

BACHELOR OF SCIENCE IN PHYSICS

The School of Physics offers two undergraduate degrees, the Bachelor of Science in Physics and the Bachelor of Science in Applied Physics. The basis of the Bachelor of Science in Physics degree is the traditional preparation of a student for graduate study in physics.

Each of the baccalaureate programs contains the following:

1. courses needed to meet general institutional degree requirements;
2. a core of technical courses intended to give a strong background in mathematics and the physical principles of mechanics, electricity and magnetism, thermodynamics, and the quantum theory that governs physical phenomena at the microscopic level of molecules, atoms, and nuclei;
3. technical electives that enable the student to explore areas of their choice in greater depth;
4. courses involving undergraduate research, and
5. free electives, about fifteen percent of the total hours, which may be employed to schedule additional technical or nontechnical courses.

The considerable flexibility inherent in the physics curricula is advantageous to students who wish to work out individual programs of study. At the same time, this flexibility suggests the need for consultation with advisors so students can make the best use of elective hours and avoid scheduling difficulties that may arise in later semesters. Students may utilize their elective freedom in the physics curricula to specialize in particular areas of physics, to prepare for careers in interdisciplinary areas of science, to compose a preprofessional program, or to gain a background in other technical or nontechnical disciplines. Students should contact their academic advisor for assistance in planning programs of study with emphasis directed toward a particular objective. Since some students who earn a degree in physics have transferred from other disciplines, the School has planned its degree programs to enable most students to transfer into physics with little or no loss of credit.

A total of 120 credit hours (exclusive of wellness) and a grade-point average of at least 2.0 in physics courses numbered 3000 and higher are requisites for the bachelor's degree in physics.

Physics: Undergraduate Information

- Bachelor of Science in Physics - General
- Bachelor of Science in Physics - Astrophysics
- Bachelor of Science in Physics - Business Option
- Bachelor of Science in Physics - Physics of Living Systems

Research Option in Physics

The Research Option is intended for students who seek a concentrated research experience, culminating in an undergraduate thesis, integrated into their undergraduate studies in Physics. The purpose of this program is to prepare students who plan to go on to graduate research after their BS degree. This option includes three or four semesters of focused research in the student's junior and senior years. Students who complete this option receive a designation on their transcript. For an undergraduate to fulfill the Research Option in the School of Physics, the student must fulfill the following requirements:

Code	Title	Credit Hours
PHYS 4698	Undergraduate Research Assistantship ¹ or PHYS 4699 Undergraduate Research	9
LMC 4701	Undergraduate Research Proposal Writing ²	1
LMC 4702	Undergraduate Research Thesis Writing ³ Research Thesis ⁴	1
Total Credit Hours		11

¹ At least three credits must be PHYS 4699.

² LMC 4701: Undergraduate Research Proposal Writing -typically taken during the first or second semester of research.
LMC 4702: Undergraduate Research Thesis Writing -taken during the term in which the thesis is completed.

³ Write and submit an undergraduate research thesis to the School of Physics based on the student's research that is approved by the student's research advisor.

Course requirements are detailed in brochures available from the School of Physics. For specific questions, students should contact the Associate Chair for Undergraduate Studies in the School of Physics.