

PHYSICS

The Department of Physics offers programs of study leading to three different degrees in physics.

BS in Physics	This degree program is for students who plan to pursue an advanced degree in physics.
BS in General Physics	This degree program provides broad foundation in fundamental principles for students who wish to pursue careers in technical areas or continue professional or graduate studies in areas outside of physics.
BA in Physics	This degree program combines a foundation in physics with a broad general education for students who wish to pursue careers in non-technical areas or continue professional or graduate studies in areas of outside of physics.

COURSE REQUIREMENTS

Physics Courses

See reverse page for physics course requirements

Math Courses

- Math 220 Calculus I
- Math 221 Calculus II
- Math 222 Calculus III
- Math 240 Differential Equations
- *Math 515 Linear Algebra
- *Math 632 Partial Differential Equations

Additional Courses

- *CHM 210 Chemistry I
- *CHM 230 Chemistry II

*Course is strongly recommended, but not required

General Education Requirements

Students must fulfill the general education requirements as put out by the College of Arts and Science.

Double Majors and Dual Degrees

Many students simultaneously pursue two undergraduate degrees - one in physics and a second in engineering, mathematics, chemistry or other fields. We work to facilitate students in this path, including support and custom course scheduling for each student's needs. Ask about our current flowcharts for dual majors and degrees. If we don't currently have the option that you are looking for, we will design one.

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Physics Course Requirements

Course Number	Course Title	Credit Hours	BS in Physics	BS in General Physics	BA in Physics
PHYS 122	Physics Today I	1	*	*	*
PHYS 123	Physics Today II	1	*	*	*
PHYS 223	Physics I, Mechanics and Thermodynamics	5	*	*	*
PHYS 224	Physics II, Electromagnetism and Sound	5	*	*	*
PHYS 325	Physics III, Relativity and Quantum Physics	4	*	*	*
PHYS 506	Advanced Physics Laboratory	4	*	*	*
PHYS 522	Mechanics	4	*	*	*
PHYS 532	Electromagnetic Fields I	4	*	*	*
PHYS 633	Electromagnetic Fields II	3	*		
PHYS 636	Physical Measurements & Instrumentation	4	*		
PHYS 662	Introduction to Quantum Mechanics	4	*	*	*
PHYS 664	Thermodynamics & Statistical Physics	3	*	*	
PHYS 709	Applied Quantum Mechanics	3	*		
PHYS xxx	Advanced Physics Electives (see list below)	3+	2 courses	1 course	1 course

Advanced Physics Electives

Course Number	Course Title	Credit Hours
PHYS 620	Teaching University Physics	3
PHYS 633	Electromagnetic Fields II	3
PHYS 636	Physical Measurement & Instrumentation	4
PHYS 639	Computation in Physics	3
PHYS 642	Nuclear Physics	3
PHYS 651	Introduction to Optics	3
PHYS 652	Applied Optics & Optical Measurement	3
PHYS 655	Physics of Solids	3
PHYS 664	Thermodynamics & Statistical Physics	3
PHYS 691	Introduction to Astrophysics §	3
PHYS 692	Introduction to Cosmology §	3
PHYS 694	Particle Physics	3
PHYS 707	Topics in Physics	3
PHYS 741	Physics of Lasers	3+
PHYS 775	Biological Physics	3

§For the BS in Physics only one of these courses can be applied to the advanced physics electives.

Note: Courses can only be applied as an advanced physics elective if it is not required for the degree. May substitute Engineering Physics I (PHYS 213) and II (PHYS 214) for Physics I and II respectively.