

# PHYSICS PRE-MAJOR

Department Chair: Chad Landrie, 847.376.7439, [clandrie@oakton.edu](mailto:clandrie@oakton.edu)

The following pre-major is recommended for students who are considering completing a Bachelor's degree in Physics after transferring to a four-year institution. It is designed for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students are strongly encouraged to consult the Office of Advising, Transitions, and Student Success and the transfer institution's catalog to select courses that will meet both Oakton and transfer institution requirements.

For more information on course selection or program-specific advising, contact the department chair. Part time students should also consult the Office of Advising, Transitions, and Student Success for part-time pre-major recommendations. **General Education courses should be selected from the list of IAI General Education Courses.**

Course	Title	Hours
<b>First Year</b>		
<b>Semester One</b>		
EGL 101	Composition I	3
MAT 250	Calculus I	5
BIO 121	General College Biology I	4
CHM 121	General College Chemistry I	4
<b>Hours</b>		<b>16</b>
<b>Semester Two</b>		
EGL 102	Composition II	3
MAT 251	Calculus II	4
PHY 221	General Physics I	5
Select one Modern Language (202 <sup>1</sup> or higher) <sup>2</sup>		4
or another Humanities course <sup>3</sup>		
<b>Hours</b>		<b>16</b>
<b>Second Year</b>		
<b>Semester One</b>		
SPE 103	Effective Speech	3
MAT 252	Calculus III	4
PHY 222	General Physics II	5
Select one Social and Behavioral Sciences course <sup>3</sup>		3
<b>Hours</b>		<b>15</b>
<b>Semester Two</b>		
PHY 223	Modern Physics	4
CSC 170	Introduction to Numerical Methods	2
Select one (concurrent with CSC 170):		1
CSC 171	C++ Programming for Engineers	
CSC 172	FORTTRAN Programming for Engineers	
CSC 173	Java Programming for Engineers	
Select one of the following:		3-4
CHM 122	General College Chemistry II	
MAT 260	Introduction to Linear Algebra	
MAT 262	Ordinary Differential Equations	
PHY 140	Fundamentals of Nanotechnology I	
PHY 141	Fundamentals of Nanotechnology II	
PHY 230	Optics	
Select one Fine Arts course <sup>3</sup>		3
Select one Social and Behavioral Sciences course (select a discipline not taken previously) <sup>3</sup>		3
<b>Hours</b>		<b>16-17</b>
<b>Total Hours</b>		<b>63-64</b>

- 1 Course fulfills the Global Studies Requirement. At least one Global Studies course is required for degree completion.
- 2 Transfer institutions may have a language requirement. Any Modern Language Intermediate II course can meet the Humanities and Global Studies requirements.
- 3 At least one Social and Behavioral Studies or Humanities/Fine Arts course must also fulfill Global Studies requirement and one course must fulfill U.S. Diversity Studies requirement for degree completion.

**Note:** Pre-major is a recommended sequence and selection of courses. See Associate in Science (A.S.) page for degree requirements.