

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 2024.

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 credits
MATH 151¥ (MQR) Calculus I	4 credits
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 credits
PHYS 1454 & 1451 (LPS) Principles of Physics I	5 credits
MATH 152¥ Calculus II	4 credits
Individual and Society (IS)	3 credits

Spring total credits **15 credits**

Sophomore

FALL

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

Fall total credits **15 credits**

SPRING

PHYS 234	3 credits
Mathematical Methods II	
PHYS 235 Classical Physics LAB	2 credits
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.

¥ 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.

Physics BS

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Junior

FALL

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

Fall total credits

14 credits

SPRING

PHYS 237	4 credits
Mechanics	
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

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

Fall total credits

16 credits

SPRING

PHYS 311	4 credits
Electromagnetism II	
PHYS 345	4 credits
Solid State Physics	
General electives	6 credits

Spring total credits

14 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.