ENVIRONMENTAL SCIENCE (ENV)

ENV 130. Introduction to Sustainability. (3 Credits)
This course is a comprehensive introduction to the vocabulary, importance, technology, and occupations concerning sustainability. This course is a guide on the principles that help us understand sustainability and how we can be more sustainable. This course reveals what types of well-paid sustainability careers exist. The list of topics ensures learners have a full exposure and understanding of sustainability as related to the triple bottom line, closed loop systems, ecological footprint, zero waste, alternative and renewable energy, local sourcing, nature's carrying capacity, water, transportation, food supplies, and climate change.

ENV 160. Introductory GIS. (4 Credits)
This course introduces the principles of Geographic Information Systems (GIS) using ArcGIS software. Topics covered include fundamental cartography, collecting, analyzing, and disseminating geographical data. Laboratory Course.

ENV 180. Remote Sensing from Satellites and Drones. (3 Credits)
This course introduces the use of remotely sensed data for the studying environmental conditions. Topics include data acquisition, processing, analysis, and application.

ENV 220. Water Quality and Aquaponics. (4 Credits)
This course explores how natural environmental processes are driven by chemical reactions and how these processes are affected by toxicants. Includes production techniques and methods for aquaponics, the combination of hydroponics and aquaculture. Laboratory Course.

ENV 240. Native Plants of Wisconsin. (4 Credits)
This course explores the plants present throughout the different regions and ecosystems of Wisconsin. Emphasis will be place on identifying native plants and their conservation. Laboratory Course.

ENV 320. Environmental Data Analysis. (3 Credits)
This course includes the fundamentals of statistics, data exploration, and graphing with practical application to environmental sciences. Computation will use the R software environment for statistical computing and graphics.
Prerequisite: MATH 205.

ENV 499. Advanced Applied Field Research. (1-4 Credits)
This course serves as a practical capstone experience in environmental science. The course involves individual engagement in experimental research, including experimental design, data collection, and data analysis. Successful completion of major capstone requirements includes presentation of results in paper, poster, and/or oral presentation formats. Note: Junior or senior standing required. Students may enroll in this course multiple times, up to a maximum of 4 total credits.