

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 2.0 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"> Human Cultures: Behavioral/Social Science Human Cultures: Humanities Information Literacy Oral Communication <p>University Core Curriculum Course Listing</p> | <ul style="list-style-type: none"> Quantitative Reasoning Science Science, Technology & Society Selective Written Communication | |
| Required Major Program Courses | | |
| Departmental specific requirements. 2.0 average in PHYS/ASTR classes required to graduate. Minimum 2.0 cumulative GPA | | |
| College of Science Core Curriculum | | |
| <ul style="list-style-type: none"> Freshman Composition – 3 credits Technical Writing and Presentation - 3 credits Teaming & Collaboration (NC) General Education - 9 credits | <ul style="list-style-type: none"> Foreign Language & Culture – 9 credits Great Issues - 3 credits Laboratory Science - 8 credits Multidisciplinary - 3 credits | <ul style="list-style-type: none"> Mathematics - 6-10 credits Statistics - 3 credits Computing - 3 credits |
| Degree Electives | | |
| Any Purdue or transfer course approved to meet degree requirements in accordance with individual departmental policies. Consult the No Count course list 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 Degree Progression Guide

The Physics Department has *suggested* the following degree progression guide for the Applied Physics 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 | | | | |
| 15-17 | | | 15-17 | | |

| 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 | General Education I Option (Humanities)* | |
| | | | 1 | Free Elective (PHYS 23500) | |
| 15-17 | | | 16-17 | | |

| Credit | Fall 3rd Year | Prerequisite | Credit | Spring 3rd Year | Prerequisite |
|--------------|--|-----------------------------------|-----------|---|--------------------------------------|
| 4 | PHYS 31000 | PHYS 272 + Co-req Calculus III | 3 | PHYS 36000 | (PHYS 310 or 330) + PHYS 344 |
| 3 | PHYS 33000 | PHYS 272 + Co-req Calculus III | 3 | PHYS 51500 | Co-req PHYS 310 + 344 + 360 + 330 |
| 2 | PHYS 45000 | PHYS 42200 | 3 | Major Selective | Pre-reqs may vary |
| 3-6 | Technical Writing Option and Technical Presenting Option (COM 21700*) | | 3 | Major Selective | Pre-reqs may vary |
| 3-4 | Computing Option (CS 15800) | Calculus I Co-req | 3 | General Education II Option (Humanities)* | |
| 15-19 | | | 15 | | |

| Credit | Fall 4th Year | Prerequisite | Credit | Spring 4th Year | Prerequisite |
|-----------|----------------------|---|--------------|---|-------------------|
| 3 | Major Selective | Pre-reqs may vary | 3 | Major Selective | Pre-reqs may vary |
| 3 | Major Selective | Pre-reqs may vary | 3 | Major Selective | Pre-reqs may vary |
| 3 | Major Selective | Pre-reqs may vary | 3 | Major Selective | Pre-reqs may vary |
| 3 | Great Issues (SCC-F) | Jr/Sr standing; may require COM or ENGL | 3 | General Education III Option (Behav/Social Science)* | |
| 3 | Free Elective | Pre-reqs may vary | 1-3 | Multidisciplinary Experience (STS)* | |
| | | | 2 | Free Elective | Pre-reqs may vary |
| 15 | | | 15-17 | | |

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"> A. Freshman Composition B. Technical Writing and Presentation C. Teaming and Collaboration D. General Education E. Foreign Language and Culture F. Great Issues | <ul style="list-style-type: none"> G. Laboratory Science H. Multidisciplinary I. Mathematics J. Statistics K. Computing |
|--|--|

* Consult the University Core Requirement course list for approved course.

Required Major Courses (41- 42 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 of Physics I
- (3) PHYS 30700 (spring) Math Methods of Physics II
- (1) PHYS 31000 (fall) Intermediate Mechanics
- (4) PHYS 33000 (fall) Intermediate Electricity & Magnetism
- (4) PHYS 34000 Modern Physics Lab
- (3) PHYS 34400 (fall) Modern Physics
- (3) PHYS 36000 (spring) Quantum Mechanics
- (3) PHYS 42200 (spring) Waves & Oscillations
- (2) PHYS 45000 Intermediate Laboratory
- (3) PHYS 51500 (spring) - Thermal & Statistical Physics