

# Physics Secondary Education 7-12 BA

## FOUR-YEAR ACADEMIC PLAN

**12** Required Core Credits

**18** Flexible Core Credits

**12** College Option Credits

**45+27** (SEYS) Major Credits

**6** Elective Credits

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**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
General elective	3 credits

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

#### SPRING

Scientific World (SW)	3 credits
College Option Literature (LIT + W) With Writing Intensive Unit*	3 credits
College Option Language (LANG)	4 credits
ASTR 2 (SCI)	4 credits
General Astronomy with Laboratory	
General elective	1 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.

Completion of 21 credits in major with 2.75 GPA or higher  
3.0 GPA in SEYS courses required to continue in program

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### Junior

#### FALL

PHYS 233.I Mathematical Methods I	1 credit
PHYS 260 Modern Physics	4 credits
PHYS 242 Thermodynamics	3 credits
PHYS 220W Current Issues in Physics	2 credits
SEYS 201W (W) Historical, Social, and Philosophical Foundations of Education	3 credits
SEYS 221 Development and Learning in Middle Child and Adolescence	3 credits

**Fall total credits 16 credits**

### Senior

#### FALL

PHYS 222 Optics	3 credits
PHYS 237 Mechanics	4 credits
SEYS 372.2 Student Teaching Initial Clinical Experience in Science for Secondary School	3 credits
SEYS 382 Curriculum and Assessment in Teaching Science	3 credits
SEYS 350 Cognition, Technology & Instruction For Diverse Learners	3 credits

**Fall total credits 16 credits**

#### SPRING

PHYS 235 Classical Physics LAB	2 credits
PHYS 225 Solid State Physics	4 credits
SEYS 340 Language, Literacy, & Culture in Education	3 credits
SEYS 362 Methods in Teaching Science in Middle & High School	3 credits
ECPSE 350 Foundations of Special Education	3 credits

**Spring total credits 15 credits**

#### SPRING

PHYS Elective 200 or above	6 credits
SEYS 372.4 Student Teaching Clinical Experience in Science for Secondary School	3 credits
General electives*	6 credits

**Spring 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.