

Applied Physics BA

12 Required Core Credits

18 Flexible Core Credits

12 College Option Credits

60 Major Credits

18 Elective Credits

This 4-year academic plan is designed to help freshmen entering Queens College in Fall 2023. Our 4-year academic plans are illustrative examples of integrated degree requirements and course sequencing for each of the College's programs of study which are designed to ensure degree completion in a timely manner. Students are advised to meet with professional and faculty advisors to tailor their degree maps to their individual interests (academic and career goals), as well as other considerations including course offerings and the incorporation of winter and summer sessions. Course pre-requisite/s and co-requisite/s are strictly enforced, as are entrance and maintenance criteria (if applicable) for the successful completion of the degree.

Applied Physics BA

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

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

Spring total credits 15 credits

Sophomore

FALL

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|--------------------------------|-----------|
| 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 225 | 4 credits |
| Solid State Electronics | |
| PHYS 235 | 2 credits |
| Classical Physics LAB | |
| Scientific World (SW) | 3 credits |
| College Option Literature (LIT + W) | 3 credits |
| With Writing Intensive Unit* | |
| College Option Language (LANG) | 4 credits |

Spring total credits 16 credits

¥The following sequences of classes are considered the equivalents of MATH 151 and MATH 152: MATH 141, 142, and 143; MATH 131, 132, and 143; MATH 151, 142, and 143, MATH 157 and 158.

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.

Applied Physics BA

Junior

FALL

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| PHYS 233 Mathematical Methods I | 3 credits |
| PHYS 260 Modern Physics | 4 credits |
| PHYS 242 Thermodynamics | 3 credits |
| An Additional College Core | 3 credits |
| General electives** | 3 credits |

Fall total credits 16 credits

SPRING

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|----------------------------------|-------------------|
| PHYS 237 Mechanics | 4 credits |
| Physics Elective 200 or above | 3 credits |
| General electives | 9 credits |
| Spring total credits | 16 credits |

Senior

FALL

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| PHYS 310 Electromagnetism I | 4 credits |
| PHYS 377 Modern Physics LAB | 2 credits |
| Physics Elective 200 or above | 3 credits |
| General electives | 6 credits |

Fall total credits 15 credits

SPRING

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|---|-------------------|
| Science/Math Elective (Department approval needed) | 3 credits |
| Physics Elective 200 or above | 3 credits |
| General electives* | 6 credits |
| Spring total credits | 12 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, pre-requisites for graduate or professional school, or complete and 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.