

**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

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.



# Applied Physics BA

## FOUR-YEAR ACADEMIC PLAN

### 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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## FOUR-YEAR ACADEMIC PLAN

### 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 (Four 3- or 4-credit courses from the following list: physics courses at the 200 level and above (excluding PHYS 204 and 207), BIOL 105 and above, CHEM 113 and above, MATH 200 and above, and CSCI 111 and above.)	3 credits
General electives	9 credits

**Spring total credits 16 credits**

### Senior

#### FALL

PHYS 310 Electromagnetism I	4 credits
PHYS 377 Modern Physics LAB	2 credits
Physics Elective (Four 3- or 4-credit courses from the following list: physics courses at the 200 level and above (excluding PHYS 204 and 207), BIOL 105 and above, CHEM 113 and above, MATH 200 and above, and CSCI 111 and above.)	3 credits
General electives	6 credits

**Fall total credits 15 credits**

#### SPRING

Physics Elective (Four 3- or 4-credit courses from the following list: physics courses at the 200 level and above (excluding PHYS 204 and 207), BIOL 105 and above, CHEM 113 and above, MATH 200 and above, and CSCI 111 and above.)	3 credits
Physics Elective (Four 3- or 4-credit courses from the following list: physics courses at the 200 level and above (excluding PHYS 204 and 207), BIOL 105 and above, CHEM 113 and above, MATH 200 and above, and CSCI 111 and above.)	3 credits
General electives*	6 credits

**Spring total credits 12 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.