Physics BA FOUR YEAR ACADEMIC PLAN

Required Core Credits
Flexible Core Credits
College Option Credits
Major Credits
Elective Credits

This 4-year academic plan is for freshmen entering Queens College in Fall 2021. 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 corequisite/s are strictly enforced, as are entrance and maintenance criteria (if applicable) for the successful completion of the degree.



QUEENS COLLEGE Physics BA FOUR YEAR ACADEMIC PLAN

Freshman

FALL

| Fall total credits | 6 credits | Spring total credits | 15 credits |
|--|-----------|------------------------------|------------|
| Creative Expression (CE) | 3 credit | Individual and Society (IS) | 3 credit |
| U.S Experience in its Diversity (USED) | 3 credit | Calculus II | |
| World Cultures & Global Issues (WCGI) | 3 credit | MATH 152 | 4 credit |
| Calculus I | | Principles of Physics I | |
| MATH I5I (MQR) | 4 credit | PHYS 1454 & 1451 (LPS) | 5 credit |
| English Composition I (ECI) | 3 credit | English Composition II (EC2) | 3 credit |

SPRING

SPRING

Sophomore

FALL

| PHYS 1464 & 1461 (SCI) | 5 credit | | |
|--------------------------------|------------|-------------------------------------|------------|
| Principles of Physics II | | PHYS 234 | 3 credit |
| MATH 201 | 4 credit | Mathematical Methods II | |
| Calculus III | | Scientific World (SW) | 3 credit |
| An Additional Flexible Core | 3 credit | College Option Literature (LIT + W) | 3 credit |
| One Writing Intensive Unit (W) | 3 credit | With Writing Intensive Unit* | |
| | | College Option Language (LANG) | 4 credit |
| Fall total credits | 15 credits | An Additional College Core | 3 credit |
| | | Spring total credits | l6 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 SPRING **PHYS 233 PHYS 235** 3 credit 2 credit Mathematical Methods I **Classical Physics LAB PHYS 237 PHYS 260** 4 credit 4 credit Modern Physics **Mechanics** 3 credit **PHYS 242** General electives 9 credit Thermodynamics **PHYS 222** 3 credit Spring total credits 15 credits Optics General electives** 3 credit Fall total credits 16 credits

Senior

FALL

SPRING

| Fall total credits | 15 credits | | |
|--------------------------------|------------|-------------------------------|------------|
| General electives | 5 credit | | |
| Modern Physics LAB | | | |
| Quantum Mechanics PHYS 377 | 2 credit | Spring total credits | 12 credits |
| PHYS 365 | 4 credit | General electives* | 9 credit |
| PHYS 310 Electromagnetism 1 | 4 credit | PHYS Elective 200 or above | 3 credit |
| | | | |

**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.

