

**QUEENS COLLEGE**

# Applied Physics BA

FOUR YEAR ACADEMIC PLAN

12

Required Core Credits

18

Flexible Core Credits

12

College Option Credits

60

Major Credits

18

Elective Credits

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120

Total

This 4-year academic plan is designed to help freshmen entering Queens College in Fall 2020 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.

## QUEENS COLLEGE

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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 225	4 credits
Solid State Electronics	
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** **16 credits**

¥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

PHYS 233 Mathematical Methods I	3 credits
PHYS 260 Modern Physics	4 credits
PHYS 242 Thermodynamics	3 credits
An Additional College Core	3 credits
General electives**	3 credits

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

#### SPRING

PHYS 237 Mechanics	4 credits
Physics Elective 200 or above	3 credits
General electives	9 credits
<b>Spring total credits</b>	<b>16 credits</b>

### Senior

#### FALL

PHYS 310 Electromagnetism I	4 credits
PHYS 377 Modern Physics LAB	2 credits
Physics Elective 200 or above	3 credits
General electives	6 credits

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

#### SPRING

Science/Math Elective (Department approval needed)	3 credits
Physics Elective 200 or above	3 credits
General electives*	6 credits
<b>Spring total credits</b>	<b>12 credits</b>

\*\*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.