SEAS SCHOOL FOR ENVIRONMENT AND SUSTAINABILITY
UNIVERSITY OF MICHIGAN

March 15, 2025

Welcome to SEAS!

Admitted Student Visit Day

Specialization Coordinator
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Agenda

01 Specialization Overview

02 Q & A

03 Small group discussions by research topic

SEAS SCHOOL FOR ENVIRONMENT AND SUSTAINABILITY
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SEAS

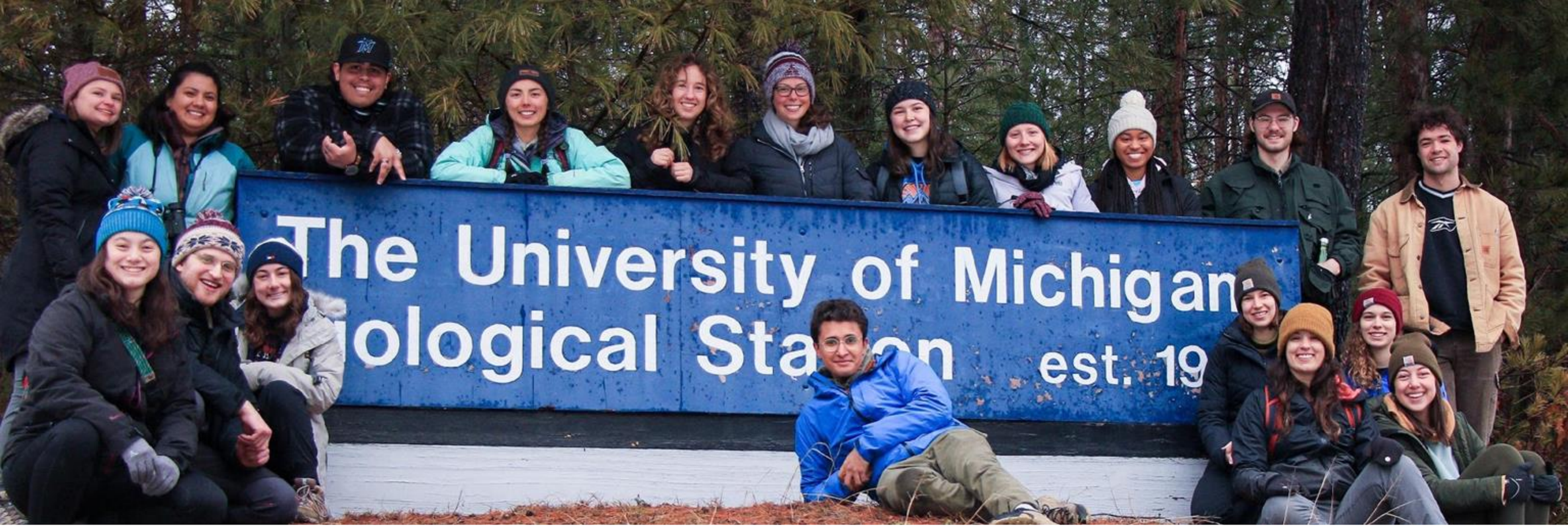
Innovative, Integrated, Justice-Oriented, Entrepreneurial, Global

Mission

At the University of Michigan School for Environment and Sustainability (SEAS), we are at the forefront of building a more sustainable and just world for all by transforming the impact of higher education and reimagining the future. We are advancing action through innovation, research, education and engagement in society, and developing leaders who are empowered to halt the climate crisis and create an environmentally sound future for generations to come.

Who We Are

Situated within the nation’s top public research university, the University of Michigan School for Environment and Sustainability (SEAS) has been a pioneer in environmental education, research, and activism for more than a century.



Ecosystem Science & Management

As a student in this interdisciplinary field of study, you will become a change-driven scientist capable of developing novel approaches to the sustainable management of wildlands, protected areas, and aquatic and terrestrial ecosystems.

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Program Goal

Science-based solutions to environmental problems

Develop skills to preserve biodiversity, restore ecosystems, and sustain natural resources in the face of global to local change

Core Faculty

Karen Alofs
Assistant Professor

Jennifer Blesh
Associate Professor

Allen Burton
Professor

Bill Currie
Professor, Associate Dean for Research and engagement

Drew Gronewold
Associate Professor

Inés Ibáñez
Professor

Johannes Foufopoulos
Associate Professor

Silvia Newell
Michigan Sea Grant Dir., Professor

Gregory Dick
CIGLR Director, Professor

Michael Kost
Lecturer

Ivette Perfecto
Professor

Peter Reich
Professor, IGCB Director

Brian Weeks
Assistant Professor

Donald Zak
Professor

Jonathan Overpeck
Dean, Professor

Sheila Schueller
Lecturer & Academic Program Specialist

Biodiversity & ecosystem services, land use change, habitat degradation and restoration, sustainable food systems, soil health, invasive species, drought, conservation, extreme events, water resources, ecosystem change, climate change, stressors/chemicals and ecorisk.

Research Scientists/Lecturers

Sara Adlerstein
Associate Research Scientist

David Cannon
Assistant Research Scientist

Stella Cousins
Assistant Research Scientist, Lecturer

Ayumi Fujisaki-Manome
Assoc. Research Scientist

Casey Godwin
Assoc. Research Scientist

Yi Hong
Assistant Research Scientist

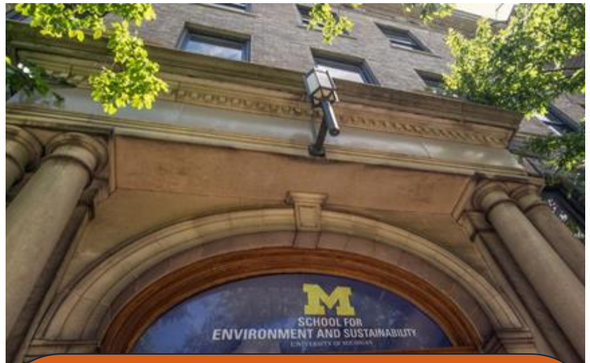
Abby Hutson
Assistant Research Scientist

Dani Jones
Assoc. Research Scientist

Brendan O'Neill
Assistant Research Scientist, Lecturer

Biodiversity & ecosystem services, land use change, habitat degradation and restoration, sustainable food systems, soil health, invasive species, drought, conservation, extreme events, water resources, ecosystem change, climate change, stressors/chemicals and ecorisk.

About the Curriculum



Core

- SEAS Core (2)
- Ecosystem Science and Management Core (4)
  - EAS 507- Interpreting Research in ESM
- Analytics (2)
- Electives (1+)
- Project, practicum, extra courses, thesis
- 42 credit hr minimum

Sample Courses

- Ecology of Fishes
- Soil Ecology
- Agroecosystem Management
- Forest Ecology and Management
- Conservation Biology
- Hydrologic Cycle and Water Resource Management
- Wildlife and Society
- Applied Ecosystem Modeling
- Environmental Policy, Politics & Organizations
- Water Policy; Climate Adaptation Policy
- Negotiation & Mediation
- Environmental Economics
- Indigenous Peoples, Rights, and Environmental Justice
- Principles of GIS

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Field-Based Courses

University Biological Station, SEAS Field Properties

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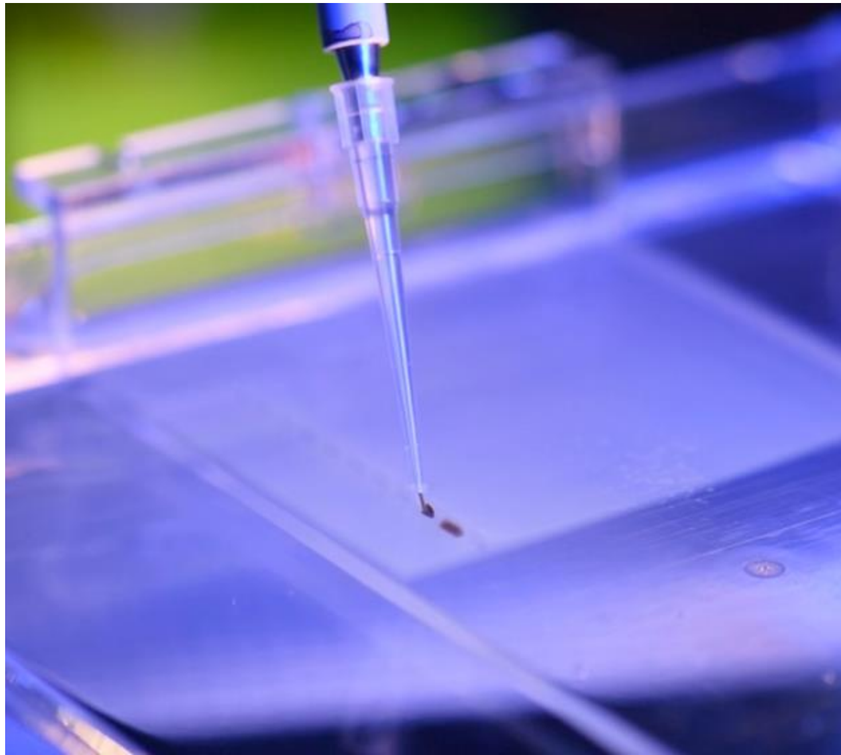
Lab-Based Courses

Principles of GIS, Remote Sensing



M.S. Options

Make your choice first semester

Project

- Work as interdisciplinary team (3 to 7 students)
- Help client solve a real-world issue
- Report and presentation

Thesis

- Work primarily individually with Faculty Advisor
- Conduct research to answer a scientific question
- Peer-reviewed publication(s)

ESM Examples

Make your choice first semester

Project

- Designing and Implementing Novel Reforestation
- Agroforestry Systems in Nicaragua's Tropical Dry Forest

Thesis

- Plant-mycorrhizal fungi associations along an urbanization gradient: implications for tree seedlings survival (Tonn et al. 2017)

Practicum

- Individual project
- Conservation and Management Planning for Livingston Land Conservancy

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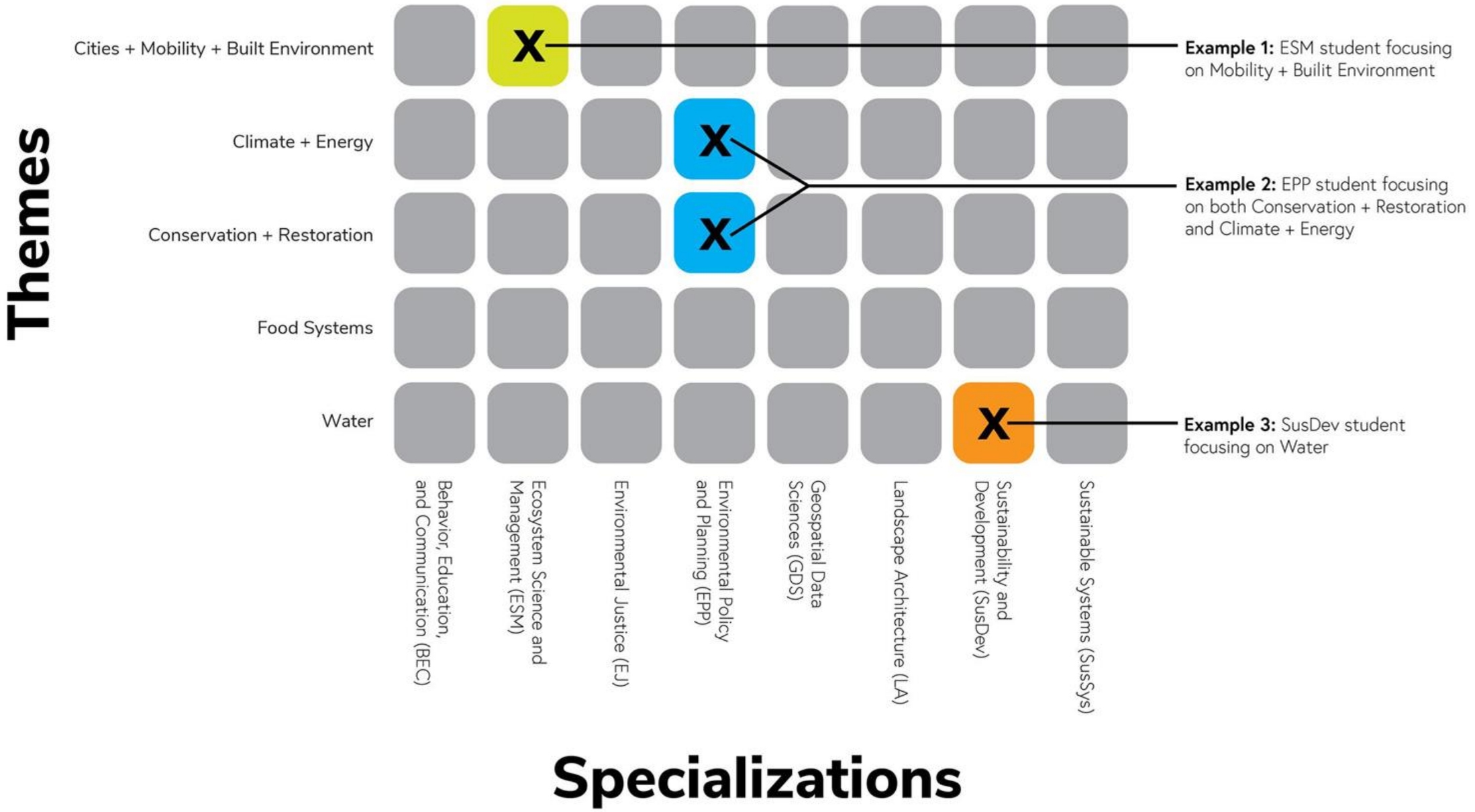

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Institute for Global Change Biology

Mission

- Build community and critical mass
- Train the current and next generation of global change scholars
- Do good science
- Help find solutions to our global crises

Working Groups

- Pollen-associated health effects in a changing climate
- Global change and migratory birds
- Soil-fungal community responses to climate change
- Effects of human-mediated habitat loss on functional biodiversity

Research Themes

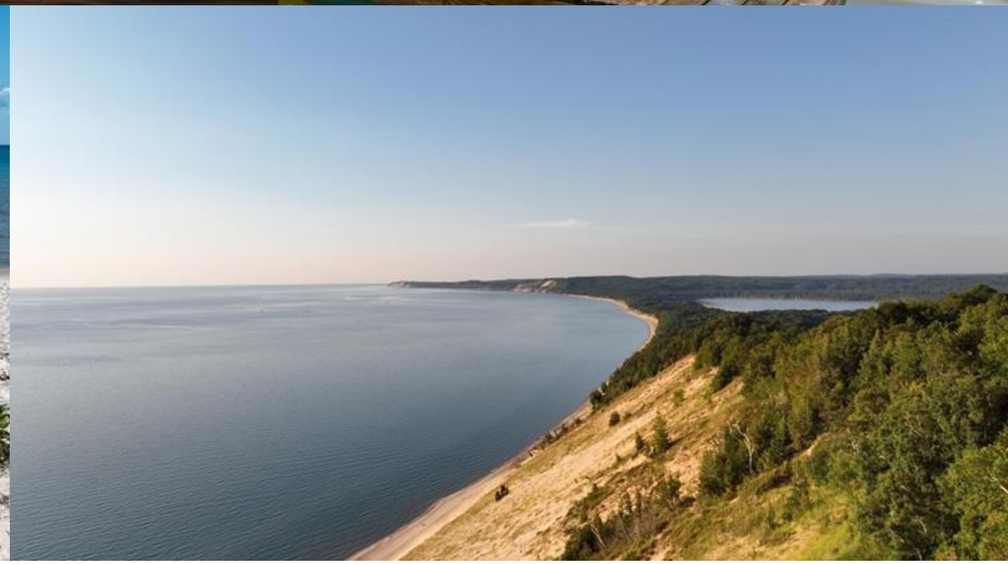
- Biodiversity & Function
- Climate Change & Ecosystem Health
- Climate Change & Human Health
- Natural-Human Systems
- Sustainable Food Systems
- Climate - Ecosystem Feedbacks

Get Involved

- Spans a range of schools (e.g., SEAS, EEB, ENS, SPH, CLaSP, EES) and institutions (e.g., Michigan, Minnesota, Colorado State)
- Students receive small research grants, travel grants and summer fellowships







The Great Lakes University

Research Institute

Cooperative Institute for Great Lakes Research

CIGLR

Great Lakes Science for Society

M SEAS

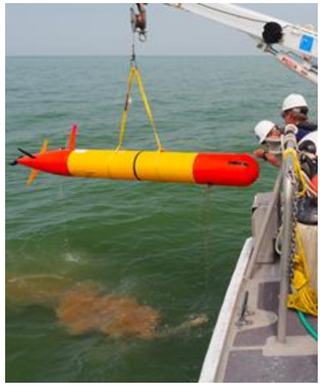
NOAA — National Oceanic and Atmospheric Administration — U.S. Department of Commerce

Research topics

- Climate change
- Hydrodynamics, ice
- Hydrology, water levels
- Harmful algal blooms
- Food web, invasive species
- Oil spills
- Hypoxia

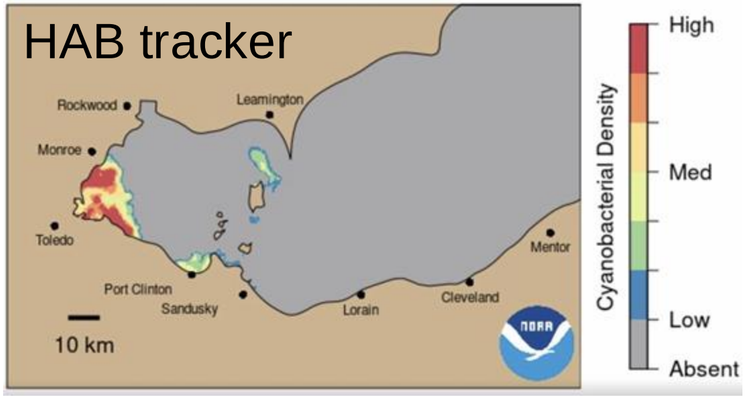
Training opportunities

- Coastal & climate modeling
- Lab & field work
- Artificial intelligence & ML
- Interdisciplinary science
- Work with federal agencies, companies, NGOs.
- Research engagement



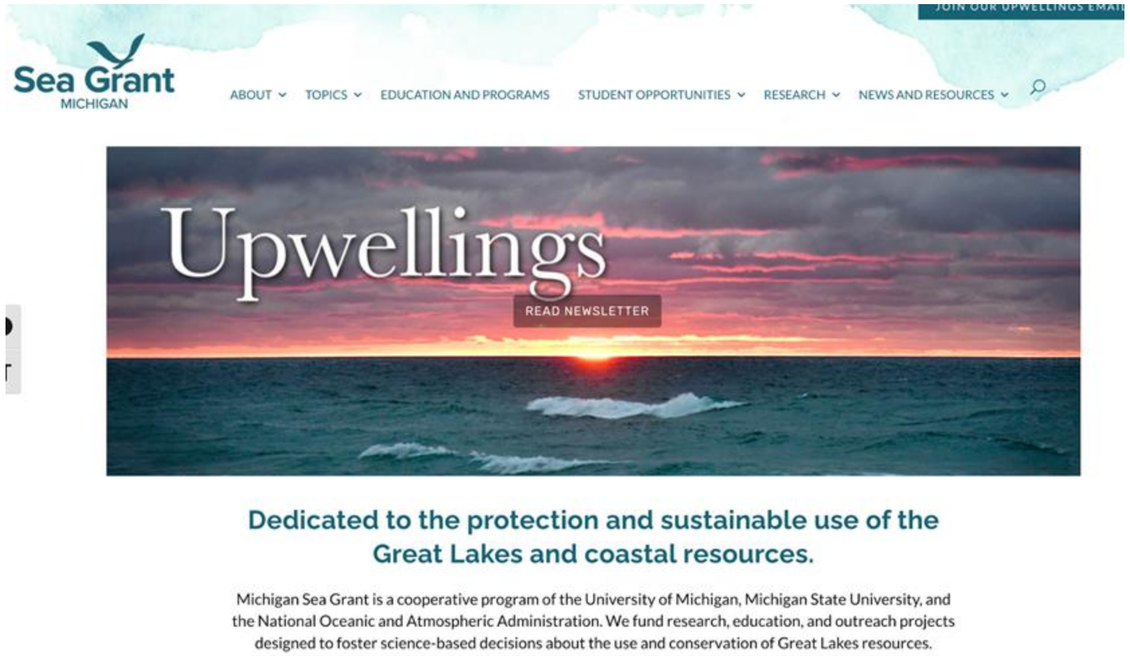
monitoring

experiments



modeling and forecasting

Michigan Sea Grant



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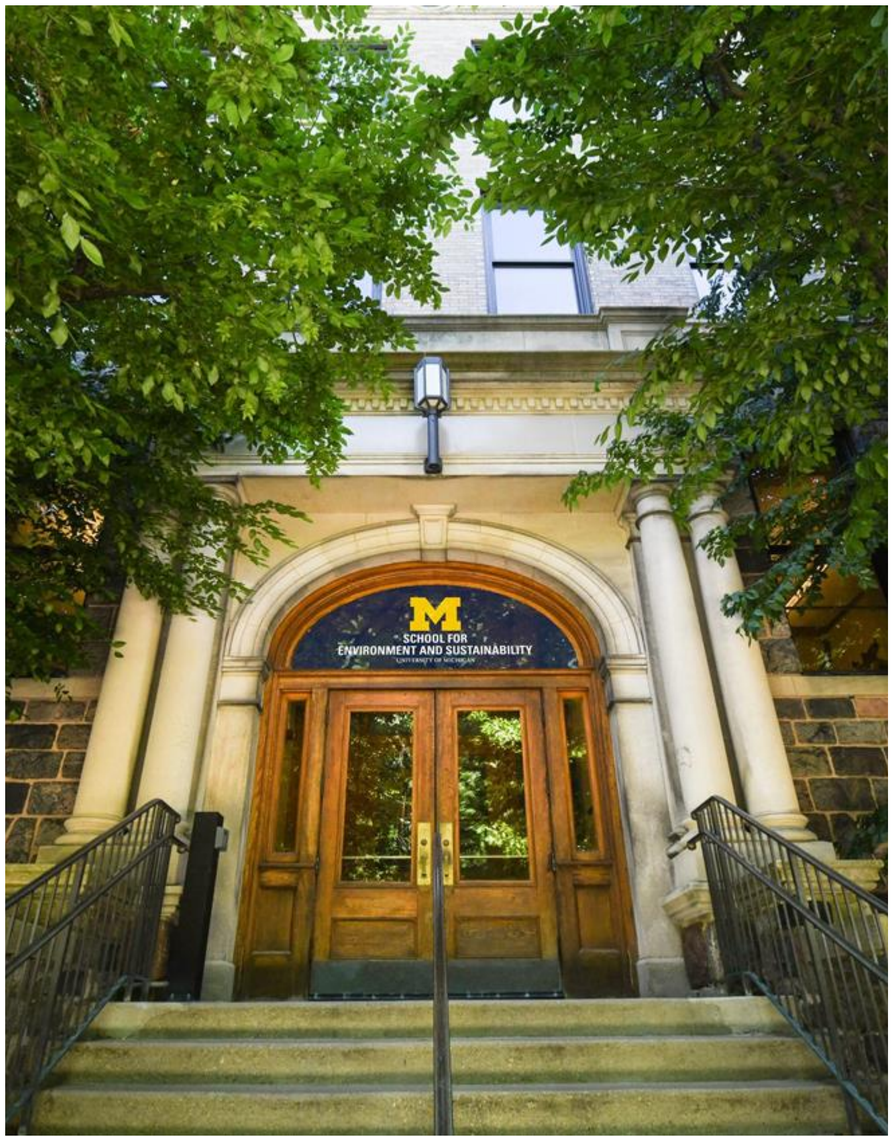

Tailoring your Degree Beyond your Specialization

Certificates

- Sustainable Food Systems certificate
- Spatial Analysis certificate
- Environmental Justice certificate
- Climate Change Solutions certificate

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Dual Degrees

Environment & Sustainability **MS**

+

- Master of science in engineering (MSE)
- Master of business administration (MBA)
- Master of urban and regional planning (MURP)
- Master of science in public policy (MPP)
- Juris doctor (JD)
- Self-initiated dual degrees

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Careers: All Sectors

Academia

- PhD Programs
- Faculty positions

For Profits

- Businesses
- Consulting firms
- Quantum spatial

Federal & State Agencies

- NASA
- NOAA
- US EPA
- USFWS
- DOE
- State EPAs
- DNRs
- Local governments

Non Profits

- The Nature Conservancy
- World Resources Institute
- World Wide Fund for Nature
- Ducks Unlimited

NOAA NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION U.S. DEPARTMENT OF COMMERCE

FOREST SERVICE US DEPARTMENT OF AGRICULTURE

WORLD RESOURCES INSTITUTE

The Nature Conservancy

EPA

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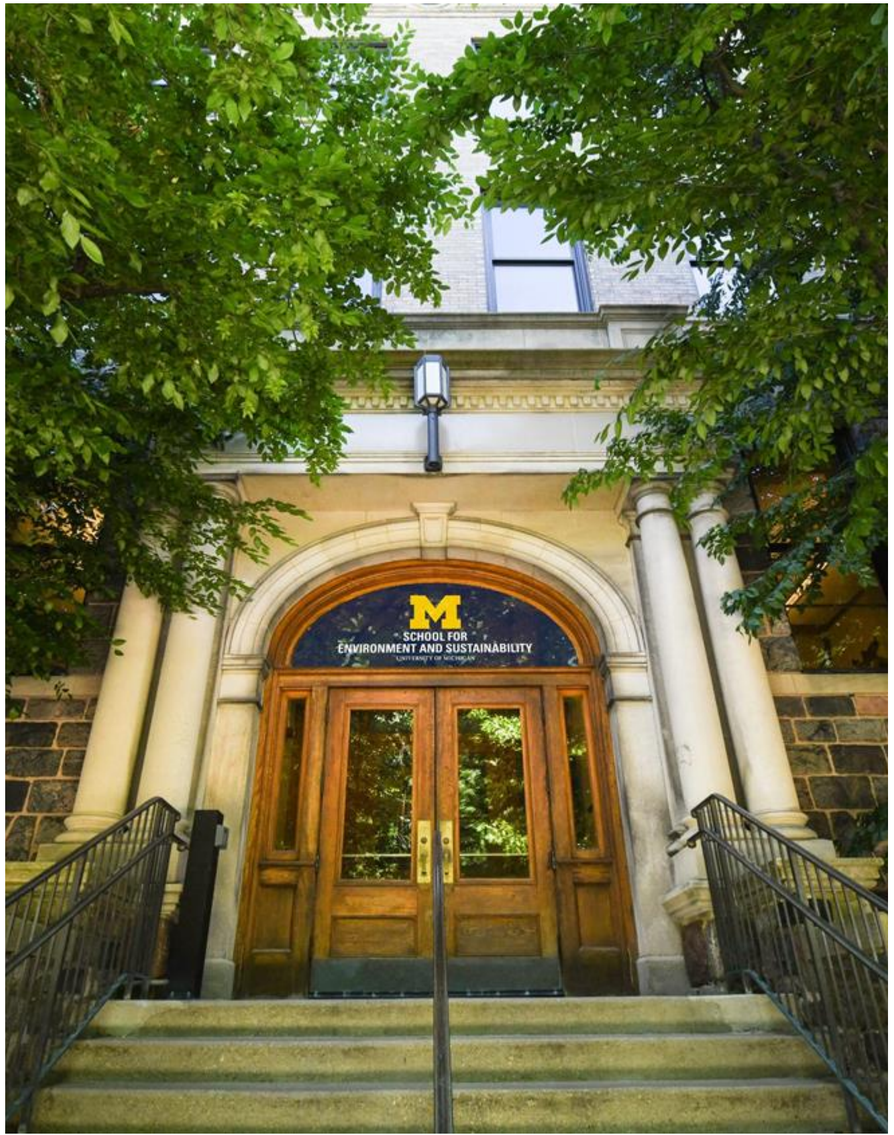

Alumni

All Sectors

- **Rakhi Kasat**, Southeast Asia Program Manager, US EPA
- **Kesiree Thiamkeelakul**, Michigan Dept Natural Resources
- **Paul Winters**, Presidential Management Fellow, White House
- **Shelly Hudson**, Environmental Scientist, EA Engineering
- **Kat Superfisky**, Executive Director, Grown in L.A.; Adjunct Instructor, UCLA
- **Drew Peltier**, Postdoctoral research Northern Arizona Univerisity

Career Outcomes

95% SATISFIED WITH POST-GRAD POSITION

96% JOB SEEKERS FOUND FULL-TIME JOBS

90% FOUND POSITION WITHIN 6 MONTHS

SEAS SCHOOL FOR ENVIRONMENT AND SUSTAINABILITY
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Supportive Community

Largest living alumni body of any university

12,600+

TOTAL ALUMNI, THE LARGEST GRADUATE POPULATION OF ANY ENVIRONMENTAL DEGREE PROGRAM

33%

OF SEAS ALUMNI HAVE RECEIVED A DUAL DEGREE FROM ANOTHER ONE OF U-M'S NATIONALLY RANKED TOP 10 PROGRAMS

Alumni

ARE REPRESENTED IN ALL 50 STATES AND 80+ COUNTRIES


Enrollment
deadline
April 15
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Come join us!

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Questions?

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University of Michigan

- 51,000 students (19,000 grad/prof students)
- 3,100 tenure-track faculty; 6200 total faculty
- 260 degree programs
- 101 Top Ten graduate programs
- 17 professional schools – low walls

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Ann Arbor