PORTLAND STATE UNIVERSITY

DEPARTMENT OF PHYSICS

134 SRTC
503-725-3812
www.pdx.edu/physics

UNDERGRADUATE PROGRAM—STANDARD OPTION

As an undergraduate, you will take a group of core courses that will give you a general background in the subject. You will study force and motion, heat, optics, electricity, magnetism, atomic and nuclear physics, quantum mechanics, and the physical properties of materials, learning both the theoretical and the experimental aspects.

Requirements for Major It is important that students planning to major in physics contact the Department of Physics prior to the start of their work in order that a coherent program can be planned with their assigned advisor. Students planning to transfer to PSU from community colleges or other universities are strongly advised to contact the Department of Physics well ahead of their proposed date of transfer so that a smooth transition, which avoids course duplication and untimely delays, can be accomplished. Students need to choose between the standard option and environmental physics option. In addition to meeting the general University degree requirements, the student must meet the following minimal departmental course requirements:

Standard Option	
Ph 201, 202, 203 General Physics **or** Ph 211, 212, 213 General Physics with Calculus	12
Ph 214, 215, 216 General Physics Lab	3
Ph 311, 312 Introduction to Modern Physics	8
Ph 314, 315, 316 Experimental Physics I, II, III	16
Ph 322 Computational Physics	4
PH 424 Classical Mechanics	4
PH 426 Thermodynamics and Statistical Mechanics	4
PH 431 Electricity and Magnetism I	4
At least TWO of the following electives	
PH 411 Introduction to Quantum Mechanics	4
PH 432 Electricity and Magnetism II	4
PH 434 Introduction to Mathematical Physics	4
PH 464 Applied Optics	4
TOTAL in physics (minimum)	59

Mth 251, 252, 253, 254 Calculus	16
Mth 256 Applied Differential Equations I	4
Mth 261 Introduction to Linear Algebra	4
CH 221, 222, 223 General Chemistry	12
CH 227, 228, 229 General Chemistry Lab	3
Two courses in a related area of science or technology: (biology, geology, additional chemistry, computer science, electrical circuitry)	6-8
TOTAL in other	45-47

Courses taken under the undifferentiated grading option (pass/no pass) are not acceptable toward fulfilling department major requirements except for those major courses offered on a pass/no pass basis only.