



Biology A.S.

Career Community: Science and Mathematics

Curriculum Code: 0221

Effective: Fall 2025 – Summer 2030

Purpose of the Major

This degree is designed for students who plan to transfer to a four-year university to pursue a baccalaureate degree in Biology with a variety of concentrations. Students completing this curriculum will also satisfy Michigan Transfer Agreement (MTA) between two-year and four-year institutions in Michigan and qualify for an LCC Transfer Studies Certificate of Achievement (1482). This degree includes a set of courses common to all Science and Mathematics majors and many transfer institutions. Students are encouraged to work with an academic advisor and program advisor to explore transfer opportunities.

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 BIOL 127 and 128, and CHEM 151 and CHEM 161 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 260 and BIOL 275 are only offered in 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 - StarZone, telephone number 517-483-1904.

Major Required Courses - *Some courses meet General Education requirements for Michigan Transfer Agreement (MTA).*

Course Code	Course Title	Credit / Billing Hours
ACAD 100	First-Year Experience	1 / 1
BIOL 127	Cell Biology	4 / 6
BIOL 128	Organismal Biology	4 / 6

Course Code	Course Title	Credit / Billing Hours
CHEM 151	General Chemistry Lecture I	4 / 4
CHEM 152	General Chemistry Lecture II	4 / 4
CHEM 161	General Chemistry Lab I	1 / 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 120 or COMM 130 or COMM 200 or COMM 240 or COMM 260 or ENGL 122 or ENGL 132	Dynamics of Communication Fundamentals Public Speaking Small Group Communication Interpersonal Communication Nonverbal Communication Composition II Honors Composition II	3 / 3 3 / 3 3 / 3 3 / 3 3 / 3 4 / 4 4 / 4
ENGL 121 or ENGL 131	Composition I Honors Composition I	4 / 4 4 / 4
MATH 126 or MATH 151	Precalculus Calculus I	5 / 5 4 / 4

Notes:

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, Limited Choice – Humanities and Fine Arts -

Select two courses from [LCC General Education](#), [Transfer Degrees \(MTA\)](#), [Humanities and Fine Arts](#); courses must be from different disciplines.

Program of Study Required Courses, Limited Choice – Social Sciences -

Select two from [LCC General Education](#), [Transfer Degrees \(MTA\)](#), [Social Sciences](#), from different disciplines. Students considering adding Secondary Education Certification in order to teach in Michigan Public Schools are strongly encouraged to select PSYC 200.

Note: For future transfer (Secondary Education Certification) choose PSYC 200.

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.

General Education – Transfer Degrees (MTA)

- English Composition
Major Required Courses meet this requirement.
- English Composition (second course)/Communication
Major Required Courses meet this requirement.
- Humanities and Fine Arts
Major Required Courses meet this requirement.
- Mathematics
Major Required Courses meet this requirement.
- Natural Sciences
Major Required Courses meet this requirement.
- Social Sciences
Major Required Courses meet this requirement.

Elective Courses, Recommended Choices – *Select courses as needed to reach the 60-credit minimum required for this degree. For information on preferred courses for specific concentrations identified by transfer institutions, consult with a 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 255	Biological Chemistry	4 / 4
MATH 152	Calculus II	4 / 4

Minimum Total Credit Hours

60 credits / 72 billing hours

Recommended Course Sequence

Semester I
ACAD 100

Semester I
CHEM 151 – Milestone course
CHEM 161 – Milestone course
ENGL 121 or ENGL 131
MATH 126 or MATH 151

Semester II
CHEM 152
CHEM 162
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 – Milestone course
CHEM 251
Limited Choice – Humanities and Fine Arts
Limited Choice – Social Sciences
Electives as needed to reach the 60 credits required for the degree

Semester IV
BIOL 128 – Milestone course
CHEM 252
CHEM 272
Limited Choice - Social Sciences
Electives as needed to reach the 60 credits required for the degree

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 titles, and make course changes as needed, without prior notice. The College also reserves the right to discontinue programs when warranted.