DEGREE(S)

- Bachelor of Science (B.S.) in physics
- Bachelor of Arts (B.A.) in physics
- Minor in physics

ABOUT THE FACULTY

The low student-to-faculty ratio allows our world-class faculty to inspire our students, feed their curiosity, awaken their minds and instill in them the joy of lifelong learning.

PROGRAM OVERVIEW

Saint Louis University’s Parks College of Engineering, Aviation and Technology offers a B.S. in physics, while the College of Arts and Sciences offers a B.A. in physics.

Physics is the branch of science that studies the nature of matter, energy and spacetime at the most fundamental level. It provides a foundation for all the natural sciences and engineering disciplines. Physics has brought such revolutions as relativity, quantum mechanics and the Big Bang theory, profoundly altering the way mankind views the universe.

Physicists have played a major role in the discovery of many phenomena leading to whole new technologies. The invention of the transistor, by physicists, has made the modern computer possible, while the development of lasers has led to diverse applications ranging from supermarket scanners to laser surgery. The physicist is a versatile problem solver and able to excel in many technical fields.

A training in physics leads to a broad-based understanding of natural phenomena, analytical and computer skills, experience with electronics and the operation of sophisticated equipment, an understanding of measurements and their limitations, and the ability to formulate and solve technical problems.

Physics students have a strong interest in mathematics, computers and science along with a desire to understand how the universe works. They are interested in questions such as “Why do elementary particles behave the way they do?” “What is the nature of light?” or “How did the universe begin, and what will eventually happen to it?” Some of our students pursue double majors in mathematics, computer science or an engineering field.

CURRICULUM

The B.S. in physics from Parks College stresses physics and its applications in areas such as engineering, computers and the sciences, and also includes opportunities to participate in faculty research. The B.A. in physics from the College of Arts and Sciences combines a firm grounding in physics with a broad liberal education.

Students of the physics program gain a solid foundation in analytical, computational and laboratory skills through course work in mathematics, computer science and physics. The physics curriculum includes courses in classical mechanics, quantum mechanics, electricity and magnetism, thermodynamics and statistical mechanics, as well as optics, electronics and modern physics.

Special topics courses in subjects such as Einstein’s theory of general relativity and Nanoscience frontiers are also taught. Saint Louis University places a strong emphasis on the education of the whole person. In order to round out their education, all students at Parks College take courses in theology, humanities, ethics, social and behavioral sciences, and cultural diversity.

OFFICE OF ADMISSION, ONE NORTH GRAND BLVD., ST. LOUIS, MO 63103

ADMISSION.SLU.EDU

Contact
Parks College of Engineering, Aviation and Technology
314-977-8203
parks@slu.edu

Graduate Programs
For a full listing of graduate programs, visit graduate.slu.edu.
WHY CHOOSE THIS PROGRAM?

+ The bachelor’s degree in physics stresses undergraduate research and applications of computers in physics.
+ Our new state-of-the-art research facilities allow for students to work directly alongside faculty members on research projects.
+ The department of physics emphasizes an education of the whole person, allowing students to take courses in theology, humanities, ethics, social and behavioral sciences and cultural diversity.

Benefits of the physics program also include several internship and career opportunities. The physics department employs some of its students as teaching and research assistants during the summer. Students have held summer internships at NASA-Langley, the Argonne National Laboratory and other laboratories. They have worked both during the summer and during the year at local industries such as Boeing and Anheuser-Busch. Numerous opportunities exist for summer research in basic and applied physics in the Parks Summer Undergraduate Research Experience (SURE) program and in national laboratories and in National Science Foundation-sponsored programs at universities throughout the United States.

Graduates with a bachelor’s degree in physics enter a variety of careers that depend on the technical skills they have gained in college. They are employed in product development and quality control in large industries such as RCA, Boeing or Lockheed-Martin. They are computer specialists at Anheuser-Busch and other companies. Some are now involved in the marketing of technical products, while others are in management positions. A few graduates have entered military careers. Students frequently earn double majors, combining physics with mathematics, computer science or chemistry.

Approximately one-half of physics students go to top graduate schools in physics or in other fields such as nuclear engineering, applied mathematics, medical school or law school. Students initially study physics to learn the secrets of the universe, but they later find that a physics degree opens the door to a wide range of careers.

SCHOLARSHIPS AND FINANCIAL AID

There are two principal ways to help finance a Saint Louis University education:
+ Scholarships: awarded based on academic achievement, service, leadership and financial need.
+ Financial Aid: provided in the form of grants and loans, some of which require repayment.

For priority consideration for merit-based scholarships, applicants should apply for admission by Dec. 1 and complete a Free Application for Federal Student Aid (FAFSA) by March 1.

For information on other scholarships and financial aid, visit the student financial services office online at finaid.slu.edu.