FULL-TIME, ON-CAMPUS UNDERGRADUATE AND GRADUATE PROGRAMS (HOMEWOOD)

About Engineering at Johns Hopkins

Engineering has been part of the Johns Hopkins footprint since 1913, and the Whiting School of Engineering is now ranked among the very best schools of its kind in the country. We advance data- and science-driven engineering discovery, innovation, and systems applications to help everyone live longer and healthier lives and empower communities and society to thrive even in extreme environments. Faculty contributions in areas including environmental engineering, biomedical engineering, robotics, speech and language processing, and materials are numerous and profound. Our exceptional faculty are dedicated to advancing engineering practice and improving society through their research and teaching in myriad engineering and applied science areas. We seek to advance our fields by providing an empowering engineering education that is ethically aware, respectful, and humane – a commitment to educating engineers who are prepared to understand human needs that drive technical solutions and the context in which engineering solutions are deployed.

The Whiting School offers 10 ABET-accredited programs in engineering leading to the Bachelor of Science degree: biomedical engineering, chemical and biomolecular engineering, civil engineering, computer engineering, computer science, electrical engineering, engineering mechanics, environmental engineering, materials science and engineering, and mechanical engineering. The school also offers a B.S. degree in applied mathematics#& statistics as well as a B.A. degree in general engineering. Since the 2022-2023 academic year, the school has also offered a Bachelor of Science degree in Systems Engineering which will seek ABET accreditation when it is eligible to do so.

Our commitment to discovery, innovation and research yields outstanding programs that lead to master's and doctoral degrees. In the descriptions that follow, each department lists its faculty and their research, research facilities, graduate programs, and the elementary and advanced courses they offer. More details can be obtained from the departmental websites, through the Whiting School homepage at http://engineering.jhu.edu.

Accreditation

ABET accreditation information for bachelor's degrees is included on an Accreditation tab for each relevant program.

Bachelor's Programs

- Applied Mathematics and Statistics, Bachelor of Arts (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/applied-mathematics-statistics/applied-mathematics-statistics-bachelors-degrees/)
- Applied Mathematics and Statistics, Bachelor of Science (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/applied-mathematics-statistics/applied-mathematics-statistics-bs/)
- Biomedical Engineering, Bachelor of Science (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/biomedical-engineering/biomedical-engineering-bachelor-science/)
- Chemical and Biomolecular Engineering, Bachelor of Science (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/chemical-biomolecular-engineering/chemical-biomolecular-engineering-bachelor-science/)
- Civil Engineering, Bachelor of Science (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/civil-engineering/civil-engineering-bachelor-science/)
- Computer Engineering, Bachelor of Science (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/electrical-computer-engineering/computer-engineering-bachelor-science/)
- Computer Science, Bachelor of Arts (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/computer-science/computer-science-ba/)
- Computer Science, Bachelor of Science (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/computer-science/computer-science-bs/)
- Electrical Engineering, Bachelor of Science (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/electrical-computer-engineering/electrical-engineering-bachelor-science/)
- Engineering Mechanics, Bachelor of Science (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/mechanical-engineering/engineering-mechanics-bachelor-science/)
- Environmental Engineering, Bachelor of Science (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/environmental-health-engineering/environmental-engineering-bachelor-science/)
- General Engineering, Bachelor of Arts (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/general-engineering/general-engineering-bachelor-arts/)
- Materials Science and Engineering, Bachelor of Science (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/materials-science-engineering/materials-engineering-bachelor-science/)
- Mechanical Engineering, Bachelor of Science (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/mechanical-engineering/mechanical-engineering-bachelor-science/)
- Systems Engineering, Bachelor of Science (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/civil-engineering/systems-engineering-bachelor-science/)

Minors

- Accounting and Financial Management, Minor (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/leadership-education/accounting-financial-management-minor/)
- Applied Mathematics and Statistics, Minor (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/applied-mathematics-statistics/applied-mathematics-statistics-minor/)
- Business, Minor (https://e-catalogue.jhu.edu/business/degrees-certificates/undergraduate-minor-business/)

- Civil Engineering, Minor (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/civil-engineering/civil-engineering-minor/)
- Computational Medicine, Minor (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/computational-medicine/computational-medicine-minor/)
- Computer Integrated Surgery, Minor (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/robotics-computational-sensing/computer-integrated-surgery-minor/)
- Computer Science, Minor (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/computer-science/computer-science-minor/)
- Energy, Minor (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/electrical-computer-engineering/energy-minor/)
- Engineering for Sustainable Development, Minor (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/environmental-health-engineering/engineering-sustainable-development-minor/)
- Environmental Engineering, Minor (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/environmental-health-engineering/environmental-engineering-minor/)
- Environmental Sciences, Minor (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/environmental-health-engineering/environmental-sciences-minor/)
- Leadership Studies, Minor (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/leadership-education/leadership-studies/)
- Marketing and Communications, Minor (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/leadership-education/marketing-communications/)
- Robotics, Minor (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/robotics-computational-sensing/robotics-minor/)
- Space Science and Engineering, Minor (https://e-catalogue.jhu.edu/arts-sciences/full-time-residential-programs/degree-programs/space-science-engineering/space-science-engineering-minor/)
- Systems Engineering, Minor (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/civil-engineering/systems-engineering-minor/)
- W.P. Carey Entrepreneurship and Management, Minor (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/leadership-education/entrepreneurship-management-minor/)

Master's Programs

- Applied Mathematics and Statistics, Master of Science in Engineering (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/applied-mathematics-statistics/applied-mathematics-statistics-master-science-engineering/)
- Bioengineering Innovation and Design, Master of Science in Engineering (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/biomedical-engineering/innovation-design-master-science-engineering/)
- Biomedical Engineering, Master of Science in Engineering (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/biomedical-engineering/biomedical-engineering-master-science-engineering/)
- Chemical and Biomolecular Engineering, Master of Science in Engineering (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/chemical-biomolecular-engineering/chemical-biomolecular-engineering-master-science-engineering/)
- Civil Engineering, Master of Science in Engineering (MSE) (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/civil-engineering/civil-engineering-mse/)
- Computer Science, Master of Science in Engineering (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/computer-science/computer-science-master-science-engineering/)
- Data Science, Master of Science (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/applied-mathematics-statistics/data-science-masters-degree/)
- Electrical and Computer Engineering, Master of Science in Engineering (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/electrical-computer-engineering/electrical-computer-master-science-engineering/)
- Engineering Management, Master of Science (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/leadership-education/engineering-management-master-science/)
- Financial Mathematics, Master of Science in Engineering (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/applied-mathematics-statistics/financial-mathematics-master-science-engineering/)
- Geography and Environmental Engineering, Master of Arts (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/environmental-health-engineering/environmental-health-engineering-master-arts/)
- Geography and Environmental Engineering, Master of Science (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/environmental-health-engineering/environmental-health-engineering-master-science/)
- Geography and Environmental Engineering, Master of Science in Engineering (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/environmental-health-engineering/environmental-health-master-science-engineering/)
- Global Innovation and Leadership Through Engineering, Master of Science (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/leadership-education/global-innovation-leadership-engineering-master-science/)
- Materials Science and Engineering, Master of Science in Engineering (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/materials-science-engineering/materials-science-engineering-master/)
- Mechanical Engineering, Master of Science in Engineering (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/mechanical-engineering/mechanical-engineering-master-science/)
- Occupational and Environmental Hygiene, Master of Science (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/environmental-health-engineering/occupational-environmental-hygiene-master-sience/)
- Robotics, Master of Science in Engineering (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/robotics-computational-sensing/robotics-master-science-engineering/)

- Security Informatics, Master of Science (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/information-security-institute/security-informatics-master-science/)
- Security Informatics, Master of Science/Applied Mathematics and Statistics, Master of Science in Engineering Dual Master's Program (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/information-security-institute/security-informatics-master-science-applied-mathematics-statistics-engineering-dual-program/)
- Security Informatics, Master of Science/Computer Science, Master of Science in Engineering Dual Master's Program (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/information-security-institute/security-informatics-master-science-computer-science-engineering-dual-program/)
- Systems Engineering, Master of Science (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/civil-engineering/systems-engineering-ms/)

Doctoral Programs

- Applied Mathematics and Statistics, PhD (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/applied-mathematics-statistics/applied-mathematics-statistics-phd/)
- Biomedical Engineering, PhD through the School of Medicine (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/biomedical-engineering/biomedical-engineering-phd/)
- Chemical and Biomolecular Engineering, PhD (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/chemical-biomolecular-engineering/chemical-biomolecular-engineering-phd/)
- Civil and Systems Engineering, PhD (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/civil-engineering/civil-engineering-phd/)
- Computer Science, PhD (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/computer-science/computer-science-phd/)
- Electrical and Computer Engineering, PhD (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/electrical-computer-engineering/electrical-computer-engineering-phd/)
- Engineering, Doctor of Engineering (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/doctor-engineering/engineering-doctor/)
- Geography and Environmental Engineering, PhD (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/environmental-health-engineering/environmental-health-engineering-phd/)
- Materials Science and Engineering, PhD (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/materials-science-engineering/materials-science-engineering-phd/)
- Mechanical Engineering, PhD (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/mechanical-engineering/mechanical-engineering-phd/)

Dual Programs

- Security Informatics, Master of Science/Applied Mathematics and Statistics, Master of Science in Engineering Dual Master's Program (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/information-security-institute/security-informatics-master-science-applied-mathematics-statistics-engineering-dual-program/)
- Security Informatics, Master of Science/Computer Science, Master of Science in Engineering Dual Master's Program (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/information-security-institute/security-informatics-master-science-computer-science-engineering-dual-program/)

Non-Degree Programs

- Professional Communication Program (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/leadership-education/professional-communication/)
- Professional Development Program (https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/leadership-education/professional-development/)

Whiting School of Engineering Leadership

Ed Schlesinger
Benjamin T. Rome Dean

Hedy Alavi
Associate Dean for Global Partnerships

Anne Albinak
Executive Director of Research Affairs

James Aumiller
Special Advisor to Executive Vice Dean

Megan Barrett
Assistant Dean for Student Affairs

Alexis Battle
Interim Co-Director, Data Science and AI Institute

Karen Borgsmiller
Assistant Dean for Pre-Collegiate Programs

Chris Brown
Director of Capital Planning and Facilities Management

Rama Chellappa
Interim Co-Director, Data Science and AI Institute

Chad Clapsaddle
Executive Vice Dean for Strategic Initiatives and Operations and Interim Senior Associate Dean for Finance and Administration

Andrew Douglas
Executive Vice Dean

Michael Falk
Vice Dean for Undergraduate Education

David Flanigan
Associate Dean for Non-Residential Graduate Education

Nathan Graham
Assistant Dean for Media and Technology

Lori Graham-Brady

Vice Dean for Faculty

Daniel Horn
Associate Vice Dean for Professional Education and Lifelong Learning

Megan Howie
Senior Associate Dean of Corporate and Global Partnerships

Paul Huckett
Associate Dean for Lifelong Learning

Christine Kavanagh
Associate Vice Dean for Graduate Education and Lifelong Learning

Erika Lance
Senior Director of Operational Excellence and Analytics

Mary Kay LeMay
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Olysha Magruder
Director, Learning Design and Faculty Development

Lauren McGhee
Assistant Dean of Enrollment and Academic Operations

Scott McGhee
Senior Administrator, Data Science and AI Institute

Constanza Miranda
Assistant Dean for Faculty Undergraduate Mentoring

Larry Nagahara
Vice Dean for Research and Translation

Patreena Parsons

Director of Institutional Research

Darlene Saporu
Associate Dean of Outreach and Belonging

Sridevi Sarma
Vice Dean for Graduate Education and Lifelong Learning

Serena Savino
Associate Dean for Development and Alumni Relations

Edward Scheinerman
Vice Dean for Special Projects

Ernie Soffronoff
IT Operating Unit Director

Alisha Sparks
Executive Director, Center for Educational Outreach

Shannon Towner
Senior Director of Finance and Operations

Janet Weise
Associate Dean for Undergraduate Academic Affairs

Jared Wood
Director of Human Resources

Kimberley Bassett Zing

Associate Dean for Undergraduate Academic Advising

Full Faculty directory may be found on the Faculty Directory (https://engineering.jhu.edu/faculty/) page.