



Au Sable Institute
of Environmental Studies

SUMMER 2024

www.ausable.org



Au Sable Institute

At Au Sable, we believe Christians should be leading the way in solving the earth's toughest environmental challenges. Through hands-on learning in the outdoors, engaging professors who integrate faith into their instruction, and a supportive community of friends, we inspire and educate students to serve, protect and restore God's earth.

You belong here.



Surrounded by tens of thousands of acres of forests, our **GREAT LAKES CAMPUS** includes frontage on a 215-acre lake and an adjoining 200 acres of northern hardwoods and conifer forests.

GREAT LAKES

Northern Michigan

May Session | May 20 to June 7, 2024

Complete one four-credit course in three weeks (M-F course days).

Field Biology in Spring: A field-based introduction to the natural history of plants and animals of the Great Lakes region, including their field identification, field biology, behavior and landscape context, with a focus on spring flora, birds, and natural communities of northwest Michigan.

Forest Management: An introduction to theory, application, and techniques of forest management for specified objectives, and methods and techniques for the development and care of forests (silviculture).

Insect Ecology: Ecology, systematics, life history and behavior of terrestrial and aquatic insects with an emphasis on field identification skills in a variety of local habitats, and the roles of insects in pollination, decomposition, herbivory, predation and pathogen transmission.

Field Geology in Michigan: An introduction to the bedrock and surficial geology of Northern Michigan and the Great Lakes Region. Students will develop map interpretation skills and a deep understanding of geological forces shaping this unique landscape.

Site Fees: \$480 per week.

Summer Session I | June 10 to July 12, 2024

Complete one or two four-credit courses in five weeks.

Conservation Biology (Tu, Th): Principles of conservation biology with applications to sustainable human societies and ecological integrity, including the interrelation of population biology, ecological principles, biogeochemical cycles, ecosystem functions, and human society in the context of ecological degradation.

Field Botany (Tu, Th): Field identification and ecology of vascular plants as components of natural communities, with emphasis on field examination of plants in regional communities and associated ecological features such as community stratification and plant zonation along ecological gradients.

Animal Ecology (Tu, Th): Interrelationships between animals and their biotic and physical environments, emphasizing behavior and ecology of northern Michigan fauna.

Agroecology (W, F): Application of natural ecosystem principles to food production systems, seeking to restore agriculture by sustainably producing healthful foods sufficient for a global human population. Students will tour area agroecosystem practitioners, assess what makes natural ecosystems sustainable, and practice agroecological techniques.

Field Techniques in Wetlands (W, F): A comprehensive overview of wetland ecosystem processes, values, legislation and quantification. Students learn to evaluate soils, hydrology and vegetation of wetland systems and obtain certification as wetland delineators following USACoE standards.

Aquatic Biology (W, F): Ecology, identification, systematics, and care of aquatic plants and animals, and adaptations to freshwater environments through field studies in lakes, ponds, bogs, marshes, and streams and in the laboratory

Research Methods I (2 credits): A course designed to prepare students to conduct scientific field research including development of a research proposal, study design, and initial implementation of a project typically focused on a biodiversity survey of a selected taxonomic group. Note: requires selection to the Au Sable Research Program.

Site Fees: \$480 per week.

Summer Session II | July 15 to August 16, 2024

Complete one or two four-credit courses in five weeks.

Environmental Applications for GIS (Tu, Th): Introduction to the theory and application of spatial analysis for environmental conservation and planning using geographic information systems (GIS) and remote sensing in the context of real world problems.

Wildlife Ecology (Tu, Th): Ecology, conservation, and stewardship of wildlife species and their habitats. Includes growth and structure of natural and managed populations, environmental and human social factors affecting wildlife communities, and their impacts on wildlife conservation.

Stream Ecology (Tu, Th): An exploration of streams, emphasizing the unique organisms inhabiting them. Students will receive training in standard techniques used to assess stream quality and contribute to an ongoing river monitoring project.

Environmental Chemistry (W, F): Principles and analysis of chemical movement and distribution – both natural and human-induced – in natural environments. Sampling and analytical methods are included for water, soil, and air.

Restoration Ecology (W, F): Ecological foundations and techniques for ecosystem and biotic community restoration. Applies ecological principles and environmental ethics to restoring degraded and damaged ecosystems and endangered species.

Fish Ecology & Management (W, F): Introduction to freshwater fish species and their environments in lakes and streams with concurrent examinations of techniques and technologies employed to manage populations for conservation, recreational use, and commercial harvest.

Research Methods II (2 credits): Continuation of Research Methods I with completion of data collection and analysis, and the reporting of results through scientific writing and oral/poster presentation.

Site Fees: \$480 per week.



Our **PACIFIC RIM CAMPUS** is located on Whidbey Island, in the Puget Sound. The Olympic Mountain Range lies to the west, the Cascade Range lies to the east, and marine ecosystems are just steps away.

PACIFIC RIM

Whidbey Island, WA

May Session I | May 27 to June 14, 2024

Location: Rosario Beach Marine Lab

Complete one four-credit course in three weeks (M-F course days).

Marine Invertebrates: A field-based introduction to marine invertebrates, ecology of intertidal zones, and the ways marine invertebrates shape the coastal environment. This course is taught at a new location, Rosario Beach Marine Lab, located next to Deception Pass State Park and the locally famous Rosario Beach and tidepools.

Site Fees: \$725 per week.

Summer Session II | July 15 to August 16, 2024

Location: Camp Casey Conference Center

Complete two four-credit courses in five weeks.

Marine Biology (M, Th): Biology of intertidal and marine ecosystems in the Pacific Northwest, including trophic dynamics in the intertidal zone, ecological roles of fish and sea birds, population and community structure dynamics, and biogeochemical processes and their linkages with the biosphere.

International Development & Environmental Sustainability (M, Th): Principles of sustainable development, examining how social, cultural, and economic development coincide with environmental and natural resource protection. Considers an array of topics in detail, including agriculture, poverty, international debt, relief programs, missionary earthkeeping, conservation of wild nature, and land stewardship.

Alpine Ecology (Tu, F): Ecology of the mountains of the Pacific Northwest, with particular attention to adaptation of plant and animal life to mountain climates and altitudes, and analysis and interpretation of altitudinal zonation of biotic communities with applications to latitudinal biogeography.

Marine Mammals (Tu, F): Biology, behavior, ecology, identification, and conservation of the marine mammals of the Pacific Northwest. Develops a stewardship perspective of the global conservation of marine mammals and their ecosystems. This course includes an additional excursion fee of \$100 (required).

Site Fees: \$725 per week.



Au Sable courses in **COSTA RICA** are housed on the campus of the Association for Development through Education (ADE), located in the heart of a cloud rainforest along one of Costa Rica's most biologically diverse river systems, the headwaters of the Sarapiquí River.

COSTA RICA

Vara Blanca

May Session | May 20 to June 7, 2024

Complete one four-credit course in three weeks (M-F course days).

Sustainability, Tropical Agriculture & Development: Agriculture skills and techniques for working with resource-poor farmers in tropical environments, including practical work with tropical plants and small animals, growing food under difficult conditions, and appropriate technologies.

Site Fees: \$725 per week.

ONLINE

Courses

May Session | May 20 to June 7, 2024

Environmental Law & Policy (3 credits): Analysis of environmental policy-making and enforcement process at local, national and international scales with examination of environmental policy challenges including climate change, resource management, and energy development.

Summer Session I | June 10 to July 12, 2024

Geographic Information Systems (4 credits): Theory and application of GIS (map types and projections, symbology, classification, analysis, and web mapping applications) for applied social and ecological problem-solving. Provides students the skills and confidence to conduct their own field studies, do spatial analysis, and create their own maps and visualizations.

Summer Session II | July 15 to August 16, 2024

Ecological Analysis in R (4 credits): Explore the fundamentals of statistical analysis and discover how R can revolutionize ecological studies, equipping you with essential skills for graduate school and enhancing your proficiency in conducting impactful ecological research.

Site Fees: \$0.



ADDITIONAL *Information*

Application For Admission:

Interested students can apply for admission through the Institute's website, www.ausable.org/apply. Current students at our participating colleges are eligible for admission upon submitting the online admission application and receiving approval from their Au Sable Faculty Representative and Institute. Applications from students and colleges not formally affiliated are welcomed and will be reviewed for admission. A non-refundable application fee of US \$30 must be paid with the initial application.

Application Fee is waived until December 1, 2023

Course Enrollment:

A full, current listing of all Au Sable courses and descriptions can be found at www.ausable.org/college. Upon official acceptance to the Institute, a tuition deposit of US \$200 for each course must be received within 14 days in order to reserve a space in the course. These deposits are applied to the student's tuition. Enrollment in each course is limited, and therefore enrollment is subject to cancellation until this deposit is received. If a student withdraws within thirty days of confirmed registration and payment of deposit, deposits will be refunded.

Tuition:

Students normally pay tuition to their home college for all courses taken at the Institute. Au Sable charges a uniform tuition rate of US \$2,950 per course, regardless of credit granted by the student's home institution. Financial aid is available from the Institute.

Site Fees:

Site Fees are charged through the home college and vary by site and session. Site fees include room, board, local course transportation and site specific costs associated with each program location and session.

Note: Site fees do not cover transportation to/from campus.

Financial Aid:

Thanks to our generous donors, Au Sable provides multiple financial aid options to students taking our courses because we want to assist in making an Au Sable education possible for every interested student. Students may apply for financial aid as a part of the General Application and by February 1 for competitive fellowships.

College Credit:

Au Sable has participation agreements with over 50 colleges and universities. Courses taken at Au Sable Institute are listed on student transcripts as courses offered and credit earned by the home institution. A full list of these colleges is available on our website. If you are a student at an institution that does not have a participation agreement with Au Sable, please contact our admissions office (admissions@ausable.org) for additional details.

Other Opportunities:

We offer four Certifications as a Field Naturalist, Land Resources Analyst, Water Resources Analyst, and Environmental Analyst through a combination of courses and skills completed at Au Sable and your home college. Additionally, we can work with you and your academic program to offer research, internship and experiential options that can help fulfill your major requirements. Please contact us for further information about these custom programs.

CONNECT WITH US!



231.252.6374



231.252.6374



admissions@ausable.org



[@ausableinstitute](https://www.instagram.com/ausableinstitute)



[@ausableinstitute](https://www.facebook.com/ausableinstitute)

www.ausable.org

7526 Sunset Trail NE, Mancelona, MI 49659 | 231.587.8686



SCAN ME!