

LANSING COMMUNITY COLLEGE

Liberal Arts

Curriculum Code: 0169
 (Effective Fall 2018 –
 Summer 2023)

Computer Science A.S. Pathway

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).

General Education - MTA: MINIMUM: 30 credits

Complete General Education - MTA Requirements for the Associate of Arts Degree

- A. English Composition: One course
- B. English Composition (second course) or Communication: One course
- C. Humanities and Fine Arts: A total of 2 courses, each from a different discipline
- D. Mathematics: One course from Quantitative Reasoning, College Algebra or Statistics
- E. Natural Sciences: A total of 2 courses, each from a different discipline; one must be a lab course
- F. Social Science: A total of 2 courses, each from a different discipline

In order to graduate with this degree, a student must earn a minimum grade of 2.0 in all courses.

For More Information

Contact the Mathematics and Computer Science Department, Arts and Sciences Building, Room 3203, telephone number (517) 483-1073, or the Academic Advising Department, Gannon Building – Star Zone, telephone number (517) 483-1904.

Semester I	Course Title	Prerequisites	Credit/Billing Hours
General Education - Area A. English Composition - <i>Select 1</i>			
ENGL 121	Composition I	Reading Level 5 and Writing Level 6 or (Reading Level 4 and Writing Level 4 and ENGL 099 concurrently)	4 / 4
ENGL 131	Honors Composition I	Reading Level 5 and Writing Level 7	4 / 4
General Education - Area D. Mathematics - <i>Select 1</i>			
MATH 151	Calculus I	(Minimum 2.0 in MATH 122 or MATH 126 within 2 years or Math Level 9 within 2 years) and Reading Level 5 and Writing Level 6	4 / 4
MATH 161	Honors Calculus I	Minimum 3.0 in MATH 122 or MATH 126 within 2 years and Reading Level 5 and Writing Level 6	4 / 4

General Education - Area C. Humanities & Fine Arts - <i>Select 1</i>			
<i>Two Humanities and Fine Arts courses are required for this degree, each from a different discipline. PHIL 151 is recommended for one of the courses.</i>			
HUMS 214	World Civilizations from 1600	Reading Level 5 and Writing Level 6	4 / 4
PHIL 151	Intro to Logic & Critical Thinking	Reading Level 5	4 / 4
PHIL 211	Philosophy: Ancient & Medieval	Reading Level 5 and Writing Level 6	4 / 4
PHIL 212	Philosophy: Modern & Contemporary	Reading Level 5 and Writing Level 6	4 / 4
Program of Study Requirements			
CPSC 230	Algorithms and Computing w/C++	(Minimum 2.0 in MATH 151 or MATH 161 or concurrently) and Reading Level 5 and Writing Level 6	4 / 4
Credits			16 / 16
Semester II	Course Title	Prerequisites	Credit/Billing Hours
General Education - Area B. English Composition or Communication - <i>Select 1</i>			
ENGL 122	Composition II	Reading Level 5 and Writing Level 8 or Minimum 2.0 in ENGL 121 or ENGL 131	4 / 4
ENGL 132	Honors Composition II	Reading Level 5 and Writing Level 8 and Minimum 3.5 in (ENGL 121 or ENGL 131)	4 / 4
General Education - Area F. Social Science - <i>Select 1</i>			
<i>Two Social Science courses are required for this degree, each from a different discipline.</i>			
GEOG 200	World Regional Geography	Reading Level 5 and Writing Level 6 and (Math Level 4 or minimum 2.0 in MATH 105 or MATH 106)	4 / 4
PSYC 200	Introduction to Psychology	Reading Level 5 or (ENGL 098 or ENGL 099 concurrently)	4 / 4
SOCL 120	Introduction to Sociology	Reading Level 5 or (Reading Level 4 and ENGL 099 concurrently)	4 / 4

Program of Study Requirements			
CPSC 231	Computing and Data Structures	(Minimum 2.0 in MATH 151 or MATH 161 or concurrently) and Reading Level 5 and Writing Level 6	4 / 4
Program of Study Requirement - <i>Select 1</i>			
MATH 152	Calculus II	(Minimum 2.0 in MATH 151 or MATH 161 within 2 years) and Reading Level 5 and Writing Level 6	4 / 4
MATH 162	Honors Calculus II	Minimum 2.0 in MATH 161 within 2 years or minimum 3.0 in MATH 151 within 2 years and Reading Level 5	4 / 4
Credits			16 / 16
Semester III	Course Title	Prerequisites	Credit/Billing Hours
General Education - Area E. Natural Sciences - <i>Select 1</i>			
<p><i>Two Natural Sciences courses are required for this degree, each from a different discipline; one must be a lab course. PHYS 251 is recommended for one of the courses.</i></p> <p><i>If choosing Chemistry, the program recommends taking both 151 and 161. Note: Another Natural Science course from a different discipline would then be required in Semester IV.</i></p>			
BIOL 120	Environmental Science	(Reading Level 5 or ENGL 099 concurrently) and Writing Level 6	4 / 6
CHEM 151	General Chemistry Lecture I	Reading Level 5 and Writing Level 6 and (Math Level 6 or MATH 109 concurrently or MATH 112 concurrently)	4 / 4
CHEM 161	General Chemistry Lab I	Minimum 2.0 in CHEM 151 or concurrently and Reading Level 5 and Writing Level 6 and (Math Level 6 or MATH 109 concurrently or MATH 112 concurrently)	1 / 3
GEOL 221	Physical Geology	Reading Level 5 and Writing Level 6 and (Math Level 4 or minimum 2.0 in MATH 105 or MATH 106)	4 / 6
PHYS 251	Physics I with Calculus	(Minimum 2.0 in MATH 152 or MATH 162 or concurrently) and Reading Level 5 and Writing Level 6	5 / 7

General Education - Area F. Social Science - <i>Select 1</i>			
<i>Two Social Science courses are required for this degree, each from a different discipline.</i>			
COMM 280	Intercultural Communication	Reading Level 5 and Writing Level 6	3 / 3
ECON 120	Power, Authority and Exchange	Reading Level 5	4 / 4
POLS 260	Comparative Political Systems	Reading Level 5 and Writing Level 6	3 / 3
Program of Study Requirements			
CPSC 260	Computer Science Structures	Minimum 2.0 in (CPSC 227 or CPSC 230) and (MATH 151 or MATH 161 or concurrently) and Reading Level 5 and Writing Level 6	4 / 4
MATH 253	Calculus III	(Minimum 2.0 in MATH 152 or MATH 162 within 2 years) and Reading Level 5 and Writing Level 6	4 / 4
Credits			15-17 / 17-19
Semester IV	Course Title	Prerequisites	Credit/Billing Hours
General Education - Area C. Humanities and Fine Arts - <i>Select 1</i>			
<i>Two Humanities and Fine Arts courses are required for this degree, each from a different discipline.</i>			
HIST 211	U.S. History to 1877	Reading Level 5 and Writing Level 6	4 / 4
HIST 212	U.S. History: 1877 to Present	Reading Level 5 and Writing Level 6	4 / 4
MUSC 240	Musical Cultures to 1750	Reading Level 5 and Writing Level 4 or (ENGL 098 or ENGL 099 concurrently)	4 / 4
MUSC 241	Musical Cultures 1750-Present	Reading Level 5 and Writing Level 4 or (ENGL 098 or ENGL 099 concurrently)	4 / 4

General Education - Area E. Natural Sciences - *Select 1*

Two Natural Sciences courses are required for this degree, each from a different discipline; one must be a lab course.

PHYS 251 is recommended for one of the courses.

If choosing Chemistry, the program recommends taking both 151 and 161.

BIOL 120	Environmental Science	(Reading Level 5 or ENGL 099 concurrently) and Writing Level 6	4 / 6
CHEM 151	General Chemistry Lecture I	Reading Level 5 and Writing Level 6 and (Math Level 6 or MATH 109 concurrently or MATH 112 concurrently)	4 / 4
CHEM 161	General Chemistry Lab I	Minimum 2.0 in CHEM 151 or concurrently and Reading Level 5 and Writing Level 6 and (Math Level 6 or MATH 109 concurrently or MATH 112 concurrently)	1 / 3
GEOL 221	Physical Geology	Reading Level 5 and Writing Level 6 and Math Level 4	4 / 6
PHYS 251	Physics I with Calculus	(Minimum 2.0 in MATH 152 or MATH 162 or concurrently) and Reading Level 5 and Writing Level 6	5 / 7

Program of Study Requirements - *Select 2*

It is highly recommended that transfer students wishing to pursue a degree in theoretical computer science take MATH 260, Linear Algebra, for one of the required courses.

CPSC 131	Numerical Methods and MATLAB	(Minimum 2.0 in MATH 151 or MATH 161 or concurrently) and Reading Level 5 and Writing Level 6	3 / 4
MATH 254	Intro to Differential Equations	Minimum 2.0 in MATH 253 within 2 years and Reading Level 5 and Writing Level 6	4 / 4
MATH 260	Linear Algebra	Minimum 2.0 in MATH 152 within 2 years and Reading Level 5 and Writing Level 6	4 / 4
STAT 215	Intro to Probability and Stats	(Minimum 2.0 in MATH 120 or above or Math Level 7) and Reading Level 5 and Writing Level 4	4 / 4

Credits **15-17 / 18-19**

Total Credits **62-66 / 67-70**