About the College
Justin Schwartz, Harold and Inge Marcus Dean of Engineering

For more than a century, our college has been a leader in engineering education and research, preparing young people to become leaders within their professions and communities. Our faculty and students produce game-changing research that advances our society and solves global problems, creating jobs that grow our economy, and informing policy to shape our world. Today we look forward, seeing endless possibilities ahead, especially as we prioritize the pursuit of equity across our community of students, faculty, and staff. We are driven to build an inclusive and diverse community where everyone thrives. We are driven to perform research that impacts the lives of people around the world. We are committed to impacting society and embracing the challenges ahead with a passion for a bright future for humankind. We invite you to join us and be part of this exciting future.

MORE INFORMATION ABOUT THE COLLEGE (https://www.engr.psu.edu)

Mission and Goals
To nurture and train world-class socially aware, globally connected, diverse engineers, educators, and researchers with rigorous core knowledge and problem-solving skills, who understand complex, interacting engineering and societal systems. To develop innovative solutions to the world’s most pressing challenges through transformational interdisciplinary research.

MORE INFORMATION ABOUT THE MISSION AND GOALS OF THE COLLEGE OF ENGINEERING (https://www.engr.psu.edu/strategic-plan)

Accreditation
All College of Engineering baccalaureate majors at University Park, with the exception of Computer Science, are accredited by the Engineering Accreditation Commission of ABET, Inc (http://www.abet.org).

Departments and Schools

Department of Aerospace Engineering
Aerospace engineering is the primary field of engineering concerned with the design, development, testing, and production of aircraft, spacecraft, and related systems and equipment. The field has traditionally focused on problems related to atmospheric and space flight, with two major and overlapping branches: aeronautical engineering and astronautical engineering.

MORE INFORMATION ABOUT THE DEPARTMENT OF AEROSPACE ENGINEERING (http://www.aero.psu.edu)

Department of Architectural Engineering
Architectural Engineering focuses on the scientific and engineering aspects of planning, designing, constructing, and analyzing buildings. Students learn to become architectural engineers who focus on building structure, stability, and systems, including: Planning, designing, and analyzing acoustics; building sustainability and safety aspects; construction management; heating, ventilating, and air conditioning systems; and lighting and electrical systems.

MORE INFORMATION ABOUT THE DEPARTMENT OF ARCHITECTURAL ENGINEERING (http://www.ae.psu.edu)

Department of Biomedical Engineering
The Department of Biomedical Engineering is built upon the apex of engineering, medicine, healthcare policy and biological discovery. Biomedical Engineering prepares students to become future leaders in the areas of medical device design, instrumentation, medical imaging, healthcare management, biomedical research and academia.

MORE INFORMATION ABOUT THE DEPARTMENT OF BIOMEDICAL ENGINEERING (http://www.bme.psu.edu)

Department of Chemical Engineering
Chemical Engineering combines the principles of chemistry, biology, mathematics and physics to solve some of today’s most pressing societal issues in human health, environmental sustainability, and energy.

MORE INFORMATION ABOUT THE DEPARTMENT OF CHEMICAL ENGINEERING (http://www.che.psu.edu)

Department of Civil and Environmental Engineering
Civil Engineering educates future engineers through solid science and engineering principles by identifying engineering challenges, creating pioneering solutions, and leading the industry with research discoveries and design innovations. We tackle some of the major problems facing society today in order to advance the fields of civil and environmental engineering.

MORE INFORMATION ABOUT THE DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING (http://www.cee.psu.edu)

School of Electrical Engineering and Computer Science
The School of Electrical Engineering and Computer Science (EECS) was created in 2015 to allow greater access to courses offered by both departments in exciting collaborative research fields. EECS focuses on the convergence of technologies and disciplines to meet today’s industrial demands.

MORE INFORMATION ABOUT THE SCHOOL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCE (http://www.eecs.psu.edu)

Department of Engineering Science and Mechanics
Engineering science is a broad discipline that encompasses the many different scientific principles and associated mathematics that underlie engineering. It integrates engineering, biological, chemical, mathematical, and physical sciences with the arts, humanities, social sciences, and the professions to tackle the most demanding challenges and advance the well-being of global society. Engineering scientists research, develop, and design new materials, devices, sensors, and processes for a diverse range of applications.

MORE INFORMATION ABOUT THE DEPARTMENT OF ENGINEERING SCIENCE AND MECHANICS (http://www.ee.psu.edu)

Department of Engineering and Public Policy
Department of Engineering and Public Policy prepares students to become leaders who bring engineering perspectives to public policy issues. Students learn to apply their knowledge to understand and advocate for effective solutions to problems in areas such as energy, transportation, and health care. They learn to work at the interface between engineering and policy to transform knowledge into solutions that can be translated into practice.

MORE INFORMATION ABOUT THE DEPARTMENT OF ENGINEERING AND PUBLIC POLICY (http://www.epp.psu.edu)

Department of Materials Science and Engineering
Materials Science and Engineering is the fundamental science of the engineering of materials. It crosses the boundaries of chemistry, physics, and engineering to understand the properties and functions of matter. It is concerned with the synthesis, processing, structure, properties, and performance of materials. It is the science that underlies the development of new materials with unique and improved properties for use in the products and industries of the future.

MORE INFORMATION ABOUT THE DEPARTMENT OF MATERIALS SCIENCE AND ENGINEERING (http://www.mse.psu.edu)

Department of Mechanical Engineering
Mechanical Engineering is the broad field of engineering that applies the principles of physics and materials science to create structures, machines, and systems which solve real-world problems. Mechanical Engineering is the leading engineering discipline for the design, development, and analysis of physical systems which interact with matter and energy. The mechanical engineers we graduate will contribute to a wide range of industries and help to address the world’s most pressing global challenges.

MORE INFORMATION ABOUT THE DEPARTMENT OF MECHANICAL ENGINEERING (http://ime.psu.edu)

Department of Mechanical and Nuclear Engineering
Department of Mechanical and Nuclear Engineering is committed to educating students in the fundamentals of mechanical engineering and nuclear engineering. The department prepares students for professional careers and for graduate study. Graduates will be able to apply the concepts and methods of engineering to both mechanical and nuclear systems and equipment. The department offers both undergraduate and graduate programs.

MORE INFORMATION ABOUT THE DEPARTMENT OF MECHANICAL AND NUCLEAR ENGINEERING (http://me.ne.psu.edu)

Department of Metallurgical Engineering
Department of Metallurgical Engineering is dedicated to the education and research of metallurgical and materials science professionals. Our students receive a solid foundation in the science of materials and a diverse set of skills and knowledge for their future careers. Our graduates will be able to apply their education to a wide range of industries and help to address global problems.

MORE INFORMATION ABOUT THE DEPARTMENT OF METALLURGICAL ENGINEERING (http://www.met.psu.edu)

Department of Mining and Petroleum Engineering
Department of Mining and Petroleum Engineering is dedicated to educating students in the science and engineering of mineral, petroleum, and related resources. The department offers a comprehensive undergraduate program and graduate programs in mining, petroleum, and other energy-related fields. The department is committed to preparing engineers who are knowledgeable, ethical, and dedicated to the responsible development and use of mineral, petroleum, and related resources.

MORE INFORMATION ABOUT THE DEPARTMENT OF MINING AND PETROLEUM ENGINEERING (http://www.mpe.psu.edu)

Department of Nuclear Engineering
Department of Nuclear Engineering is dedicated to providing top-quality undergraduate and graduate education in nuclear engineering. Our students receive a solid foundation in the science of nuclear engineering and a diverse set of skills and knowledge for their future careers. Our graduates will be able to apply their education to a wide range of industries and help to address global problems.

MORE INFORMATION ABOUT THE DEPARTMENT OF NUCLEAR ENGINEERING (http://www.nuclear.psu.edu)

Department of Petroleum Engineering
Department of Petroleum Engineering is dedicated to educating students in the science and engineering of petroleum resources. The department offers a comprehensive undergraduate program and graduate programs in petroleum engineering. The department is committed to preparing engineers who are knowledgeable, ethical, and dedicated to the responsible development and use of petroleum resources.

MORE INFORMATION ABOUT THE DEPARTMENT OF PETROLEUM ENGINEERING (http://www.pe.psu.edu)

Department of Physics
Department of Physics is dedicated to the education and research of physicists. Our students receive a solid foundation in the science of physics and a diverse set of skills and knowledge for their future careers. Our graduates will be able to apply their education to a wide range of industries and help to address global problems.

MORE INFORMATION ABOUT THE DEPARTMENT OF PHYSICS (http://www.physics.psu.edu)

Department of Software Engineering
Department of Software Engineering is dedicated to educating students in the science of software engineering. Our students receive a solid foundation in the science of software engineering and a diverse set of skills and knowledge for their future careers. Our graduates will be able to apply their education to a wide range of industries and help to address global problems.

MORE INFORMATION ABOUT THE DEPARTMENT OF SOFTWARE ENGINEERING (http://www.software.psu.edu)

Department of Systems Engineering
Department of Systems Engineering is dedicated to educating students in the science and engineering of systems engineering. The department offers a comprehensive undergraduate program and graduate programs in systems engineering. The department is committed to preparing engineers who are knowledgeable, ethical, and dedicated to the responsible development and use of systems engineering.

MORE INFORMATION ABOUT THE DEPARTMENT OF SYSTEMS ENGINEERING (http://www.systems.psu.edu)

Department of Urban and Environmental Engineering
Department of Urban and Environmental Engineering is dedicated to educating students in the science and engineering of urban and environmental systems. The department offers a comprehensive undergraduate program and graduate programs in urban and environmental engineering. The department is committed to preparing engineers who are knowledgeable, ethical, and dedicated to the responsible development and use of urban and environmental systems.

MORE INFORMATION ABOUT THE DEPARTMENT OF URBAN AND ENVIRONMENTAL ENGINEERING (http://www.ueng.psu.edu)

Department of Water Resources Engineering
Department of Water Resources Engineering is dedicated to educating students in the science and engineering of water resources. The department offers a comprehensive undergraduate program and graduate programs in water resources engineering. The department is committed to preparing engineers who are knowledgeable, ethical, and dedicated to the responsible development and use of water resources.

MORE INFORMATION ABOUT THE DEPARTMENT OF WATER RESOURCES ENGINEERING (http://www.wre.psu.edu)

Department of Engineering Design
Department of Engineering Design is dedicated to educating students in the science and engineering of design. The department offers a comprehensive undergraduate program and graduate programs in engineering design. The department is committed to preparing engineers who are knowledgeable, ethical, and dedicated to the responsible development and use of design.

MORE INFORMATION ABOUT THE DEPARTMENT OF ENGINEERING DESIGN (http://www.des.psu.edu)
MORE INFORMATION ABOUT THE DEPARTMENT OF ENGINEERING SCIENCE AND MECHANICS (http://www.esm.psu.edu)

Department of Industrial and Manufacturing Engineering
Industrial Engineers (IEs) design systems and processes to eliminate wastefulness and improve efficiencies. IEs are trained to be problem solvers that have an eye toward innovation and sustainability. They work in a variety of fields to develop solutions for challenges in management, manufacturing, logistics, health systems, retail, service, and ergonomics.

MORE INFORMATION ABOUT THE DEPARTMENT OF INDUSTRIAL AND MANUFACTURING ENGINEERING (http://www.ime.psu.edu)

Department of Mechanical Engineering
Mechanical engineering uses a combination of physics, chemistry, mathematics, and materials science to study mechanical, fluid, and thermal systems. Mechanical engineers create things that help improve the health, happiness and safety of our everyday lives such as biomedical devices, aircraft propulsion, and ways to store renewable energies.

MORE INFORMATION ABOUT THE DEPARTMENT OF MECHANICAL ENGINEERING (https://www.me.psu.edu)

Department of Nuclear Engineering
Nuclear engineering is a multidisciplinary field that includes providing nuclear power for electrical production, and includes understanding and improving nuclear science, nuclear safety, and nuclear security. Graduates may apply their skills to treat diseases, operate nuclear energy systems, develop regulations to ensure safety, or facilitate space exploration.

MORE INFORMATION ABOUT THE DEPARTMENT OF NUCLEAR ENGINEERING (https://www.nuce.psu.edu)

School of Engineering Design, Technology, and Professional Programs
The School of Engineering Design, Technology, and Professional Programs (SEDTAPP) delivers effective engineering education through active, collaborative, project-based, and professionally oriented classroom experiences. SEDTAPP offers a variety of programs that partner faculty, students, and industry in the study of real-life engineering problems and solve them with innovative, humanitarian solutions.

MORE INFORMATION ABOUT THE SCHOOL OF ENGINEERING DESIGN, TECHNOLOGY, AND PROFESSIONAL PROGRAMS (http://sedtapp.psu.edu)

Baccalaureate Degrees
• Aerospace Engineering, B.S.
• Architectural Engineering, B.A.E.
• Biological Engineering, B.S.
• Biomedical Engineering, B.S.
• Chemical Engineering, B.S.
• Civil Engineering, B.S. (Engineering)
• Computer Engineering, B.S. (Engineering)
• Computer Science, B.S. (Engineering)
• Data Sciences, B.S. (Engineering)
• Electrical Engineering Technology, B.S. (Engineering)
• Electrical Engineering, B.S. (Engineering)
• Electro-Mechanical Engineering Technology, B.S. (Engineering)
• Engineering Science, B.S.
• Engineering, B.S.
• Industrial Engineering, B.S. (Engineering)
• Liberal Arts and Earth and Mineral Sciences Concurrent Degree; Liberal Arts and Engineering Concurrent Degree (Engineering)
• Mechanical Engineering, B.S. (Engineering)
• Nuclear Engineering, B.S.
• Surveying Engineering, B.S.

Associate Degrees
• Biomedical Engineering Technology, A.ENGT.
• Electrical Engineering Technology, A.ENGT. (Engineering)
• Mechanical Engineering Technology, A.ENGT. (Engineering)
• Surveying Engineering Technology, A.ENGT.

Minors
• Biological Engineering, Minor
• Biomedical Engineering, Minor
• Cybersecurity Computational Foundations, Minor
• Engineering Leadership Development, Minor
• Engineering Mechanics, Minor
• Environmental Engineering, Minor
• Information Sciences and Technology for Aerospace Engineering, Minor
• Information Sciences and Technology for Industrial Engineering, Minor
• International Engineering, Minor
• Nanotechnology, Minor
• Product Realization, Minor
• Residential Construction, Minor
• Service Enterprise Engineering, Minor
• Six Sigma, Minor

Certificates
• Engineering and Community Engagement, Certificate
• Engineering Design, Certificate
• Housing, Certificate
• International Engineering, Certificate
• Nanotechnology, Certificate
• Space Systems Engineering, Certificate

College Procedures
Academic Warning
A student who fails to earn a 2.00 cumulative grade-point average will be placed on academic warning. A student placed on academic warning will have a hold placed on registration and will be required to meet with an academic adviser in order for this registration hold to be removed. To remove academic warning, the cumulative grade-point average must be 2.00 or higher.

Students on academic warning should work closely with their assigned academic adviser or the College of Engineering Advising Center to identify and address issues impacting their academic success.
Academic Suspension
A student in academic warning who fails to maintain a semester grade-point average of 2.00 or higher will be academically suspended. A student who has been academically suspended may not schedule courses at the University for two consecutive semesters. (Note: Summer session is equal to one semester.)

A student seeking to return to the College of Engineering after academic suspension is required to meet with an academic adviser and follow the procedures outlined by the Engineering Advising Center (https://advising.engr.psu.edu/assets/docs/return-from-suspension-fa18.pdf).

READ SENATE POLICY 54-20: ACADEMIC WARNING (http://senate.psu.edu/policies-and-rules-for-undergraduate-students/54-00-academic-progress/#54-20)

READ SENATE POLICY 54-40: ACADEMIC SUSPENSION (http://senate.psu.edu/policies-and-rules-for-undergraduate-students/54-00-academic-progress/#54-40)

Administrative Enrollment Controls
Students should work with an appropriate academic adviser to determine their Entrance to Major (ETM) requirements for their intended College of Engineering major.

MORE INFORMATION ABOUT ADMINISTRATIVE ENROLLMENT CONTROLS FOR PROGRAMS IN THE COLLEGE OF ENGINEERING (https://advising.engr.psu.edu/advising/entrance-to-major)

Change of Campus
Students generally declare their academic major at the end of their second year of enrollment during the entrance to major process. If the student applies for a major that is not offered at the student’s current location, the student will be required to select an approved location during the entrance to major process.

MORE INFORMATION ABOUT CHANGE OF CAMPUS (https://advising.engr.psu.edu/student-resources/change-of-campus.aspx)

Concurrent Major
A Concurrent Majors Program is one in which students take courses to concurrently meet the requirements of at least two majors, with graduation for all majors in the program occurring during the same semester.

MORE INFORMATION ABOUT CONCURRENT MAJORS (https://advising.engr.psu.edu/student-resources/multiple-majors.aspx)

READ SENATE POLICY 60-00: COMPLETING MORE THAN ONE UNDERGRADUATE MAJOR PROGRAM (http://senate.psu.edu/policies-and-rules-for-undergraduate-students/60-00-completing-more-than-one-undergraduate-program/#60-00)

Resources
Engineering Advising Center
The Engineering Advising Center is the source for information about undergraduate engineering major options, scheduling, degree requirements, entrance-to-major, and more. With a team of dedicated academic advisers, students are provided resources and support as they explore choices regarding their academic interests and co-curricular opportunities.

MORE INFORMATION ABOUT THE ENGINEERING ADVISING CENTER (https://advising.engr.psu.edu)

MORE INFORMATION ABOUT THE CENTER FOR ENGINEERING OUTREACH AND INCLUSION (https://inclusion.engr.psu.edu)

Career Resources & Employer Relations
Career Resources & Employer Relations (CR&ER) provides career advising and resources to all engineering students and alumni from all Penn State campuses. CR&ER staff review résumés and cover letters, provide guidance about the job search process, encourage student engagement with Engineering Career Envoys for peer mentorship, and help students find internship, co-op, and entry-level full-time jobs through Nittany Lion Careers and other online platforms. We also connect students with employers across a range of industries at a wide variety of career events each academic year, including information sessions, career fairs, and seminars.

MORE INFORMATION ABOUT THE CAREER RESOURCES & EMPLOYER RELATIONS (https://career.engr.psu.edu)

Global Engineering Engagement
Engineering students can choose from a variety of study abroad programs spanning six continents, from short-term or semester-long programs to global experiences embedded in the curriculum. Global Engineering Fellows are engineering students who can offer peer-to-peer information, advice, and insight on study abroad.

MORE INFORMATION ABOUT GLOBAL ENGINEERING ENGAGEMENT (https://global.engr.psu.edu)

Honors Programs
Schreyer Honors College
The Schreyer Honors College, regarded as one of the nation’s top programs of its kind, promotes achieving academic excellence with integrity, building a global perspective, and creating opportunities for leadership and civic engagement. Schreyer Scholars, including Gateway Scholars admitted after their first or second year of enrollment, are a diverse and motivated group of approximately 2,000 students at University Park and 20 Commonwealth campuses. The College strives to educate students who will have an important and ethical influence in the world, to improve educational practice, and to continue to be recognized as a leading force in honors education nationwide.

MORE INFORMATION ABOUT THE SCHREYER HONORS COLLEGE (http://www.shc.psu.edu)

Honors in the College of Engineering
The Engineering Science major - also the College of Engineering’s honors program - is a multidisciplinary honors program for engineering students who demonstrate superior academic potential or achievement. Students...
obtain depth of knowledge through technical electives and a capstone research and design project (senior honors thesis).

MORE INFORMATION ABOUT HONORS IN THE COLLEGE OF ENGINEERING (http://www.esm.psu.edu/academics/undergraduate/engineering-science-major.aspx)

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http://advising. engr.psu.edu/