

PHYSICS

Physics is the fundamental science: the study of matter and energy and of their interactions. Physics is the basis for all science and for all applied science and engineering. Physicists study everything from elementary particles to galaxies, from semiconductors to chaos.

Because physics is the basic underpinning for all science and technology, physics majors have many career alternatives. Many continue their education at graduate and professional schools—in physics or in chemistry, biology, geology, engineering, medicine, law, or business. Those who enter the job market directly find their knowledge and technical skills, particularly in problem solving, modeling, computers and electronics to be strong selling points.

The physics department at Wichita State University affords close personal interaction among undergraduate students, graduate students and professors. Many students take advantage of the opportunities for individual studies and research.

Admission

When you choose to study physics, you will be admitted to the Fairmount College of Liberal Arts and Sciences. The physics department undergraduate adviser will help you develop your program of study, and all of our faculty will be available to advise you and help you at any point in your studies.

If you are still deciding on a major when you begin taking classes at WSU, the Liberal Arts and Sciences Advising Center can help you explore career and major options.

Related Opportunities

As a physics major, you may participate in the Student Physics Society, an informal social organization. If eligible, you may be selected for the physics honor society, Sigma Pi Sigma, and for University academic honor societies such as Omicron Delta Kappa, Phi Kappa Phi, and Mortar Board.

Each semester, every physics major maintaining a B average earns an Academic Achievement Award.

In addition, three scholarships—the Schenk, the Knight, and the Unruh—are awarded yearly to the three most outstanding upper-division physics majors.

Related Programs

The physics department offers the Bachelor of Arts and the Bachelor of Science degrees in physics. If you're interested in teaching physics, you may earn a Bachelor of Arts in Education.

In addition to these programs, we also offer students the opportunity to select a special option within the physics major. With the chemical physics option, a student interested in molecular physics or biophysics can substitute upper-division courses in chemistry for physics electives. With the engineering physics option, a student interested in applications of physics can substitute upper-division engineering courses. Other options, in mathematics, geology, computer science, biology, or business, are also possible on an individual basis.

**GENERAL EDUCATION PROGRAM
REQUIREMENTS**

The General Education Program is an integral component of every degree at Wichita State University. These courses make up about one third of any degree. The goals of the General Education program are:

- **To study and apply mathematical principles;**
- **To study and apply principles of written and oral communication;**
- **To study and apply basic library research skills including basic assessment of various kinds of sources;**
- **To study the natural sciences, social and behavioral sciences, humanities and fine arts in order to understand how scholars in those fields work;**
- **To study human diversity and its implications for society on a global basis.**

Successful completion of the General Education Program and LAS College requirements provides knowledge and skills leading to life-long learning in an ever-changing global world.

Descriptions of the General Education Program and of the courses that are included in it are available both in the *University Catalog* and in the *Schedule of Courses*. These documents are available both in hard copy form and online at the WSU Web site: www.wichita.edu. Click on "Browse A-Z" and use C for the *Catalog* and S for the *Schedule of Courses* menu option, and then select "General Education."

When you enter the university, you will work with an academic advisor to select general education courses for your major and your degree choice.

For More Information

To receive more information, or to arrange a campus visit, contact:

Office of Admissions
Wichita State University
1845 Fairmount St.
Wichita, Kansas 67260-0124
Telephone (316) 978-3085
Toll-free (800) 362-2594
www.wichita.edu/admissions

Major Requirements*

Requirements for the BA or BS in physics:	
General College Physics I and II or University Physics I and II and University Physics Lab I and II	10
Topics in Modern Physics	3
Quantum Mechanics	3
Elementary Mechanics	3
Electricity and Magnetism	3
Thermophysics	3
Chemistry	5
Differential Equations I	3
Integration Techniques and Applications or Advanced Calculus I or Partial Differential Equations for Engineers or Linear Algebra	3
Additional requirements for the BA degree:	
Advanced Physics Laboratory or Electronics Laboratory or Computational Physics Laboratory	2
Upper-division physics electives	6
Additional requirements for the BS degree:	
Advanced Physics Laboratory and/or Electronics Laboratory and/or Computational Physics Laboratory	6
Upper-division physics electives	8
Chemistry	5
Additional requirements for the chemical physics option (with the BA or BS degree in physics):	
Upper-division chemistry courses (as physics electives)	9
Additional requirements for the engineering physics option (with the BA or BS degree in physics):	
Upper-division engineering courses (as physics electives)	9
There are additional requirements to earn certification to teach physics. Consult the College of Education or request the "Secondary Education: Sciences" information sheet.	
*Some of the courses listed in Major Requirements will count toward the General Education Requirements.	

The University reserves the right to revise or change rules, charges, fees, schedules, courses, requirements for degrees, and any other regulations affecting students whenever considered necessary or desirable.

Notice of Nondiscrimination

Wichita State University does not discriminate on the basis of race, religion, color, national origin, Wichita State University does not discriminate on the basis of race, religion, color, national origin, gender, age, marital status, sexual orientation, status as a Vietnam-era veteran, or disability. Any person having inquiries concerning this may contact the Office of Equal Employment Opportunity, Wichita State University, 1845 Fairmount St., Wichita, Kansas 67260-0145; telephone (316) 978-3001.