

Washtenaw Community College Comprehensive Report

ENV 200 Introduction to Sustainability

Effective Term: Fall 2025

Course Cover

College: Math, Science and Engineering Tech

Division: Math, Science and Engineering Tech

Department: Physical Sciences

Discipline: Environmental Science

Course Number: 200

Org Number: 12300

Full Course Title: Introduction to Sustainability

Transcript Title: Introduction to Sustainability

Is Consultation with other department(s) required: No

Publish in the Following: College Catalog , Time Schedule , Web Page

Reason for Submission: New Course

Change Information:

Rationale: In previous ENV classes, we focused on environmental challenges. In this class, we would like to delve deeper into solutions and give students a better understanding of tools to address these challenges. In addition, we envision that this class will be part of a sustainability certificate that leads up to an ASENVS degree. A background in sustainability is a growing need in diverse workplaces.

Proposed Start Semester: Fall 2025

Course Description: In this course, students will explore and analyze several facets of sustainability, including key goals and challenges, the creation and maintenance of environmental integrity, the relationship between sustainability and human health and well-being, and the economic viability of promoting sustainable ways of living. Students will analyze local and global issues from scientific and social science perspectives.

Course Credit Hours

Variable hours: No

Credits: 3

Lecture Hours: Instructor: 45 **Student:** 45

Lab: Instructor: 0 **Student:** 0

Clinical: Instructor: 0 **Student:** 0

Total Contact Hours: Instructor: 45 **Student:** 45

Repeatable for Credit: NO

Grading Methods: Letter Grades

Are lectures, labs, or clinicals offered as separate sections?: NO (same sections)

College-Level Reading and Writing

College-level Reading & Writing

College-Level Math

No Level Required

Requisites

General Education

Request Course Transfer

Proposed For:

Eastern Michigan University
Ferris State University
Grand Valley State University
Jackson Community College
Kendall School of Design (Ferris)
Lawrence Tech
Michigan State University
Oakland University
University of Detroit - Mercy
University of Michigan
Wayne State University
Western Michigan University
College for Creative Studies
Central Michigan University

Student Learning Outcomes

1. Define sustainability and identify its multiple components.

Assessment 1

Assessment Tool: Outcome-related exam questions
Assessment Date: Fall 2028
Assessment Cycle: Every Three Years
Course section(s)/other population: All sections
Number students to be assessed: All students
How the assessment will be scored: Answer key and departmentally-developed rubric
Standard of success to be used for this assessment: 70% of students will score 70% or higher.
Who will score and analyze the data: Departmental faculty

2. Identify economic concepts and tools that can be used to support sustainability.

Assessment 1

Assessment Tool: Outcome-related exam questions
Assessment Date: Fall 2028
Assessment Cycle: Every Three Years
Course section(s)/other population: All sections
Number students to be assessed: All students
How the assessment will be scored: Answer key and departmentally-developed rubric
Standard of success to be used for this assessment: 70% of the students will score 70% or higher.
Who will score and analyze the data: Departmental faculty

3. Explain how the human well-being is intertwined with positive environmental outcomes.

Assessment 1

Assessment Tool: Outcome-related project
Assessment Date: Fall 2028
Assessment Cycle: Every Three Years
Course section(s)/other population: All sections
Number students to be assessed: All students
How the assessment will be scored: Departmentally-developed rubric
Standard of success to be used for this assessment: 70% of students will score 70% or better
Who will score and analyze the data: Departmental faculty

Course Objectives

1. Compare different definitions of sustainability and their relative merits.
2. Examine the problem-driven nature of policy development.
3. Define a "wicked problem" and provide an example.
4. Explain the importance of the nine planetary boundaries.
5. Assess mitigation and adaptation strategies for addressing climate change.
6. Analyze how biodiversity loss and environmental degradation affect human well-being.
7. Explain how humans affect nitrogen and phosphorus cycling, and what can be done to mitigate disruption of this cycling.
8. Explain what externalities are, and how they can lead to pollution, resource exploitation, and environmental injustices.
9. Evaluate the relative merits and pitfalls of valuing ecosystem services.
10. Explain the economic, environmental and social advantages of a circular economy.
11. Explain the implications of shifting from a concept of economic progress based upon endless expansion to one based on thriving in balance.
12. Analyze how human cultural diversity and biodiversity are intertwined.
13. Explain links between women's rights and environmental sustainability.
14. Analyze how poor countries' debt affects sustainable development.
15. Examine the implications of a globalized economy that relies on extractive resources often located in poor countries.
16. Explain how one's race can affect exposure to environmental "goods" as well as environmental "bads".

New Resources for Course

This course will rely on open resources.

Course Textbooks/Resources

Textbooks

Manuals

Periodicals

Software

Equipment/Facilities

Level III classroom

Off-Campus Sites

<u>Reviewer</u>	<u>Action</u>	<u>Date</u>
Faculty Preparer: <i>Smita Malpani</i>	<i>Faculty Preparer</i>	<i>Nov 14, 2024</i>
Department Chair/Area Director: <i>Suzanne Albach</i>	<i>Recommend Approval</i>	<i>Nov 14, 2024</i>
Dean: <i>Tracy Schwab</i>	<i>Recommend Approval</i>	<i>Nov 15, 2024</i>
Curriculum Committee Chair: <i>Randy Van Wagnen</i>	<i>Recommend Approval</i>	<i>Apr 14, 2025</i>
Assessment Committee Chair: <i>Jessica Hale</i>	<i>Recommend Approval</i>	<i>Apr 17, 2025</i>
Vice President for Instruction: <i>Brandon Tucker</i>	<i>Approve</i>	<i>Apr 23, 2025</i>