QUEENS COLLEGE

Applied Physics BA

FOUR YEAR ACADEMIC PLAN

12 Required Core Credits

18 Flexible Core Credits

12 College Option Credits

Major Credits

18 Elective Credits

This 4-year academic plan is for freshmen entering Queens College in Fall 2022. 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.





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Freshman

| FALL | | SPRING | |
|--|------------|------------------------------|------------|
| English Composition I (EC1) | 3 credits | English Composition II (EC2) | 3 credits |
| MATH 151¥ (MQR) | 4 credits | PHYS 1454 & 1451 (LPS) | 5 credits |
| Calculus I | | Principles of Physics I | |
| World Cultures & Global Issues (WCGI) | 3 credits | MATH 152¥ | 4 credits |
| U.S Experience in its Diversity (USED) | 3 credits | Calculus II | |
| Creative Expression (CE) | 3 credits | Individual and Society (IS) | 3 credits |
| Fall total credits | 16 credits | Spring total credits | 15 credits |

Sophomore

FALL

| | | Spring total credits | 16 credits |
|--------------------------------|------------|-------------------------------------|------------|
| Fall total credits | 15 credits | College Option Language (LANG) | 4 credits |
| One Writing Intensive Unit (W) | 3 credits | With Writing Intensive Unit* | |
| An Additional Flexible Core | 3 credits | College Option Literature (LIT + W) | 3 credits |
| Calculus III | | Scientific World (SW) | 3 credits |
| MATH 201 | 4 credits | Classical Physics LAB | |
| Principles of Physics II | | PHYS 235 | 2 credits |
| PHYS 1464 & 1461 (SCI) | 5 credits | Solid State Electronics | |
| | | PHYS 225 | 4 credits |
| | | | |

SPRING

¥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.





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Junior

| FALL | | SPRING | |
|----------------------------|------------|----------------------|------------|
| PHYS 233 | 3 credits | PHYS 237 | 4 credits |
| Mathematical Methods I | | Mechanics | |
| PHYS 260 | 4 credits | Physics Elective | 3 credits |
| Modern Physics | | 200 or above | |
| PHYS 242 | 3 credits | General electives | 9 credits |
| Thermodynamics | | | |
| An Additional College Core | 3 credits | Spring total credits | 16 credits |
| General electives** | 3 credits | | |
| Fall total credits | 16 credits | | |
| | | | |

Senior

| FALL | SPRING |
|------|--------|
| | |

| PHYS 310 | 4 credits | Science/Math Elective | 3 credits |
|--------------------|-----------|------------------------------|------------|
| Electromagnetism 1 | | (Department approval needed) | o |
| PHYS 377 | 2 credits | Physics Elective | 3 credits |
| Modern Physics LAB | | 200 or above | |
| Physics Elective | 3 credits | General electives* | 6 credits |
| 200 or above | | | |
| General electives | 6 credits | Spring total credits | 12 credits |

Fall 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, 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.



