Physics
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http://www.slu.edu/x14154.xml

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The Department of Physics offers two undergraduate degrees in Physics: the Bachelor of Science (B. S.) degree for students enrolled in Parks College and the Bachelor of Arts (B. A.) degree for students in the College of Arts and Sciences. The department also offers a Bachelor of Science (B. S.) degree in Engineering Physics for students enrolled in Parks College. (See Parks College Section for Parks programs.) In addition, the department offers Minors in Physics, useful primarily to students majoring in mathematics, computer science, engineering fields, and other sciences. Major-minor links between physics and other disciplines provide opportunities for students to acquire valuable analytical and problem-solving skills and to distinguish themselves from others pursuing similar career paths.

Physics (B. A.)

The Department of Physics offers a Bachelor of Arts degree for students in the College of Arts and Sciences. This degree prepares liberal arts students for a broad range of careers in which technical and scientific knowledge are useful. This program is excellent preparation for graduate work in physics or for professional school. The required courses listed below are accompanied by the College of Arts and Sciences core. This degree is conferred by the College of Arts and Sciences. This curriculum also satisfies all requirements for a Minor in Mathematics.

Prerequisites:
CHEM 163 General Chemistry I Lecture 3
CHEM 165 General Chemistry I Lab 1
PHYS 111 Introduction to Physics (as a Career) 1
PHYS 161 Engineering Physics I 3
PHYS 162 Engineering Physics I Lab 1
PHYS 163 Engineering Physics II 3
PHYS 164 Engineering Physics Lab 1
MATH 142 Calculus I 4
MATH 143 Calculus II 4
MATH 244 Calculus III 4

Recommended
CSCI 145 Scientific Programming 3

Required Courses (other than core)
PHYS 261 Modern Physics/Lab 3
PHYS 262 Modern Physics Lab 1
PHYS 311 Classical Mechanics 3
PHYS 421 Electricity and Magnetism I 3
PHYS 461 Quantum Mechanics 3
MATH 266 Principles of Mathematics 3
MATH 355 Differential Equations I 3
MATH 315 Introduction to Linear Algebra 3
MATH 451 Introduction to Complex Variables 3

Additional Requirements: (6 Hours Minimum)
2 upper division physics courses from the list below

PHYS 312 Advanced Classical Mechanics 3
PHYS 331 Optics 3
PHYS 341 Thermodynamics and Stat Mech 3
PHYS 351 Analogy and Digital Electronics 4
PHYS 421 Electricity and Magnetism II 3
PHYS 462 Application of Quantum Mechanics 3

Senior Inquiry may be satisfied by 1 of the following:
PHYS 484 Thesis 0-3
PHYS 488 Research Project 0-3
PHYS 489 Comprehensive Examination 0

College Core
See Arts and Sciences General Section

Open Electives
4 courses 12

Minor
A student can earn a minor in physics by completing at least 18 hours of physics consisting of
PHYS 161 Engineering Physics I 3
PHYS 162 Engineering Physics I Lab 1
PHYS 163 Engineering Physics II 3
PHYS 164 Engineering Physics II Lab 4
PHYS 261 Modern Physics 3
PHYS 262 Modern Physics Lab 1
2 physics courses numbered PHYS 300 – PHYS 470 6