

# PHYSICS PRE-MAJOR

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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.**

First Year		
Semester One		Hours
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>
Semester Two		
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>		3-4
or another Humanities course <sup>3</sup>		
<b>Hours</b>		<b>15-16</b>
Second Year		
Semester One		
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>
Semester Two		
CHM 122	General College Chemistry II	4
PHY 223	Modern Physics	4
Select one of the following:		3-4
CSC 170 & CSC 171	Introduction to Numerical Methods and C++ Programming for Engineers	
CSC 170 & CSC 173	Introduction to Numerical Methods and Java Programming for Engineers	
CSC 170 & CSC 174	Introduction to Numerical Methods and Python Programming for Engineers	
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 from a discipline not taken previously <sup>3</sup>		3
<b>Hours</b>		<b>17-18</b>
<b>Total Hours</b>		<b>63-65</b>

<sup>2</sup> Transfer institutions may have a language requirement. Any Modern Language Intermediate II course can meet the Humanities and Global Studies requirements.

<sup>3</sup> When choosing Social and Behavioral Studies and Humanities/Fine Arts courses, please select at least one course that also satisfies Global Studies requirement and one course that also satisfies the U.S. Diversity requirement.

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

<sup>1</sup> Course fulfills the Global Studies Requirement. At least one Global Studies course is required for degree completion.