Physics, B.S.

DEPARTMENT

Department of Physics
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MN in Physical Science, Minor
MS in Physics, M.S.
BS in Physics, B.S.
MN in Physics, Minor
MN in Medical Physics, Minor
MN in Astronomy, Minor
BS in Biomedical Physics, B.S.
CRED in Single Subject Credential - Physical Science

The Department of Physics has an active theoretical physics program that focuses on gravitational physics and field theory. We have ongoing collaborations with several international research groups including the Institute of Applied Physics of the Academy of Sciences of Moldova, Kyrgyz-Russian Slavic University, the Center for Gravitation and Fundamental Metrology (VNIIMS) at the Peoples' Friendship University of Russia, and the Universidad de Costa Rica. Our students in this area regularly attend national and international conferences to give talks, and they are active in publishing their research work in refereed journals. Several international researchers have visited our department and engaged in collaborative research, colloquia, and seminars.

REQUIREMENTS

Bachelor of Science Degree Requirements

Physics Major

Physics requirements (47 units)
(see note 1)
Physics core (36 units)

Upper-division electives (11 units)
Includes courses in physics and, with approval, in related fields. Students planning to pursue graduate study in physics are strongly encouraged to take courses from the following list: PHYS 107B, 135, 136, 137, 150, 151, 155, 156, 157, 158, 162, 163, 168S, 170A, 171, and 180 (see note 2)

Additional requirements (28-29 units)
(see notes 1, 3, and 4)
MATH 75, 76, 77, 81; CHEM 1A, 1AL, 1B, 1BL (25 units)

Plus one of the following
ECE 70 or CSCI 40 (3-4 units)

General Education requirements (45 units)**

Total (120 units)

* There are 51 units required for General Education. Of these 51 required units, 6 units will be satisfied by the following two courses in additional requirements: 3 units of CHEM 1A/1AL in G.E. Breadth B1 and 3 units of MATH 75 in G.E. Foundation B4.
Advising Notes

1. CR/NC grading is not permitted in the physics major. Additional requirements, however, may be taken CR/NC (see Credit/No Credit Grading).
2. PHYS 190 and PHYS 175T as well as courses outside the Department of Physics may be substituted for physics upper-division electives with prior approval of the department chair.
3. Students should be sure to take sufficient upper-division units in their General Education courses and electives to satisfy the university requirement of 40 upper-division units. It is important to fulfill the upper-division writing skills requirement by exam or W class after completing 60 units which a student may request 1 unit of credit.
4. All math and physics prerequisites for the physics major should be completed with a grade of C or better.

Suggested Sequence of Courses for the B.S. in Physics

The list below is a suggested schedule of courses for the major for students planning to complete the suggested pregraduate study sequence in four years.

In addition to the specific courses listed below, General Education requirements and electives should be included to bring the average total of units to 15 per semester. A minimum total of 120 units must be completed for the Bachelor of Science degree. (See Degree Requirements.)

1st Year: PHYS 4A, 4AL; CHEM 1A, 1B; MATH 75, 76; Computer Programming
2nd Year: PHYS 4B, 4BL, 4C; MATH 77, 81
3rd Year: PHYS 102, 104, 105A, 105B, 110, 150, 151, 170A
4th Year: PHYS 107A, 107B, 115, 140, 162, 171; plus upper-division electives

FACULTY

Our faculty members are here to teach and to do research. Several faculty members have research projects involving students. Two of our faculty members do theoretical work in particle physics and field theory while others are involved with numerous different experimental research fields; some of our faculty are involved in physics pedagogy.

For faculty phone numbers and e-mail, see the campus directory.

For more on the faculty, see the faculty pages.

The faculty pages are updated by the department or program.

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<tr>
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