



Conservation and Sustainability A.S.

Career Community: Science and Mathematics

Curriculum Code: 1840

Effective: Fall 2024 – Summer 2029

Purpose of Major

This degree is designed for students who intend to transfer to a four-year college or university to pursue a baccalaureate degree in a Natural Resources related program. The courses outlined in this pathway are designed for students interested in pursuing degrees related to Conservation, Environmental Science, Fisheries and Wildlife Management, Natural Resources Management and/or Sustainability, as their main emphasis of study. Students completing this curriculum will also satisfy the Michigan Transfer Agreement (MTA) between two-year and four-year institutions and qualify for an LCC Transfer Studies Certificate of Achievement (1482)

Not all courses in this pathway transfer to all colleges. Students who wish to transfer to a four-year institution should select coursework indicated for that institution.

Milestone

In addition to the required General Education courses in Math and English, completion of GEOG 120 or GEOG 200 with a 2.0 or higher is a key component for success in completing this program. Knowledge obtained in these courses is the foundation for learning in other required courses. Students are encouraged to contact their faculty if they need additional assistance with learning the concepts presented in these courses.

Additional Information

A student must earn a minimum grade of 2.0 in all courses.

BIOL 210 is only offered during Fall semester.

Contact Information

For further information, including career options, course substitutions and waivers, etc., contact the Science Department, Arts and Sciences Building, Room 3203, telephone number 517-483-1092, or the Academic Advising Department, Gannon Building – Star Zone, telephone number 517-483-1904.

General Education – Transfer Degrees (MTA) - Recommended Courses

(For the full list of options, see [General Education](#))

- English Composition
Science and Mathematics Career Community Courses meet this requirement.
- English Composition (second course)/Communication
Science and Mathematics Career Community Courses meet this requirement.

- Humanities and Fine Arts
Program of Study Required Courses meet this requirement.
- Mathematics
Science and Mathematics Career Community Courses meet this requirement.
- Natural Sciences
Science and Mathematics Career Community Courses meet this requirement.
- Social Sciences
Program of Study Required Courses meet this requirement.

Science and Math Career Community Courses – *These courses are required for all Science and Math programs. Some courses meet General Education requirements for Michigan Transfer Agreement (MTA). A minimum of 2.0 is required to meet LCC degree requirements for General Education courses and for all courses to transfer to other colleges (some colleges, and some programs within colleges, require a higher grade in a course.)*

Course Code	Course Title	Credit / Billing Hours
ACAD 100	First-Year Experience	1 / 1
BIOL 127 or	Cell Biology	4 / 6
GEOG 221 or	Physical Geography	4 / 4
GEOL 221 or	Physical Geology	4 / 6
PHYS 251	Physics I with Calculus	5 / 7
CHEM 151	General Chemistry Lecture I	4 / 4
CHEM 161	General Chemistry Lab I	1 / 3
COMM 120 or	Dynamics of Communication	3 / 3
COMM 130 or	Fundamentals Public Speaking	3 / 3
COMM 200 or	Small Group Communication	3 / 3
COMM 240 or	Interpersonal Communication	3 / 3
COMM 260 or	Nonverbal Communication	3 / 3
ENGL 122 or	Composition II	4 / 4
ENGL 132	Honors Composition II	4 / 4
ENGL 121 or	Composition I	4 / 4
ENGL 131	Honors Composition I	4 / 4
MATH 120 or	College Algebra	4 / 4
MATH 126 or	Precalculus	5 / 5
MATH 151	Calculus I	4 / 4

Notes:

Choose BIOL 127 for this degree.

ACAD 100 may be waived when students meet one of the following College-approved waiver criteria:

- Completion of 12 college-level credits with minimum grades of 2.0 shown on the LCC transcript (including transfer, if applicable), or

- Employment in the field of, or a field related to, the degree being sought, or
- For Health Careers students, successful completion of CHSE 100.

Students wishing to waive ACAD 100 should contact their advisor.

Program of Study Required Courses – *Some courses meet General Education requirements for Michigan Transfer Agreement (MTA). A minimum of 2.0 is required to transfer to other colleges (some colleges, and some programs within colleges, require a higher grade in a course).*

Course Code	Course Title	Credit / Billing Hours
BIOL 127	Cell Biology	4 / 6
BIOL 128	Organismal Biology	4 / 6
GEOG 120 or GEOG 200	Introduction to Geography World Regional Geography	3 / 3 4 / 4
GEOG 220 or GEOG 221 or GEOL 221	Weather, Forecasting & Climate Physical Geography Physical Geology	4 / 4 4 / 4 4 / 6

Note: If BIOL 127 was completed as part of the Career Community block, do not repeat enrollment.

Program of Study Required Courses, Limited Choice – Humanities and Fine Arts -
Select two courses from different disciplines from [LCC General Education, Transfer Degrees \(MTA\), Humanities and Fine Arts.](#)

Program of Study Required Courses, Limited Choice – Social Sciences – *Select one course from [LCC General Education, Transfer Degrees \(MTA\), Social Sciences](#), from a discipline other than GEOG.*

Notes:

Students considering adding Secondary Education Certification in Math or Science in order to teach in Michigan Public Schools are strongly encouraged to select EDUC courses as listed to meet the Michigan Transfer Agreement (MTA) Social Science requirement.

For future transfer (Secondary Education Certification) to:

- Central Michigan University, Ferris State University, or Michigan State University choose EDUC 204.
- Eastern Michigan University, Grand Valley State University, University of Michigan Flint, or Western Michigan University choose EDUC 220.

Elective Courses, Recommended Choices – *Select courses as needed to reach the minimum 60 total credits required for this degree. For information on preferred courses for specific concentrations identified by transfer institutions, consult with an Academic or Program Advisor. (For the full list of options, see [AA and AS Degree Electives.](#))*

Course Code	Course Title	Credit/ Billing Hours
BIOL 210	Natural Resource Conservation	4 / 6
BIOL 260	Botany	4 / 6
BIOL 265	Zoology	4 / 6
BIOL 270	Human Genetics	3 / 3
CHEM 152	General Chemistry Lecture II	3 / 3
CHEM 162	General Chemistry Lab II	1 / 3
CHEM 251	Organic Chemistry Lecture I	4 / 4
CHEM 252	Organic Chemistry Lecture II	4 / 4
CHEM 272	Organic Chemistry Laboratory	2 / 6
COMM 240	Interpersonal Communication	3 / 3
ECON 202	Principles of Economics-Macro	4 / 4
ENVR 121	Environmental Rules and Regs	3 / 3
GEO 222	Historical Geology	4 / 6
GEO 230	Environmental Geology	4 / 6
GSCI 100	Intro to Geospatial Tech	3 / 3
MATH 141	Calculus with Applications	4 / 4
MATH 151	Calculus I	4 / 4
MATH 152	Calculus II	4 / 4
PHYS 221	Introductory Physics I	4 / 6
PHYS 222	Introductory Physics II	4 / 6
PHYS 251	Physics I with Calculus	5 / 7
PHYS 252	Physics II with Calculus	5 / 7
STAT 215	Intro to Probability and Stats	4 / 4

Notes:

BIOL 210 is highly recommended for this degree.

Minimum Total Credit Hours

60 credits / 66 billing hours

Recommended Course Sequence

Semester I
ACAD 100
ENGL 121 or ENGL 131
MATH 120 or MATH 126 or MATH 151
Elective courses as needed for total credits (BIOL 210 is highly recommended)

Semester II
CHEM 151
CHEM 161
COMM 120 or COMM 130 or COMM 200 or COMM 240 or COMM 260 or ENGL 122 or ENGL 132
Limited Choice – Humanities and Fine Arts

Semester III
BIOL 127
GEOG 120 or GEOG 200 – Milestone course
Limited Choice – Humanities and Fine Arts
Elective courses as needed

Semester IV
BIOL 128
GEOG 220 or GEOG 221 or GEOL 221
Limited Choice – Social Sciences
Elective courses as needed

LCC makes every effort to limit revisions to the pathways during their effective timeframe. However, the College reserves the right to update certificate and degree title changes, and make course changes as needed, without prior notice.