

# EBERLY COLLEGE OF SCIENCE

## About the College

Douglas R. Cavener, Verne M. Willaman Dean, Eberly College of Science

The Eberly College of Science provides instruction and research opportunities in the biological, mathematical, physical and interdisciplinary sciences. The college offers undergraduates sixteen majors that lead to the B.S. degree, with several options, and Mathematics can lead to either the B.S. or B.A. degree. Fourteen minors for undergraduates that can broaden their learning are also offered. The college strives to provide students with the knowledge and experiences that will enable them to be scientifically-trained leaders and innovators who advance the frontiers of science and make a difference in the world. Our faculty, staff, and students work together to learn, create, and apply knowledge in the basic sciences. Graduates of our programs use their strong foundation and critical thinking skills in a wide range of careers. Many graduates continue their education in graduate or professional schools, while others choose from a variety of careers in industry, government, or education.

MORE INFORMATION ABOUT THE COLLEGE (<http://science.psu.edu>)

## Mission and Goals

The mission of the college is to improve society and address global challenges through excellence in science education and research. We train tomorrow's scientific leaders and innovators, and provide rich science education for all Penn State students. We enhance public understanding of science by sharing our knowledge and discoveries with the people of the Commonwealth, nation, and world. We make discoveries that expand fundamental knowledge in science, and are applied to solve real-world challenges.

MORE INFORMATION (<http://science.psu.edu/about/college-vision-mission-and-goals>)

## Departments and Schools

### Department of Astronomy and Astrophysics

The Department of Astronomy & Astrophysics seeks to expand our knowledge of the universe through undergraduate and graduate education, research, and public outreach. Students are active and vital participants in the research programs conducted in the department, providing important training for progression into graduate education. In addition, with its depth and breadth in research opportunities, the department offers pathways to careers in research and teaching in astronomy and related fields. The Department is involved in a wide variety of observational, experimental, and theoretical projects that cover most active areas of astrophysical research. The Department also has an extensive program of public outreach that promotes science including public lectures, workshops, planetarium shows, and public open houses.

MORE INFORMATION (<http://astro.psu.edu>)

### Department of Biochemistry and Molecular Biology

The Department of Biochemistry and Molecular Biology (BMB) is enthusiastically engaged in basic research to probe fundamental principles of the behaviors of molecules and cells, the organization of biological systems, and promising applied research to identify scientific solutions to pressing problems in areas such as cancer, bacterial and

viral pathogenesis, antibiotic resistance, and energy production. BMB is dedicated to educating the next generation of scientists, and is the departmental home to students from four undergraduate majors: Biochemistry and Molecular Biology, Microbiology, Biotechnology, and Forensic Science. BMB also trains Ph.D. students in the Biochemistry, Microbiology and Molecular Biology Program, and Master's degree programs in Biotechnology and Forensic Science.

MORE INFORMATION (<http://bmb.psu.edu>)

### Department of Biology

The Department of Biology is internationally recognized in teaching and research in the biological sciences. The research and instructional mission of the department spans ecology to molecular biology, and represents the most diverse program in the biological and life sciences at Penn State. Over the past 35 years more than 6,000 students have earned bachelors degrees in Biology from Penn State, and over 400 graduate students have earned advanced degrees with Biology faculty members. Departmental students, faculty, and alumni contribute to the welfare of our society through their activities including education, public health and services, business, and basic and applied research.

MORE INFORMATION (<http://bio.psu.edu/undergraduate-portal>)

### Department of Chemistry

The Department of Chemistry is a leader in many significant areas of chemistry research and discovery, including materials chemistry, life sciences and nanoscience. The department has nationally acclaimed strengths in faculty research, graduate and undergraduate education. With a dedicated staff and state-of-the-art research support facilities, Penn State Chemistry is an excellent place to work, study or pursue your love of research. The department is dedicated to a core set of values: excellence in teaching and research, respect for all members of the Department and University, diversity in our students, faculty and staff, and service to the citizens of the world.

MORE INFORMATION (<http://chem.psu.edu>)

### Department of Mathematics

The Mathematics Department is a thriving research and teaching community of faculty, undergraduate and graduate students, and postdoctoral researchers. The department is committed to excellence in mathematics instruction for all Penn State undergraduates, and houses the Mathematics bachelors, masters, and doctoral degrees. The Department is housed in the McAllister Building on the University Park Campus, and it is one of the few in the nation with a physical laboratory where research and educational laboratory experiments are conducted.

MORE INFORMATION (<http://math.psu.edu>)

### Department of Physics

The Department of Physics is home to innovative scientists, inspiring teachers, creative students, and accomplished alumni making exciting discoveries at the frontiers of knowledge. According to a multi-year study released by the National Research Council (NRC) in 2010, the Department of Physics is in the top echelon of physics departments in the United States. Developments in science and technology move very fast, the undergraduate and graduate degrees in Physics provide the fundamental tools with which to attack the scientific and technological problems of the next millennium.

MORE INFORMATION (<http://www.phys.psu.edu/undergraduate>)

## Department of Statistics

The Department of Statistics is committed to teaching the theory and practice of statistics to undergraduate and graduate students and to conducting original research. Our world-renowned faculty are members of international collaborations making significant discoveries that will make life better throughout the world. Penn State Statistics has recently been ranked among the best programs in the nation according to the National Research Council.

MORE INFORMATION (<http://stat.psu.edu>)

## Premedical Professions Programs

The Premedical Professions Programs are the academic home for undergraduate students interested in pursuing professional careers in medicine and related health professions. The programs include the undergraduate major Premedicine and the accelerated Premedicine-Medicine program. In addition, the program's advisers provide academic and career counseling for all students, regardless of their major, who wish to apply to medical schools and professional health programs.

### PreMedical Medical Program

MORE INFORMATION (<http://science.psu.edu/premed/accelerated-programs/premedmed>)

### Premedical Program

MORE INFORMATION (<http://science.psu.edu/premed>)

## Science B.S. Programs

The Science B.S. Programs are the academic home for undergraduate students interested in pursuing broad, integrative studies in science. The program includes the general science major (Science B.S.) as well as the accelerated Science/MBA program for students interested in leadership positions in science and technology industries.

### Science B.S. Program

MORE INFORMATION (<http://science.psu.edu/sciencebs>)

### Science B.S./M.B.A. Program

MORE INFORMATION (<http://science.psu.edu/bsmba>)

## Resources

### Academic Advising

The goal of academic advising in the college is to assist with students' transition to college, and provide guidance that will lead to being a successful science student. We provide assistance with policies and procedures, courses, academic programs, and requirements related to our majors and career goals.

MORE INFORMATION (<http://science.psu.edu/current-students/support-network/find-your-academic-adviser>)

### Health Professions Advising

This office provides health professions advising to any Penn State student, enrolled in any college, who is interested in medicine and allied health professions, including podiatry, dentistry, optometry, pharmacy, physician assistant, and others.

MORE INFORMATION (<http://science.psu.edu/premed/advising>)

## Center for Excellence in Science Education

The Center for Excellence in Science Education (CESE) in the Eberly College of Science provides faculty and students with a collaborative

educational network that promotes excellence in science teaching and learning. #CESE offers a variety of evidence-based teaching workshops and other activities for faculty professional development as well as learning skills workshops for student academic development. #It also houses the Eberly College of Science Learning Assistant (LA) Program that offers over 700 undergraduate peer teaching positions each academic year.

MORE INFORMATION (<http://cese.science.psu.edu>)

## Office of Science Engagement

The Office of Science Engagement connects students with opportunities to enhance and extend their learning in co-curricular experiences such as research and educational abroad. We also offer career counseling and development for students, emphasize academic and professional growth, and offer a range of resources to support students' success.

MORE INFORMATION (<http://scienceengagement.psu.edu>)

## Contact

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