REQUIREMENTS FOR THE BACHELOR’S DEGREE

[See below for Concentration in Physics Education.]

University Requirements: See pages 57-62.

School Requirements: None.

Departmental Requirements

Physics 7A-B-D-E with laboratory courses 7LA-LB-LD; Mathematics 2A-B, 2D-E, 2J, 3D; Physics 50; Physics 61A-B*; Physics 52A-B-C; Physics 53 (or another programming course); Physics 111A-B, 112A-B, 113A, 115A, 121, and 125A; Physics 196C or H196C or 197; and five additional coherently related four-unit courses. (The five coherently related courses are normally satisfied by concentrations, specializations, and tracks.)

*For students transferring into the major after taking Physics 51A-B, Physics 51A-B will be accepted in place of Physics 61A-B.

Concentration in Applied Physics

Requirements: The six additional coherently related courses required for the major must be in engineering and be approved by the Department of Physics and Astronomy.

Concentration in Biomedical Physics

Requirements: Biological Sciences 97, 98, and 99; Chemistry 1A-B-C, 1LB-LC, 51A-B, (or 52A-B).

Concentration in Computational Physics

Requirements: Three courses in computer science (Information and Computer Science 21, 22, 23), two courses in numerical analysis plus the accompanying laboratories (Mathematics 105A-B, 105LA-LB), and one advanced computational course (Mathematics 107, 107L or Physics 131). Mathematics 6D is also recommended as a prerequisite.

Concentration in Philosophy of Physics

Requirements: One course selected from Philosophy or Logic and Philosophy of Science 30, 104, 105A-B-C, or Mathematics 150, 151, 152; Philosophy or LPS 31; Philosophy or LPS 140; one course from History 60, 135A, 135B, 135C, or an approved alternative elective; Physics 113B; three courses selected from Philosophy or LPS 102, 121, 141A, 141B, 141C, 141D.
Concentration in Physics Education

Requirements: Education 173 or 176; Physical Sciences 5, 105, 106; five courses selected from Biological Sciences 1A-B or 93, 94; Chemistry 1A-B-C; Earth System Science 1 or 25, 7; and Physics 20A-B.

Specialization in Astrophysics

Requirements: Physics 139; three astrophysics courses selected from Physics 137, 138, 144, or 145; and any two upper-division Physics electives.