



Mathematics A.S.

Career Community: Science and Mathematics

Curriculum Code: 1620

Effective: Fall 2022 – Summer 2027

Purpose of Major

This degree is designed for students who plan to transfer to a four-year university to pursue a Bachelor's of Science degree in Mathematics with a variety of concentrations. Students completing this degree 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 MATH 151 and MATH 152 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

Contact the Mathematics 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.

General Education – Transfer Degrees (MTA) - Recommended Courses

Select courses as indicated for specific transfer institutions and majors. These courses are preferred General Education courses listed on Transfer Articulation agreements. The recommended courses in each General Education category also meet Michigan Transfer Agreement (MTA) requirements. If no course is indicated, choose from the list of options under [General Education](#).

- English Composition
ENGL 121 or ENGL 131 meets this requirement.

- English Composition (second course)/Communications
COMM 130, ENGL 122, or ENGL 132 meets this requirement.
- Humanities and Fine Arts
Program of Study Required Courses meets this requirement.
- Mathematics
Program of Study Required Courses meets this requirement.
- Natural Sciences
CHEM 151, CHEM 161, and BIOL 120, BIOL 127, GEOL 221, GEOL 230, or PHYS 251 meets this requirement.
- Social Sciences
Career Community and Program of Study Required Courses meets this requirement.

Science and Math Career Community Courses – *These courses are required for all Science and Math programs. They should be taken before other Program Required or Limited Choice Courses. Some courses meet General Education requirements for Michigan Transfer Agreement (MTA). A minimum of 2.0 is required 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 College Experience	1 / 1
ANTH 270 or	Cultural Anthropology	3 / 3
ECON 120 or	Power, Authority, and Exchange	4 / 4
ECON 201 or	Principles of Economics: Micro	4 / 4
EDUC 204 or	Educational Psychology	3 / 3
EDUC 220 or	Introduction to Education	3 / 3
GEOG 120 or	Introduction to Geography	3 / 3
GEOG 200 or	World Regional Geography	4 / 4
POLS 120 or	American Political System	3 / 3
POLS 240 or	Introduction to Public Policy	3 / 3
POLS 260 or	Comparative Political Systems	4 / 4
PSYC 200 or	Introduction to Psychology	4 / 4
SOCL 120	Introduction to Sociology	4 / 4
BIOL 120 or	Environmental Science	4 / 6
BIOL 127 or	Cell Biology	4 / 6
GEOL 221 or	Physical Geology	4 / 6
GEOL 230 or	Environmental 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

Course Code	Course Title	Credit / Billing Hours
COMM 130 or ENGL 122 or ENGL 132	Fundamentals Public Speaking Composition II Honors Composition II	3 / 3 4 / 4 4 / 4
ENGL 121 or ENGL 131	Composition I or Honors Composition I	4 / 4 4 / 4
MATH 120 or MATH 126 or MATH 151	College Algebra Precalculus Calculus I	4 / 4 5 / 5 4 / 4

Notes:

ACAD 100 may be waived based on the recommendation of a Program Advisor.

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 (all majors) to:

- Central Michigan University, Ferris State University, Grand Valley State University and Michigan State University choose COMM 130, MATH 151, and PHYS 251.
- Eastern Michigan University, University of Michigan Flint, and Western Michigan University choose ENGL 122, MATH 151 and PHYS 251.

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.

Program of Study Required Courses - *Some courses meet General Education requirements for 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
CPSC 101	Intro to Computer Science	3 / 3
CPSC 230	Algorithms and Computing w/C++	4 / 4
CPSC 260	Computer Science Structures	4 / 4
MATH 151	Calculus I	4 / 4
MATH 152	Calculus II	4 / 4
MATH 253	Calculus III	4 / 4
MATH 254	Intro to Differential Equations	4 / 4
MATH 260	Linear Algebra	4 / 4
PHIL 151	Intro to Logic & Critical Think	4 / 4
PHYS 251	Physics I with Calculus	5 / 7

Program of Study Required Courses, Limited Choice – Humanities and Fine Arts -
Select one.

Course Code	Course Title	Credit / Billing Hours
HIST 211	U. S. History to 1877	4 / 4
HIST 212	U. S. History: 1877 to Present	4 / 4
MUSC 240	Musical Cultures to 1750	4 / 4
MUSC 241	Musical Cultures 1750-Present	4 / 4

Program of Study Required Courses, Limited Choice – Social Sciences - *Select one from a different discipline chosen for the Science and Math Career Community block of courses. Students considering adding Secondary Certification to teach in Michigan Public Schools are strongly encouraged to select PSYC 200.*

Course Code	Course Title	Credit / Billing Hours
ECON 120	Power, Authority and Exchange	4 / 4
GEOG 200	World Regional Geography	4 / 4
POLS 260	Comparative Political Systems	3 / 3
PSYC 200	Introduction to Psychology	4 / 4
SOCL 120	Introduction to Sociology	4 / 4

Minimum Total Credit Hours

63 credits / 67 billing hours

Recommended Course Sequence

Semester I
ACAD 100
CHEM 151
CHEM 161
ENGL 121 or ENGL 131
MATH 151 – Milestone course
PHIL 151

Semester II
ANTH 270, ECON 120, ECON 201, EDUC 204, EDUC 220, GEOG 120, GEOG 200, POLS 120, POLS 240, POLS 260, PSYC 200, or SOCL 120
COMM 130, ENGL 122, or ENGL 132
CPSC 101
MATH 152 – Milestone course

Semester III
CPSC 230
MATH 253
PHYS 251
Limited Choices – Social Sciences

Semester IV
CPSC 260
MATH 254
MATH 260
Limited Choices – Humanities and Fine Arts
Electives as needed to meet degree requirements

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.