

BS IN PHYSICS

The B.S. degree in physics requires completion of a common core of 34 hours of physics courses and 29 hours of related-area courses and a choice of one concentration with additional requirements as listed below. The concentrations contain an additional 6-20 hours of physics, astronomy and related courses.

Recommended Introductory Course
PHYS 1910 Frontiers Of Physics And Astronomy (strongly recommended)

Completion of one of the following concentrations is required:

Physics

Requirements for the Bachelor of Science in Physics

The B.S. in physics consists of a core program that all students must complete and a choice of one concentration with additional requirements as listed below. The core program contains 34 hours of physics courses and 29 hours of related-area courses; the concentrations contain an additional 6-20 hours of physics, astronomy and related courses.

Recommended introductory course: PHYS 1910 is strongly recommended.

Core physics courses: PHYS 2130, 2140, 3310, 3410, 4210, 4230, 4240, 4310, 4920, 4950 and 4 hours of PHYS 4910 are required. With department approval, a student may substitute PHYS 2070, 2080 and 2100 for PHYS 2130 and 2140.

Related courses: CHEM 1230 and 1280, EECS 1500, one of MATH 1830, 1850 or 1920, one of MATH 1840, 1860, or 1930, one of MATH 1890, or 2890, one of MATH 2850, 2880, or 2950, one of MATH 2860, 3820, or 3880, MATH 3610 and one additional course (3-4) hours chosen from major-level courses in biology, chemistry, or environmental sciences are required.

Concentration Physics: PHYS 3180, and either 4580 or 4780.

In addition to the above requirements, students should consider the following recommended elective courses MATH 4740 and 4750.

Astrophysics

Requirements for the Bachelor of Science in Physics

The B.S. in physics consists of a core program that all students must complete and a choice of one concentration with additional requirements as listed below. The core program contains 34 hours of physics courses and 29 hours of related-area courses; the concentrations contain an additional 6-20 hours of physics, astronomy and related courses.

Recommended introductory course: PHYS 1910 is strongly recommended.

Core physics courses: PHYS 2130, 2140, 3310, 3410, 4210, 4230, 4240, 4310, 4920, 4950 and 4 hours of PHYS 4910 are required. With department approval, a student may substitute PHYS 2070, 2080 and 2100 for PHYS 2130 and 2140.

Related courses: CHEM 1230 and 1280, EECS 1500, one of MATH 1830, 1850 or 1920, one of MATH 1840, 1860, or 1930, one of MATH 1890, or 2890, one of MATH 2850, 2880, or 2950, one of MATH 2860, 3820, or 3880, MATH 3610 and one additional course (3-4) hours chosen from major-level courses in biology, chemistry, or environmental sciences are required.

Concentration Astrophysics: ASTR 2010, 2020, 3880, 4810, 4820, and 4880.

In addition to the above requirements, students should consider the following recommended elective courses MATH 4740 and 4750.

Applied Physics

Requirements for the Bachelor of Science in Physics

The B.S. in physics consists of a core program that all students must complete and a choice of one concentration with additional requirements as listed below. The core program contains 34 hours of physics courses and 29 hours of related-area courses; the concentrations contain an additional 6-20 hours of physics, astronomy and related courses.

Recommended introductory course: PHYS 1910 is strongly recommended.

Core physics courses: PHYS 2130, 2140, 3310, 3410, 4210, 4230, 4240, 4310, 4920, 4950 and 4 hours of PHYS 4910 are required. With department approval, a student may substitute PHYS 2070, 2080 and 2100 for PHYS 2130 and 2140.

Related courses: CHEM 1230 and 1280, EECS 1500, one of MATH 1830, 1850 or 1920, one of MATH 1840, 1860, or 1930, one of MATH 1890, or 2890, one of MATH 2850, 2880, or 2950, one of MATH 2860, 3820, or 3880, MATH 3610 and one additional course (3-4) hours chosen from major-level courses in biology, chemistry, or environmental sciences are required.

Concentration Applied Physics: PHYS 3180, 3610, 4510, and either 4580 or 4780, plus three hours of appropriate courses from physics or engineering, chosen with the Adviser's approval.

In addition to the above requirements, students should consider the following recommended elective courses MATH 4740 and 4750.

Biomedical Physics

Requirements for the Bachelor of Science in Physics

The B.S. in physics consists of a core program that all students must complete and a choice of one concentration with additional requirements as listed below. The core program contains 34 hours of physics courses and 29 hours of related-area courses; the concentrations contain an additional 6-20 hours of physics, astronomy and related courses.

Recommended introductory course: PHYS 1910 is strongly recommended.

Core physics courses: PHYS 2130, 2140, 3310, 3410, 4210, 4230, 4240, 4310, 4920, 4950 and 4 hours of PHYS 4910 are required. With department approval, a student may substitute PHYS 2070, 2080 and 2100 for PHYS 2130 and 2140.

Related courses: CHEM 1230 and 1280, EECS 1500, one of MATH 1830, 1850 or 1920, one of MATH 1840, 1860, or 1930, one of MATH 1890, or 2890, one of MATH 2850, 2880, or 2950, one of MATH 2860, 3820, or 3880, MATH 3610 and one additional course (3-4) hours chosen from major-level courses in biology, chemistry, or environmental sciences are required.

Concentration Biomedical Physics: PHYS 3180, 4430, 4440, and either 4580 or 4780; and related courses BIOL 2150 and 2160 (which satisfies the related major-level course requirement above), plus KINE 2510, 2520, 2530 and 2540 (or alternate sequence KINE 2460, 2470, 2560, and 2570)

In addition to the above requirements, students should consider the following recommended elective courses MATH 4740 and 4750.

Recommended Electives

In addition to the above requirements, students should consider the following recommended elective courses:

MATH 4740 Advanced Applied Mathematics I

MATH 4750 Advanced Applied Mathematics II

¹ With department approval, a student may substitute PHYS 2070, PHYS 2080 and PHYS 2100 for PHYS 2130 and PHYS 2140.

² Related courses, which satisfy the related major-level course requirement above.

³ Or select alternate sequence of EXSC 2460, EXSC 2470, EXSC 2560, and EXSC 2570.