

Physics BS

FOUR-YEAR ACADEMIC PLAN

12 Required Core Credits

18 Flexible Core Credits

12 College Option Credits

69 Major Credits

9 Elective Credits

120 Total

This 4-year academic plan is designed to help freshmen entering Queens College in Fall 2018 plan their academic career and ensure that they complete all requirements for graduation in a timely fashion. All other students should consult their academic and department advisors to chart their own 4-year academic plans. Students should note that course pre-requisite/s and co-requisite/s are strictly enforced and they should regularly meet with their department advisors to identify their specific major/minor requirements and entrance and maintenance criteria (if applicable) for successful completion of their degree.

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Freshman

FALL

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

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

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

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

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Junior

FALL

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

Fall total credits 14 credits

SPRING

PHYS 237 Mechanics	4 credits
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 Electromagnetism I	4 credits
PHYS 365 Quantum Mechanics	4 credits
PHYS 377 Modern Physics LAB	2 credits
Physics Elective 200 or above	3 credits
General electives	3 credits

Fall total credits 16 credits

SPRING

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

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 an 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.