



## Chemistry A.S.

Career Community: Science and Mathematics

Curriculum Code: 0117

Effective: Fall 2025 – Summer 2030

### Purpose of the Major

This degree is designed for students who intend to transfer to a four-year college or university to pursue a baccalaureate degree in this subject area. Students completing this curriculum will also satisfy the Michigan Transfer Agreement (MTA) between two-year and four-year institutions in Michigan and qualify for an LCC Transfer Studies Certificate of Achievement (1482).

### Milestone

In addition to the required General Education courses in Math and English, completion of 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.

### Contact Information

For further information, including career options, course substitutions and waivers, etc., contact the Science Department in the Arts & 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
CHEM 151	General Chemistry Lecture I	4 / 4
CHEM 152	General Chemistry Lecture II	3 / 3
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 262	Quantitative Analysis	3 / 6
CHEM 272	Organic Chemistry Laboratory	2 / 6

Course Code	Course Title	Credit / Billing Hours
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 151	Calculus I	4 / 4
MATH 152	Calculus II	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.

**Major 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](#).*

**Major Required Courses – Limited Choice – Social Sciences** - *Select two courses, from different disciplines from [LCC General Education, Transfer Degrees \(MTA\), Social Sciences](#).*

Notes:

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 Degree (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 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
CHEM 255	Biological Chemistry	4 / 4
MATH 253	Calculus III	4 / 4
PHYS 251	Physics I with Calculus	5 / 7
PHYS 252	Physics II with Calculus	5 / 7

## **Minimum Total Credit Hours**

60 credits / 73 billing hours

## **Recommended Course Sequence**

Semester I
ACAD 100
CHEM 151 – Milestone course
CHEM 161 – Milestone course
ENGL 121 or 131
MATH 151
Limited Choice – Social Sciences

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

Semester II
MATH 152
Limited Choice - Humanities and Fine Arts

Semester III
BIOL 127
CHEM 251
CHEM 262
Limited Choice - Social Sciences
Elective courses as needed for total credits

Semester IV
CHEM 252
CHEM 272
Limited Choice - Humanities and Fine Arts
Elective course as needed for total credits

*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.*