

LANSING COMMUNITY COLLEGE

Liberal Arts

Curriculum Code: 1619
(Effective Fall 2017 –
Summer 2022)

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.

Semester I	Course Title	Prerequisites	Credit/ Billing Hours
General Education - Area A. English Composition - <i>Select 1</i>			
ENGL 121 <i>(formerly WRIT 121)</i>	Composition I	Reading Level 5 and Writing Level 6	4 / 4
ENGL 131 <i>(formerly WRIT 131)</i>	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 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 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>			
COMM 280	Intercultural Communication	Reading Level 5 and Writing Level 6	3 / 3
PSYC 200	Introduction to Psychology	Reading Level 5 or AASD 105 concurrently	4 / 4
Credits			15-16 / 15-16
Semester II	Course Title	Prerequisites	Credit/ Billing Hours
General Education - Area B. English Composition or Communication - <i>Select 1</i>			
ENGL 122 <i>(WRIT 122 equivalent)</i>	Composition II	Minimum 2.0 in ENGL 121 (formerly WRIT 121) or ENGL 131 (formerly WRIT 131) or (Reading Level 5 and Writing Level 8)	4 / 4
ENGL 132 <i>(WRIT 132 equivalent)</i>	Honors Composition II	Minimum 3.5 in ENGL 121 (formerly WRIT 121) or ENGL 131 (formerly WRIT 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>			
MUSC 240	Musical Cultures to 1750	Reading Level 5 and Writing Level 6	4 / 4
MUSC 241	Musical Cultures 1750-Present	Reading Level 5 and Writing Level 6	4 / 4
PHIL 211	Philosophy: Ancient & Medieval	Reading Level 5 and Writing Level 6	4 / 4
PHIL 212	Philosophy: Modern & Contemptry	Reading Level 5 and Writing Level 6	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>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
SOCL 120	Introduction to Sociology	Reading Level 5 or AASD 105 concurrently	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: Mechanics	(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
ECON 201	Principles of Economics-Micro	Reading Level 5 and Math Level 4	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			
PHYS 252	Physics II: Electrom/Wave/Optic	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
Program of Study Requirements - <i>Select 1</i>			
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
MATH 260	Linear Algebra	Minimum 2.0 in MATH 253 within 2 years and Reading Level 5 and Writing Level 6	4 / 4

Electives - <i>Select 2</i>			
<i>Courses may not be duplicated. Select courses not already taken.</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
ECON 201	Principles of Economics-Micro	Reading Level 5 and Math Level 4	4 / 4
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
MATH 260	Linear Algebra	Minimum 2.0 in MATH 253 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			17 / 19
Total Credits			63-66 / 68-70