

Mission Statement

The mission of the Department of Physics of the City College of New York is to combine research, teaching, and service in order to inspire, educate and prepare our students to be leaders in their chosen field of physics. In addition, our mission is to inculcate in students the culture of a rational approach and analysis to any problem or situation; to provide high-quality and comprehensive undergraduate and graduate educational programs that help students acquire an appreciation of the physical world as understandable and explainable in a logical way in terms of the laws of physics; to advance the frontiers of knowledge in physics through the creative research of faculty and students; to provide educational and scientific resources to the larger community.

Learning Outcomes

Students with a B.A. in Physics will

1. The Department of Physics will endeavor to acquire knowledge of the basic laws of physics and their applications; Develop the ability to use mathematics and computers as tools to analyze physical problems.
 - train students to design and conduct experiments and to analyze and interpret data.
 - help students to develop the skills to communicate their results in a professional manner, both in oral and written forms.
2. The Department of Physics will endeavor to
 - conduct research in physics with a high standard of excellence that will lead to recognition at the national and international levels.
 - promote interdisciplinary and collaborative research efforts both within and outside the College.
3. The Department of Physics will endeavor to
 - prepare our students for entry into nationally-ranked graduate programs or professional schools, for careers in teaching or for employment in high-technology industry in both physics and physics-related areas.
 - serve the larger community through teaching, research and outreach Programs.

Learning Outcome Grid

(Outcomes are numbered from 1 to 8 as listed below)

Note: 1 ~ 6 apply to physics majors and 7~ 8 apply to students in other majors taking courses in physics.

Required for Architects; Required for Engineering; Required for Biology; Required for Honors Students

1. Learn laws of physics and solve problems
2. Design and carry out experiments; analyze and interpret results
3. Communicate by written and oral means
4. Work cooperatively with others
5. Participate in research
6. Use computers and appropriate technology
7. Learn laws of physics and solve problems at an introductory level
8. Use physics to perform well in advanced courses in their own majors

Courses	Learning Outcomes									
	1	2	3	4	5	6	7	8		
203 General Physics I (non-calculus)						X	X	X		
204 General Physics II (non-calculus)						X	X	X		
207 General Physics I (calculus)	X	X	X	X		X	X	X		
208 General Physics II (calculus)	X	X	X	X		X	X	X		
219 Physics for Architects	X						X	X		
305 Astronomy							X	X		
321 Modern Physics for Engineers (Eng.majors)	X						X	X		
323 Quantum Mechanics for EE majors	X									
351 Mechanics	X									
353 Electricity & Magnetism I	X									
354 Electricity & Magnetism II	X									
371 Advanced Lab I		X	X	X		X				
422 Biophysics	X									
451 Thermodynamics and Statistical Physics	X									
452 Optics	X									
453 Physical Photonics I (Laser Optics)	X									
471 Advanced Lab II		X	X	X		X				
551 Quantum Mechanics I	X									
552 Quantum Mechanics II	X		X							
556 Current Topics in Physics			X			X	X	X		
310 Independent Study					X					
310 301, 302, 303 Physics (Honors)					X					