



## **Engineering/Physics A.S.**

Curriculum Code: 1619

Effective: Fall 2020 – Summer 2025

### **Description**

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).

### **Additional Information**

A student must earn a minimum grade of 2.0 in all courses.

### **Contact Information**

Contact the Science Department in the Arts and Sciences Building, Room 3203, telephone number 517-483-1092, or the Academic Advising Department, Gannon Building – Star Zone, telephone number 517-483-1904.

### **General Education - Transfer (MTA) Courses, Recommended Choices**

(For the full list of options, see [General Education](#))

- English Composition – *Select one*  
ENGL 121, Composition I, 4 credits / 4 billing hours  
ENGL 131, Honors Composition I, 4 credits / 4 billing hours
- English Composition (second course) or Communications – *Select one*  
ENGL 122, Composition II, 4 credits / 4 billing hours  
ENGL 132, Honors Composition II, 4 credits / 4 billing hours
- Humanities and Fine Arts – *Select two, each from a different discipline*  
HIST 211, U.S. History to 1877, 4 credits / 4 billing hours  
HIST 212, U.S. History: 1877 to Present, 4 credits / 4 billing hours  
PHIL 151, Intro to Logic & Critical Think, 4 credits / 4 billing hours
- Mathematics  
Program of Study Required Courses will meet this requirement
- Natural Sciences – *Select one from a discipline other than PHYS*  
CHEM 151, General Chemistry Lecture I, 4 credits / 4 billing hours

- Social Sciences – *Select two, each from a different discipline*  
 ANTH 275, Physical Anthro & Archaeology, 4 credits / 4 billing hours  
 CHDV 101, Child Growth/Develop: 0-12 Yrs, 4 credits / 4 billing hours  
 ECON 260, Comparative Economic Systems, 3 credits / 3 billing hours  
 EDUC 204, Educational Psychology, 3 credits / 3 billing hours  
 GEOG 200, World Regional Geography, 4 credits / 4 billing hours  
 POLS 240, Introduction to Public Policy, 3 credits / 3 billing hours  
 PSYC 200, Introduction to Psychology, 4 credits / 4 billing hours  
 SOCL 120, Introduction to Sociology, 4 credits / 4 billing hours

### Program of Study Required Courses

| Course Code | Course Title                   | Credit / Billing Hours |
|-------------|--------------------------------|------------------------|
| MATH 151    | Calculus I                     | 4 / 4                  |
| MATH 152    | Calculus II                    | 4 / 4                  |
| MATH 253    | Calculus III                   | 4 / 4                  |
| MATH 254    | Intro to Differential Equation | 4 / 4                  |
| PHYS 251    | Physics I with Calculus        | 5 / 7                  |
| PHYS 252    | Physics II with Calculus       | 5 / 7                  |

**Elective Courses, Recommended Choices** – *Select courses to reach the minimum 60 total credits required for this degree. PHYS 260 is highly recommended.* (For the full list of options, see [AA and AS Degree Electives](#))

| Course Code | Course Title                    | Credit / Billing Hours |
|-------------|---------------------------------|------------------------|
| BIOL 127    | Cell Biology                    | 4 / 6                  |
| CHEM 161    | General Chemistry Lab I         | 1 / 3                  |
| CPSC 131    | Numerical Methods and MATLAB    | 3 / 4                  |
| CPSC 230    | Algorithms and Computing w/ C++ | 4 / 4                  |
| MATH 260    | Linear Algebra                  | 4 / 4                  |
| PHYS 260    | Statics for Engineers           | 3 / 3                  |
| STAT 215    | Intro to Probability and Stats  | 4 / 4                  |

### Total Credit Hours

60 credits / 64-66 billing hours

## Recommended Course Sequence

| Semester I   | Semester II   |
|--|---|
| MTA English Composition<br>MTA Humanities and Fine Arts<br>MTA Social Sciences<br>MATH 151 | MTA English Comp (2nd course) or Communications<br>MTA Humanities and Fine Arts<br>MTA Natural Sciences<br>MATH 152 |
| Semester III   | Semester IV   |
| MTA Social Sciences<br>MATH 253<br>PHYS 251<br>Electives as needed for total credits       | MATH 254<br>PHYS 252<br>Electives as needed for total credits   |