

PHYSICS, BS (LAS SPECIALIZED CURRICULUM)

for the degree of Bachelor of Science Major in Physics (LAS Specialized Curriculum)

department website: <https://physics.illinois.edu>

department faculty: Physics Faculty (<https://physics.illinois.edu/people/directory/>)

overview of college admissions & requirements: College of Liberal Arts & Sciences (<http://catalog.illinois.edu/schools/las/academic-units/>)

college website: <https://las.illinois.edu/>

email: undergrad-info@physics.illinois.edu

The LAS Specialized Curriculum in Physics is designed for students who plan to pursue graduate study in physics or a closely allied field. However, students who want to pursue a combined major and minor, a double major, or a double degree should consider the LAS Science and Letters Curriculum in Physics because of the greater flexibility it offers.

Entering freshmen typically take calculus, chemistry, rhetoric, and PHYS 110 during the first semester and begin the general physics sequence in the second semester. Students with advance placement in mathematics should begin the general physics sequence in the first semester. All students are strongly encouraged to plan ahead to allow space in their programs for undergraduate research.

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Departmental distinction: Graduation with distinctions awarded to students who complete 8 additional hours of 300- or 400-level physics courses or advanced courses in closely related technical subjects and who have attained cumulative grade point averages as follows: distinction, 3.5; high distinction, 3.8; highest distinction, 3.8 plus acknowledgement of truly outstanding work/research.

General education: Students must complete the Campus General Education (<https://courses.illinois.edu/>) requirements including the campus general education language requirement.

Minimum required major and supporting course work: A minimum of 126 hours required for graduation.

GPA requirements: Students in the Specialized Curriculum beyond the freshman year must maintain an overall grade point average of at least 2.5 and also a grade point average of 2.5 in all required mathematics and physics courses.

Code	Title	Hours
Fixed Physics Core		38
PHYS 110	Physics Careers	
PHYS 211	University Physics: Mechanics	
PHYS 212	University Physics: Elec & Mag	
PHYS 213	Univ Physics: Thermal Physics	
PHYS 214	Univ Physics: Quantum Physics	
PHYS 225	Relativity & Math Applications	
PHYS 325	Classical Mechanics I	
PHYS 326	Classical Mechanics II	
PHYS 435	Electromagnetic Fields I	
PHYS 436	Electromagnetic Fields II	
PHYS 427	Thermal & Statistical Physics	
PHYS 486	Quantum Physics I	
PHYS 487	Quantum Physics II	
Flexible Physics Core (Select two courses from the list below)		8-10
PHYS 401	Classical Physics Lab	
PHYS 402	Light (with lab)	
PHYS 403	Modern Experimental Physics	
PHYS 404	Electronic Circuits	
PHYS 406	Acoustical Physics of Music	
Supporting Technical Courses		24-26
MATH 221	Calculus I ¹	
MATH 231	Calculus II	
MATH 241	Calculus III	
MATH 285	Intro Differential Equations	
	or MATH 286 Intro to Differential Eq Plus	
MATH 415	Applied Linear Algebra	
CHEM 102	General Chemistry I	
CHEM 103	General Chemistry Lab I	
CS 101	Intro Computing: Engrg & Sci	
General Education - Students must complete the Campus General Education requirements.		Variable
Free Electives (No restrictions on these courses.)		15-35
Minimum Hours		85

¹ MATH 220 may be substituted with four of the five credit hours applying toward the degree. MATH 220 is appropriate for students with no background in calculus.