

ENGINEERING AND APPLIED SCIENCE (EAS)

Engineering and Applied Science Courses

EAS 1 Engineering Co-op Work Period

1 cr. Undergraduate.

One semester work period in an industrial environment.

Prerequisites: prior consent of co-op director.

Course Rules: Considered full time for FA purposes. Credit/No Credit only.

May be retaken but only 3 cr count toward graduation.

Last Taught: Fall 2025, Summer 2025, Spring 2025, Fall 2024.

Current Offerings: <https://catalog.uwm.edu/course-search/>

EAS 100 CEAS Freshman Orientation

1 cr. Undergraduate.

An introduction to problem solving in engineering and computer science.

Prerequisites: none.

Course Rules: Credit/No Credit grading option only.

Last Taught: Fall 2025, Fall 2021, Fall 2020, Fall 2019.

Current Offerings: <https://catalog.uwm.edu/course-search/>

EAS 102 Story of Innovation: From Ideas to Impact

3 cr. Undergraduate.

Exploration of the history and models of innovation, emphasizing customer-centric approaches, the technologies underlying innovation, technology adoption, and building a culture for innovation.

Prerequisites: none.

General Education Requirements: Natural Science and Wellness

Current Offerings: <https://catalog.uwm.edu/course-search/>

EAS 110 Fundamentals of Smart Systems Engineering I

2 cr. Undergraduate.

Electrical sources, resistance, Kirchoff's laws, Resistive sensors, application, introduction to robotics, laboratory experiments and projects.

Prerequisites: MATH 115(C).

Last Taught: Fall 2025, Spring 2025, Fall 2024, Spring 2024.

Current Offerings: <https://catalog.uwm.edu/course-search/>

EAS 111 Health Design: Understanding Human Health and Disease

3 cr. Undergraduate.

Introduction to the nature of human health and diseases with a focus on how design thinking can be used to improve health outcomes and enhance the patient's experience.

Prerequisites: none.

Current Offerings: <https://catalog.uwm.edu/course-search/>

EAS 125 How People Move: Introduction to Human Movement Science for Global Health

3 cr. Undergraduate.

Introduction to basic description and analysis of human movement. Includes examples, guest lectures, and case studies on disability, rehabilitation, and global health in developing countries. Optional instructor-led service-learning study abroad program in Manila, Philippines.

Prerequisites: none.

General Education Requirements: Civics and Perspectives

Current Offerings: <https://catalog.uwm.edu/course-search/>

EAS 130 Systems Thinking, Complexity, and Wicked Problems in the 21st Century

3 cr. Undergraduate.

Introduction to systems thinking, complexity, and the world's most challenging problems. Consideration of the ecological, economic, political, and financial systems that impact, and are impacted by, these problems. Potential solutions at local, regional, global levels.

Prerequisites: none.

General Education Requirements: Civics and Perspectives

Current Offerings: <https://catalog.uwm.edu/course-search/>

EAS 200 Professional Seminar

1 cr. Undergraduate.

Professional orientation and career planning. Current issues in the profession.

Prerequisites: none.

Last Taught: Fall 2025, Spring 2025, Fall 2024, Spring 2024.

Current Offerings: <https://catalog.uwm.edu/course-search/>

EAS 208 College of Engineering and Applied Science Internship Course

0-3 cr. Undergraduate.

Students conceptualize, understand, and apply the experiences of their internship. Students will consider the questions, among others: 'What is an internship?', and 'How does my internship connect to my career and to my community?'

Prerequisites: consent of instructor.

Course Rules: If credit has been earned for the course, it can be retaken, but only as the zero credit option.

Last Taught: Fall 2025, Summer 2025, Spring 2025.

Current Offerings: <https://catalog.uwm.edu/course-search/>

EAS 210 Fundamentals of Smart Systems Engineering II

2 cr. Undergraduate.

Electrical capacitance, inductance, simple circuit application, diodes, opamps, digital logic, microcontroller basics, laboratory experiments and projects.

Prerequisites: EAS 110(P).

Last Taught: Fall 2025, Spring 2025, Fall 2024, Spring 2024.

Current Offerings: <https://catalog.uwm.edu/course-search/>

EAS 290 Topics in Engineering and Applied Science:

1-3 cr. Undergraduate.

Lectures on new introductory material in engineering and applied science. Variable-content course.

Prerequisites: specified in semester Schedule whenever required for topic.

Course Rules: May be retaken with change in topic.

Last Taught: Spring 2024, Spring 2023, Spring 2022, Fall 2021.

Current Offerings: <https://catalog.uwm.edu/course-search/>

EAS 297 Study Abroad:

1-5 cr. Undergraduate.

Designed to enroll students in UWM sponsored program. Course work, content, and credits determined at the time of offering.

Prerequisites: acceptance to Study Abroad Program and consent of CEAS Associate Dean for academic programs.

Course Rules: Retakable with change in topic to 12 cr max.

Last Taught: Spring 2025, Fall 2024, Summer 2022, Spring 2022.

Current Offerings: <https://catalog.uwm.edu/course-search/>

EAS 299 Independent Study

1-3 cr. Undergraduate.

Independent study on a topic of choice. Credit hours to be arranged between student and staff on an individual basis.

Prerequisites: consent of instructor.

Course Rules: May be retaken for degree cr.

Last Taught: Spring 2019, Summer 2018, Spring 2018, Fall 2017.

Current Offerings: <https://catalog.uwm.edu/course-search/>

EAS 350 Senior Leadership Seminar

1 cr. Undergraduate.

Elements of historical and modern social and professional leadership, preparing for a leadership position in industry, leadership and entrepreneurship, engineering management techniques.

Prerequisites: sr st.

Current Offerings: <https://catalog.uwm.edu/course-search/>

EAS 490 Sustainable Design for Community Development

3 cr. Undergraduate/Graduate.

Transdisciplinary students will work on sustainable projects and designs to address complex societal problems that require consideration of economy, environment, politics, and technology that leverage community-based knowledge.

Prerequisites: junior standing or consent of instructor; MECHENG 320(R).

Course Rules: EAS 490, FRSHWTR 490, and PEACEST 490 are jointly offered and count as repeats of one another.

Last Taught: Spring 2025.

Current Offerings: <https://catalog.uwm.edu/course-search/>

EAS 490G Sustainable Design for Community Development

3 cr. Undergraduate/Graduate.

Transdisciplinary students will work on sustainable projects and designs to address complex societal problems that require consideration of economy, environment, politics, and technology that leverage community-based knowledge.

Prerequisites: junior standing or consent of instructor; MECHENG 320(R).

Course Rules: EAS 490, FRSHWTR 490, and PEACEST 490 are jointly offered and count as repeats of one another.

Last Taught: Spring 2025.

Current Offerings: <https://catalog.uwm.edu/course-search/>

EAS 497 Study Abroad:

1-5 cr. Undergraduate/Graduate.

Designed to enroll students in UWM sponsored program. Course work, level, content, and credits determined at the time of offering.

Prerequisites: acceptance to Study Abroad Program and consent of CEAS Associate Dean for Academic Programs.

Course Rules: May be retaken with change in topic to 12 cr max for undergraduate students and 9 cr max for graduate students.

Last Taught: UWinteriM 2026, Fall 2024.

Current Offerings: <https://catalog.uwm.edu/course-search/>

EAS 497G Study Abroad:

1-5 cr. Undergraduate/Graduate.

Designed to enroll students in UWM sponsored program. Course work, level, content, and credits determined at the time of offering.

Prerequisites: acceptance to Study Abroad Program and consent of CEAS Associate Dean for Academic Programs.

Course Rules: May be retaken with change in topic to 12 cr max for undergraduate students and 9 cr max for graduate students.

Last Taught: UWinteriM 2026, Fall 2024.

Current Offerings: <https://catalog.uwm.edu/course-search/>

EAS 701 Effective Academic Writing

1 cr. Graduate.

Principles and practices for effective academic research writing.

Prerequisites: graduate standing.

Course Rules: Counts as a repeat of MECHENG 890 with similar topic.

Last Taught: Fall 2025, Spring 2025, Fall 2024, Spring 2024.

Current Offerings: <https://catalog.uwm.edu/course-search/>

EAS 702 Preparing Future Engineering Faculty & Professionals

2 cr. Graduate.

A survey of the graduate student experience and of academic and professional life after graduation

Prerequisites: graduate standing.

Course Rules: Counts as a repeat of MECHENG 890 with similar topic.

Last Taught: Fall 2025, Spring 2025, Fall 2024, Spring 2024.

Current Offerings: <https://catalog.uwm.edu/course-search/>

EAS 710 Managing Human Resources and Teams

3 cr. Graduate.

A survey of the major functions and processes of human resource management and team management covering talent acquisition, development, management, evaluation, and optimization and foundations of team building and management.

Prerequisites: graduate standing.

Current Offerings: <https://catalog.uwm.edu/course-search/>