of the study and cultivation of the singing voice.

Prerequisites: MUSIC 114
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: As Needed

MUSIC 117 - Choir 1
Credits: 2
Lecture Contact Hours: 2
Lab Contact Hours: 1
Description: This is the first course in which students will explore the principles of choral singing and musicianship. Music of all styles and periods will be included. Choir is an elective for all students, regardless of major field. Additional Choir credits may be earned in future semesters by enrolling in the following course sequence (one course per semester): MUSIC 118, 217 and 218.

Prerequisites: Consent of department. This course requires an audition prior to registration. Please contact the Music department for details.
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 118 - Choir 2
Credits: 2
Lecture Contact Hours: 2
Lab Contact Hours: 1
Description: This is the second course in which students will explore the principles of choral singing and musicianship. Music of all styles and periods will be included. Choir is an elective for all students, regardless of major field. Additional Choir credits may be earned in future semesters by enrolling in the following course sequence (one course per semester): MUSIC 217 and 218.

Prerequisites: MUSIC 117
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 121 - Class Piano 1
Credits: 2
Lecture Contact Hours: 2
Description: This is the first class in a two-course sequence of group piano instruction designed for students with little or no formal piano training. Instruction is given on both electronic and acoustic instruments.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 122 - Class Piano 2
Credits: 2
Lecture Contact Hours: 2
Description: This is the second class in a two-course sequence of group piano instruction designed for students with little or no formal piano training. Instruction is given on both electronic and acoustic instruments.

Prerequisites: MUSIC 121 or consent of department. This course requires an audition prior to registration. Please contact the Music department for details.
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Winter Only

MUSIC 131 - Applied Music - Piano 1
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: This class is for students who have previous experience in piano performance. This course includes one 45-minute private lesson weekly, a two-hour weekly studio class and required practice (minimum of six hours for non-majors and varies according to specific major and transfer requirements for music majors). Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 132 - Applied Music - Piano 2
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: This class is for students who have previous experience in piano performance. This course includes one 45-minute private lesson weekly, a two-hour weekly studio class and required practice (minimum of six hours for non-majors and varies according to specific major and transfer requirements for music majors). Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

Prerequisites: MUSIC 131
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 133 - Applied Music - Voice 1
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: Every student studying voice at Schoolcraft College begins with MUSIC 133. This course includes one weekly private lesson, a one-hour weekly studio class and required daily practice as assigned by the instructor. Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 134 - Applied Music - Voice 2
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: This is the second in the sequence of voice classes at Schoolcraft College. This course includes one weekly private lesson, a one-hour weekly studio class and required daily practice as assigned by the instructor. Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

Prerequisites: MUSIC 133
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 135 - Applied Music - Instrumental 1
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: Every student studying instruments of the band and orchestra, including classical guitar, at Schoolcraft College begins with MUSIC 135. This course includes one weekly private lesson, a one-hour weekly studio class and required practice (minimum of six hours for non-majors and varies according to specific major and transfer requirements for music majors). Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to

music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 136 - Applied Music - Instrumental 2
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: This is the second class in the sequence of courses for students studying instruments of the band and orchestra, including classical guitar, at Schoolcraft College. This course includes one weekly private lesson, a one-hour weekly studio class and required practice (minimum of six hours for non-majors and varies according to specific major and transfer requirements for music majors). Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

Prerequisites: MUSIC 135
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 137 - Sight Singing and Ear Training 1
Credits: 2
Lecture Contact Hours: 2
Description: This course will focus on sight singing melodies. The course will also include simple rhythmic, melodic and harmonic dictations. There will be exploration of intervals; tonic and dominant chords in root position, first and second inversion; and non-harmonic tones.

Prerequisites: Consent of department. Please contact the Music department for details.
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall Only

MUSIC 138 - Sight Singing and Ear Training 2
Credits: 2
Lecture Contact Hours: 2
Description: This is the second course in the Sight Singing and Ear Training sequence. It will cover sight singing melodies, outlining intervals of all triads and dominant seventh chords. In addition, harmonic, melodic, rhythmic dictation, altered non-harmonic tones, secondary dominants, modulation to closely related keys and borrowed altered harmonies will be explored.

Prerequisites: MUSIC 137
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Winter Only

MUSIC 140 - Jazz Lab Band - Improvisation 1
Credits: 2
Lecture Contact Hours: 2
Lab Contact Hours: 1
Description: This group is geared to the less experienced jazz player interested in performing contemporary jazz music in the big band setting, but with some emphasis on improvisation. The Lab Band will perform at concerts during the school year. The class is open to all students, high school and college, and members of the community. An audition at the beginning of each semester is required.

Prerequisites: Consent of department. This course requires an audition prior to registration. Please contact the Music department for details.
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 141 - Wind Ensemble 1
Credits: 2
Lecture Contact Hours: 2
Lab Contact Hours: 1
Description: The Schoolcraft Wind Ensemble is open to all brass, woodwind and percussion instrumentalists regardless of major field. The ensemble performs several concerts during the semester as well as at all college commencements. Additional Wind Ensemble credits may be earned in future semesters by enrolling in the following course sequence (one course per semester): MUSIC 241, MUSIC 245 and MUSIC 246.

Prerequisites: Consent of department. This course requires an audition prior to registration. Please contact the Music department for details.
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 142 - Jazz Band 1
Credits: 2
Lecture Contact Hours: 2
Lab Contact Hours: 1
Description: The Schoolcraft Jazz Band is open to all aspiring jazz performers regardless of major field. The ensemble studies literature from the big band era up

through modern jazz arrangements and performs several concerts during the semester. Additional Jazz Band credits may be earned in future semesters by enrolling in the following course sequence (one course per semester): MUSIC 242, MUSIC 248 and MUSIC 249.

Prerequisites: Consent of department. This course requires an audition prior to registration. Please contact the Music department for details.
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 143 - Practice Teaching and Practicum in Piano Teaching 1
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: Piano teachers will learn to create and present effective lesson plans. Topics include repertoire, theory concepts, rhythm, tone, touch and hand position for beginning piano study. Students will have the opportunity to observe other teachers as well as beginning piano students in the Schoolcraft Piano Academy and in the community. This course requires all students must meet the requirements of a criminal background check.

Prerequisites: Consent of department
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 144 - Practice Teaching and Practicum in Piano Teaching 2
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: Piano teachers will learn to create and present effective lesson plans. Topics include repertoire, theory concepts, rhythm, tone, touch and hand position through the second semester of piano study. Students will have the opportunity to observe other teachers as well as early intermediate piano students in the Schoolcraft Piano Academy and in the community. This course requires all students must meet the requirements of a criminal background check.

Prerequisites: MUSIC 143
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 149 - Popular Music Culture in America
Credits: 3
Lecture Contact Hours: 3
Description: This course serves as an introduction to some of the great works of popular music in the United States, from the songs of colonial America to the present. The course will cover the major periods/styles in popular American music history including but not limited to music of the Westward movement, ragtime and blues, the roots and growth of jazz, country music, folk music, music of Broadway and Tin Pan Alley, the roots and development of rock music and late 20th century developments in popular music, as well as historical, political and sociological background of the United States as pertinent to music history. A background in music is not required.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall, Winter

MUSIC 150 - Introduction to Music Entrepreneurship
Credits: 3
Lecture Contact Hours: 3
Description: This course is an introduction to the inner workings of today's music industry and to the career opportunities that exist for musicians. It seeks to dispel some of the old myths concerning "making it" as a musician and replace them with practical information which will help musicians build a career. Students will be required to organize their priorities, set attainable long-term goals and create a professional portfolio. There will be an introduction to resources in music publishing, online sales, music streaming, music production, music video production, music law and management.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

MUSIC 153 - Music Theory 1
Credits: 3
Lecture Contact Hours: 3
Description: Harmonic progression; chords of root position, first inversion and second inversion will be examined in this course. Phrase structure and cadences will be introduced. Technique of harmonization and non-harmonic tones will be explored.

Prerequisites: Consent of department. Please contact the Music department for details.
Corequisites: None.

Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall Only

MUSIC 154 - Music Theory 2
Credits: 3
Lecture Contact Hours: 3
Description: This is the second course in the Music Theory sequence. Students will be introduced to chord progressions, harmonization, nondominant seventh chords, altered non-harmonic tones, secondary dominants and modulation to closely related keys. Students will also explore music notation software. Students will create an original composition.

Prerequisites: MUSIC 153
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter Only

MUSIC 155 - History of Broadway
Credits: 3
Lecture Contact Hours: 3
Description: This course will look at the history and development of the Broadway musical, from its roots in early American musical entertainment and classical European opera, its heyday in the post-modern era and its evolution in the late 20th century as a result of the music publishing and recording industry. In addition, the course will take an in-depth look at the music and structure of several Broadway masterpieces and how they affected and were affected by American popular culture.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall Only

MUSIC 160 - Introduction to World Music
Credits: 3
Lecture Contact Hours: 3
Description: This course is an introduction to world music designed to increase understanding of performance practices and traditions from regions that may include Africa, Asia, the Middle East and the Americas. The focus of this course is an exploration of musical structure, style and function as it is expressed through and influenced by global cultures. Prior technical musical knowledge is not required, but outside listening and attendance at a live musical performance is required.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

MUSIC 164 - Music History 1 - 17th and 18th Centuries
Credits: 3
Lecture Contact Hours: 3
Description: This course provides a detailed survey of literature, history and musical materials of the Baroque and Classical eras. The functions and characteristics of music in the 17th and 18th centuries will be explored. Composers, musical compositions and musical performances of this era will be examined.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall Only

MUSIC 165 - Music History 2 - 19th and 20th Centuries
Credits: 3
Lecture Contact Hours: 3
Description: This course provides a detailed survey of history and literature of music of the Romantic and 20th century eras. The functions and characteristics of music in the 19th and 20th centuries will be explored. Composers, musical compositions and musical performances of this era will be examined.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities

This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter Only

MUSIC 168 - Synthesizer Ensemble 1
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 1
Description: The Schoolcraft Synthesizer Ensemble is open to all musicians with keyboard skills, regardless of major field. The ensemble performs original music and transcribed literature of many genres on electronic musical instruments. The group performs several concerts during the semester. Additional Synthesizer credits may be earned in future semesters by enrolling in the following course sequence (one course per semester): MUSIC 169, MUSIC 268 and MUSIC 269.

Prerequisites: MUSIC 121 or Consent of department. This course requires an audition prior to registration. Please contact the Music department for details.
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 169 - Synthesizer Ensemble 2
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 1
Description: This is the second Schoolcraft Synthesizer Ensemble course which is open to all musicians with keyboard skills, regardless of major field. The ensemble performs original music and transcribed literature of many genres on electronic musical instruments. The group performs several concerts during the semester. Additional Synthesizer credits may be earned in future semesters by enrolling in the following course sequence (one course per semester): MUSIC 268 and MUSIC 269.

Prerequisites: MUSIC 168
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 171 - Music Technology 1
Credits: 3
Lecture Contact Hours: 3
Description: This course is an introduction to the fundamentals of music-making using computer hardware and software. The course will examine the basic functions of digital audio workstation (DAW) software as well as hardware and software synthesizers through hands-on experience and experimentation. The course will also introduce the student to current software applications that emphasize music performance and composition with the assistance of MIDI hardware and a desktop computer.

Prerequisites: MUSIC 104 and MUSIC 121 or Consent of department
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 172 - Music Technology 2
Credits: 3
Lecture Contact Hours: 3
Description: This course will deal with advanced functions of Digital Audio Workstation (DAW) software and synthesis with the assistance of MIDI hardware and a desktop computer.

Prerequisites: MUSIC 171
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Winter Only

MUSIC 201 - Keyboard Skills for Piano Teachers 1
Credits: 2
Lecture Contact Hours: 2
Description: This is the first course in the Keyboard Skills for Piano Teachers sequence. It is designed to give piano teachers the necessary keyboard skills for teaching beginning through early intermediate level students. The course will cover technical exercises, harmonization, transposition and sight-reading material using the standards of the Michigan Music Teachers Association, the National Piano Guild, the Royal Conservatory of Music (Canada) and other recognized testing organizations.

Prerequisites: Consent of department.
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall Only

MUSIC 202 - Keyboard Skills for Piano Teachers 2
Credits: 2
Lecture Contact Hours: 2
Description: This is the second course in the Keyboard Skills for Piano Teachers sequence. It is designed to give piano teachers the necessary keyboard skills for teaching intermediate through late intermediate level students. The course will cover technical exercises, harmonization, transposition and sight-reading material using the standards of the Michigan Music Teachers Association, the National Piano Guild, the Royal Conservatory of Music (Canada) and other recognized testing organizations.

Prerequisites: MUSIC 201

Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall Only

MUSIC 204 - Keyboard Skills for Piano Teachers 3
Credits: 2
Lecture Contact Hours: 2
Description: This is the third course in the Keyboard Skills for Piano Teachers sequence. It is designed to give piano teachers the necessary keyboard skills for teaching late intermediate through early advanced level students. The course will cover technical exercises, harmonization, transposition and sight-reading material using the standards of the Michigan Music Teachers Association, the National Piano Guild, the Royal Conservatory of Music (Canada) and other recognized testing organizations.

Prerequisites: MUSIC 202
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall Only

MUSIC 205 - Keyboard Skills for Piano Teachers 4
Credits: 2
Lecture Contact Hours: 2
Description: This is the fourth course in the Keyboard Skills for Piano Teachers sequence. It is designed to give piano teachers the necessary keyboard skills for teaching advanced level students. The course will cover technical exercises, harmonization, transposition and sight-reading material using the standards of the Michigan Music Teachers Association, the National Piano Guild, the Royal Conservatory of Music (Canada) and other recognized testing organizations.

Prerequisites: MUSIC 204
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall Only

MUSIC 214 - Voice Class 3 Performance - Advanced
Credits: 2
Lecture Contact Hours: 2
Description: This is the third in a series of four voice classes for students interested in developing their vocal skills. It is a voice class for singers preparing for a career in singing or for advanced singers wishing to learn the art of performance before an audience.

Prerequisites: MUSIC 116
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: As Needed

MUSIC 216 - Voice Class 4 Performance - Advanced
Credits: 2
Lecture Contact Hours: 2
Description: This is the final course in a series of four voice classes for students interested in developing their vocal skills. This is a voice class for singers preparing for a career in singing or for advanced singers wishing to learn the art of performance before an audience.

Prerequisites: MUSIC 214
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: As Needed

MUSIC 217 - Choir 3
Credits: 2
Lecture Contact Hours: 2
Lab Contact Hours: 1
Description: This is the third course in which students will explore the principles of choral singing and musicianship. Music of all styles and periods will be included. Choir is an elective for all students, regardless of major field. Additional Choir credits may be earned in a future semester by enrolling in MUSIC 218.

Prerequisites: MUSIC 118
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 218 - Choir 4
Credits: 2
Lecture Contact Hours: 2
Lab Contact Hours: 1
Description: This is the fourth and last course in which students will explore the principles of choral singing and musicianship. Music of all styles and periods will be included. Choir is an elective for all students, regardless of major field.

Prerequisites: MUSIC 217
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 231 - Applied Music - Piano 3
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: This class is for students who have previous experience in piano performance. This course includes one 45-minute private lesson weekly, a two-hour weekly studio class and required practice (minimum of six hours for non-majors and varies according to specific major and transfer requirements for music majors). Students will be advised about appropriate daily practice time

requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

Prerequisites: MUSIC 132
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 232 - Applied Music - Piano 4
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: This class is for students who have previous experience in piano performance. This course includes one 45-minute private lesson weekly, a two-hour weekly studio class and required practice (minimum of six hours for non-majors and varies according to specific major and transfer requirements for music majors). Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

Prerequisites: MUSIC 231
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 233 - Applied Music - Voice 3
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: This is the third in the sequence of voice classes at Schoolcraft College. This course includes one weekly private lesson, a one-hour weekly studio class and required daily practice as assigned by the instructor. Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

Prerequisites: MUSIC 134
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 234 - Applied Music - Voice 4
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: This is the fourth in the sequence of voice classes at Schoolcraft College. This course includes one weekly private lesson, a one-hour weekly studio class and required daily practice as assigned by the instructor. Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

Prerequisites: MUSIC 233
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 235 - Applied Music - Instrumental 3
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: This is the third class in the sequence of courses for students studying instruments of the band and orchestra, including classical guitar, at Schoolcraft College. This course includes one weekly private lesson, a one-hour weekly studio class and required practice (minimum of six hours for non-majors and varies according to specific major and transfer requirements for music majors). Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

Prerequisites: MUSIC 136
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 236 - Applied Music - Instrumental 4
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: This is the fourth class in the sequence of courses for students studying instruments of the band and orchestra, including classical guitar, at Schoolcraft College. This course includes one weekly private lesson, a one-hour weekly studio class and required practice (minimum of six hours for non-majors and varies according to specific major and transfer requirements for music majors). Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of

each semester. This course is for music and non-music majors.

Prerequisites: MUSIC 235
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 240 - Jazz Lab Band - Improvisation 2
Credits: 2
Lecture Contact Hours: 2
Lab Contact Hours: 1
Description: This group is geared to the less experienced jazz player interested in performing contemporary jazz music in the big band setting, but with some emphasis on improvisation. The Lab Band will perform at concerts during the school year. This is the second course in a series and the class is open to all students, high school and college, and members of the community. An audition at the beginning of each semester is required.

Prerequisites: MUSIC 140
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 241 - Wind Ensemble 2
Credits: 2
Lecture Contact Hours: 2
Lab Contact Hours: 1
Description: This is the second Schoolcraft Wind Ensemble course which is open to all brass, woodwind and percussion instrumentalists regardless of major field. The ensemble performs several concerts during the semester as well as at all college commencements. Additional Wind Ensemble credits may be earned in future semesters by enrolling in the following course sequence (one course per semester): MUSIC 245 and MUSIC 246.

Prerequisites: MUSIC 141
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 242 - Jazz Band 2
Credits: 2
Lecture Contact Hours: 2
Lab Contact Hours: 1
Description: This is the second Schoolcraft Jazz Band course which is open to all aspiring jazz performers regardless of major field. The ensemble studies literature from the big band era up through modern jazz arrangements and performs several concerts during the semester. Additional Jazz Band credits may be earned in future semesters by enrolling in the following course sequence (one course per semester): MUSIC 248 and MUSIC 249.

Prerequisites: MUSIC 142
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 243 - Practice Teaching and Practicum in Piano Teaching 3
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: Piano teachers will learn to create and present effective lesson plans that include repertoire, theory concepts, rhythm, tone, touch and hand position through the third semester of piano study. Students will have the opportunity to observe other teachers and students, as well as to teach late intermediate to early advanced piano students in the Schoolcraft Piano Academy and in the community. This course requires all students must meet the requirements of a criminal background check.

Prerequisites: MUSIC 144
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 244 - Practice Teaching and Practicum in Piano Teaching 4
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: Piano teachers will learn to create and present effective lesson plans that include repertoire, theory concepts, rhythm, tone, touch and hand position through the fourth semester of piano study. Students will have the opportunity to observe other teachers and students, as well as to teach advanced piano students in the Schoolcraft Piano Academy and in the community. This course requires all students must meet the requirements of a criminal background check.

Prerequisites: MUSIC 243
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 245 - Wind Ensemble 3
Credits: 2
Lecture Contact Hours: 2
Lab Contact Hours: 1
Description: This is the third Schoolcraft Wind Ensemble course which is open to all brass, woodwind and

percussion instrumentalists regardless of major field. The ensemble performs several concerts during the semester as well as at all college commencements. Additional Wind Ensemble credits may be earned in future semesters by enrolling in the following course sequence (one course per semester): MUSIC 246.

Prerequisites: MUSIC 241
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 246 - Wind Ensemble 4
Credits: 2
Lecture Contact Hours: 2
Lab Contact Hours: 1
Description: This is the fourth Schoolcraft Wind Ensemble course which is open to all brass, woodwind and percussion instrumentalists regardless of major field. The ensemble performs several concerts during the semester as well as at all college commencements.

Prerequisites: MUSIC 245
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 247 - Piano Teaching Techniques and Materials 1
Credits: 3
Lecture Contact Hours: 3
Description: This course explores the relationship between childhood development and beginning piano study. The content and structure of a beginning piano student's preparation will be examined. This introductory level course emphasizes techniques and methods for teaching the beginning piano student, including the following topics: developing a professional piano studio, setting up a small business, understanding laws and ethics of music teaching, elementary methods and materials, repertoire, supplemental materials and functional skills and knowledge of professional organizations. This course requires all students must meet the requirements of a criminal background check.

Prerequisites: Consent of department
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: As Needed

MUSIC 248 - Jazz Band 3
Credits: 2
Lecture Contact Hours: 2
Lab Contact Hours: 1
Description: This is the third Schoolcraft Jazz Band course which is open to all aspiring jazz performers regardless of major field. The ensemble studies literature from the big band era up through modern jazz arrangements and performs several concerts during the semester. Additional Jazz Band credits may be earned in future semesters by enrolling in the following course sequence (one course per semester): MUSIC 249.

Prerequisites: MUSIC 242
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 249 - Jazz Band 4
Credits: 2
Lecture Contact Hours: 2
Lab Contact Hours: 1
Description: This is the fourth Schoolcraft Jazz Band course which is open to all aspiring jazz performers regardless of major field. The ensemble studies literature from the big band era up through modern jazz arrangements and performs several concerts during the semester.

Prerequisites: MUSIC 248
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 250 - Music Theory 3
Credits: 3
Lecture Contact Hours: 3
Description: This is the third course in the Music Theory sequence. Students will be introduced to borrowed chords, augmented and Neapolitan sixth chords, diminished seventh chords, chromatic mediants and modulation to foreign keys. Students will also analyze 18th- and 19th-century compositions.

Prerequisites: MUSIC 154
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: As Needed

MUSIC 252 - Music Theory 4
Credits: 4
Lecture Contact Hours: 4
Description: This is the last course in the Music Theory sequence. Students will be introduced to 18th century counterpoint: the study, analysis and composition of two-voice invention and three-voice fugue. The student will also be introduced to 20th century forms and harmonic

tendencies: study, analysis and composition of work utilizing the 12-tone system will be among the techniques explored.

Prerequisites: MUSIC 250
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: As Needed

MUSIC 253 - Practice Teaching and Practicum in Piano Teaching 5
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: Piano teachers will learn to create and present effective lesson plans that include repertoire, theory concepts, rhythm, tone, touch and hand position through the fifth semester of piano study. This course requires all students must meet the requirements of a criminal background check.

Prerequisites: MUSIC 244
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 256 - Practice Teaching and Practicum in Piano Teaching 6
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: Piano teachers will learn to create and present effective lesson plans that include repertoire, theory concepts, rhythm, tone, touch and hand position through the sixth semester of piano study. This course requires all students must meet the requirements of a criminal background check.

Prerequisites: MUSIC 253
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 257 - Piano Teaching Techniques and Materials 2
Credits: 3
Lecture Contact Hours: 3
Description: This course explores the relationship between development and intermediate piano study. The content and structure of an intermediate piano student's preparation will be examined. This is the second course in a series and emphasizes techniques and methods for the intermediate piano student, including the following topics: intermediate methods and materials, repertoire, supplemental and functional skills and the knowledge of professional organizations. This course requires all students must meet the requirements of a criminal background check.

Prerequisites: MUSIC 247 or consent of department
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: As Needed

MUSIC 263 - Practice Teaching and Practicum in Piano Teaching 7
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: Piano teachers will learn to create and present effective lesson plans that include repertoire, theory concepts, rhythm, tone, touch and hand position through the seventh semester of piano study. This course requires all students must meet the requirements of a criminal background check.

Prerequisites: MUSIC 256
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 264 - Practice Teaching and Practicum in Piano Teaching 8
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: Piano teachers will learn to create and present effective lesson plans that include repertoire, theory concepts, rhythm, tone, touch and hand position through the eighth semester of piano study. This course requires all students must meet the requirements of a criminal background check.

Prerequisites: MUSIC 263
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 268 - Synthesizer Ensemble 3
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 1
Description: This is the third Schoolcraft Synthesizer Ensemble course which is open to all musicians with keyboard skills, regardless of major field. The ensemble performs original music and transcribed literature of many genres on electronic musical instruments. The

group performs several concerts during the semester. Additional Synthesizer credits may be earned in future semesters by enrolling in the following course sequence (one course per semester): MUSIC 269.

Prerequisites: MUSIC 169
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 269 - Synthesizer Ensemble 4
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 1
Description: This is the fourth Schoolcraft Synthesizer Ensemble class which is open to all musicians with keyboard skills, regardless of major field. The ensemble performs original music and transcribed literature of many genres on electronic musical instruments. The group performs several concerts during the semester.

Prerequisites: MUSIC 268
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 277 - Piano Teaching Techniques and Materials 3
Credits: 3
Lecture Contact Hours: 3
Description: This course explores the relationship between childhood development, late intermediate and early advanced piano study. The content and structure of an intermediate to advance piano student's preparation will be examined. This is the third course in the series and emphasizes techniques and methods for teaching the intermediate and early advanced piano student, including the following topics: advanced methods and materials, repertoire, supplemental materials and functional skills and knowledge of professional organizations. This course requires all students must meet the requirements of a criminal background check.

Prerequisites: MUSIC 257 or consent of department.
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: As Needed

MUSIC 282 - Applied Music - Piano 5
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: This is the fifth course in the sequence of piano classes offered at Schoolcraft College. This course includes one 45-minute private lesson weekly, a two-hour weekly studio class and required practice (minimum of six hours for non-majors and varies according to specific major and transfer requirements for music majors). Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

Prerequisites: MUSIC 232
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 283 - Applied Music - Piano 6
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: This is the sixth course in the sequence of piano classes offered at Schoolcraft College. This course includes one 45-minute private lesson weekly, a two-hour weekly studio class and required practice (minimum of six hours for non-majors and varies according to specific major and transfer requirements for music majors). Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

Prerequisites: MUSIC 282
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 284 - Applied Music - Piano 7
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: This is the seventh course in the sequence of piano classes offered at Schoolcraft College. This course includes one 45-minute private lesson weekly, a two-hour weekly studio class and required practice (minimum of six hours for non-majors and varies according to specific major and transfer requirements for music majors). Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

Prerequisites: MUSIC 283
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 285 - Applied Music - Piano 8
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: This is the eighth course in the sequence of piano classes offered at Schoolcraft College. This course includes one 45-minute private lesson weekly, a two-hour weekly studio class and required practice (minimum of six hours for non-majors and varies according to specific major and transfer requirements for music majors). Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

Prerequisites: MUSIC 284
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 286 - Applied Music - Voice 5
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: This is the fifth in the sequence of voice classes at Schoolcraft College. This course includes one weekly private lesson, a one-hour weekly studio class and required daily practice as assigned by the instructor. Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

Prerequisites: MUSIC 234
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 287 - Applied Music - Voice 6
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: This is the sixth in the sequence of voice classes at Schoolcraft College. This course includes one weekly private lesson, a one-hour weekly studio class and required daily practice as assigned by the instructor. Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

Prerequisites: MUSIC 286
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 288 - Applied Music - Voice 7
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: This is the seventh in the sequence of voice classes at Schoolcraft College. This course includes one weekly private lesson, a one-hour weekly studio class and required daily practice as assigned by the instructor. Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

Prerequisites: MUSIC 287
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 289 - Applied Music - Voice 8
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: This is the eighth in the sequence of voice classes at Schoolcraft College. This course includes one weekly private lesson, a one-hour weekly studio class and required daily practice as assigned by the instructor. Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

Prerequisites: MUSIC 288
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 290 - Applied Music - Instrumental 5
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1

Description: This is the fifth class in the sequence of courses for students studying instruments of the band and orchestra, including classical guitar, at Schoolcraft College. This course includes one weekly private lesson, a one-hour weekly studio class and required practice (minimum of six hours for non-majors and varies according to specific major and transfer requirements for music majors). Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

Prerequisites: MUSIC 236
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 291 - Applied Music - Instrumental 6
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: This is the sixth class in the sequence of courses for students studying instruments of the band and orchestra, including classical guitar, at Schoolcraft College. This course includes one weekly private lesson, a one-hour weekly studio class and required practice (minimum of six hours for non-majors and varies according to specific major and transfer requirements for music majors). Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

Prerequisites: MUSIC 290
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 292 - Applied Music - Instrumental 7
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: This is the seventh class in the sequence of courses for students studying instruments of the band and orchestra, including classical guitar, at Schoolcraft College. This course includes one weekly private lesson, a one-hour weekly studio class and required practice (minimum of six hours for non-majors and varies according to specific major and transfer requirements for music majors). Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

Prerequisites: MUSIC 291
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 293 - Applied Music - Instrumental 8
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: This is the eighth class in the sequence of courses for students studying instruments of the band and orchestra, including classical guitar, at Schoolcraft College. This course includes one weekly private lesson, a one-hour weekly studio class and required practice (minimum of six hours for non-majors and varies according to specific major and transfer requirements for music majors). Students will be advised about appropriate daily practice time requirements, repertoire, skills, (for music majors) transfer requirements and required courses related to music curriculum. Performance examinations will be held at the end of each semester. This course is for music and non-music majors.

Prerequisites: MUSIC 292
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

MUSIC 298 - Special Music Projects for Honors Studies - Performance/Composition/Research
Credits: 2
Lecture Contact Hours: 2
Description: This course provides an opportunity for the talented student to explore individually, in depth, under the direction of a faculty member, a performance, composition or research related project. This course provides an opportunity to present traditional musical events such as a recital or a concert or to learn a new technology. Topics and structure will vary based on the individual student's skills and goals.

Prerequisites: Consent of department. Please contact the Music department for details.
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: As Needed

MUSIC 299 - Special Music Projects for Honors Studies - Performance/Composition/Research

Credits: 2
Lecture Contact Hours: 2
Description: This course provides an opportunity for the talented student to explore individually, in depth, under the direction of a faculty member, a performance, composition or research related project. This course provides an opportunity to present traditional musical events such as a recital or a concert or to learn a new technology.

Prerequisites: Consent of department. Please contact the Music department for details.
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: As Needed

NATP – Nursing Assistant Training Program

NATP 115 - Nursing Assistant Course
Credits: 6
Lecture Contact Hours: 3.5
Lab Contact Hours: 4.5
Off Site Contact Hours with Faculty: 3
Description: This course is designed to prepare an individual for the nursing assistant role. Students will explore communication and interpersonal skills, infection control, safety/emergency procedures, promotion of resident's independence/rights, basic nursing skills, personal and restorative care skills, care of psychosocial, cultural, and spiritual needs, care of cognitively impaired residents, and documentation of care. Basic nursing assistant skills will be performed in laboratory and geriatric-focused clinical facilities. This course requires all students to meet the requirements of a criminal background check, a negative drug screen on the first attempt, and specific clinical agency health and uniform requirements. Students must also meet classroom, laboratory, and clinical performance and attendance requirements.

Prerequisites: The Nursing Assistant course is open only to students who are officially admitted to the college.
Corequisites: None.
Recommended: None.

Course Category: Occupational

NFS – Nutrition and Food Science

NFS 320 - Evolution of Dietary Needs throughout the Lifecycle
Credits: 3
Lecture Contact Hours: 3
Description: Students will learn to examine the nutritional requirements for each phase of the lifecycle. This will include nutritional needs, appropriate food group balance, portion sizes, difference in nutritional requirements by gender, appropriate supplements, illnesses related to nutritional deficiencies and the development of menu plans.

Prerequisites: CHEM 100. BIOL 115, BIOL 105 or CUL 245.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Science
This course counts toward Schoolcraft's General Education Requirements.
This Course is Typically Offered: Winter Only

NFS 360 - Ensuring a Sustainable Food Supply
Credits: 3
Lecture Contact Hours: 3
Description: This course examines the plan of action necessary to ensure a sustainable worldwide food supply. Topics include sustainable agriculture, organic farming, genetically modified organisms, the Farm Bill and hydroponic gardening. In addition, related restaurant initiatives such as buying locally, organic recycling and Green Certification are explored. Off-site educational opportunities may be included in this course.

Prerequisites: ENG 102.
Corequisites: None.
Recommended: BIOL 101

Course Category: Liberal Arts | Science
This course counts toward Schoolcraft's General Education Requirements.
This Course is Typically Offered: Winter Only

NFS 440 - Exploring Specialized Diets
Credits: 3
Lecture Contact Hours: 3
Lab Contact Hours: 1
Description: This course evaluates a variety of specialized diets. This course will prepare students to select and recommend foods according to established science-based nutrition guidelines. Medical nutrition therapy concepts will relate both normal nutrition and modifying menus for nutrition therapy for treatment of disorders and disease. The process of digestion, body systems, health conditions and diet planning will be highlighted. Food allergies and alternative therapies will be discussed.

Prerequisites: BIOL 105. CHEM 100. BIOL 115 or CUL 245. CHEM 104 or CHEM 111.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Science with Lab
This course counts toward Schoolcraft's General Education Requirements.
This Course is Typically Offered: Fall Only

NFS 480 - Clinical Nutrition
Credits: 3
Lecture Contact Hours: 3

Lab Contact Hours: 1
Description: This course prepares students to act as a dietary manager as part of the nutrition care team. This course reviews the nutrition care process, highlighting necessary skills to select and recommend foods based on institutional guidelines, using appropriate tools to assess nutritional adequacy and planning menus based on needs of clients or populations. Topics include nutrition education, documenting in the health record and providing feedback and evaluation to the healthcare team. Note: Students must begin NFS 490 within one year of completing NFS 480.

Prerequisites: ENG 102. NFS 440.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

NFS 491 - Clinical Nutrition Internship
Credits: 2
Lecture Contact Hours: 1
Off Site Contact Hours Without Faculty: 4 ***Description:*** This internship course gives students the opportunity to apply skills learned in Clinical Nutrition and Exploring Specialized Diets. Students will intern a minimum of 50 hours with a registered dietitian. They will have the opportunity to assess and document nutrition-related information, implement physician's dietary orders and review the effectiveness of the nutrition plan. In addition, students will work within a larger group of medical professionals to develop skills in communicating appropriate client information.

Prerequisites: NFS 480 and departmental approval.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Spring Only

NURS - Nursing

NURS 104 - Pharmacology for Nurses
Credits: 3
Lecture Contact Hours: 3
Description: This course introduces pharmacological concepts and major drug classifications. Drug information includes mechanism of action, drug effects, therapeutic uses, side effects, adverse effects, toxicity, drug interactions, medication calculations, dosage, example drugs, and patient teaching for specified drug classifications. The nursing process and evidence-based principles of nursing within the practical and registered nurse scope of practice are utilized as a framework for safe medication administration as a member of the interdisciplinary healthcare team.

Prerequisites: Acceptance into the Nursing Career Ladder Curriculum for the forthcoming or current year.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

NURS 105 - Foundations in Nursing Practice 1
Credits: 4
Lecture Contact Hours: 2.5
Lab Contact Hours: 4.5
Description: This course provides an introduction to the theory and practice of nursing. It emphasizes the application of the nursing process and critical thinking skills while utilizing evidence-based principles of nursing in providing basic care for acute and chronically ill clients within the practical and registered nurse scope of practice. Theoretical content focuses on fundamental nursing concepts and skills with practice in laboratory settings.

Prerequisites: Acceptance into the Nursing Career Ladder Curriculum for the current year.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

NURS 106 - Foundations in Nursing Practice 2
Credits: 4.5
Lecture Contact Hours: 2.5
Off Site Contact Hours with Faculty: 6
Description: This course provides a continuation to Foundations of Nursing Practice 1. It emphasizes the application of the nursing process and critical thinking skills while utilizing evidence-based principles of nursing in providing basic care for acute and chronically ill clients within the practical and registered nurse scope of practice. Theoretical content focuses on fundamental nursing concepts and skills. Clinical experiences occur in laboratory, clinical, and community settings utilizing an interdisciplinary collaborative approach.

Prerequisites: NURS 105
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

NURS 107 - Medical-Surgical Nursing
Credits: 4.5
Lecture Contact Hours: 2.5
Off Site Contact Hours with Faculty: 6
Description: This course emphasizes application of the nursing process and critical thinking skills while utilizing evidence-based principles of nursing in caring for adult clients experiencing medical surgical alterations within the practical and registered nurse scope of practice. Theoretical content focuses on cardiovascular, renal, endocrine and immune system alterations as well as fluid/electrolyte and acid base balance. Clinical experiences are provided in acute and community

settings utilizing an interdisciplinary collaborative approach.

Prerequisites: NURS 104. NURS 106.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

NURS 108 - Surgical-Medical Nursing
Credits: 4.5
Lecture Contact Hours: 2.5
Off Site Contact Hours with Faculty: 6
Description: This course emphasizes application of the nursing process and critical thinking skills while utilizing evidence-based principles of nursing in caring for adult clients experiencing surgical medical alterations within the practical and registered nurse scope of practice. Theoretical content focuses on musculoskeletal, neurological, respiratory, gastrointestinal and immune system alterations as well as peri-operative care. Clinical experiences are provided in acute and community settings utilizing an interdisciplinary collaborative approach.

Prerequisites: NURS 104. NURS 106.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring

NURS 128 - Maternal-Child Nursing 1
Credits: 5
Lecture Contact Hours: 2.5
Off Site Contact Hours with Faculty: 7.5
Description: This course emphasizes the application of the nursing process and critical thinking skills while utilizing evidence-based principles of nursing in caring for the childbearing family and pediatric clients. Theoretical content focuses on human sexuality, normal pregnancy, labor, delivery, post-partum, normal newborn, growth and development, and common uncomplicated pediatric health disorders within the practical and registered nurse scope of practice. Clinical experiences with the childbearing family and pediatric clients are provided in acute and community settings utilizing an interdisciplinary collaborative approach.

Prerequisites: NURS 104. NURS 106.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

NURS 139 - Advanced Concepts in Practical Nursing
Credits: 3
Lecture Contact Hours: 1.5
Off Site Contact Hours with Faculty: 4.5
Description: This capstone course emphasizes the application of the nursing process and critical thinking skills while utilizing evidence-based principles of nursing to care for groups of clients within the practical nurse scope of practice. Theoretical content focuses on select advanced physiological and psychiatric mental health alterations as well as issues related to licensure and employment for the practical nurse. Clinical experiences are provided in acute and community settings utilizing an interdisciplinary collaborative approach.

Prerequisites: NURS 107. NURS 108. NURS 128. PSYCH 201.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Summer Only

NURS 205 - Advanced Medical Surgical Nursing
Credits: 4.5
Lecture Contact Hours: 2.5
Off Site Contact Hours with Faculty: 6
Description: This course emphasizes the comprehensive application of the nursing process and critical thinking skills while utilizing evidence-based principles of nursing in caring for adult clients experiencing complex medical and surgical alterations within the registered nurse's scope of practice. Theoretical content focuses on advanced concepts of intravenous therapy, dysrhythmias, oncology, end-of-life care, alternative therapies, and emergency/critical care nursing in addition to select neurological, ear/eye, integumentary, and reproductive system alterations. Clinical experiences are provided in acute and community settings utilizing an interdisciplinary collaborative approach.

Prerequisites: NURS 107. NURS 108. NURS 128.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

NURS 246 - Psychiatric Mental Health Nursing
Credits: 4
Lecture Contact Hours: 2
Off Site Contact Hours with Faculty: 6
Description: This course emphasizes the application of the nursing process and critical thinking skills while utilizing evidence-based principles of nursing in caring for adult, child, and adolescent clients with mental illness within the registered nurse's scope of practice. Theoretical content focuses on clients experiencing mental health alterations. Clinical experiences are provided in acute, chronic, and community mental health care facilities utilizing an interdisciplinary collaborative approach.

Prerequisites: NURS 107, NURS 108, NURS 128 and PSYCH 201.

Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

NURS 248 - Maternal-Child Nursing 2
Credits: 5
Lecture Contact Hours: 2.5
Off Site Contact Hours with Faculty: 7.5
Description: This course emphasizes the application of the nursing process and critical thinking skills while utilizing evidence-based principles of nursing in caring for the childbearing family and pediatric clients. Theoretical content focuses on complex obstetrical and pediatric health disorders within the registered nurse's scope of practice. Clinical experiences with the childbearing family and pediatric clients are provided in acute and community settings utilizing an interdisciplinary collaborative approach.

Prerequisites: NURS 107, NURS 108 and NURS 128.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

NURS 250 - Advanced Concepts in Registered Nursing
Credits: 4.5
Lecture Contact Hours: 2
Off Site Contact Hours with Faculty: 7.5
Description: This capstone course emphasizes the comprehensive application of the nursing process and critical thinking skills while utilizing evidence-based principles of nursing to care for groups of complex clients within the registered nurse's scope of practice. Theoretical content focuses on community health nursing, disaster preparedness/terrorism, health policy, principles of leadership, management, research, quality improvement, and delegation as well as issues related to licensure and employment for the registered nurse. Clinical experiences are provided in acute and community settings utilizing an interdisciplinary collaborative approach.

Prerequisites: NURS 205. NURS 246. NURS 248.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

OSH – Occupational Safety and Health

OSH 111 - Occupational Safety and Health for General Industry
Credits: 2
Lecture Contact Hours: 2
Lab Contact Hours: 0.5
Description: This course serves as a safety and health training program designed for general industry personnel. The course will cover employee rights, employer responsibilities, and how to file a complaint as well as how to identify, abate, avoid and prevent job related hazards. Federal Occupational Safety and Health Administration (OSHA) and Michigan Occupational Safety and Health Administration (MIOSHA) standards that relate to hazard identification and control will be covered. This course is "OSHA-authorized." Therefore, students who successfully complete the course are eligible for the OSHA 30 hour card in General Industry.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

OSH 112 - Occupational Safety and Health for Construction
Credits: 2
Lecture Contact Hours: 2
Lab Contact Hours: 0.5
Description: This course serves as a safety and health training program designed for construction personnel. The course will cover employee rights, employer responsibilities, and how to file a complaint as well as how to identify, abate, avoid and prevent critical construction related hazards. Federal Occupational Safety and Health Administration (OSHA) and Michigan Occupational Safety and Health Administration (MIOSHA) standards that relate to hazard identification and control will be covered. This course is "OSHA-authorized." Therefore, students who successfully complete the course are eligible for the OSHA 30 hour card in Construction.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

PE – Physical Education

PE 104 - Physical Fitness and Conditioning
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: This course stresses vigorous body

conditioning through progressive exercises, stretching, weight machine and free weight use. Cardiovascular fitness will be emphasized.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

PE 106 - Beginning Swimming
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: This course is for the student who has little or no skill and knowledge of swimming techniques. Fundamental instruction in the basic swimming strokes, including front crawl, back crawl, elementary back stroke, side stroke, elementary diving and water safety skills will be introduced.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

PE 111 - Introduction to Kinesiology
Credits: 3
Lecture Contact Hours: 3
Description: This lecture course will introduce the student to a conceptual model of kinesiology, the sub-disciplines within kinesiology, and how the sub-disciplines contribute to our understanding of the broad spectrum of human physical activity. Topics to be covered include: 1) a holistic overview of human physical activity, 2) understanding how physical activity is studied, 3) the introduction of possible careers in kinesiology and 4) the responsibilities of a kinesiology professional.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

PE 112 - Introduction to Exercise Physiology
Credits: 3
Lecture Contact Hours: 3
Description: This course will introduce the student through lecture and practical demonstration to the fundamentals of exercise physiology. The topics will include cardiorespiratory, neuromuscular and endocrine anatomy; systems physiology; basic nutrition; metabolic pathways; and energy expenditure.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

PE 114 - Pilates Mat Work
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: This course offers students an effective conditioning program for the entire body using a series of floor exercises to increase mobility, strength, flexibility and concentration. The exercise program is designed for those who want to improve core strength to maintain a healthy back, to ease into exercise and to improve posture and balance; it provides challenge with little to no impact to joints. Proper breathing and correct spinal alignment will be emphasized.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

PE 115 - Aerobic Dance Fitness
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: Instruction will stress the development of an individual's aerobic capacity and cardiovascular endurance through aerobic dance and dance exercise.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

PE 116 - Intermediate Swimming
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: For students who have the ability to swim two lengths of the pool and stay afloat for three minutes. Designed to increase skill and knowledge in the basic swimming strokes, diving and water safety skills. Some stroke variations and synchronized swimming techniques may be covered.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

PE 121 - First Aid and Personal Safety
Credits: 2
Lecture Contact Hours: 2

Description: This course introduces accident prevention and care of victims using emergency-skill procedures. Cardiopulmonary resuscitation (CPR) for infant, child and adult and Automated External Defibrillator (A.E.D.) use will be presented. American Red Cross Certification Cards will be awarded to those successfully completing the requirements.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall
Students who already have this knowledge may qualify for prior learning credits.
https://www.schoolcraft.edu/student-records/prior-learning-credits

PE 132 - Beginning Tennis
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: This course provides students with a basic history of tennis, techniques, fundamental skills, strategy, rules and the opportunity to participate in a competitive situation.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Spring Only

PE 141 - Basketball
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: This course covers the history of the sport, basic techniques, fundamental skills, strategy and rules and gives students the opportunity to participate in a competitive situation.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

PE 143 - Fitness Tests and Measurements
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 1
Description: This course will introduce the student through lecture and practical demonstration to various fitness assessment protocols. Students will learn to critically analyze why a particular fitness test is utilized, the standard procedures for conducting the test and the analysis of the test results.

Prerequisites: None.
Corequisites: None.
Recommended: PE 112

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

PE 147 - Exercise Techniques
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 1
Description: This course will introduce the student to proper resistance, cardiovascular, flexibility and neuromotor exercise techniques. Instructional method options will be introduced to facilitate teaching in both one-on-one and group exercise settings. This class will also provide instruction in how to lead and manage group exercise classes.

Prerequisites: None.
Corequisites: None.
Recommended: PE 112

Course Category: Occupational
This Course is Typically Offered: Fall, Winter, Spring

PE 153 - Volleyball
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: This course exposes students to the fundamentals and game strategies used in the game of volleyball. Emphasis will be placed on basic skills such as serving, passing and blocking. Students will have the opportunity to participate in competitive situations.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Spring Only

PE 194 - Weight Training
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: Various methods of weight training for both men and women are taught. Proper lifting techniques learned. The concept of "total fitness and body awareness" is stressed.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

PE 202 - Lifestyle Fitness - Wellness
Credits: 2
Lecture Contact Hours: 1

Lab Contact Hours: 1
Description: This course will introduce the student through lecture and practical demonstration to the various methods and benefits of physical and emotional fitness/wellness activities. A wide variety of topics pertinent to the physical and mental health and well-being of the individual will be presented and practiced, providing the framework for the student to make sound health choices.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

PE 207 - Facilities Operations
Credits: 3
Lecture Contact Hours: 3
Description: This course will introduce the student to the full spectrum of fitness facility operations. Topics will include marketing, membership, budgeting, staffing, facility design, equipment selection, standard operation procedures, facility programming and risk management.

Prerequisites: None.
Corequisites: None.
Recommended: PE 111

Course Category: Occupational
This Course is Typically Offered: Fall Only

PE 212 - Applied Exercise Physiology
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 1
Description: This course will introduce the student through lecture and practical demonstration how to integrate exercise physiology, personal assessment data, exercise technique, standardized exercise guidelines and client goals into appropriate individual and group workout program designs across multiple fitness populations. Health behavior change models and interview and counseling techniques will be presented to help facilitate instructor-client communications.

Prerequisites: PE 112. PE 143. PE 147.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

PE 225 - Motor Development
Credits: 3
Lecture Contact Hours: 3
Description: This course will examine the progression/regression of motor skill development across the lifespan. Beginning with conceptual modeling of motor development, multiple factors influencing motor skill development will be examined. Assessment methods will be identified that facilitate benchmarking and monitoring change.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

PE 240 - Physical Education for Elementary Teachers
Credits: 3
Lecture Contact Hours: 3
Description: Students will receive instruction in the use of basic movement, games, relays, stunts and organization for the early and later elementary grades. Emphasis is on the organization for P.E. at these levels. Students are required to make arrangements for observation of elementary classes during the latter part of the semester. This course requires all students must meet the requirements of a criminal background check.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

PE 291 - Movement Science Internship
Credits: 3
Lecture Contact Hours: 1
Off Site Contact Hours Without Faculty: 12 - 40
Description: This course will provide the student with a capstone opportunity to apply movement science theory and practice within a mentored environment. This is an applied course within Occupational Programs specializing in the field of movement science and is a cooperative assignment for students who have completed the prerequisites for this course. Employment will be approximately 12-40 hours per week at the employer's location. The final grade will be based on a joint evaluation by the college and the employer. Students registered in this internship course are considered Schoolcraft College students with all rights, responsibilities and privileges of a student. Internships may be paid or unpaid based upon placement. Department permission is required before registering for this course. An internship seminar every three weeks will provide students with the opportunity to share and evaluate their experience in a time-critical manner.

Prerequisites: PE 212 with a minimum grade of 3.0. Minimum overall GPA of 2.5 at Schoolcraft College. Consent of department
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

PHARM - Pharmacy

PHARM 101 - Introduction to Pharmacy
Credits: 3
Lecture Contact Hours: 3
Description: This course will provide students with an overview of pharmacy and possible careers within the pharmacy field. Students will be presented a survey of the profession including its history, development, career opportunities, educational requirements, professional organizations, scope of practice, regulation, ethical foundations, contemporary issues, and prospects for the future. In this course, students will self-assess their career compatibility within the field of pharmacy.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

PHARM 201 - Capstone - Portfolio Preparation
Credits: 1
Lecture Contact Hours: 1
Description: This course concludes the Pre-Pharmacy Program with the student's development of his/her admission portfolio for a prospective transfer university. Students will review their college learning experience as they collect, organize, and reflect upon evidence that demonstrates their attitudes, skills, knowledge, and abilities in the sciences, mathematics, and general education areas, according to the requirements of the transfer institution. In addition, students are required to take the PCAT (Pharmacy College Admission Test) for inclusion of results in the admission portfolio.

Prerequisites: PHARM 101. Must have taken PCAT or registered to take it during this course.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: As Needed

PHIL - Philosophy

PHIL 243 - An Introduction to Philosophy
Credits: 3
Lecture Contact Hours: 3
Description: Designed to familiarize the student with philosophy as a foundation for life, this course provides an introduction to questions in metaphysics, epistemology, ethics, social and political philosophy and the philosophy of religion. Classical and modern philosophers from Western, Asian, African and Native American traditions are presented. Critical thinking and an application of theory to contemporary issues are emphasized.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

PHIL 247 - Logic
Credits: 4
Lecture Contact Hours: 4
Description: This course is designed to assist the student in distinguishing good and bad reasoning. The course will address both informal logic which focuses on arguments in everyday language and how to evaluate them and formal logic which focuses on symbolic language and the formal methods for determining the validity of arguments. Common logical fallacies will be outlined and attention given to arguments on contemporary issues in the public forum.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

PHIL 257 - Bioethics
Credits: 3
Lecture Contact Hours: 3
Description: This course introduces students to a variety of ethical issues having to do with biology, health, and medicine. Students will be introduced to ethical theories and will critically examine various central issues in bioethics. Topics may include: end of life treatment, abortion, allocation of scarce materials, organ donation, the vaccine debate, animal rights, informed consent, justice and healthcare, genetic engineering and the meaning of life/death and technology.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

PHIL 265 - Philosophy of Religion

Credits: 3
Lecture Contact Hours: 3
Description: This course introduces students to the philosophical examination of religion and religious belief. Topics that may be covered include: the nature and existence of God, free will, the problem of evil, the relationship between science and religion, atheism, agnosticism, miracles, mysticism and immortality. Common arguments for the existence of God, such as ontological and cosmological arguments, may be explored, as well as Pascal's Wager.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall, Winter

PHIL 277 - Ethical Problems

Credits: 3
Lecture Contact Hours: 3
Description: In this course the student will be introduced to a variety of ethical theories as discussed by classical and contemporary moralists. The course experience also provides for an application of these theories to modern moral questions through a process of critical thinking to explore alternate solutions to present day moral problems.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

PHT – Pharmacy Technician

PHT 102 - Pharmacy Practice and Healthcare

Credits: 4
Lecture Contact Hours: 4
Description: This course will provide pharmacy technician students with an overview of pharmacy within the health care system and the roles of pharmacy technicians in various practice settings. Specific activities of a pharmacy technician will be discussed and applied, as well as the laws that guide the work of a pharmacy technician. Contemporary issues in various practice settings within a pharmacy environment will be investigated. Educational requirements of a pharmacy technician and potential career paths will be explored as part of a developmental plan created during this course. All students in the Pharmacy Technician programs must meet the requirements of a criminal background check and drug screen before completing the required practical experiences.

Prerequisites: MATH 053 with a minimum grade of 2.0, or overall high school GPA of 1.8 or higher, or a minimum score of 19 ACT-Math, 25 SAT-Math, 78 CPT-Elementary Algebra, or 250 NGA-Quantitative Reasoning, Algebra and Statistics. ENG 055 with a minimum grade of 2.0, or overall high school GPA of 1.8 or higher, or a minimum score of 18 ACT-English, 25 SAT-Writing and Language, 71 CPT-Sentence Skills or 250 NGA-Writing. COLLS 053 with a minimum grade of 2.0, or overall high school GPA of 1.8 or higher, or minimum score of 18 ACT-English, 25 SAT-Writing and Language, 70 CPT-Sentence Skills or 250 NGA-Writing.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

PHT 104 - Pharmacology for Pharmacy Technicians

Credits: 3
Lecture Contact Hours: 3
Description: This course provides an overview of principles of pharmacology pertaining to medications used in the management of diseases. Basic anatomy and physiology will be explored relevant to the pharmacy technician's role and level of expected understanding. Diagnostic procedures and laboratory tests related to the diagnosis of diseases will be reviewed. Students will learn the indications, precautions, side effects and actions of drugs in therapeutic categories that act within physiological systems. All students in the Pharmacy Technician programs must meet the requirements of a criminal background check and drug screen before completing the required practical experiences.

Prerequisites: MATH 053 with a minimum grade of 2.0, or overall high school GPA of 1.8 or higher, or a minimum score of 19 ACT-Math, 25 SAT-Math, 78 CPT-Elementary Algebra, or 250 NGA-Quantitative Reasoning, Algebra and Statistics. ENG 055 with a minimum grade of 2.0, or overall high school GPA of 1.8 or higher, or a minimum score of 18 ACT-English, 25 SAT-Writing and Language, 71 CPT-Sentence Skills or 250 NGA-Writing. COLLS 053 with a minimum grade of 2.0, or overall high school GPA of 1.8 or higher, or minimum score of 18 ACT-English, 25 SAT-Writing and Language, 70 CPT-Sentence Skills or 250 NGA-Writing.
Corequisites: None.

Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

PHT 114 - Community Pharmacy Simulation Lab
Credits: 5
Lecture Contact Hours: 1
Lab Contact Hours: 4
Description: This course is structured as a combination of a simulation lab and relevant lecture that will focus on those specific activities of a pharmacy technician that are used in a community pharmacy (drug store) environment. The simulation lab will prepare the pharmacy technician student to effectively operate within a pharmacy in a community setting. Through case studies, students will learn how to receive and process prescriptions or medication orders for completeness, accuracy and authenticity to ensure safety. All students in the Pharmacy Technician programs must meet the requirements of a criminal background check and drug screen before completing the required practical experiences.

Prerequisites: None.
Corequisites: PHT 102 with a minimum grade of 2.5, if not taken previously. PHT 104 with a minimum grade of 2.5, if not taken previously.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

PHT 117 - Community Pharmacy Practicals
Credits: 4
Lecture Contact Hours: 2
Off Site Contact Hours with Faculty: 1.5
Off Site Contact Hours Without Faculty: 13 ***Description:*** The primary focus of this experiential rotation will be on the role of the pharmacy technician in the community (drug store) pharmacy environment. It will provide students with actual experience in this setting in which they may work as a pharmacy technician. The student will focus on those specific activities of a pharmacy technician that are used in a community pharmacy environment, including processing prescriptions, reconciling billing with insurance companies and interacting with patients. All students in the Pharmacy Technician programs must meet the requirements of a criminal background check and drug screen before completing the required practical experiences.

Prerequisites: All students must meet the requirements of a criminal background check and drug screen prior to the first day of class.
Corequisites: PHT 102 with a minimum grade of 2.5, if not taken previously. PHT 104 with a minimum grade of 2.5, if not taken previously. PHT 114 with a minimum grade of 2.5, if not taken previously.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

PHT 122 - Advanced Pharmacy Practice
Credits: 4
Lecture Contact Hours: 4
Description: This advanced level pharmacy technician course will provide pharmacy technician students with a deeper understanding of the dynamic healthcare environment and the opportunities for pharmacy technicians within this environment. Major trends, issues, goals and initiatives taking place in healthcare and the pharmacy profession will be presented and discussed. Supervisory methods, such as motivational theory, conflict management and human resource management, will be discussed in order to prepare the student for next-level supervisory roles within any practice setting. Finally, students will be certified in Basic Life Support for Healthcare Providers, which will round out their skill set for many advanced practice settings.

Prerequisites: PHT 102 with a minimum grade of 2.5. PHT 104 with a minimum grade of 2.5. PHT 114 with a minimum grade of 2.5 and PHT 117 with a minimum grade of 2.5 or PHT 124 with a minimum grade of 2.5 and PHT 127 with a minimum grade of 2.5.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

PHT 124 - Hospital Pharmacy Simulation Lab
Credits: 5
Lecture Contact Hours: 1
Lab Contact Hours: 4
Description: This course is structured as a combination of a simulation lab and relevant lecture that will focus on those specific activities of a pharmacy technician that are used in an institutional (e.g., hospital) environment. The simulation lab will prepare the pharmacy technician student to effectively operate within a pharmacy in an institutional compounding setting. Students will learn how to prepare medications requiring simple, moderate and high level sterile and non-sterile compounding as defined by current standards. All students in the Pharmacy Technician programs must meet the requirements of a criminal background check and drug screen before completing the required practical

experiences.

Prerequisites: None.
Corequisites: PHT 102 with a minimum grade of 2.5, if not taken previously. PHT 104 with a minimum grade of 2.5, if not taken previously.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

PHT 127 - Hospital Pharmacy Practicals
Credits: 4
Lecture Contact Hours: 2
Off Site Contact Hours with Faculty: 1.5
Off Site Contact Hours Without Faculty: 13 ***Description:*** The primary focus of this experiential rotation will be on the role of the pharmacy technician in the institutional (hospital) setting. It will provide students with actual experience in this setting in which they may work as a pharmacy technician. The student will focus on those specific activities of a pharmacy technician that are used in a hospital environment, such as aseptic compounding techniques for intravenous admixtures, including calculations required for accurate medication compounding. All students in the Pharmacy Technician programs must meet the requirements of a criminal background check and drug screen before completing the required practical experiences.

Prerequisites: All students must meet the requirements of a criminal background check and drug screen prior to the first day of class
Corequisites: PHT 102 with a minimum grade of 2.5, if not taken previously. PHT 104 with a minimum grade of 2.5, if not taken previously. PHT 124 with a minimum grade of 2.5, if not taken previously.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

PHYS - Physics

PHYS 104 - Introduction to Astronomy
Credits: 4
Lecture Contact Hours: 3
Lab Contact Hours: 2
Description: PHYS 104 is a one-semester introduction to astronomy that utilizes laboratories and basic mathematics to assist in, and expand upon, the exploration of the course topics. Earth-sky relationships, the solar system, stellar astronomy, cosmology and astrobiology will be covered. Several space exploration missions will also be featured. This course is not intended for science majors.

Prerequisites: MATH 053, or overall high school GPA of 2.8 or higher, or a minimum score of 19 ACT-Math, 25 SAT-Math, 78 CPT-Elementary Algebra or 250 NGA-Quantitative Reasoning, Algebra and Statistics or one year of high school algebra.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Science with Lab
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Fall

PHYS 123 - Applied Physics
Credits: 5
Lecture Contact Hours: 4
Lab Contact Hours: 2
Description: This course in applied physics is designed for technical, business and applied health programs. Using algebra, the traditional topics of kinematics, dynamics, mechanics, heat, acoustics, electricity and magnetism, optics, modern physics and nuclear physics are treated in a practical and applied fashion with emphasis on laboratory work and scientific procedures.

Prerequisites: MATH 102 or MATH 113 or higher MATH class.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Science with Lab
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Fall

PHYS 181 - General Physics 1
Credits: 4
Lecture Contact Hours: 4
Lab Contact Hours: 2
Description: This first semester course in general physics is designed for pre-professional students. Using algebra and trigonometry, the traditional topics of mechanics, fluids, energy, heat and sound are explored through lecture demonstrations, interactive activities and laboratory work. This course is not for engineering students or physics majors.

Prerequisites: MATH 113 or higher.
Corequisites: None.
Recommended: PHYS 123 or one year of high school physics.

Course Category: Liberal Arts | Science with Lab

This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall, Winter

PHYS 182 - General Physics 2
Credits: 4
Lecture Contact Hours: 4
Lab Contact Hours: 2
Description: This second semester course is a continuation of PHYS 181. Using algebra and trigonometry, the more advanced topics of electricity, magnetism, light and modern physics are explored through lecture demonstrations, interactive activities and laboratory work. This course is not for engineering students or physics majors.

Prerequisites: PHYS 181.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Science with Lab
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter Only

PHYS 211 - Physics for Scientists and Engineers 1
Credits: 5
Lecture Contact Hours: 5
Lab Contact Hours: 2
Description: This first semester, calculus-based course is designed for engineering students and science majors. Traditional topics of kinematics, dynamics, energy, fluids, heat and sound are investigated through lecture demonstrations, simulations and laboratory work.

Prerequisites: PHYS 123 or one year of high school physics. MATH 150 or high school calculus.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Science with Lab
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Fall

PHYS 212 - Physics for Scientists and Engineers 2
Credits: 5
Lecture Contact Hours: 5
Lab Contact Hours: 2
Description: This second semester, calculus-based course is a continuation of PHYS 211. Advanced topics such as electricity, magnetism, light and modern physics are investigated through lecture demonstration, simulations and laboratory work. This course is designed for engineering students and science majors.

Prerequisites: PHYS 211 with a minimum grade of 2.0.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Science with Lab
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

PLAST – Plastic Technology

PLAST 130 - Introduction to Plastic Materials
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 1
Description: This course provides an introduction to plastic materials selection and testing. Students will gain an understanding of plastic selection criteria based upon chemical and physical properties of thermoplastic and thermoset materials and how this choice relates to part performance. In addition, students will be introduced to basic physical, analytical and mechanical tests that are critical in the selection process. Finally, there will be a brief overview of the common techniques used in polymer processing.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

PLAST 131 - Introduction to Plastic Processing
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 1
Description: This course provides an understanding of the different processing technologies associated with producing a finished part from plastic materials. The student will learn about the different molding processes, including injection, compression, blow molding, extrusion, thermoforming and composite manufacturing.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

PLAST 150 - Plastic Injection Molding Technology
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 1
Description: This course provides an understanding of

the injection molding process. The student will learn about the injection molding process, including the components of the injection molding process, injection molding equipment, mold tooling, process control systems, basic part design principles, plastic materials, secondary processes and novel injection molding processes.

Prerequisites: PLAST 130. PLAST 131
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

PLAST 160 - Process Control Systems for Plastic Manufacturing
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 1
Description: Plastic processing is a combination of knowledge, skill and experience. This course will provide a foundation for understanding how to reach the final desired result. It is necessary to understand how the machinery and the systems utilized in the production of plastic parts work, what the inputs to the process are and how they affect the final product.

Prerequisites: MATH 102. PLAST 131.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

PLAST 215 - Plastic Part and Mold Design
Credits: 3
Lecture Contact Hours: 3
Description: This course provides a fundamental understanding of how plastic parts and molds are designed. Emphasis will be on designing a manufacturing-friendly part and mold that function well for the chosen manufacturing process, including product requirements, manufacturing requirements, quality, tolerances, prototyping, FMEA and mold flow analysis. The course will cover part and mold design for injection molding, compression molding, blow molding, extrusion, thermoforming and the composite manufacturing processes.

Prerequisites: PLAST 131. CAD 210 or CAD 220 or CAD 230.
Corequisites: None
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Winter Only

PLAST 240 - Advanced Plastic Processing
Credits: 3
Lecture Contact Hours: 1
Lab Contact Hours: 2
Description: This course provides an understanding of advanced plastic processing methods. The student will learn about additive manufacturing (e.g., 3D printing or rapid prototyping), micro injection molding, multi-laminate thermoforming, hybrid blow molding, multi-material co-extrusion and thermoset and thermoplastic composite compressing/laminating processes.

Prerequisites: PLAST 130. PLAST 131.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

PLAST 251 - Applied Injection Molding
Credits: 3
Lecture Contact Hours: 0.5
Lab Contact Hours: 2.5
Description: This course provides students with the knowledge and hands-on exposure to solve common issues encountered while operating an injection molding machine. Machine control parameters' effect on a materials processibility and part quality will be investigated. Students set-up processes on the injection molding machines and duplicate industrial standards to obtain the highest quality parts with the shortest possible cycle times. The course will also cover troubleshooting and process optimization.

Prerequisites: PLAST 150.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall Only

PLAST 291 - Plastic Technology Internship
Credits: 3
Lecture Contact Hours: 1
Off Site Contact Hours Without Faculty: 12 - 40
Description: This is an applied course within Occupational Programs specializing in the field of plastic technology (PLAST) and is a cooperative assignment for students who have completed the prerequisites for this course. Employment will be approximately 12 to 40 hours per week off-campus at the employer's location within a plastic technology or related department. The final grade will be based on a joint evaluation by the faculty and the employer. Students registered in this internship course are considered Schoolcraft College students with all rights, responsibilities and privileges of a student. Internships may be paid or unpaid based upon placement. Department permission is required before registering for this course. The selection of eligible students to register for the course is a competitive process that includes testing, submission of a resume with a cover letter and interviews.

Prerequisites: PLAST 140 , PLAST 220 and PLAST 251, each with a minimum grade of 3.0; consent of

department; and an overall GPA of 2.5.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

POLS – Political Science

POLS 105 - Survey of American Government

Credits: 3
Lecture Contact Hours: 3
Description: This course is an introductory study of the American political system. Emphasis is placed on historical and contemporary political theories and ideologies as well as on political institutions, parties and interest groups. You will engage in analysis of decision-makers, power and controversial issues.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Social Science
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

POLS 109 - State and Local Government

Credits: 3
Lecture Contact Hours: 3
Description: This course is an introductory study of America's state and local governments. Emphasis is placed on the nature of state constitutions, the structure and operation of state executive/legislative/judicial branches, and the organization and functioning of local governments. State/federal and state/local relations will also be covered in this course. Students will engage in analysis of decision-makers, power and controversial issues.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Social Science
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall, Winter

POLS 205 - Political Parties

Credits: 3
Lecture Contact Hours: 3
Description: This course examines the organization and functions of American political parties. Emphasis is placed on the nature of political campaigns, party conventions, the organization and functioning of political parties and citizen participation in politics. A historical review of parties and their ideological developments is also included.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Social Science
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall Only

POLS 207 - Comparative Government

Credits: 3
Lecture Contact Hours: 3
Description: This course is a comparative study of political communities. The course examines the development and spread of varied political ideologies (communism, fascism and liberalism) and their impact on crafting different approaches to governmental organization. A global approach to this topic will involve examining individual countries and regions from around the world.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Social Science
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter Only

POLS 209 - International Relations

Credits: 3
Lecture Contact Hours: 3
Description: This course provides an examination of the social, economic and political forces that define international relations. Using the major theoretical approaches of the discipline, students will examine the major issues, actors and governmental structures that shape the political landscape of the world.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Social Science
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall, Winter

POLS 298 - Political Science Honors Studies
Credits: 3
Lecture Contact Hours: 0.5
Lab Contact Hours: 2.5
Description: An opportunity for a student to explore individually, in depth, under the guidance of a faculty member, a topic, issue, problem or fieldwork experience pertaining to or within a government office, political party, interest groups or other organization that allows them to relate their experiences to the study of political science. This study arrangement will take place under the guidance of a departmental faculty member.

Prerequisites: Consent of department.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Social Science
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: As Needed

PSYCH - Psychology

PSYCH 153 - Human Relations
Credits: 3
Lecture Contact Hours: 3
Description: This course is designed particularly for students in the career curricula. The course focuses upon a better understanding of human behavior as related to interpersonal relations on the job. Foundations of human behavior; strategies for effective human relations; fundamental skills of working as a team leader and team member; and ways of anticipating, preventing and coping with challenges of human relations are major areas of study.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Social Science
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

PSYCH 201 - Introductory Psychology
Credits: 4
Lecture Contact Hours: 4
Description: Principles of human thought and action with emphasis on individuals in their environment; individual differences in intelligence and personality; effects of heredity and environment on the organism; and the nervous system, perception, learning, intelligence, motivation and emotion and social relationships will be explored.

Prerequisites: None.
Corequisites: None.
Recommended: Successful completion of courses in Biology and Social Science at the 100 level.

Course Category: Liberal Arts | Social Science
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

PSYCH 205 - Psychology of Adjustment
Credits: 3
Lecture Contact Hours: 3
Description: Factors and processes involved in the adjustment of the individual to personal and social environment are the main focus of this course. Essentials for the development of an effective and mentally healthy individual are emphasized. Foundations for adjustment, personal lifestyle adjustment, interpersonal relationships, adjustment throughout life and coping with maladjustment are major areas of study.

Prerequisites: PSYCH 201 with a minimum grade of 2.0.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Social Science
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall Only

PSYCH 206 - Human Sexuality
Credits: 3
Lecture Contact Hours: 3
Description: This course examines a variety of facets of human sexuality from the biological, psychological and social perspectives. We will investigate the intersections of sexuality and gender and survey the biological and psychological research concerned with constructs such as: anatomy, normative function, dysfunction and treatment, family planning methods, sexual communication, sexually transmitted diseases, sexual variation and attitudes toward one's body. Critical issues directly and indirectly associated with sexual behavior will also be addressed.

Prerequisites: PSYCH 201 with a minimum grade of 2.0.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Social Science
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement

General Education Requirement.

This Course is Typically Offered: Fall, Winter

PSYCH 207 - Social Psychology

Credits: 4
Lecture Contact Hours: 4
Description: Regarded as a core area in psychology, social psychology examines the influence of social factors on human behavior. Particular topics include aggression, prejudice, group processes, attitude formation, the law, prosocial behavior, interpersonal attraction and social cognition.

Prerequisites: PSYCH 201 with a minimum grade of 2.0.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Social Science
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall, Winter

PSYCH 209 - Child Psychology

Credits: 3
Lecture Contact Hours: 3
Description: This course examines the general characteristics of development, development of social behavior, feelings, emotions, language, growth of understanding and interests, with emphasis on personality and problems of adjustment.

Prerequisites: PSYCH 201 with a minimum grade of 2.0.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Social Science
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Fall

PSYCH 213 - Stereotypes, Prejudice and Discrimination

Credits: 3
Lecture Contact Hours: 3
Description: This course will explore structure and process in society, institutions, communities, organizations and individuals. Theories of prejudice, discrimination and racism will be addressed. The class will examine the interplay of group privilege and disadvantage within the context of contemporary issues related to race and ethnicity including, but not limited to, conflict and change in the economy, government, religion, education and family.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Social Science
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall

PSYCH 219 - Adult Development

Credits: 3
Lecture Contact Hours: 3
Description: This course studies adult development and aging. It focuses on the developmental changes related to biological, psychological and social processes. Coping strategies and intervention techniques will be examined.

Prerequisites: PSYCH 201 with a minimum grade of 2.0.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Social Science
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter Only

PSYCH 229 - Lifespan Developmental Psychology

Credits: 4
Lecture Contact Hours: 4
Description: This course provides an in-depth overview of the concept of human development, which encompasses the growth and learning of humans from conception to death. The course will explore biological structures, cognitive growth and psychosocial changes that take place during human development contextualized in the social structures and culture that affect them. These themes are explored with an understanding of the theories and research findings across the lifespan.

Prerequisites: PSYCH 201 with a minimum grade of 2.0.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Social Science
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

PSYCH 239 - Abnormal Psychology

Credits: 3
Lecture Contact Hours: 3
Description: This course examines various psychological disorders from a contemporary perspective, specifically exploring anxiety disorders (phobias, obsessive

compulsive disorder and post-traumatic stress disorder), categories of personality disorders (bi-polar and depressive disorders), schizophrenia and several others. The underlying pathology and treatments of each disorder will be covered. Legal, ethical and other current health psychology will also be explored.

Prerequisites: PSYCH 201 with a minimum grade of 2.0.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Social Science
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

PSYCH 249 - Educational Psychology
Credits: 3
Lecture Contact Hours: 3
Description: Principles of human thought and action with emphasis on individuals in their environment; individual differences in intelligence and personality; effects of heredity and environment on the organism; the nervous system, perception, learning, intelligence, motivation and emotion, and social relationships will be explored.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Social Science
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Fall

PSYCH 252 - Introduction to Sport Psychology
Credits: 3
Lecture Contact Hours: 3
Description: This course examines the relationship between psychology and sport from the perspective of theory, research and practice. Topics include the areas of cognition, motivation, personality, social, lifespan and mental health as they apply to sports and exercise. Areas such as goal setting, dealing with anxiety and stress, athletic injury, addressing addictive and unhealthy behaviors, psychological skills training and violence in sports will be covered in the course.

Prerequisites: PSYCH 201 with a minimum grade of 2.0.
Corequisites:
Recommended:

Course Category: Liberal Arts | Social Science
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall, Winter

QM – Quality Management

QM 106 - Introduction to Quality Improvement Tools
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 1
Description: This course is an introduction to quality improvement tools used in business, technology and service industries. The selection, concept, process, interpretation and examples of various popular tools and techniques are covered in lecture and laboratory formats.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: As Needed

QM 107 - Quality Planning and Team Building
Credits: 3
Lecture Contact Hours: 3
Description: Planning effective quality systems including error prevention through team building to support both recommended procedures and customer satisfaction is emphasized. Students will be introduced to planning methods, Six Sigma Methods, Quality Function Deployment (QFD), Failure Mode and Effects Analysis (FMEA) and new quality related programs used in process/product development validation. Control plans and teamwork will be used to demonstrate the dynamics of synergism in groups.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

RAD – Radiologic Technology

RAD 100 - Introduction to Radiology Sciences
Credits: 2
Lecture Contact Hours: 2
Description: This course provides an orientation to the Radiologic Technology Program. Emphasis is on the student's role as a radiographer in the healthcare delivery system including, responsibilities, professional organizations, accreditation, regulatory agencies, and program personnel. The course provides an overview of the foundations of radiology; practices and policies of healthcare organizations are also examined. A review of basic radiology equipment, radiation protection, and radiology medical terminology will be included.

Prerequisites: COLLS 053 with a minimum grade of 2.0,

or overall high school GPA of 2.8 or higher, or a minimum score of 18 ACT-Reading, 25 SAT-Reading, 70 CPT-Reading Comprehension, or 250 NGA-Reading. ENG 055 with a minimum grade of 2.0, or overall high school GPA of 2.8 or higher, or a minimum score of 18 ACT-English, 25 SAT-Writing and Language, 71 CPT-Sentence Skills, or 250 NGA-Writing.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall Only
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

RAD 105 - Radiation Safety
Credits: 2
Lecture Contact Hours: 2
Description: This course covers all aspects of radiation protection including the technologist's responsibilities for patients, personnel, the public, and themselves. Radiation health and safety requirements of federal and state regulatory agencies, accreditation agencies, and health organizations are included. Specific topics also include radiation safety methods and devices, as well as the detection and measurement of radiation dose.

Prerequisites: BIOL 236 with a minimum grade of 3.0.
Corequisites: PHYS 123 if not previously taken within three years with a minimum grade of 3.0.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

RAD 110 - Patient Care and Assessment
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: This course is designed to prepare the student for clinical practice and discuss the practitioner's role in the health care delivery system. Patient rights, informed consent, and legal and ethical standards will be reviewed. Course content will include concepts of patient care, body mechanics, vital signs, aseptic technique, pharmacology, infection control, and standard precautions. Contrast and medical emergencies are also discussed. This course explores diversity and the psychological needs of the patients and their families.

Prerequisites: Acceptance into the Radiologic Technology Program. HIT 100. BIOL 236 with a minimum grade of 3.0. RAD 100 with a minimum grade of 3.0.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Spring, Summer
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

RAD 115 - Digital Imaging and Image Acquisition
Credits: 2
Lecture Contact Hours: 2
Lab Contact Hours: 1
Description: In this course, students will gain an understanding of the components, principles, and operations of the digital imaging systems found in diagnostic radiology. Factors that impact image acquisition, display, archiving, and retrieval are discussed. Study of the technical factors affecting image quality, processing of digital images, and data management. Guidelines for selecting exposure factors, exposure numbers, exposure latitude, and image brightness and contrast are discussed. This course will incorporate the process of image analysis and quality control. Students will develop and apply the critical thinking process to the art of image critique.

Prerequisites: Acceptance into the Radiologic Technology Program. PHYS 123 with a minimum grade of 3.0. RAD 105 with a minimum grade of 3.0.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Spring, Summer
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

RAD 200 - Radiation Physics and Radiobiology
Credits: 3
Lecture Contact Hours: 3
Description: Content establishes a basic knowledge of radiation production and characteristics of atomic structure and terminology. Also presented are the nature and characteristics of radiation, x-ray production, and the fundamentals of photon interaction with matter. Information on electromagnetic radiation, beam characteristics, units of measure, tube housing, anodes and cathodes, and x-ray circuitry are also presented.

Prerequisites: Acceptance into the Radiologic Technology Program. PHYS 123 with a minimum grade of 3.0. RAD 105 with a minimum grade of 3.0.
Corequisites: RAD 235
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only
Students who already have this knowledge may qualify

for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

RAD 212 - Radiology Procedures 1
Credits: 6
Lecture Contact Hours: 5
Lab Contact Hours: 2
Description: This course introduces radiographic procedures consisting of positioning, projections, views, motion control, accessory equipment, and patient considerations. It is an introduction to image analysis, technique, applications, and critique of images applied in classroom and lab settings. Image production, procedures, and radiographic anatomy of the chest, abdomen, upper extremity, shoulder, and pelvic girdle are covered. Through the image evaluation component, students learn to identify radiographic anatomy, evaluate diagnostic quality, identify images that are of poor radiographic quality, as well as determine the appropriate corrective action for unacceptable images.

Prerequisites: RAD 100 with a minimum grade of 3.0. RAD 105 with a minimum grade of 3.0.
Corequisites: RAD 110. RAD 115.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Spring, Summer

RAD 215 - Radiology Clinical Education 1
Credits: 6
Lecture Contact Hours: 1
Off Site Contact Hours Without Faculty: 32 ***Description:*** This clinical course will introduce the student to the day-to-day operations of clinical practice. The focus will be on obtaining clinical competence by performing and documenting activities fundamental to Radiology. All students will perform examinations under the supervision of a qualified technologist. Rotations will allow students the opportunity to apply, practice, and perfect skills necessary to function as a Radiology Technologist. Clinical competence in a procedure means students performed the procedure independently, consistently, and effectively during the course of their clinical rotation. Critical thinking, professionalism, and communicating effectively and compassionately are applied to clinical practice. This course will meet for a total of 480 clinical hours in eight-hour shifts.

Prerequisites: RAD 110 with a minimum grade of 3.0. RAD 115 with a minimum grade of 3.0. RAD 212 with a minimum grade of 3.0.
Corequisites: RAD 232
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall Only

RAD 232 - Radiology Procedures 2
Credits: 6
Lecture Contact Hours: 5
Lab Contact Hours: 2
Description: In this course, students will continue to gain proficiency in the performance of radiology exams. Image production, procedures, and radiographic anatomy of the head, spine, lower extremity, and bony thorax are covered. Students will increase their knowledge of positioning, projections, views, motion control, accessory equipment, and patient considerations of these structures. Focal points will be on image analysis, technique, applications, and critiquing of images learned in the classroom and lab. Through the image evaluation component, students will identify radiographic anatomy and evaluate diagnostic quality and corrective action for unacceptable images. Skills necessary to perform venipuncture will be included.

Prerequisites: RAD 212 with a minimum grade of 3.0.
Corequisites: RAD 215
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall Only

RAD 235 - Radiology Clinical Education 2
Credits: 6
Lecture Contact Hours: 1
Off Site Contact Hours Without Faculty: 32 ***Description:*** Students will develop independent clinical practice of procedures previously mastered. This course allows students to perform radiographic examinations under the supervision of a qualified Radiographer. Students will continue documenting and testing on studies that have been presented in Radiology Procedures 1 and 2. Emphasis will be placed on continued improvement of imaging skills. Clinical competence in a procedure means students performed the procedure independently, consistently, and effectively during the course of their clinical rotation. Students will rotate through advanced imaging modalities to gain experience in MRI (magnetic resonance imaging), Ultrasound, Interventional Radiology, and CT (computerized tomography). This course will meet for a total of 480 clinical hours in eight-hour shifts.

Prerequisites: RAD 215 with a minimum grade of 3.0.
Corequisites: RAD 200
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

RAD 240 - Advanced Imaging
Credits: 2
Lecture Contact Hours: 2
Description: This course provides an overview of alternate imaging modalities including Interventional Imaging, Neuro-Interventional, Cardiac-Interventional, Bone Densitometry, Radiation Therapy, Computed Tomography, Nuclear Medicine, Ultrasound, PET

(positron emission tomography), Mammography, and MRI (magnetic resonance imaging). Basic principles of operation, procedures, and equipment will be reviewed. The course will familiarize the student with the various anatomic structures and their locations, including cross-sectional anatomy as demonstrated with advanced imaging modalities. An overview of billing and coding of these types of procedures will also be discussed.

Prerequisites: RAD 212 with a minimum grade of 3.0. RAD 215 with a minimum grade of 3.0. RAD 232 with a minimum grade of 3.0. RAD 235 with a minimum grade of 3.0.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Spring Only
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

RAD 250 - Radiologic Technology Capstone
Credits: 1
Lecture Contact Hours: 1
Description: This course is designed as a capstone learning experience to prepare students for the American Registry Radiologic Technologists (ARRT) certification exam in radiography. Students also prepare for professional employment by synthesizing knowledge, skills, and attitudes learned in the Radiologic Technology program. The ARRT Code of Ethics and Standards of Care will be reviewed, as well as exam security.

Prerequisites: RAD 212 with a minimum grade of 3.0. RAD 215 with a minimum grade of 3.0. RAD 232 with a minimum grade of 3.0. RAD 235 with a minimum grade of 3.0.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Spring Only
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

RE – Real Estate

RE 101 - Introduction to Property Management
Credits: 3
Lecture Contact Hours: 3
Description: This introductory course provides an overview of property management and the role of the property manager. Topics include tenant relations, leases, risk, insurance and energy efficiency. Students also learn about the management of safety, environmental issues related to residential and commercial properties and how to recognize and address maintenance problems.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

RE 110 - Real Estate Pre-Licensure
Credits: 4
Lecture Contact Hours: 4
Description: This course provides the fundamental concepts and terminology to enable students to pass the Michigan licensing examination and become successful real estate practitioners. Students learn the financial, economic and political aspects of real estate practice in Michigan. Topics include contracts, agency, title transfer, leasing, land use and taxation, Michigan law, fair housing and civil rights, the Americans with Disabilities Act and finance.

Prerequisites: COLLS 050 with a minimum grade of 2.0, or overall high school GPA of 2.8 or higher, or a minimum score of 15 ACT-Reading, 22 SAT-Reading, 57 CPT-Reading Comprehension or 237 NGA-Reading.
Corequisites: MATH 101 if not taken previously.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

RE 150 - Residential and Commercial Property Management
Credits: 4
Lecture Contact Hours: 4
Description: This course covers the day-to-day operation and management of residential and commercial properties. Students gain a comprehensive understanding of the principles, practices and skills needed to be a property manager. Topics covered include relationship building, problem identification and solution, operations and maintenance management, budgeting, leasing and lease administration, marketing, record keeping systems and federal and state laws.

Prerequisites: RE 110 or consent of Department.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

RE 290 - Real Estate Property Management Internship
Credits: 3
Lecture Contact Hours: 1
Off Site Contact Hours Without Faculty: 12 - 40
Description: This is an applied course within

Occupational Programs specializing in the field of real estate property management and is a cooperative assignment for students who have completed the prerequisites for this course. Employment will be approximately 12 to 40 hours per week off-campus at the employer's location within a real estate property management department. The final grade will be based on a joint evaluation by the college and the employer. Students registered in this internship course are considered Schoolcraft College students with all rights, responsibilities and privileges of a student. Internships may be paid or unpaid based upon placement. Department permission is required before registering for this course. The selection of eligible students to register for the course is a competitive process that includes attending a resume workshop at the Career Center, submission of a resume with a cover letter and interviews.

Prerequisites: RE 150 with a minimum grade of 3.0, consent of Department and an overall GPA of 2.5.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Summer, Fall

ROBAT - Robotics and Automation Technology

ROBAT 101 - Robot Tool Handling Operations and Programming
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: This course serves as an applied introduction to HandlingTool software with an emphasis on safety, setup, recording and troubleshooting. The course will cover basic applications of the HandlingTool software which includes terminology, testing and refining the program. Robotic operations and hands-on application will be covered to simulate and run robotic programs. Students who successfully complete the course are eligible for the FANUC certification of completion in HandlingTool Operations and Programming, as well as the Smart Automation Certification Alliance (SACA) Certified Industry 4.0 Robot System Operations certification exam.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: As Needed
Students who already have this knowledge may qualify for prior learning credits.
https://www.schoolcraft.edu/student-records/prior-learning-credits

SCM – Supply Chain Management

SCM 100 - Introduction to Supply Chain Management
Credits: 3
Lecture Contact Hours: 3
Description: This supply chain management course clearly explains what supply chain management (SCM) is and how it can be essential for a company's success. By taking this course, you will learn about how a supply chain management system encompasses the flow of goods and services leading to the end user. You will be shown how to achieve excellence in supply chain management, which will make you a valuable asset for any business competing in a global environment.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

SCM 200 - Supply Chain Logistics and Distribution
Credits: 3
Lecture Contact Hours: 3
Description: This Logistics and Distribution course familiarizes the students with the basic concepts of product distribution and the terminology used in the logistics field. Students learn the process of planning effective product distribution and discuss methods of transportation and traffic management techniques. Other topics covered in introductory logistics classes may include inventory control, protective packaging and customer service.

Prerequisites: SCM 100 or consent of Department.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

SCM 220 - Supply Chain Purchasing
Credits: 3
Lecture Contact Hours: 3
Description: This course covers the skills and knowledge needed within the purchasing department. The class explains how purchasing fits into the overall structure of an organization and its importance in maintaining efficiency. It will demonstrate how local and foreign economies, environmental factors and material shortages can affect the availability and pricing of goods. A key aspect of the purchasing function is negotiating with vendors and other businesses to source goods and services. This course demonstrates skills for successful negotiation. Students gain an understanding of human behavior and principles of verbal and non-verbal communication. This class reviews the laws and regulations that relate to purchasing. Because the purchasing department makes many legally binding agreements with vendors, contract law is emphasized.

Prerequisites: SCM 100 or consent of Department.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring

SCM 230 - Supply Chain Operations
Credits: 3
Lecture Contact Hours: 3
Description: This course explains the concepts and techniques of Supply Chain Management (SCM) Operations. This includes the following topics: operations management strategy, total quality management, warehouse location and layout, forecasting, aggregate planning, materials management, just-in-time systems, scheduling and project management. Operations and Supply Chain Management (OSCM) covers warehousing, manufacturing and service industries involving the functions of materials management, operations planning, distribution, logistics, retail, demand forecasting, order fulfillment and more.

Prerequisites: SCM 100 or consent of Department. MATH 122.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall Only

SCM 291 - Supply Chain Management Internship
Credits: 3
Lecture Contact Hours: 1
Off Site Contact Hours Without Faculty: 12 - 40
Description: This is an applied course within Occupational Programs specializing in the field of Supply Chain Management and is a cooperative assignment for students who have completed the prerequisites for this course. Employment will be approximately 12 to 40 hours per week off-campus at the employer's location within a supply chain management department. The final grade will be based on a joint evaluation by the college and the employer. Students registered in this internship course are considered Schoolcraft College students with all rights, responsibilities and privileges of a student. Internships may be paid or unpaid based upon placement. Department permission is required before registering for this course. The selection of eligible students to register for the course is a competitive process that includes attending a resume workshop at the Career Center, submission of a resume with a cover letter and interviews.

Prerequisites: SCM 200 with a minimum grade of 3.0 and consent of Department and an overall GPA of 2.5. SCM 220 with a minimum grade of 3.0 and consent of Department and an overall GPA of 2.5. SCM 230 with a minimum grade of 3.0 and consent of Department and an overall GPA of 2.5.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Summer, Fall

SOC - Sociology

SOC 101 - Introduction to Social Work
Credits: 3
Lecture Contact Hours: 3
Description: Introduction to Social Work is an introductory course to the social work field designed to provide students with an overview of the profession. Content will include an analysis of the profession, its scope, methods, values and the organization of services. Attention will be paid to presenting information on policy and practice in a variety of social work settings with particular target populations. The course orients students to the roles of the generalist social work practitioner within a theoretical framework that consists of systems theory, the ecological perspective and a problem-solving model. Attention will be paid to the kinds of needs and problems that bring clients to the attention of social workers. The term "client" is defined as an individual, family, group, neighborhood, organization or large social system. The course stresses self-assessment in determining suitability for a career in social work.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Social Science
This Course is Typically Offered: Fall, Winter

SOC 201 - Principles of Sociology
Credits: 3
Lecture Contact Hours: 3
Description: This course provides a survey of the major theoretical perspectives, concepts and methods of sociology. Topics covered include social organization, culture, socialization, stratification systems, social institutions and social change.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Social Science
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

SOC 205 - Social Problems

Credits: 3
Lecture Contact Hours: 3
Description: Consideration of current social problems, such as family stability, racism, sexism, poverty, crime, globalization and ecological problems using sociological theory and empirical studies. Analysis of structural factors underlying these problems and potential solutions will be explored.

Prerequisites: None.
Corequisites: None.
Recommended: SOC 201

Course Category: Liberal Arts | Social Science
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

SOC 209 - Marriage and Family
Credits: 3
Lecture Contact Hours: 3
Description: This course offers a study of the impact that social changes have had on gender roles, relationships, marriage and family life. Topics covered in the course include diversity in family patterns, gender roles, intimate behavior, mate selection, problems of marital adjustment, family stability and crisis, divorce and parenting.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Social Science
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

SOC 210 - Cultural Diversity
Credits: 3
Lecture Contact Hours: 3
Description: This course is an analysis of racial and ethnic diversity in the U.S. in relation to evolving social, economic and cultural factors. Various American minority cultures are studied with an emphasis on education, politics, religion and the resulting cultural effects. Sociological and psychological concepts and theories will be explored. The impact of the current wave of immigrants to the U.S. will be discussed and the incidents of hate crimes will be explored.

Prerequisites: None.
Corequisites: None.
Recommended: ANTH 112 or SOC 201

Course Category: Liberal Arts | Social Science
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Fall

SOC 211 - Sociology of Gender
Credits: 3
Lecture Contact Hours: 3
Description: This course examines the social and cultural construction of gender differences and sociological theories of gender. It also explores the historical and contemporary statuses and roles of women and men in various institutions. In addition, this course surveys the conditions that affect the lives of global women and women in the United States who are from diverse backgrounds including social class, disability, race, ethnicity and religious minorities.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Social Science
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall Only

SOC 220 - Urban Sociology
Credits: 3
Lecture Contact Hours: 3
Description: This course provides a survey of the origin and development of cities and the processes of urbanization which includes a discussion of the ecology and social organization of urban life. The special problems and realities of urban society will be covered as well as perspectives for the future.

Prerequisites: None.
Corequisites: None.
Recommended: ANTH 112 or SOC 201

Course Category: Liberal Arts | Social Science
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: As Needed

SOC 290 - The Individual and Community - An Honors Capstone Course
Credits: 3
Lecture Contact Hours: 3
Description: A required conclusion to the Schoolcraft Scholars Honors Program, this capstone course examines individual, social structural and social

institutional relationships through multiple disciplines. Students will identify and analyze social and cultural trends and issues. During the course, students will complete and present results of service-learning projects.

Prerequisites: HUM 190
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Social Science
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter Only

SPAN - Spanish

SPAN 101 - Elementary Spanish 1
Credits: 4
Lecture Contact Hours: 4
Description: This course is intended for students who have no previous education in Spanish. The course will cover basic vocabulary and grammar patterns and will build competence in all four skill areas: speaking, listening, reading and writing. Through varied activities, emphasis will be placed on oral proficiency and communication. An appreciation of Hispanic culture will be an integral part of the course.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Summer, Fall

SPAN 102 - Elementary Spanish 2
Credits: 4
Lecture Contact Hours: 4
Description: This course is a continuation of SPAN 101 and continues to review the basic Spanish vocabulary and grammar patterns and to build competence in all four skill areas: speaking, listening, reading and writing. Through varied activities, emphasis will be placed on oral proficiency and communication. An appreciation of Hispanic culture will be an integral part of the course.

Prerequisites: None.
Corequisites: None.
Recommended: SPAN 101 with a minimum grade of 2.0 or one year of high school Spanish or equivalent language knowledge.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Summer, Fall

SPAN 201 - Intermediate Spanish 1
Credits: 4
Lecture Contact Hours: 4
Description: This course is a continuation of SPAN 102 and continues to cover vocabulary and grammar patterns and to build competence in all four skill areas: speaking, listening, reading and writing. Through varied activities, emphasis will be placed on oral proficiency and communication. An appreciation of Hispanic culture will be an integral part of the course.

Prerequisites: None.
Corequisites: None.
Recommended: SPAN 102 with a minimum grade of 2.0 or two years of high school Spanish or equivalent language knowledge.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Spring, Fall

SPAN 202 - Intermediate Spanish 2
Credits: 4
Lecture Contact Hours: 4
Description: This course is a continuation of SPAN 201 and continues to cover vocabulary and grammar patterns and to build competence in all four skill areas: speaking, listening, reading and writing. Through varied activities, emphasis will be placed on oral proficiency and communication. An appreciation of Hispanic culture will be an integral part of the course.

Prerequisites: None.
Corequisites: None.
Recommended: SPAN 201 with a minimum grade of 2.0 three years of high school Spanish or equivalent language knowledge

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter, Summer, Fall

SPE – Special Education

SPE 100 - Children with Special Needs

Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to introduce students to the topic of children/students with special needs. Included is the exploration of cognitive impairments, emotional impairments, learning impairments, visual and hearing impairments, orthopedic and/or other health impairments, giftedness and instructional strategies for these special needs. Students will complete three observations of children with special needs. Michigan Central Registry Clearance by the Michigan Department of Human Services may be required for this course. This course requires all students must meet the requirements of a criminal background check.

Prerequisites: None.
Corequisites: ECE 110 if not taken previously or EDUC 110 if not taken previously.
Recommended: Individuals who hold a current or prior teaching certificate or are enrolled in the Education Transfer Program may be eligible to substitute PSYCH 249 or waive the corequisite. Discuss options with the department.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

SPE 102 - Introduction to Autism Spectrum Disorders
Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to present students with an overview of autism spectrum disorders (ASD). Included in the overview is the history of autism, identification of individuals with autism, exploring the major categories of autism and reviewing current theories and methodologies of working with individuals with autism. In addition, the course will review current legislation related to autism.

Prerequisites: None.
Corequisites: ECE 110 or EDUC 110 if not previously taken.
Recommended: Individuals who hold a current or prior teaching certificate may be eligible to waive the corequisite. Discuss options with the department

Course Category: Occupational
This Course is Typically Offered: Fall Only

SPE 105 - Introduction to Developmental Disabilities
Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to introduce students to the health and developmental problems of persons with cognitive impairment (CI). Emphasis is placed on gaining knowledge of the various syndromes typical in CI populations and learning to recognize medical symptoms. Attention will also be given to developing an understanding of prescribed drugs' potential uses and side effects, as well as other potential health and environmental issues for persons with cognitive impairments.

Prerequisites: None.
Corequisites: SPE 100 or EDUC 200 if not taken previously. ECE 110 or EDUC 110 if not taken previously.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

SPE 112 - Applied Behavior Analysis
Credits: 1
Lecture Contact Hours: 1
Description: The focus of this course is to provide an overview of Applied Behavior Analysis (ABA) for use with individuals with Autism Spectrum Disorders (ASD). Students will explore the key components of ABA, history of ABA and research on ABA. Focus on the process of becoming certified as an ABA technician, credentialing requirements for offering ABA services and ABA practices in a variety of settings will be covered.

Prerequisites: None.
Corequisites: ECE 110 or EDUC 110 if not previously taken.
Recommended: Individuals who hold a current or prior teaching certificate may be eligible to waive the corequisite. Discuss options with the department. SPE 102.

Course Category: Occupational
This Course is Typically Offered: Winter Only

SPE 115 - Special Educational Programs and Supported Living
Credits: 3
Lecture Contact Hours: 3
Description: Students will become familiar with considerations of placement and training of persons with cognitive impairments, emotional impairments, learning impairments and physical disabilities. Attention will be given to the theory and principles of inclusion and appropriate community support. The course will cover the operation and maintenance of supportive living environments. In addition, current laws and regulations regarding licensing, equipping and maintaining the physical plant, staffing, food services, health and social services, budgeting and program development will also be addressed.

Prerequisites: None.
Corequisites: SPE 100 or EDUC 200 if not taken previously. ECE 110 or EDUC 110 if not taken previously.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall Only

SPE 122 - ASD Communication Strategies
Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to cover the key aspects of communication issues related to individuals with Autism Spectrum Disorders (ASD). Students will explore different techniques for working with individuals with autism, review appropriate instructional materials and become familiar with the Individual Educational Plan (IEP) components. They also will become familiar with treatment options for individuals with speech and communication problems related to autism.

Prerequisites: None.
Corequisites: ECE 110 or EDUC 110 if not previously taken.
Recommended: SPE 102. Individuals who hold a current or prior teaching certificate may be eligible to waive the corequisite. Discuss options with the department.

Course Category: Occupational
This Course is Typically Offered: Winter Only

SPE 125 - Learning Disabilities
Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to acquaint the student with the perceptual and learning issues of persons with learning disabilities and special education programs in the public school which provide specialized learning situations for them. The diagnosis of disorders of visual and auditory perception, language, motor coordination, cognition and attention-deficit related to the learning processes are discussed. Coursework explores specific recommendations for remediation and implications for school planning when working with students with learning disabilities. Current best practices in the field of special education provide the framework for the course.

Prerequisites: None.
Corequisites: SPE 100 or EDUC 200 if not taken previously. ECE 110 or EDUC 110 if not taken previously.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring

SPE 132 - ASD Instructional Procedures
Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to provide an overview of the key aspects of instructional procedures for individuals with Autism Spectrum Disorders (ASD). Students will be exposed to theories and critical issues regarding instructional readiness, methods, assessment, objectives and goals for individuals with autism. They also will explore the components and role of an Individualized Education Plan (IEP) in relation to working with individuals with autism.

Prerequisites: None.
Corequisites: ECE 110 or EDUC 110 if not previously taken
Recommended: SPE 102. Individuals who hold a current or prior teaching certificate may be eligible to waive the corequisite. Discuss options with the department.

Course Category: Occupational
This Course is Typically Offered: Winter Only

SPE 135 - Emotional Impairment
Credits: 3
Lecture Contact Hours: 3
Description: The purpose of this course is to acquaint students with concepts and materials related to the education of persons with emotional impairments. The major theories related to causes and treatment of emotional and behavior problems will be covered. Current best practices provide the foundation for studying strategies necessary for working with persons with emotional impairments.

Prerequisites: ECE 110 or EDUC 110. SPE 100 or EDUC 200.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

SPE 142 - ASD Behavior Implications
Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to provide an overview of behavior implications for individuals with Autism Spectrum Disorders (ASD). Students will explore sensory issues in relationship to autism, become familiar with appropriate behavior management strategies that are rooted in respecting the individual, differentiate current theories of behavior strategies and create appropriate behavior monitoring assessments. They also will investigate the laws related to exclusion and restraint for individuals with autism.

Prerequisites: None.
Corequisites: ECE 110 or EDUC 110 if not previously taken.
Recommended: SPE 102. Individuals who hold a current or prior teaching certificate may be eligible to waive the corequisite. Discuss options with the department.

Course Category: Occupational
This Course is Typically Offered: Winter Only

SPE 155 - Special Education Practical Experiences 1
Credits: 3
Lecture Contact Hours: 2
Off Site Contact Hours with Faculty: 1
Off Site Contact Hours Without Faculty: 8 ***Description:*** Students will have a supervised practical field experience working directly with persons with special

needs in a special needs setting. Students will complete 120 hours of field experiences. They will integrate classroom knowledge and teaching strategies with practical field experiences working directly with persons with special needs. Michigan Central Registry Clearance by the Michigan Department of Human Services and a current TB test are required for this course. This course requires all students must meet the requirements of a criminal background check.

Prerequisites: ECE 110 or EDUC 110; SPE 100 or EDUC 200
Corequisites: SPE 220 if not taken previously
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

SPE 210 - Methods and Curricula for Persons with Developmental Disabilities
Credits: 3
Lecture Contact Hours: 3
Description: This course will familiarize the student with the theoretical approaches of education for persons with special needs including a survey of various curricula. Emphasis is placed on understanding educational roles in the Individual Education Plan Process and the Individualized Family Service Plan requirements. Current best practices provide the framework for strategies employed when working with persons with developmental disabilities explored in this course.

Prerequisites: SPE 100 or EDUC 200. ECE 110 or EDUC 110.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall Only

SPE 220 - Early Childhood Special Education
Credits: 3
Lecture Contact Hours: 3
Description: Early childhood special education focuses on children with special needs birth to age eight. This course reviews categories of special needs for young children, available services, and the role of educators as team members who support the educational and care needs of children. Students will learn about the importance of working respectfully with families. Current best practices for identifying special needs in young children will be explored.

Prerequisites: ECE 110 or EDUC 110.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

SPE 275 - Special Education Practical Experiences 2
Credits: 3
Lecture Contact Hours: 2
Off Site Contact Hours with Faculty: 1
Off Site Contact Hours Without Faculty: 10 ***Description:*** This course is designed to provide a continued supervised practical experience working directly with children and adults with special needs in educational and group settings. Students will have increased responsibility providing and implementing activities for children and adults with special needs. Emphasis will be placed on working as a contributing member of a teaching team. Students will complete 150 hours of field experiences. Michigan Central Registry Clearance by the Michigan Department of Human Services and a current TB test are required. This course requires all students must meet the requirements of a criminal background check.

Prerequisites: SPE 100 or EDUC 200. SPE 125. SPE 155 with a minimum grade of 2.5. ECE 110 or EDUC 110.
Corequisites: SPE 210 if not taken previously. ECE 230 if not taken previously.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter Only

SRT – Sound Recording Technology

SRT 110 - Keyboard Skills for Recording Engineers
Credits: 1
Lecture Contact Hours: 1
Description: Students will apply knowledge gained in MUSIC 121 to use with electronic keyboard instruments used in the modern recording studio. Emphasis is on the operation of modern electronic keyboard instruments, MIDI and developing the fundamental musical skills used in contemporary music production. These skills will be applied to individual projects in the laboratory.

Prerequisites: MUSIC 121.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

SRT 121 - Basic Sound and Recording Techniques 1
Credits: 3
Lecture Contact Hours: 3
Description: Fundamentals of the recording arts, including basic audio and acoustical theory, recording consoles, tape recorders, microphone design and technique, speakers and signal processing will be introduced in this course.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

SRT 122 - Basic Sound and Recording Techniques 2
Credits: 3
Lecture Contact Hours: 3
Description: Multi-track studio production techniques are developed through class discussion, demonstration and project assignments. Theory of digital audio technology and its integration into music production is emphasized.

Prerequisites: SRT 121.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring

SRT 150 - Ear Training for Recording Engineers
Credits: 2
Lecture Contact Hours: 2
Description: Listening skills particular to the recording engineer are developed through demonstration and ear training exercises. These skills include hearing and discriminating frequencies, levels, processing, phase, distortion and equalization. Application of these skills to multi-track mixing is emphasized and developed through hands-on assignments using a variety of professional mixing systems.

Prerequisites: SRT 121.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

SRT 221 - Advanced Audio Production 1
Credits: 3
Lecture Contact Hours: 3
Description: This course is a comprehensive examination of the principles and applications of digital audio in today's recording and interactive media industries. Computer-based recording and editing is emphasized along with musical instrument digital interface (MIDI) technology.

Prerequisites: SRT 122. SRT 150.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Spring, Fall

SRT 222 - Advanced Audio Production 2
Credits: 3
Lecture Contact Hours: 3
Description: This course is a continuation of SRT 221 and recording in the digital domain. Areas of focus will include advanced mixing and editing techniques, synchronization, mastering, post-production and surround sound.

Prerequisites: SRT 221.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Summer

SURG – Surgical Services

SURG 100 - Introduction to Surgical Technology
Credits: 2
Lecture Contact Hours: 2
Description: In this course, students will learn about the job duties and opportunities for the surgical technologist. Students will also research affiliated professional organizations to glean knowledge about the role of regulatory agencies and how they are integrated in this area of healthcare. An exploration of the physical environment of the surgical setting will allow students a chance to learn about what precautionary safety considerations and PPE (Personal Protective Equipment) will need to be embraced for this career. Students must pass this course successfully with a 3.0 or higher as one condition of program acceptance.

Prerequisites: None
Corequisites: None
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Fall

SURG 101 - Sterile Processing
Credits: 3
Lecture Contact Hours: 1
Lab Contact Hours: 3
Description: In this course, students will learn about the role of sterile processing in healthcare, including relevant medical terminology, regulations and standards, personal protective equipment, and safety/risk management. Students will acquire and apply knowledge about environmental hazards, decontamination, disinfection, sterilization, packaging, and storage in a simulated healthcare setting. Students must pass this course successfully with a 3.0 or better before taking SURG 110.

Prerequisites: COLLS 053 with a minimum grade of 2.0, overall high school GPA of 2.8 or higher, or a minimum score of 18 ACT-Reading, 25 SAT-Reading, 70 CPT-Reading Comprehension or 250 NGA-Reading; ENG 055 with a minimum grade of 2.0, overall high school GPA of 2.8 or higher, or a minimum score of 18 ACT-English, 25 SAT-Writing and Language, 71 CPT-Sentence Skills or 250 NGA-Writing.
Corequisites: HIT 100 or HIT 104, if not previously taken, with a minimum score of 3.0
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Fall

Students who already have this knowledge may qualify for prior learning credits.
https://www.schoolcraft.edu/student-records/prior-learning-credits

SURG 102 - Surgical Patient Care
Credits: 3
Lab Contact Hours: 6
Description: This course introduces the student to a variety of patient care concepts, such as patient homeostasis and normative values, patient safety with positioning, surgical preparations and utilization of operating room equipment. Students will use the principles of asepsis to apply sterile technique while learning to open glove, apply prep solutions and perform catheterization. Legal documentation and risk management concepts will be explored with simulation case studies and research. Unique patient needs and caring for diverse patient populations will also be taught through simulation scenarios in the lab setting. Students should be prepared for a full hands-on experience that requires lab safety practices and successful completion of all course skill competencies. Students must pass the course and course skill competencies successfully with a 3.0 or better to continue in the program.

Prerequisites: Acceptance into the Surgical Technology Program. BIOL 243 with a minimum grade of 3.0.ENG 101 or ENG 102 with a minimum grade of 2.0. HIT 100 or HIT 104 with a minimum grade of 3.0. General Education Mathematics course with a minimum grade of 2.0. MATH 102 or Math 111 recommended. SURG 100 with a minimum grade of 3.0.
Corequisites: BIOL 237, if not taken previously, with a minimum grade of 3.0.
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Spring

SURG 110 - Sterile Processing Clinical 1
Credits: 2
Lecture Contact Hours: 1
Off Site Contact Hours Without Faculty: 8.25 ***Description:***
In this sterile processing clinical course, students will have the opportunity to learn about healthcare standards and regulations as they apply to sterile processing in real-world situations. Students will engage in the identification of medical supplies, instruments and equipment while engaging in set assembly and various packaging and storage methods at an acute or community clinical setting. Students must pass the course successfully with a 3.0 or better before moving into SURG 120. This course will meet for a total of 112 clinical hours in eight-hour shifts.

Prerequisites: SURG 101 with a minimum grade of 3.0.
Corequisites: BIOL 101, if not previously taken, with a minimum score of 3.0. HIT 100 or HIT 104, if not previously taken, with a minimum score of 3.0
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Fall

SURG 120 - Sterile Processing Clinical 2
Credits: 2
Lecture Contact Hours: 0.5
Off Site Contact Hours Without Faculty: 11.25
Description: In this sterile processing clinical course, students will advance their demonstration of knowledge by working in the decontamination role in real-world situations. Students will identify, sort and prioritize medical supplies, instruments and equipment that enter the decontamination area. Students will evaluate the required standards for preparing each reprocessed item for its method of cleaning/sterilization. This class will also explore facility distribution, ordering and the stocking of supplies and equipment. Students must pass the course successfully with a 3.0 or better before moving into SURG 130. This course will meet for a total of 168 clinical hours in eight-hour shifts.

Prerequisites: SURG 110 with a minimum score of 3.0. BIOL 101 , if not previously taken, with a minimum score of 3.0.HIT 100 Or HIT 104 , if not previously taken, with a minimum score of 3.0
Corequisites: BIOL 243 , if not previously taken, with a minimum score of 3.0.
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Winter

SURG 130 - Sterile Processing Clinical 3
Credits: 2
Lecture Contact Hours: 1
Off Site Contact Hours Without Faculty: 8.5 ***Description:***
In this course, students will continue to learn about the role of sterile processing in healthcare by investigating affiliated credentialing and accrediting agencies. Students will also continue to acquire knowledge about distribution and inventory methods for patient care equipment, instruments and supplies, as well as product allocation. Students will explore the different areas of central storage and item tracking techniques utilized by health care facilities. Students must pass the course successfully with a 3.0 or better, as well as full completion of 400 minimum clinical hours. This course will meet for a total of 128 clinical hours in eight-hour shifts. Upon program completion, students will be eligible for the CRCST credential exam.

Prerequisites: SURG 120 with a minimum score of 3.0.
Corequisites: BIOL 243, if not previously taken, with a minimum score of 3.0.
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Winter

SURG 201 - Surgical Procedures

Credits: 4
Lecture Contact Hours: 4
Description: In this didactic course, students will explore concepts related to procedures of various surgical specialties. Application of anatomy and physiology, steps of each surgical procedure and knowledge of the required items for each step will allow the student to build an understanding of surgeon anticipation. A reinforcement of the surgical approach and technological advancement will prepare students for future adaption and change in the field of surgical technology. Students must pass the course successfully with a 3.0 or better to continue in the program.

Prerequisites: BIOL 237 with a minimum grade of 3.0. BIOL 238 with a minimum grade of 3.0. SURG 101 with a minimum grade of 3.0. SURG 102 with a minimum grade of 3.0.
Corequisites: SURG 202, if not taken previously, with a minimum grade of 3.0. SURG 210, if not taken previously, with a minimum grade of 3.0. SURG 220, if not taken previously, with a minimum grade of 3.0.
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Winter Only
Students who already have this knowledge or certification may qualify for prior learning credit. https://www.schoolcraft.edu/records/prior-learning-credits

SURG 202 - Perioperative Case Management
Credits: 4
Lab Contact Hours: 8
Description: This course teaches the student how to further apply the principles of asepsis and application for sterile technique in the perioperative lab setting. Through weekly simulation exercises, students will explore equipment use, preparing for a surgical procedure, intraoperative case duties and patient safety concepts. Full mock procedures will demonstrate steps of various surgical specialties to understand case organization and anticipation. Students should be prepared for a full hands-on experience that requires lab safety practices and successful completion of all course skill competencies. Students must pass the course and skills competencies successfully with a 3.0 or better to continue in the program.

Prerequisites: BIOL 237 with a minimum grade of 3.0. BIOL 238 with a minimum grade of 3.0. SURG 101 with a minimum grade of 3.0. SURG 102 with a minimum grade of 3.0.
Corequisites: SURG 201, if not previously taken, with a minimum grade of 3.0. SURG 210, if not previously taken, with a minimum grade of 3.0. SURG 220, if not previously taken, with a minimum grade of 3.0.
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Winter

SURG 203 - Advanced Surgical Procedures
Credits: 2
Lecture Contact Hours: 2
Description: In this didactic course, students will explore concepts related to the advanced procedures of peripheral vascular, cardiothoracic, neurologic, and ophthalmic surgical specialties. Application of anatomy and physiology, steps of each surgical procedure, and knowledge of the required items for each step will allow the student to build an understanding of surgeon anticipation. A reinforcement of the surgical approach and technological advancement will prepare students for future adaption and change in the field of surgical technology. Students will take this course concurrent with their first clinical rotation. Students must pass the course successfully with a 3.0 or better to continue in the program.

Prerequisites: SURG 201 with a minimum grade of 3.0. SURG 202 with a minimum grade of 3.0. SURG 210 with a minimum grade of 3.0. SURG 220 with a minimum grade of 3.0.
Corequisites: SURG 250. COMA 103, if not previously taken.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Spring Only
Students who already have this knowledge or certification may qualify for prior learning credit. https://www.schoolcraft.edu/student-records/prior-learning-credits

SURG 210 - Surgical Pharmacology
Credits: 2
Lecture Contact Hours: 2
Description: Surgical Pharmacology will teach students about medications and how they are used in the surgical field. Label identification, safety measurements and basic applied mathematics will be used to prepare students for medication handling. Concepts of sterile technique will be referenced while practicing medication preparation and medication receiving/passing. Pharmacologic classifications, regulatory standards and agencies will also be examined. Emergency patient response and recognition of medication reactions will be reviewed and practiced. Students must pass the course and skills competencies successfully with a 3.0 or better to continue in the program.

Prerequisites: General Education Mathematics with a minimum grade of 2.0, MATH 102 or MATH 111 recommended. SURG 101 with a minimum grade of 3.0 SURG 102 with a minimum grade of 3.0.
Corequisites: SURG 201, if not taken previously, with a minimum grade of 3.0. SURG 202, if not taken previously, with a minimum grade of 3.0. SURG 220, if not taken previously, with a minimum grade of 3.0.
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Winter

SURG 220 - Surgical Pathology
Credits: 2
Lecture Contact Hours: 2
Description: Students will learn about the effects of disease that require the patient to have surgical intervention. Each surgical procedure and specialty will cover common laboratory values, diagnostic studies, and patient pathology. Surgical approach for each intervention will be discussed along with the rationale for how the approach is determined, based on individual need. Possible patient outcomes and recovery for each procedure will be included after each specialty is evaluated. Students must pass course successfully with a 3.0 or better to continue in the program.

Prerequisites: BIOL 238 with a minimum grade of 3.0. SURG 101 with a minimum grade of 3.0. SURG 102 with a minimum grade of 3.0.
Corequisites: SURG 201, if not taken previously, with a minimum grade of 3.0. SURG 202, if not taken previously, with a minimum grade of 3.0. SURG 210, if not taken previously, with a minimum grade of 3.0.
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Winter

SURG 250 - Surgical Technology Clinical 1
Credits: 3.5
Lecture Contact Hours: 1
Off Site Contact Hours Without Faculty: 19.2 ***Description:*** This first clinical internship placement will allow students to participate in an operating room to gain real world professional experience. Students will be placed in a contract specified arrangement to work under the professional courtesy of preceptors. They will practice and develop career competency to prepare for an entry-level position as a surgical technologist. Through a variety of perioperative skill demonstrations, students will work to achieve scrub experience in a minimum of 120 accreditation specified surgical procedures over two clinical terms. This course will meet for a total of 288 clinical hours in eight-hour shifts. Students must pass course and skills competencies successfully with a 3.0 or better to continue in the program.

Prerequisites: Proof of all clinical documentation. SURG 201 with a minimum grade of 3.0. SURG 202 with a minimum grade of 3.0. SURG 210 with a minimum grade of 3.0. SURG 220 with a minimum grade of 3.0.
Corequisites: COMA 103, if not previously taken, with a minimum grade of 2.0.
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Spring

SURG 260 - Surgical Technology Clinical 2
Credits: 4
Lecture Contact Hours: 1
Off Site Contact Hours Without Faculty: 24 ***Description:*** This final clinical internship placement will allow students to participate in an operating room to gain real world professional experience. Students will be placed in a contract specified arrangement to work under the professional courtesy of preceptors. They will practice developing career competency and prepare for an entry-level position as a surgical technologist. Through a variety of perioperative skill demonstrations, students will work to complete scrub experience in a minimum of 120 accreditation specified surgical procedures, started in Clinical 1, by the end of the clinical term. This course will meet for a total of 360 clinical hours in eight-hour shifts. Students must pass this course and complete all skills competencies successfully with a 3.0 or better to be eligible to complete the program.

Prerequisites: SURG 250 with a minimum grade of 3.0.
Corequisites: SURG 290 , if not previously taken, with a minimum grade of 3.0.
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Fall

SURG 290 - Surgical Technology Capstone
Credits: 2
Lecture Contact Hours: 2
Description: The Surgical Technology Capstone will offer students an opportunity to become prepared for a future position as a surgical technologist. Using a variety of techniques, students will browse job postings and evaluate different healthcare facilities for available positions. Each student will create a resume and portfolio, as well as practice potential interview questions. During this course, students will also review all program concepts with many different resource tools to practice questions and material that may be on the national certification exam. Students will sit for both the national practice exam and the national Certification for Surgical Technologists (CST) exam offered through the National Board of Surgical Technology and Surgical Assisting (NBSTSA) during this course. All program requirements must be met for student to be eligible to take the national exam. Students must pass the course successfully with a 3.0 or better to receive an associate degree.

Prerequisites: SURG 250 with a minimum grade of 3.0.
Corequisites: SURG 260 , if not previously taken, with a minimum grade of 3.0.
Recommended: None

Course Category: Occupational
This Course is Typically Offered: Fall

THEA - Theatre

THEA 101 - Introduction to Theatre

Credits: 3
Lecture Contact Hours: 3
Description: This is a survey course which examines all the elements of theatre. Topics covered include the actor, director, playwright, scenery, costumes, makeup, lighting, sound, audience, theatre publicity, theatre management and critic. The course offers the opportunity for developing an appreciation of theatre and how it relates to the world.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: As Needed

THEA 120 - Theatre Activities 1
Credits: 1
Lecture Contact Hours: 1
Description: This course provides a brief introduction to all the elements of theatre. Topics explored include the actor, director, playwright, scenery, costumes, makeup, lighting, sound, audience, theatre publicity, theatre management and critic. Students are required to work on a current production.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

THEA 121 - Theatre Activities 2
Credits: 1
Lecture Contact Hours: 1
Description: This course is the second in a series. It continues the exploration of all of the elements of theatre: actor, director, playwright, scenery, costumes, makeup, lighting, sound, audience, theatre publicity, theatre management and critic. Students are required to work on a current production.

Prerequisites: THEA 120.
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

THEA 204 - Stage Makeup
Credits: 2
Lecture Contact Hours: 2
Description: An introductory course in stage makeup application. The course covers basic makeup, character makeup, old-age makeup and special effects. Discussion on types of makeup and practical student application projects.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

THEA 207 - Stagecraft and Lighting
Credits: 3
Lecture Contact Hours: 3
Description: This course investigates stage designs and lighting theories with a practical application by work on the college production. The course also covers the basic knowledge of set construction, lighting and its equipment, costume construction, makeup techniques and costume maintenance. Students are required to work on a current production.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

THEA 210 - Acting 1 - Theory and Elements
Credits: 3
Lecture Contact Hours: 3
Description: An introduction into the theories of acting. Students study the role of voice, body movement and character development as it relates to acting. In addition, students are introduced to modern drama and productions.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Fall, Winter

THEA 211 - Acting 2 - Theory and Elements
Credits: 3
Lecture Contact Hours: 3
Description: This is an advanced theatre course where students explore the theories and elements of acting. There is a focus on classical and modern plays, as well as on the critiquing of actors and performances. Students will develop their performance skills. In addition, students will explore the Stanislavski method and be introduced to reading and acting Shakespeare.

Prerequisites: THEA 210.
Corequisites: None.

Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: Winter Only

THEA 220 - Theatre Activities 3
Credits: 1
Lecture Contact Hours: 1
Description: This course is the third in a series. It continues to explore all the elements of theatre: actor, director, playwright, scenery, costumes, makeup, lighting, sound, audience, theatre publicity, theatre management and critic. Students are required to work on current production.

Prerequisites: THEA 121.
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

THEA 221 - Theatre Activities 4
Credits: 1
Lecture Contact Hours: 1
Description: This course is the fourth in a series. It continues to explore all the elements of theatre: actor, director, playwright, scenery, costumes, makeup, lighting, sound, audience, theatre publicity, theatre management and critic. Students are required to work on current production.

Prerequisites: THEA 220.
Corequisites: None.
Recommended: None.

Course Category: Applied Liberal Arts | Humanities
This Course is Typically Offered: Fall, Winter

THEA 231 - History of Theatre 1
Credits: 3
Lecture Contact Hours: 3
Description: This course examines the development of dramatic art and practice from ancient times to the end of the 18th century. Emphasis is placed on the evolution of the physical theatre and dramatic forms in relation to contemporaneous production facilities and innovations. Greek, Roman, Medieval, Italian Renaissance, Elizabethan, Spanish, French and 18th century theatre periods are explored.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: As Needed

THEA 232 - History of Theatre 2
Credits: 3
Lecture Contact Hours: 3
Description: This course examines the development of dramatic art and practice from the beginning of the 19th century to the present. Emphasis is placed on the evolution of the physical theatre and dramatic forms in relation to contemporaneous production facilities and innovations. 19th century, Modern, Postwar and Contemporary periods are explored.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: As Needed

THEA 241 - Oral Interpretation of Literature
Credits: 3
Lecture Contact Hours: 3
Description: This course is designed to give students an understanding of Oral Interpretation of Literature. Students will have practical experience in interpretive readings in various types of literature and will also explore theory and techniques of interpretive reading of literature. The class emphasizes the performance of literature through the use of the voice and body.

Prerequisites: COMA 103 or THEA 210
Corequisites: None.
Recommended: None.

Course Category: Liberal Arts | Humanities
This course counts toward Schoolcraft's General Education Requirements.
This course counts toward a Michigan Transfer Agreement General Education Requirement.

This Course is Typically Offered: As Needed

WELD – Welding Technology

WELD 110 - Introduction to Welding Basics for Fabrication
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: This class serves as an introduction for individuals that have no welding or fabrication experience in various welding and fabrication processes. Covered in the course will be the set up and safe

operation of gas welding and brazing, shielded metal arc welding, gas metal arc welding, gas tungsten arc welding, resistance welding, gas cutting and plasma cutting equipment as well as the safe set up and operation of equipment found in a welding fabrication facility.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

WELD 113 - Shielded Metal Arc Welding (S.M.A.W.)
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: Theory and fundamentals of oxy/fuel cutting, welding, braze welding, shielded metal arc welding, joining and fabricating will be explored. Emphasis will be on basic welding skills, filler metals and techniques for using different welding rods. Welding machine set up and oxy/fuel welding equipment set up will be practiced extensively to ensure good sound safety habits. Safety in all welding applications will be explained and students will be required to pass safety evaluations. This course will establish good sound work habits and provide a foundation for more advanced courses.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

WELD 115 - Gas Metal Arc Welding (G.M.A.W./M.I.G.)
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: Theory and fundamentals of gas metal arc welding commonly referred to as M.I.G. welding will be explored. This method of fusion of metals is widely used and is the fastest growing segment of the metal working industry. Emphasis will be on basic skill development and the establishment of sound work habits. The course is designed to provide entry level employability and a solid foundation for more advanced courses.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

WELD 119 - Gas Tungsten Inert Arc Welding (G.T.A.W./ T.I.G.)
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: Theory and fundamentals of Gas Tungsten Arc Welding (G.T.A.W.) will be explored. This method of metal fusion is capable of producing very high-quality welds in virtually all metals and one of the few methods of welding some of the more difficult to weld metals. The course is designed to provide entry level employability and solid foundation for more advanced courses.

Prerequisites: None.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

WELD 120 - Advanced Processes - Stick Electrode and M.I.G. Welding
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: The student will gain additional knowledge and experience in both shielded metal and gas metal arc welding. Welding will be performed in all positions; flat, horizontal, vertical and overhead. The class will introduce the student to pipe cutting and pipe welding on heavy sections. Material will be formed and fabricated using power and hand operated tools and equipment. Students will produce several required projects that will simulate weld joints found in today's modern manufacturing and construction industry.

Prerequisites: WELD 113. WELD 115.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

WELD 130 - Advanced Processes - Gas Tungsten
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: Advanced Processes - Gas Tungsten Arc Welding moves students to a higher level of welding that the student, as an employee, may find in a job. The course will cover welding of carbon steel, stainless steel and aluminum. This course will challenge the student to perform required elements that produce welds that would meet national standards. Proper fit up of weld joints, weld bead size, weld strength and appearance will be stressed. Lay out of complex weld joints will be another requirement evaluated in an ongoing process as

welded exercises are performed.

Prerequisites: WELD 119
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

WELD 205 - Welder's Print Reading
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: Welder's print reading provides detailed information to help welding students develop skills necessary to interpret working sketches and prints common to the welding/metalworking field. In addition, the welding student will gain knowledge in how to interpret conventional drafting symbology and specialized welding symbols and will have the opportunity to perform welds on test plates that are indicated by the welding symbols.

Prerequisites: WELD 120 or may be taken concurrently.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall
Students who already have this knowledge may qualify for prior learning credit.
https://www.schoolcraft.edu/student-records/prior-learning-credits

WELD 206 - Welding Inspection and Qualification
Credits: 2
Lecture Contact Hours: 1
Lab Contact Hours: 1
Description: Quality welders are in demand today. It is important that these welders possess a working knowledge of weld test equipment and qualification as well as be able to test and evaluate welds. Proper use of weld test gages and equipment, dye penetrant, fluorescent dye penetrant, magnetic particle and destructive testing equipment and techniques will be covered.

Prerequisites: WELD 205
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

WELD 210 - Preparation for Welder Certification in Shielded Metal Arc Welding
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: Obtaining American Welding Society (AWS) Welder's Certification is desirable to gain acceptance into a welding-related skilled trade. Each skilled trade employment requires a unique certification, for which the student must learn skills needed for specific welding procedures and processes. This course will focus on developing the skills needed in the SMAW process to successfully pass an appropriate AWS Certified Welder performance test, along with passing a visual and destructive examination of their weldments. To receive credit in this class, students must successfully pass an AWS Certification test on a specified procedure required for their selected welding process.

Prerequisites: WELD 113 or consent of department.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Spring, Fall

WELD 211 - Preparation for Welder Certification in Gas Metal Arc Welding
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: Obtaining American Welding Society (AWS) Welder's Certification is desirable to gain acceptance into a welding-related skilled trade. Each skilled trade employment requires a unique certification, for which the student must learn skills needed for specific welding procedures and processes. This course will focus on developing the skills needed in several Semiautomatic processes/transfers to successfully pass an appropriate AWS Certified Welder performance test. Tests may be taken on ferrous or non-ferrous material, along with passing a visual and destructive examination of their weldments. To receive credit in this class, students must successfully pass an AWS Certification test on a specified procedure required for their selected welding process.

Prerequisites: WELD 115 or consent of department.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

WELD 212 - Preparation for Welder Certification in Gas Tungsten Arc Welding G.T.A.W./T.I.G.
Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: Obtaining American Welding Society (AWS) Welder's Certification is desirable to gain acceptance into a welding-related skilled trade. Each skilled trade employment requires a unique certification, for which the student must learn skills needed for specific welding procedures and processes. This course will focus on developing the skills needed in Gas Tungsten Arc Welding to successfully pass an appropriate AWS Certified Welder performance test. Tests may be taken on ferrous or non-ferrous material, along with passing a

visual and destructive examination of their weldments. To receive credit in this class, students must successfully pass an AWS Certification test on a specified procedure required for their selected welding process.

Prerequisites: WELD 119 or consent of department.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Spring Only

WELD 214 - Preparation for Welder Certification in Pipe Welding

Credits: 3
Lecture Contact Hours: 2
Lab Contact Hours: 2
Description: Obtaining American Welding Society (AWS) Welder's Certification is desirable to gain acceptance into a welding-related skilled trade. Each skilled trade employment requires a unique certification, for which the student must learn skills needed for specific welding procedures and processes. This course addresses competencies needed to become certified as a pipe welder. Shielded Metal Arc Welding, Gas Metal Arc Welding and Gas Tungsten Arc Welding can be used to produce these pipe welds. This course will focus on developing the skills needed to successfully pass an appropriate AWS Certified Welder performance test. Tests may be taken on ferrous or non-ferrous material, along with passing a visual and destructive examination of their weldments. To receive credit in this class, students must successfully pass an AWS Certification test on a specified procedure required for their selected welding process.

Prerequisites: WELD 130 or consent of department.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring

WELD 223 - Fabrication

Credits: 4
Lecture Contact Hours: 2
Lab Contact Hours: 4
Description: Fabrication of student/instructor selected projects will be the format for this course. Emphasis will be on the development of fabrication techniques, including design, material selection, layout, material preparation and use of fixtures. Welding skills developed in WELD 120 and WELD 130 will be applied. There will be an opportunity for students to further investigate other industrial welding processes.

Prerequisites: WELD 130 or consent of department. WELD 205.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

WELD 225 - Pre-Apprenticeship Welder Certification

Credits: 3
Lecture Contact Hours: 1
Lab Contact Hours: 3
Description: Obtaining American Welding Society (AWS) Welder's Certification is desirable to gain acceptance into a welding-related skilled trade apprenticeship program. Each skilled trade apprenticeship requires a unique certification, for which the student must learn skills needed for specific welding procedures and processes. This course will focus on developing the skills needed to successfully pass an appropriate AWS Certified Welder performance test, along with passing a visual and destructive examination of their weldments. To receive credit in this class, students must successfully pass an AWS Certification test on a specified procedure required for their selected welding trade.

Prerequisites: WELD 113. WELD 115. WELD 120 or may be taken concurrently. All prerequisites may be waived through consent of department.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

WELD 240 - Computer Numerical Control

Credits: 4
Lecture Contact Hours: 2
Lab Contact Hours: 4
Description: Introduction to the theory and application of programming and sequencing of numerical control automation and cutting equipment. Emphasis will be placed on utilizing incremental and absolute programming language applying G and M codes. Students will use computer software and nesting to create cutting paths as well as learn troubleshooting components of the automated equipment and programs. Welding skills developed in advanced arc welding and welding print reading will be applied.

Prerequisites: WELD 120. WELD 205.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall

WELD 262 - Welding Metallurgy

Credits: 3
Lecture Contact Hours: 1
Lab Contact Hours: 2
Description: Welding metallurgy includes the influence of alloy composition, filler materials, fluxes and thermal interactions on the structure and properties of metals. Topics covered in the course will include the chemical,

mechanical and physical properties of metals, mechanical behavior, microstructure and post-weld heat treating.

Prerequisites: MET 103
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Fall, Winter

WELD 291 - Welding Internship
Credits: 3
Lecture Contact Hours: 1
Off Site Contact Hours Without Faculty: 12 - 40
Description: This is an applied course within Occupational Programs specializing in the field of welding and fabrication (WELD) and is a cooperative assignment for students who have completed the prerequisites for this course. Employment will be approximately 12 to 40 hours per week off-campus at the employer's location within a welding and fabrication or related department. The final grade will be based on a joint evaluation by the faculty and the employer. Students registered in this internship course are considered Schoolcraft College students with all rights, responsibilities and privileges of a student. Internships may be paid or unpaid based upon placement. Department permission is required before registering for this course. The selection of eligible students to register for the course is a competitive process that includes testing, submission of a resume with a cover letter and interviews.

Prerequisites: Minimum of three WELD courses with a minimum average grade of 3.0, an overall minimum GPA of 2.5 and consent of department.
Corequisites: None.
Recommended: None.

Course Category: Occupational
This Course is Typically Offered: Winter, Spring, Fall