

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

About Engineering at Johns Hopkins

Engineering education at Johns Hopkins began with the establishment of an engineering school in 1913. Throughout its history, the Whiting School has maintained close ties with the Krieger School of Arts and Sciences, which has led pioneering education and research since the Faculty of Philosophy was assembled in 1876. The Whiting School of Engineering provides its students with an education and research environment that fosters a lifetime ability to create and apply new knowledge and to contribute to their professions.

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 B.S. and B.A. degrees in applied mathematics & statistics as well as B.A. degrees in biomedical engineering, computer science, and general engineering. Beginning in the 2022-2023 academic year, the school is also offering a Bachelor of Science degree in Systems Engineering which will seek ABET accreditation when it is eligible to do so.

Our commitment to advanced study and research yields outstanding programs that lead to masters 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> (<http://engineering.jhu.edu/>).

Accreditation

The following Bachelor of Science programs in the Whiting School of Engineering are accredited by the Engineering Accreditation Commission of ABET: Biomedical Engineering, Chemical and Biomolecular Engineering, Civil Engineering, Computer Engineering, Electrical Engineering, Engineering Mechanics, Environmental Engineering, Materials Science and Engineering, and Mechanical Engineering.

The Bachelor of Science program in Computer Science is accredited by the Computing Accreditation Commission of ABET.

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 Arts (<https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/biomedical-engineering/biomedical-engineering-bachelor-arts/>)
- 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 Arts (<https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/electrical-computer-engineering/electrical-engineering-bachelor-arts/>)
- 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/accounting-and-financial-management/>)

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/>)
- Entrepreneurship and Management, Minor (<https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/leadership-education/entrepreneurship-management-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 (newly approved for Fall 2023, information coming soon)

Non-Degree Programs

- Computational Medicine, Pre-Doctoral Training Program (<https://e-catalogue.jhu.edu/engineering/full-time-residential-programs/degree-programs/computational-medicine/computational-medicine-pre-doctoral-training-program/>)

- 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/>)

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's Degree (<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-engineering-master-science/>)

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- Global Innovation and Leadership, 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-science/>)
- 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-mse/>)

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/>)

Whiting School of Engineering Leadership

Ed Schlesinger
Benjamin T. Rome Dean

Hedy Alavi
Assistant Dean for International Programs

James Aumiller
Senior Associate Dean for Strategic Initiatives

Kimberley Bassett
Assistant Dean for Undergraduate Academic Advising

Harry K. Charles, Jr.
Associate Dean for Non-Residential Graduate Education

Chad Clapsaddle
Senior Associate Dean for Finance and Administration

Andrew Douglas
Executive Vice Dean

Michael Falk
Vice Dean for Undergraduate Education

Joy Goswami
Senior Director of Corporate Engagement

Nathan Graham
Assistant Dean for Media and Technology

Daniel Horn
Associate Vice Dean for Professional Education and Lifelong Learning

Megan Howie
Associate Dean for External Relations

Paul Hockett
Assistant Dean for Learning Design and Innovation

Christine Kavanagh
Associate Vice Dean for Graduate Education and Lifelong Learning

Khusro Kidwai
Associate Dean for Lifelong Learning

Mary Kay LeMay
Assistant Dean for Marketing and Communications

Constanza Miranda
Assistant Dean for Faculty Undergraduate Mentoring

Larry Nagahara
Vice Dean for Research and Translation

Alisha Sparks
Interim Executive Director, Center for Educational Outreach

Darlene Saporu
Assistant Dean for Diversity and Inclusion, Whiting School of Engineering

Sridevi Sarma
Vice Dean for Graduate Education and Lifelong Learning

Edward R. Scheinerman
Vice Dean for Faculty

Janet Weise
Associate Dean for Undergraduate Academic Affairs

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