

# Engineering Physics

## Student Information

Name: \_\_\_\_\_ OSU Email: \_\_\_\_\_

## Suggested Curriculum

This should be used as a **guide** only. Semester offerings are subject to change.

Year	Autumn	Spring
1	___ Math 1140 ( <i>Calc with Review I</i> ) ..... 4 hr ___ Physics 1248 ( <i>Mechanics, Work, Energy</i> ) ..... 4 hr ___ Engineering 1100 ( <i>Engineering Survey</i> ) ..... 1 hr ___ Engineering 1181 ( <i>Intro Engineering I</i> ) ..... 2 hr ___ Writing & Info Literacy GE ..... 3 hr ___ Race, Ethnicity, Gender Diversity GE ..... 3 hr	___ Math 1141 ( <i>Calc with Review 2</i> ) ..... 4 hr ___ Physics 1249 ( <i>Rotatnl Dynmcs, Fluids, Thermo</i> ) .. 3 hr ___ Engineering 1182 ( <i>Intro Engineering II</i> ) ..... 2 hr ___ GenEd 1201 <sup>3</sup> ..... 1 hr ___ Historical and Cultural Studies GE ..... 3 hr ___ Literary, Visual and Performing Arts GE ..... 3 hr
2	___ Physics 1251 <sup>1</sup> ( <i>Intro Physics II</i> ) ..... 5 hr ___ Math 1172 ( <i>Eng Mathematics A</i> ) ..... 5 hr ___ Thematic Pathways #1 ..... 3 hr ___ CSE 1222 <sup>2</sup> ( <i>C++ Programming</i> ) ..... 3 hr	___ Physics 2300 ( <i>Mechanics I</i> ) ..... 4 hr ___ Math 2173 ( <i>Eng Mathematics B</i> ) ..... 3 hr ___ Physics 3700 ( <i>Data Analysis Lab</i> ) ..... 3 hr ___ Engineering Elective ..... 3 hr ___ Targeted Elective ..... 3 hr
3	___ Physics 2301 ( <i>Mechanics II</i> ) ..... 4 hr ___ <b>Physics 2095</b> ( <i>Physics Seminar</i> ) ..... 1 hr ___ Math 2174 <sup>4</sup> ( <i>Differential Eq./Linear Algebra</i> ) ..... 3 hr ___ Engineering Elective ..... 3 hr ___ Thematic Pathways #2 ..... 3 hr ___ Thematic Pathways #3 (must be 4 hrs) ..... 4 hr	___ <b>Physics 5400</b> ( <i>Electromagnetism</i> ) ..... 4 hr ___ Engineering Elective ..... 3 hr ___ Engineering Elective ..... 3 hr ___ Engineering Elective ..... 3 hr ___ Targeted Elective ..... 3 hr
4	___ <b>Physics 5800</b> ( <i>Eng Phy Capstone I</i> ) ..... 3 hr ___ <b>Physics 5500</b> ( <i>Quantum Mechanics</i> ) ..... 4 hr ___ Physics 4700 ( <i>Electronics Lab</i> ) ..... 3 hr ___ Engineering Elective ..... 3 hr ___ Targeted Elective ..... 3 hr	___ <b>Physics 5801</b> ( <i>Eng Phy Capstone II</i> ) ..... 3 hr ___ Engineering Elective ..... 3 hr ___ Engineering Elective ..... 3 hr ___ Engineering Elective ..... 3 hr ___ Physics Elective ..... 3 hr ___ Social and Behavioral Sciences GE ..... 3 hr

**Total Hours to complete the degree program = 131**

<sup>1</sup> Students can take Physics 1250-1251, 1250H-1251H, 1260-1261, or 1270-1271

<sup>2</sup> Students can take CSE 1222, CSE 1223, CSE 1224, Engr 1221, Astronomy 1221, or Engr 1281H as their programming course

<sup>3</sup> GenEd 1201 must be taken within the first three semesters

<sup>4</sup> Or (Math 2415 and 2568) or (Math 2255 and 2568) or (Math 5520H) can be completed in place of Math 2174. Those pursuing the ECE concentration should take Math 2415 and 2568.

Courses printed in **bold** are taught only during the term shown.

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## Program Specialization Options

Engineering Physics students are required to take at least 27 hours from one of the following areas of engineering.

Aerospace Engineering  
Chemical & Biomolecular Engineering  
Computer Science & Engineering  
Electrical Engineering  
Industrial & Systems Engineering  
Materials Science & Engineering  
Mechanical Engineering  
Nuclear Engineering

Requirements for each concentration can be found at <https://physics.osu.edu/engineering-physics-program/engineering-specialization-requirements>

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## Technical and Other electives

The Targeted Electives can be any additional math, physics, or engineering course that is 2000 level or above and not already required by the program or counting toward any other elective. 9 credit hours are required in the category. Additional information a list of options is available at <https://physics.osu.edu/engineering-physics-targeted-electives>

Possible Physics Electives include Physics 3470, 5401H, 5501, 5501H, 5300, 5600, 5680, 5810, or any of the 68xx courses.

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## Enrollment and Additional Information

Directions for how to enroll in the Engineering Physics major, as well as additional information about the major, can be found on the OSU Department of Physics website at <https://physics.osu.edu/engineering-physics-program>

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## General Education Requirement

A list of approved general education courses can be found at [advising.engineering.osu.edu/current-students/curriculum/general-education](https://advising.engineering.osu.edu/current-students/curriculum/general-education)