



SUSTAINABLE SYSTEMS MASTER OF SCIENCE

BECAUSE SYSTEMS THINKING, ECOLOGICAL PRINCIPLES AND TECHNOLOGICAL CAPABILITIES CAN DRIVE A SUSTAINABLE FUTURE.

Depletion of fossil fuels. Global warming. Water scarcity. Loss of biodiversity. Modern environmental challenges like these impact both developed and developing nations, and they are compounded by increasing consumption pressures and a growing global population. The world needs innovative leaders who can help solve these complex problems and address basic human needs such as mobility, shelter, water, food and communication in a more sustainable manner.

The Sustainable Systems (SusSys) specialization focuses on systems thinking with an understanding of ecological principles, the capabilities of technology, and the mechanisms that reshape economic and social progress.

WHY SUSSYS?

- Gain expertise in systems-analysis techniques with a wide range of applications, including renewable energy, water infrastructure, green construction, sustainable mobility and food systems.
- Develop the critical skills of systems thinking and systems-dynamics modeling and apply them to the challenges of global environmental and social change.
- Deepen your understanding of the institutions that govern energy use and explore how government and industry policies have succeeded—or failed—in transforming energy systems, influencing consumer choices and ultimately reducing carbon emissions.

BOLD LEADERS

ERIK ANDERSON (MS '23)

**ENERGY SYSTEMS ENGINEER
PACIFIC NORTHWEST NATIONAL
LABORATORY (PNNL)**

"My time at SEAS has helped me to flourish in my career as an energy systems engineer at PNNL. The coursework I completed provided me with a multidisciplinary understanding of energy systems and has empowered me to do work in both a technical and non-technical capacity to make change."



YUNJOO CHO (MS '25)

**ENVIRONMENTAL, HEALTH AND
SAFETY AND SUSTAINABILITY
REGULATORY CONSULTANT, ENHESA**

"There are many ways that students are supported at SEAS. For example, I was matched with other international students to help me get better acquainted with student life, and from the SEAS Student Center and Career Services, I was offered support in understanding how to make a lasting impact during the job interview, which led to success in landing an internship."



MASTER'S PROJECTS

Part of the culminating experience of your program is a master's project or master's thesis, where you will work with an external client to solve real-world problems. Recent projects include:

Integrating Climate Risk into Grid Planning with Southern California Edison

Client: Southern California Edison

Managing End-of-Life Risk for Solar PV: A Systems Approach to Circularity in the United States

Client: National Laboratory of the Rockies

Sustainability Assessment and Strategy for the Ann Arbor Hands-On Museum and Leslie Science and Nature Center

Client: Ann Arbor Hands-On Museum and Leslie Science and Nature Center



COURSE SAMPLING

- Environmental Systems Analysis
- Industrial Ecology
- Deep Decarbonization
- Sustainable Urban Systems

WANT MORE INFO?

seas-admissions@umich.edu



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FACULTY

- Michael Craig
- Benjamin Goldstein
- Drew Gronewold
- Greg Keoleian
- Thomas Lyon
- Shelie Miller
- Tony Reames
- Parth Vaishnav
- Tiantian Yang

BUILD A REWARDING CAREER WITH IMPACT

No matter your path, SEAS Career Services helps prepare you for a purpose-driven career that's right for you. Our career counselors provide guidance on all aspects of career development, from resumes and cover letters to job searches and interview preparation. Plus, we connect you with employers and alumni who can help you imagine the possibilities of where your degree will take you.

SusSys graduates work as:

- Product developers
- Consultants
- Sustainability planners

Here are just a few of the employers who hire SusSys graduates:

Steelcase



DTE

