

Physics BS

FOUR-YEAR ACADEMIC PLAN

12 Required Core Credits

18 Flexible Core Credits

12 College Option Credits

69 Major Credits

9 Elective Credits

120 Total

This 4-year academic plan is designed to help freshmen entering Queens College in Fall 2017 plan their academic career and ensure that they complete all requirements for graduation in a timely fashion. All other students should consult their academic and department advisors to chart their own 4-year academic plans. Students should note that course prerequisite/s and corequisite/s are strictly enforced, and they should regularly meet with their department advisors to identify their specific major/minor requirements and entrance and maintenance criteria (if applicable) for successful completion of their degree.

Physics BS

FOUR-YEAR ACADEMIC PLAN

Freshman

FALL

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|----------------------------------------|-----------|
| English Composition I (EC1) | 3 credits |
| MATH 151 (MQR) | 4 credits |
| Calculus I | |
| World Cultures & Global Issues (WCGI) | 3 credits |
| U.S Experience in its Diversity (USED) | 3 credits |
| Creative Expression (CE) | 3 credits |

Fall total credits **16 credits**

SPRING

| | |
|------------------------------|-------|
| English Composition II (EC2) | 3 crs |
| PHYS 1454 & 1451 (LPS) | 5 crs |
| Principles of Physics I | |
| MATH 152 | 4 crs |
| Calculus II | |
| Individual and Society (IS) | 3 crs |

Spring total credits **15 credits**

Sophomore

FALL

| | |
|--------------------------------|-----------|
| PHYS 1464 & 1461 (SCI) | 5 credits |
| Principles of Physics II | |
| MATH 201 | 4 credits |
| Calculus III | |
| An Additional Flexible Core | 3 credits |
| One Writing Intensive Unit (W) | 3 credits |

Fall total credits **15 credits**

SPRING

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|---------------------------------------------------------------------|-----------|
| PHYS 234 | 3 credits |
| Mathematical Methods II | |
| PHYS 235 | 2 credits |
| Classical Physics LAB | |
| Scientific World (SW) | 3 credits |
| College Option Literature (LIT + W) With Writing Intensive Unit* | 3 credits |
| College Option Language (LANG) | 4 credits |

Spring total credits **15 credits**

General Education requirements may be taken in any order if the pre-requisite requirement(s) is/are satisfied.

* If a Literature course is taken with a W, it will count towards Literature and one Writing Intensive Unit.

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Junior

FALL

| | |
|------------------------------------|-----------|
| PHYS 233 Mathematical Methods I | 3 credits |
| PHYS 260 Modern Physics | 4 credits |
| PHYS 243 Thermodynamics | 4 credits |
| PHYS 222 Optics | 3 credits |

Fall total credits

14 credits

SPRING

| | |
|-------------------------------------------------------|-----------|
| PHYS 237 Mechanics | 4 credits |
| Science/Math Elective (Department approval needed) | 3 credits |
| An Additional College Core | 3 credits |
| General electives** | 6 credits |

Spring total credits

16 credits

Senior

FALL

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|----------------------------------|-----------|
| PHYS 310 Electromagnetism I | 4 credits |
| PHYS 365 Quantum Mechanics | 4 credits |
| PHYS 377 Modern Physics LAB | 2 credits |
| Physics Elective 200 or above | 3 credits |
| General electives | 3 credits |

Fall total credits

16 credits

SPRING

| | |
|---------------------------------|-----------|
| PHYS 311 Electromagnetism II | 4 credits |
| PHYS 345 Solid State Physics | 4 credits |
| General electives | 7 credits |

Spring total credits

15 credits

**General Electives: Students may complete general electives by taking courses in (most) department/s or programs they choose; however, depending on the course/program, students may need department permission and/or prerequisite course/s. Electives may be used to supplement the chosen major (an English major may want to take a course in French or Italian literature) or to fulfill interest in a different area (a Music major may be interested in the physics of sound). Students are encouraged to use available electives to complete a dual major, minor, prerequisites for graduate or professional school, or complete an internship, experiential learning and/or study abroad. Students are encouraged to use their available general electives wisely and focus on coursework that will assist them personally, academically and professionally.