Chemistry, Geoscience, and Physics DEPARTMENT

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MAJORS

CHEMISTRY
- Professional Concentration
- Biochemistry Concentration
- Pre-Engineering Concentration
- Chemistry Teaching

PHYSICS
- Professional Concentration
- Pre-Engineering Concentration
- Electrical Engineering Concentration

BROAD FIELD NATURAL SCIENCE
- Chemistry Concentration
- Geoscience Concentration
- Physics Concentration
- Civil Engineering Concentration

BROAD FIELD NATURAL SCIENCE TEACHING
- Earth and Space Science
- Physical Science – Chemistry
- Physical Science – Physics

MINORS

EARTH SCIENCE

PHYSICS

CHEMISTRY

NATURAL SCIENCE TEACHING

SCIENCE EDUCATION

As a student in the Chemistry, Geoscience, and Physics (CGP) Department, you will become a well-informed leader in a world that is increasingly shaped by science and technology. Edgewood College instills the understanding of and life-long enthusiasm for scientific discovery through hands-on learning—both inside and outside of the classroom. With a focus on research, majors in this department are great starting points for a wide range of careers. In addition to exceptional facilities and outstanding classroom experiences, you also have the opportunity to participate in science-related clubs and organizations.

Science Ambassadors assist with science outreach programs. Edgewood Science Society (ESS) is a student organization designed to promote community amongst science majors and students who take science courses. The Engineering Club is a student organization designed to foster community among students and faculty interested in physics and engineering, and to plan special events. Achievement in Medicine (AIM) is a student organization dedicated to health-related careers such as medicine, dentistry, pharmacy, physical therapy, physician assistant and veterinary medicine.

The Chemistry major has three concentrations: Professional for preparing you for graduate work in chemistry or work in industrial or government laboratories, Biochemistry for preparing you for graduate work in biochemistry and molecular biology as well as dental, medical, pharmacology, pharmacy, physician assistant, and veterinary school, and Pre-Engineering preparing you for graduate work in engineering or work in related fields such as material science.

The Physics major prepares you for work in a variety of science, technology and mathematical (STEM) fields or graduate work in the physical sciences or engineering. You can also take advantage of partnerships with UW-Madison and Madison College to prepare you for careers in technology or engineering.

Along with opportunities that the classroom will present, Edgewood College also encourages you to pursue independent research projects and internships with strong support from faculty, staff, and other students and to get involved in our science-focused student groups.

Broad Field Natural Science majors provide you with experiences in geoscience, physics, chemistry and biology. The broad background of these majors provide you the education to address the many interdisciplinary challenges and opportunities in our world today.

Our teaching majors prepare students who wish to teach at the secondary level, where there is a desperate need for qualified science teachers especially in physics and chemistry. Students interested in science teaching can take advantage of our collaboration with Edgewood High School and the Edgewood Campus School. This allows our students to do practicums in middle and high school science classrooms without leaving the Sonderegger Science Center.

SAMPLE COURSES

CHEM 200 - Green and Sustainable Chemistry
This course covers the concepts of sustainability and environmental responsibility in the creation of goods and services required for our lives. Sustainability is defined as meeting the needs of the present without compromising the ability of future generations to meet their own needs. Green chemistry is the design, development, and implementation of products and processes to reduce or eliminate the use and generation of substances hazardous to human health and the environment. This course is designed to allow students to explore who they are and who they can become, and how are the needs of the world going to be met in a just and compassionate manner.

GEOS 206 - Environmental Geology
Application of the geosciences to problems resulting from society's interaction with the physical environment. Emphasis on the recognition, prediction, control, and public policy implications of environmental problems related to earth processes such as rivers, groundwater, erosion, landslides, and earthquakes.

PHYS 350 - Scientific Computing
Introduces computing tools useful in solving scientific problems. Considers a variety of techniques of tackling scientific calculations such as spreadsheets, symbolic packages (or other suitable programming languages). Additional emphasis is placed on the acquisition of scientific information in an ethical and legal manner, including an exploration of the primary literature.

FACULTY

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