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
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.

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.
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.
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

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.

Karen Alofs
Assistant Professor

Jennifer Blesh
Associate Professor

Allen Burton
Professor

Drew Gronewold
Associate Professor

Inés Ibáñez
Professor

Johannes Foufopoulos
Associate Professor

Silvia Santa Maria Newell
Director of Michigan Sea Grant, Professor

Gregory Dick
CIGLR Director, Professor

Michael Kost
Lecturer

Ivette Perfecto
Professor

Brian Weeks
Assistant Professor

Donald Zak
Professor

Jonathan Overpeck
Dean, Professor

Sheila Schueller
Lecturer & Academic Program Specialist
Faculty

Research Scientists/Lecturers

Sara Adlerstein  
Associate Research Scientist  

Dmitry Beletsky  
Research Scientist  

Subba Rao Chaganti  
Assistant Research Scientist  

Casey Godwin  
Assistant Research Scientist  

Brendan O’Neill  
Assistant Research Scientist, Lecturer  

Stella Cousins  
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)
• Conservation ecology (4)
• Analytics (1)
• 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
• Environmental Policy, Politics & Organizations
• Water Policy; Climate Adaptation Policy
• Negotiation & Mediation
• Environmental Economics
• Indigenous Peoples, Rights, and Environmental Justice
Field-Based Courses
University Biological Station, SEAS Field Properties
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
Examples:
1. ESM student focusing on Mobility + Built Environment
2. EPP student focusing on both Conservation + Restoration and Climate + Energy
3. SusDev student focusing on Water

Themes:
- Cities + Mobility + Built Environment
- Climate + Energy
- Conservation + Restoration
- Food Systems
- Water
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

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

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

HAB tracker

Cyanobacterial Density

High Med Low Absent

Rockwood Monroe
Port Clinton Sandusky

10 km
Michigan Sea Grant

Dedicated to the protection and sustainable use of the Great Lakes and coastal resources.

Michigan Sea Grant is a cooperative program of the University of Michigan, Michigan State University, and the National Oceanic and Atmospheric Administration. We fund research, education, and outreach projects designed to foster science-based decisions about the use and conservation of Great Lakes resources.
Tailoring your Degree Beyond your Specialization

Certificates

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

- 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
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
Alumni Examples

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 University
Career Outcomes

95% Satisfied with post-grad position
96% Job seekers found full-time jobs
90% Found position within 6 months
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
Come join us!

Enrollment deadline
April 15
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