

BACHELOR OF SCIENCE

Physics

www.emporia.edu/physics

This program is designed to provide the basic background in physics for continued study at the graduate level, for immediate industrial employment, for a combined career in physics and engineering, or for an allied field. Program options exist for graduate school in physics, pre-medical, computer sciences, and for a geophysics (earth science) emphasis. These are available in the office of the Departments of Physical Sciences, Cram Science Hall room 133.

General Information

General Education requirements are outlined in the current schedule of classes. Students must select MA161, Calculus I to meet the mathematics and CH123/124, Chemistry I (lecture, lab) to meet the physical science general education requirements.

Required Courses: 23-25 hours

Courses	Hours
PH190, 191, 192 Physics I (Lecture, Lab, Recitation).....	5
PH393, 394, 395 Physics II (Lecture, Lab, Recitation) †	5
PH490* Independent Study.....	1-3
PH540 Modern Physics.....	3
PH741 Advanced Physics Lab I	3
PH760 Mechanics I.....	3
PH762 Electricity & Magnetism I.....	3

Elective Courses (8 hours):

At least 6 hours of electives must be at the 300-level or above. PH 100 may be used as an elective.

The degree program may include a maximum of 6 hours of credit for any combination of PH 315, PH 316, PH 760, PH 761, and a maximum of 3 hours of credit for PH 490.

† Fulfills technology competency course requirement

Required Associated Courses: 19 hours

Courses	Hours
CH126-127 Chemistry II & Lab	5
MA262 Calculus II	5
MA363 Calculus III.....	3
MA335 Differential Equations.....	3
CS260 Programming...(C++).....	3

*Independent Study in Physics

All physics majors (excluding dual-degree students) must complete an Independent Study (PH 490) capstone course project under the supervision of a faculty member.

Physics Seminar

All physics majors are encouraged to attend scheduled physics seminars.

Additional Electives

ESU degrees require at least 124 semester hours of credit in courses numbered 100 and above. Among those 124 hours, at least 45 hours of course work must be numbered 300 or above.