

QUEENS COLLEGE

# Physics BS

FOUR YEAR ACADEMIC PLAN

12 Required Core Credits

18 Flexible Core Credits

12 College Option Credits

69 Major Credits

9 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

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

**Fall total credits** **16 credits**

### SPRING

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

**Spring total credits** **15 credits**

## Sophomore

### FALL

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

**Fall total credits** **15 credits**

### SPRING

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

**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.

¥ Students who fail or withdraw from this course multiple times may be prohibited from majoring in the sciences or mathematics; see your department for questions.

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## Junior

### FALL

PHYS 233 Mathematical Methods I	3 credit
PHYS 260 Modern Physics	4 credit
PHYS 243 Thermodynamics	4 credit
PHYS 222 Optics	3 credit

**Fall total credits**

**14 credits**

### SPRING

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

**Spring total credits**

**16 credits**

## Senior

### FALL

PHYS 310 Electromagnetism 1	4 credit
PHYS 365 Quantum Mechanics	4 credit
PHYS 377 Modern Physics LAB	2 credit
Physics Elective 200 or above	3 credit
General electives	3 credit

**Fall total credits**

**16 credits**

### SPRING

PHYS 311 Electromagnetism II	4 credit
PHYS 345 Solid State Physics	4 credit
General electives	5 credit

**Spring total credits**

**13 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.