

PHYSICAL SCIENCES

undergraduate program

Consistent with the overall mission of the University of Pittsburgh at Bradford, the Bachelor of Science degree in Physical Science includes a liberal arts core curriculum, much of which is taken during the first two years of study.

Employment Opportunities:

Forester
Ecologist
Eco toxicologist
Environmental planner
Natural resource manager
Park Ranger
Pollution control technician
Teacher
Researcher
Technical Writer/Editor
Scientific Consultant
Astronautic Engineer
Astronomer
Biophysicist
Geophysicist
Health Physicist
Health Inspector
Nuclear Physicist
Quality Control Specialist
Operations Manager
Computer Software Developer
Industrial Hygienist
Computer Technologist
Geologist
Paleontology
Mineralogist
Geochemist
Sedimentologist



The major in Physical Sciences develops an understanding of the natural world by the integrated study of biology, chemistry, mathematics and physics. Students will select a concentration in biology or chemistry. With the major, students are prepared for employment in technical phases of government and industry, as well as for graduate study in the sciences.

Physical science majors at Pitt-Bradford take courses in biology, chemistry, physics and calculus. Students receive hands-on experience by working in the lab and/or field. Students also have the opportunity to become directly involved in research as part of their undergraduate studies.

Required Skills:

- Observation
- Critical Thinking
- Decision Making
- Operate Scientific Equipment
- Organization
- Record Keeping
- Communication (Oral & Written)
- Knowledge of Scientific Research

Possible Employers:

- Petroleum Industry
- Construction Firm
- State & Federal Government
- Environmental Organization
- Academia
- Museum
- Law Firm

PROFESSIONAL ORGANIZATIONS:

American Physical Society
American Public Works Association
National Association of Environmental Management
The American Society of Forensic Sciences
American Institute of Physics

www.aps.org
www.apwa.net
www.naem.org
www.aafs.org
www.aip.org

FIND OUT MORE ABOUT CAREERS IN PHYSICAL SCIENCES AT:

Sciencejobs.org
Science Buddies
Occupational Outlook Handbook
Career Services

www.sciencejobs.org
www.sciencebuddies.org
www.bls.gov/k12/science.htm
www.upb.pitt.edu/career.aspx



Physical Sciences (BS) – Curriculum Guide

Student Name:

Advisor:

GENERAL EDUCATION REQUIREMENTS

COMPETENCIES

(Minimum grade of C- required in all competencies)

- FS 0102 Freshman Seminar
(if transferring in fewer than 18 credits)

Writing

- ENG 0101 English Composition I
 ENG 0102 English Composition II

Mathematics

- MATH 0098 College Algebra or Higher (see major)

THE HUMAN EXPERIENCE

- Students new to Pitt-Bradford beginning fall 2013 are
 required to complete two courses designated as "Global"

- Students who enrolled prior to fall 2013 are required to
complete ONE course designated as Non-Western

ARTS & LETTERS (ONE course MUST be literature;
ONE course MUST be a creative, fine or performing Arts course)

- Literature
 Arts
 Literature, Arts, Language

BEHAVIORAL, ECONOMIC, & POLITICAL SCIENCES

(Two different categories must be represented)

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HISTORY, CULTURES, & PHILOSOPHICAL INQUIRY

(ONE course MUST be History, and ONE course must be Cultures
or Philosophical Inquiry)

- HIST

PHYSICAL, LIFE, & COMPUTATIONAL SCIENCES

(ONE course must be a Physical Science, ONE must be a Life
Science and ONE must include a lab)

- (see major)
 (see major)
 (see major)
 Lab (see major)

PHYSICAL EDUCATION

- PEDC

REQUIRED MAJOR COURSES

- BIOL 0101 Introduction to Cell and Molecular
 BIOL 0102 Introduction to Biodiversity
 CHEM 0101 General Chemistry I
 CHEM 0102 General Chemistry II
 GEOL 0101 Physical Geology
 MATH 0140 Calculus I
 MATH 0150 Calculus II
 MATH 0201 Calculus III
 PHYS 0101 Introduction to Physics I &
 PHYS 0102 Introduction to Physics II **OR**
 PHYS 0201/0203 Foundations of Physics I and Lab &
 PHYS 0202/ 0204 Foundations of Physics II and Lab

CONCENTRATION AREA: Student *MUST* complete
required courses in one of the following concentrations:

BIOLOGY

- BIOL 0201 Cell Biology
 BIOL 0203 Genetics
 BIOL 1302 Microbiology
 CHEM 0206 Organic Chemistry I
 CHEM0207 Organic Chemistry I Lab
 UP Level BIOL Elective (4 hours)
 UP Level BIOL Elective (4 Hours)
 BIOL 1451 Capstone: Ecology

CHEMISTRY

- CHEM 0201 Introduction to Analytical Chemistry
 CHEM 0206/0207 Organic Chemistry I & Lab
 CHEM 0208/0209 Organic Chemistry II & Lab
 CHEM 1301 Physical Chemistry I
 CHEM 1302 Physical Chemistry II
 CHEM 1451 Capstone: Chemistry
 UP Level CHEM Elective (3-4 Hours)

**According to your Degree Progress Report in MY.PITT.EDU
upon successful completion of the current term:**

You will have EARNED _____ credit hours

You NEED _____ for 120 credit hours required for graduation.

You will have earned _____ credit hours of Upper Level course work.

You NEED _____ for the 30 credit hours required for graduation.

NOTE: This guide is unofficial. Completing the requirements on this sheet
does NOT guarantee degree completion. Official degree completion
information can be found in **MY.PITT.EDU**. Contact your Faculty
Advisor and/or the Registrar's Office with questions or concerns.