

LANSING COMMUNITY COLLEGE

Liberal Arts

Curriculum Code: 1619
(Effective Fall 2018 –
Summer 2023)

Engineering/Physics 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 in the 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
Program of Study Requirement - <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 and Fine Arts - <i>Select 1</i>			
<i>A total of 2 courses, each from a different discipline, is required.</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
HUMS 213	World Civilizations to 1600	Reading Level 5 and Writing Level 6	4 / 4
HUMS 214	World Civilizations from 1600	Reading Level 5 and Writing Level 6	4 / 4
General Education - Area F. Social Science - <i>Select 1</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
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	Minimum 2.0 in ENGL 121 or ENGL 131 or (Reading Level 5 and Writing Level 8)	4 / 4
ENGL 132	Honors Composition II	Minimum 3.5 in ENGL 121 or ENGL 131 or Reading Level 5 and Writing Level 8	4 / 4

General Education - Area C. Humanities and Fine Arts - <i>Select 1</i> <i>A total of 2 courses, each from a different discipline, is required.</i>			
ENGL 211	World Literature I	Reading Level 5 and Writing Level 6	4 / 4
MUSC 241	Musical Cultures 1750-Present	(Reading Level 5 and Writing Level 4) or ENGL 098 or ENGL 099 concurrently	4 / 4
PHIL 211	Philosophy: Ancient & Medieval	Reading Level 5 and Writing Level 6	4 / 4
RELG 150	Intro to World Religions	Reading Level 5 and Writing Level 6 or (ENGL 098 or ENGL 099 concurrently)	4 / 4
Program of Study Requirements - <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
General Education - Area E. Natural Sciences - <i>Select 1</i> <i>CHEM 151 satisfies 1 of the 2 courses required for General Education - Area E. Natural Sciences.</i>			
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
Credits			16 / 16
Semester III	Course Title	Prerequisites	Credit/Billing Hours
General Education - Area F. Social Science - <i>Select 1</i>			
ANTH 270	Cultural Anthropology	Reading Level 5 and Writing Level 6	3 / 3
COMM 280	Intercultural Communication	Reading Level 5 and Writing Level 6	3 / 3
ECON 201	Principles of Economics-Micro	Reading Level 5 and Math Level 4	4 / 4
POLS 120	American Political System	Reading Level 5	4 / 4

Program of Study Requirements			
<i>PHYS 251 satisfies 1 of the 2 courses required for General Education - Area E. Natural Sciences.</i>			
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
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
Electives - <i>Select 1</i>			
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
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
PHIL 151	Intro to Logic & Critical Think	Reading Level 5	4 / 4
Credits			15-17 / 18-19
Semester IV	Course Title	Prerequisites	Credit/Billing Hours
Program of Study Requirements			
MATH 254	Intro to Differential Equation	Minimum 2.0 in MATH 253 within 2 years and Reading Level 5 and Writing Level 6	4 / 4
PHYS 252	Physics II with Calculus	Minimum 2.0 in PHYS 251 and (Minimum 2.0 in MATH 152 or MATH 162) and Reading Level 5 and Writing Level 6	5 / 7

Electives - <i>Select 2</i>			
<i>Courses may not be duplicated.</i>			
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
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
BIOL 127	Cell Biology	(Minimum 2.0 in CHEM 120) or (Minimum 2.0 in CHEM 151 or concurrently) and Reading Level 5 and Writing Level 6 and Math Level 4	4 / 6
MATH 260	Linear Algebra	Minimum 2.0 in MATH 152 within 2 years and Reading Level 5 and Writing Level 6	4 / 4
PHYS 260	Statics for Engineers	Minimum 2.0 in PHYS 251	3 / 3
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			16-17 / 18-21
Total Credits			63-66 / 68-72