

## Program Progression Guide

**Disclaimer:** The [2018-2019 Purdue West Lafayette catalog](#) is considered the source for academic and programmatic requirements for students entering programs during the Fall 2018, Spring 2019, and Summer 2019 semesters. The Program Progression Guide assists students in the development of an individualized 8-semester plan. Students are encouraged to use this guide, myPurduePlan\* (online degree auditing tool) and the Student Educational Planner (SEP) as they work with their academic advisor towards the completion of their degree requirements.

**Notification:** Each student is ultimately responsible for knowing, monitoring and completing all degree requirements.

An undergraduate degree in the College of Science requires completion of the following degree requirements.

University Degree Requirements		
Minimum 3.0 Cumulative GPA	Minimum 120 Credits that fulfill degree requirements	32 Residency Credits (30000 and above) at a Purdue University campus
University Core Curriculum**		
<ul style="list-style-type: none"> <li>Human Cultures: Behavioral/Social Science</li> <li>Human Cultures: Humanities</li> <li>Information Literacy</li> <li>Oral Communication</li> </ul> <p><a href="#">University Core Curriculum Course Listing</a></p>	<ul style="list-style-type: none"> <li>Quantitative Reasoning</li> <li>Science</li> <li>Science, Technology &amp; Society Selective</li> <li>Written Communication</li> </ul>	
Required Major Program Courses		
Departmental specific requirements. 3.0 average in PHYS/ASTR classes required to graduate. No more than one C grade (i.e., C+, C, or C-) allowed in all physics courses taken. No grade of D+ or worse allowed in any course. Minimum 3.0 cumulative GPA		
College of Science Core Curriculum		
<ul style="list-style-type: none"> <li>Freshman Composition – 3 credits</li> <li>Technical Writing and Presentation - 3 credits</li> <li>Teaming &amp; Collaboration (NC)</li> <li>General Education - 9 credits</li> </ul>	<ul style="list-style-type: none"> <li>Foreign Language &amp; Culture – 9 credits</li> <li>Great Issues - 3 credits</li> <li>Laboratory Science - 8 credits</li> <li>Multidisciplinary - 3 credits</li> </ul>	<ul style="list-style-type: none"> <li>Mathematics - 6-10 credits</li> <li>Statistics - 3 credits</li> <li>Computing - 3 credits</li> </ul>
Degree Electives		
Any Purdue or transfer course approved to meet degree requirements in accordance with individual departmental policies. Consult the <a href="#">No Count course list</a> for courses, which may not be used to meet any College of Science degree requirement.		

\* This audit is not your academic transcript and it is not official notification of completion of degree or certificate requirements.

\*\* University Core Curriculum Outcomes may be met through completion of the College of Science Core curriculum. Students should consult with their academic advisors and myPurdue Plan for course selections.

## 2018-19 Applied Physics Honors Degree Progression Guide

The Physics Department has *suggested* the following degree progression guide for the Physics Honors Degree. Students will work with their academic advisors to determine their best path to degree completion. Course pre-requisites are specific to this degree plan.

Credits	Fall 1st Year	Prerequisite	Credits	Spring 1st Year	Prerequisite
4	PHYS 17200 Honors sections* cc	ALEKS 85	4	PHYS 27200 Honors sections* cc	PHYS 17200 + Co-req: Calculus II
4-5	Calculus I Option*	ALEKS 85	4	CHM 11600*	CHM 11500
4	CHM 11500*	ALEKS 75	4-5	Calculus II Option*	Calculus I C- or higher
3-4	First Year Composition Option		3-4	Language I Option	
0	Teambuilding and Collaboration Experience				
<b>15-17</b>			<b>15-17</b>		

Credit	Fall 2nd Year	Prerequisite	Credits	Spring 2nd Year	Prerequisite
3	PHYS 30600	PHYS 272 + Co-req Calculus III	3	PHYS 30700	PHYS 272 + Co-req MA 261
1	PHYS 34000	Co-req Phys 344	3	PHYS 42200	PHYS 272
4	PHYS 34400	PHYS 272 + Co-req Calculus III	3-4	Language III/Culture/Diversity Option	Language 102/ usually no pre-req
4-5	Calculus III Option	Calculus II C- or higher	3	Statistics Option	Pre-reqs may vary
3-4	Language II Option	Language 101	3	Science/Engineering Selective ≥ 300-level	Pre-reqs may vary
			1	Free Elective (PHYS 23500)	
<b>15-17</b>			<b>16-17</b>		

Credit	Fall 3rd Year	Prerequisite	Credit	Spring 3rd Year	Prerequisite
3	PHYS 41000	PHYS 272 + Co-req Calculus III	2	PHYS 41100	PHYS 310 or 410 C- or better
3	PHYS 46000	PHYS 344 + Co-req PHYS 410	3	PHYS 46100	PHYS 460 or 360 or 550 C- or better
2	PHYS 45000	PHYS 42200	3	PHYS 43000	PHYS 272 + Co-req Calculus III and PHYS 306 or MA 362 C- or better
3-6	Technical Writing Option and Technical Presenting Option (COM 21700*)		3	General Education II Option (Humanities)*	
3	General Education I Option (Humanities)*		3-4	Computing Option (CS 15800)	Calculus I co-req
1	Free Elective		1	Free Elective	
<b>15-18</b>			<b>15-16</b>		

Credit	Fall 4th Year	Prerequisite	Credit	Spring 4th Year	Prerequisite
4	PHYS 41600	Co-req (PHYS 410, 430 & 460) C- or better	3-4	Adv Lab Option	Pre-reqs may vary
2	PHYS 43100	PHYS 430 C- or better	3	PHYS/ASTR Selective ≥ 500-level	Pre-reqs may vary
3	PHYS 59300		3	PHYS/ASTR Selective ≥ 500-level	Pre-reqs may vary
3	Science/Engineering Selective ≥ 300-level	Pre-reqs may vary	3	General Education III Option (Behav/Social Science)*	
3	Great Issues (SCC-F)	Jr/Sr standing; may require COM or ENGL	2	Multidisciplinary Experience (STS)*	
			1	Free Elective	
<b>16</b>			<b>15-16</b>		

cc Identified as a critical course. Student should earn minimum of a B- see advisor for further details.

\* Satisfies a University Core Requirement; Courses in ( ) are recommended.

### College of Science Core Curriculum (SCC)

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| <ul style="list-style-type: none"> <li>A. Freshman Composition</li> <li>B. Technical Writing and Presentation</li> <li>C. Teaming and Collaboration</li> <li>D. General Education</li> <li>E. Foreign Language and Culture</li> <li>F. Great Issues</li> </ul> | <ul style="list-style-type: none"> <li>G. Laboratory Science</li> <li>H. Multidisciplinary</li> <li>I. Mathematics</li> <li>J. Statistics</li> <li>K. Computing</li> </ul> |
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\* Consult the University Core Requirement [course list](#) for approved courses.

## **Required Major Courses (51 - 52 credits)**

(4) PHYS 17200 (fall) - Modern Mechanics - Physics Majors are required to take the honors sections of PHYS 17200 (also satisfies Science Selective for core and CoS teambuilding experience requirement) cc

(4) PHYS 27200 (spring) - Electric and Magnetic Interactions - Physics Majors are required to take the honors sections of PHYS 27200 (also satisfies Science Selective for core) cc

(4-5) Calculus III Option – Select from MA 26100, MA 27101 (satisfies Quantitative Reasoning for core)

(3) PHYS 30600 (fall) Math Methods I

(3) PHYS 30700 (spring) Math Methods II

(1) PHYS 34000 - Modern Physics Lab

(4) PHYS 34400 (fall) Modern Physics

(3) PHYS 41000 (fall) - Physical Mechanics I Honors

(2) PHYS 41100 (spring) Physical Mechanics II Honors

(4) PHYS 41600 (fall) Thermal & Statistical Physics Honors

(3) PHYS 42200 (spring) Waves & Oscillations

(3) PHYS 43000 (spring) Electricity & Magnetism I Honors

(2) PHYS 43100 (fall) Electricity & Magnetism II Honors

(2) PHYS 45000 Intermediate Laboratory

(3) PHYS 46000 (fall) Quantum Mechanics I Honors

(3) PHYS 46100 (spring) Quantum Mechanics II Honors

(3) PHYS 59300 Independent Research

## **Major Selective\* (15-16 credits)**

(3) PHYS/ASTR Selective  $\geq 500$  level

(3) PHYS/ASTR Selective  $\geq 500$  level

(3-4) Adv Lab Option: Select From PHYS 53600 or PHYS 57000-Computational Biomolecular Phys (spring) or PHYS 58000 (fall)

(3) Science/Engineering Selective  $\geq 300$  level (could be met by CoS statistics requirement)

(3) Science/Engineering Selective  $\geq 300$  level (could be met by CoS Great Issues requirement)