

# ENGINEERING AND APPLIED SCIENCE (COLLEGE OF)

UWM's College of Engineering & Applied Science is a dynamic research institution with award-winning faculty, state-of-the-art facilities and established business connections that provide context for our work.

One of only two doctorate-granting institutions in the state of Wisconsin, UW-Milwaukee is recognized by the Carnegie Classification of Institutions of Higher Education as one of the nation's top research institutions. UWM's location offers unique benefits to engineering students and faculty alike. Seven Fortune 500 companies' international headquarters are located within easy driving distance of the university – as are many leading manufacturers' facilities.

This has real and lasting impact on the UWM engineering community. Collaborative research, corporate partnerships, and real-world work experience (<http://uwm.edu/engineering/current-students/career-services/co-ops-and-internships/>) are an integral part of the UWM experience.

We invite you to learn more about our research as well as our undergraduate and graduate programs. You'll see why UWM is the right choice when you are ready to build your future and change the world.

## Mission

To educate students to become creative problem solvers, conduct leading-edge research with global impacts, and act as a catalyst for improved economic development and quality of life in Wisconsin.

## Vision

To become a globally prominent engineering education and research institution.

Our location in the major industrial center of the state of Wisconsin offers engineering and computer science students several advantages. Professional engineers and computer scientists from the industrial community share their expertise with the College in the classroom, research laboratory, and on the College's advisory committees. Our very successful co-op and internship programs give students work experience in their field of study before graduation. Many of the projects that students work on in the classroom are real projects brought to us by local companies. In short, Milwaukee-area companies offer our students a real-world laboratory to gain valuable insights and skills in their major field.

## Accreditation

UWM is accredited by the Higher Learning Commission. In addition, the College's bachelor's programs in biomedical engineering, civil engineering, computer engineering, electrical engineering, industrial engineering, materials engineering, and mechanical engineering are accredited by the Engineering Accreditation Commission of ABET. The computer science program is accredited by the Computing Accreditation Commission of ABET. The newer environmental engineering program will be reviewed for accreditation in an upcoming review cycle.

## Departments and Programs

- Biomedical and Health Informatics (<https://catalog.uwm.edu/engineering-applied-science/biomedical-health-informatics/>)
  - Biomedical and Health Informatics, PhD ([https://catalog.uwm.edu/engineering-applied-science/biomedical-health-informatics-phd/](https://catalog.uwm.edu/engineering-applied-science/biomedical-health-informatics/biomedical-health-informatics-phd/))
- Biomedical Engineering (<https://catalog.uwm.edu/engineering-applied-science/biomedical-engineering/>)
  - Biomedical Engineering, BSE (<https://catalog.uwm.edu/engineering-applied-science/biomedical-engineering/biomedical-engineering-bse/>)
- Civil and Environmental Engineering (<https://catalog.uwm.edu/engineering-applied-science/civil-environmental-engineering/>)
  - Civil Engineering, BSE (<https://catalog.uwm.edu/engineering-applied-science/civil-environmental-engineering/civil-engineering-bse/>)
- Environmental Engineering, BSE (<https://catalog.uwm.edu/engineering-applied-science/civil-environmental-engineering/environmental-engineering-bse/>)
- Professional Practice in Civil Engineering Infrastructure, Graduate Certificate (<https://catalog.uwm.edu/engineering-applied-science/civil-environmental-engineering/professional-practice-civil-engineering-infrastructure-graduate-certificate/>)
- Structural Engineering, Minor (<https://catalog.uwm.edu/engineering-applied-science/civil-environmental-engineering/structural-engineering-minor/>)
- Computer Engineering, BS (<https://catalog.uwm.edu/engineering-applied-science/computer-engineering-bs/>)
- Computer Science (<https://catalog.uwm.edu/engineering-applied-science/computer-science/>)
  - Applied Computing, BS (<https://catalog.uwm.edu/engineering-applied-science/computer-science/applied-computing-bs/>)
  - Applied Math and Computer Science, BS (College of Engineering and Applied Science, Department of Computer Science) (<https://catalog.uwm.edu/engineering-applied-science/computer-science/applied-math-computer-science-bs/>)
  - Artificial Intelligence and Machine Learning, Graduate Certificate (Department of Computer Science) (<https://catalog.uwm.edu/engineering-applied-science/computer-science/artificial-intelligence-machine-learning-graduate-certificate/>)
  - Computer Science, BA (<https://catalog.uwm.edu/engineering-applied-science/computer-science/computer-science-ba/>)
  - Computer Science, BS (<https://catalog.uwm.edu/engineering-applied-science/computer-science/computer-science-bs/>)
  - Computer Science, Minor (<https://catalog.uwm.edu/engineering-applied-science/computer-science/computer-science-minor/>)
  - Computer Science, MS (<https://catalog.uwm.edu/engineering-applied-science/computer-science/computer-science-ms/>)
  - Computer Science, PhD (<https://catalog.uwm.edu/engineering-applied-science/computer-science/computer-science-phd/>)
  - Data Science, BS (College of Engineering and Applied Science, Department of Computer Science) (<https://catalog.uwm.edu/engineering-applied-science/computer-science/data-science-bs/>)
  - Web Development, Undergraduate Certificate (<https://catalog.uwm.edu/engineering-applied-science/computer-science/web-development-undergraduate-certificate/>)
- Electrical Engineering (<https://catalog.uwm.edu/engineering-applied-science/electrical-engineering/>)

- Artificial Intelligence and Machine Learning, Graduate Certificate (Department of Electrical Engineering) (<https://catalog.uwm.edu/engineering-applied-science/electrical-engineering/artificial-intelligence-machine-learning-graduate-certificate/>)
- Electrical Engineering, BSE (<https://catalog.uwm.edu/engineering-applied-science/electrical-engineering/electrical-engineering-bse/>)
- Electrical Engineering, Minor (<https://catalog.uwm.edu/engineering-applied-science/electrical-engineering/electrical-engineering-minor/>)
- Electrical Engineering, PhD (<https://catalog.uwm.edu/engineering-applied-science/electrical-engineering/electrical-engineering-phd/>)
- Engineering and Applied Science (<https://catalog.uwm.edu/engineering-applied-science/engineering-applied-science/>)
  - Energy Engineering, Graduate Certificate (<https://catalog.uwm.edu/engineering-applied-science/engineering-applied-science/energy-engineering-graduate-certificate/>)
  - Engineering, MS (<https://catalog.uwm.edu/engineering-applied-science/engineering-applied-science/engineering-ms/>)
  - Engineering, MS/Urban Planning, MUP (<https://catalog.uwm.edu/engineering-applied-science/engineering-applied-science/engineering-ms-urban-planning-mup/>)
  - Engineering, MS: Artificial Intelligence and Machine Learning (<https://catalog.uwm.edu/engineering-applied-science/engineering-applied-science/engineering-artificial-intelligence-machine-learning-ms/>)
  - Engineering, MS: Biomedical Engineering (<https://catalog.uwm.edu/engineering-applied-science/engineering-applied-science/engineering-biomedical-ms/>)
  - Engineering, MS: Civil Engineering (<https://catalog.uwm.edu/engineering-applied-science/engineering-applied-science/engineering-civil-engineering-ms/>)
  - Engineering, MS: Electrical and Computer Engineering (<https://catalog.uwm.edu/engineering-applied-science/engineering-applied-science/engineering-electrical-and-computer-ms/>)
  - Engineering, MS: Energy Engineering (<https://catalog.uwm.edu/engineering-applied-science/engineering-applied-science/engineering-energy-ms/>)
  - Engineering, MS: Engineering Management (<https://catalog.uwm.edu/engineering-applied-science/engineering-applied-science/engineering-management-ms/>)
  - Engineering, MS: Engineering Mechanics (<https://catalog.uwm.edu/engineering-applied-science/engineering-applied-science/engineering-engineering-mechanics-ms/>)
  - Engineering, MS: Industrial and Systems Engineering (<https://catalog.uwm.edu/engineering-applied-science/engineering-applied-science/engineering-industrial-management-ms/>)
  - Engineering, MS: Manufacturing Engineering (<https://catalog.uwm.edu/engineering-applied-science/engineering-applied-science/engineering-manufacturing-ms/>)
  - Engineering, MS: Materials Engineering (<https://catalog.uwm.edu/engineering-applied-science/engineering-applied-science/engineering-materials-ms/>)
  - Engineering, MS: Mechanical Engineering (<https://catalog.uwm.edu/engineering-applied-science/engineering-applied-science/engineering-mechanical-ms/>)
- Engineering, MS: Occupational Biomechanics/Ergonomics (<https://catalog.uwm.edu/engineering-applied-science/engineering-applied-science/engineering-occupational-biomechanics-ergonomics-ms/>)
- Engineering, PhD (<https://catalog.uwm.edu/engineering-applied-science/engineering-applied-science/engineering-phd/>)
- Engineering, PhD: Biomedical Engineering (<https://catalog.uwm.edu/engineering-applied-science/engineering-applied-science/engineering-biomedical-engineering-phd/>)
- Engineering, PhD: Civil Engineering (<https://catalog.uwm.edu/engineering-applied-science/engineering-applied-science/engineering-civil-engineering-phd/>)
- Engineering, PhD: Computer Science (<https://catalog.uwm.edu/engineering-applied-science/engineering-applied-science/engineering-computer-science-phd/>)
- Engineering, PhD: Electrical Engineering (<https://catalog.uwm.edu/engineering-applied-science/engineering-applied-science/engineering-electrical-engineering-phd/>)
- Engineering, PhD: Industrial Engineering (<https://catalog.uwm.edu/engineering-applied-science/engineering-applied-science/engineering-industrial-engineering-phd/>)
- Engineering, PhD: Materials Engineering (<https://catalog.uwm.edu/engineering-applied-science/engineering-applied-science/engineering-materials-engineering-phd/>)
- Engineering, PhD: Mechanical Engineering (<https://catalog.uwm.edu/engineering-applied-science/engineering-applied-science/engineering-mechanical-engineering-phd/>)
- Ergonomics, Graduate Certificate (<https://catalog.uwm.edu/engineering-applied-science/engineering-applied-science/ergonomics-graduate-certificate/>)
- Modern Engineering Leadership, Graduate Certificate (<https://catalog.uwm.edu/engineering-applied-science/engineering-applied-science/modern-engineering-leadership-graduate-certificate/>)
- Industrial and Manufacturing Engineering (<https://catalog.uwm.edu/engineering-applied-science/industrial-manufacturing-engineering/>)
  - Connected Systems Engineering, MS (<https://catalog.uwm.edu/engineering-applied-science/industrial-manufacturing-engineering/connected-systems-engineering-ms/>)
  - Engineering, BS (<https://catalog.uwm.edu/engineering-applied-science/industrial-manufacturing-engineering/engineering-bs/>)
  - Industrial Engineering, BSE (<https://catalog.uwm.edu/engineering-applied-science/industrial-manufacturing-engineering/industrial-engineering-bse/>)
  - Industrial Engineering, Minor (<https://catalog.uwm.edu/engineering-applied-science/industrial-manufacturing-engineering/industrial-engineering-minor/>)
- Integrated BS-MS Degree (<https://catalog.uwm.edu/engineering-applied-science/integrated-bs-ms-degree/>)
- Materials Engineering (<https://catalog.uwm.edu/engineering-applied-science/materials-engineering/>)
  - Materials Engineering, BSE (<https://catalog.uwm.edu/engineering-applied-science/materials-engineering/materials-engineering-bse/>)
  - Materials Engineering, Minor (<https://catalog.uwm.edu/engineering-applied-science/materials-engineering/materials-engineering-minor/>)

- Mechanical Engineering (<https://catalog.uwm.edu/engineering-applied-science/mechanical-engineering/>)
  - Mechanical Engineering, BSE (<https://catalog.uwm.edu/engineering-applied-science/mechanical-engineering/mechanical-engineering-bse/>)
  - Mechanical Engineering, Minor (<https://catalog.uwm.edu/engineering-applied-science/mechanical-engineering/mechanical-engineering-minor/>)
  - Mechanical Engineering, PhD (<https://catalog.uwm.edu/engineering-applied-science/mechanical-engineering/mechanical-engineering-phd/>)

## Requirements for Employment, Licensing, or Professional Organizations

Students should be aware that some professions, occupations, and employers are subject to licensing and/or bonding requirements. When a course of study includes clinical or field training, practice teaching, internships, or the like, students may be subjected to a check of criminal conviction records prior to acceptance of a student by the placement site. Students are responsible for obtaining the necessary information about these requirements and for planning their studies accordingly. Please contact the appropriate department or program office for further information.

## Administration

**Brett Peters**  
Dean

**Andrew Graettinger**  
Associate Dean for Research

**Prasenjit Guptasarma**  
Associate Dean, Academic and Administrative Affairs

## Student Services

**Steven Anderson**  
Academic Support & Retention Coordinator

**Todd R. Johnson**  
Assistant Dean of Student Services

**Megan Bauski**  
Academic Advisor

**Brandon Clark**  
Academic Advisor

**Tina Current**  
Senior Academic Advisor

**Jennifer Klumpp**  
Senior Academic Advisor

**Julianne Pickering**  
Career Services

## Graduate Programs

**Therese Crary**  
Advisor, Graduate Programs

**Robert Packard**

Advisor, Graduate Programs

## Student Organizations

In addition to the wide variety of activities that are available for all UWM students, CEAS students have the opportunity to participate in many organizations relating to their professional interests. Involvement in these organizations is recognized as a valuable component of their professional education.

### Organizations

AAO - Aeronautics and Aerospace Organization

AFS - American Foundrymen's Society

ASCE - American Society of Civil Engineers

ASM/TMS - Materials Engineering Society

ASME - American Society of Mechanical Engineers

IEEE - Institute of Electrical and Electronic Engineers

IEEE-CS - Institute of Electrical and Electronic Engineers Computer Society

IIE - Institute of Industrial Engineers

ITE - Institute of Transportation Engineers

NSBE - National Society of Black Engineers

RC - Rocket Club

ROV - Remotely Operated Vehicle Team

SAE - Society of Automotive Engineers

SHPE - Society of Hispanic Professional Engineers

SME - Society of Manufacturing Engineers

SWE - Society of Women Engineers

### Professional Fraternity

Triangle

### Honor Societies

Pi Tau Sigma

Tau Beta Pi

## Co-op and Internship Program

In today's competitive job market, it takes more than a college degree to find employment upon graduation. The Career Services Office in the College provides the link between your education and the real world. This office is dedicated to helping all CEAS students secure engineering or computer science-related work experience before graduation, because related work experience in combination with good academics are the criteria most employers use to select new hires.

The College offers students two ways to gain that experience: internships and co-ops. The principal goals of the programs are to provide career orientation to students and enhance their professional development. All internships and co-ops are paid at a rate commensurate with educational

background and experience. For more information, contact the Career Services Office at (414) 229-6960 or [ceascareers@uwm.edu](mailto:ceascareers@uwm.edu).

## **Contact Information**

### **Office of Student Services**

Engineering and Mathematical Sciences Building, E386