ENV 200: INTRODUCTION TO SUSTAINABILITY

History

1. Dec 4, 2025 by Sera Bird (sabird)

Viewing: ENV 200 : Introduction to Sustainability
Last approved: 2025-12-04T08:03:25Z
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Effective Term
Winter 2026

Rationale and proposal summary
Want to add to objectives

Course Cover

Full Course Title
Introduction to Sustainability

Transcript Title
Introduction to Sustainability

Subject Code
ENV - Environmental Science

Course Number
200

Department
Physical Sciences Dept (PHYD)

Banner Division
MSE

Division/College
Math-Science-Engineering Tech (MS)

Org Code
12300

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 interdisciplinary perspectives.

Has this course been approved for online or online blended?
Yes

Grading method
Standard Letter, Audit

Occupational Indicator
No

ACS Code
110

Degree Attributes
AAGS - Global Studies Elective

Credit hours, contact hours, repeatability

Repeatable for additional credit
No

Course credits
3

Lecture contact hours
45

Total Contact Hours
45
Expected Total Contact Hours
45

Prerequisites and prerequisite skill levels

College-Level Math
No Level Required

College-Level Reading and Writing
College-level Reading and Writing

Approved Level I Prerequisite:
Academic Reading and Writing Levels of 6

Course Assessment Plan
Learning Outcome

Outcome
Define sustainability and identify its multiple components.

Assessment #1

Assessment Tool
Outcome-related exam questions

Anticipated Next Assessment Year
2028

Anticipated Next Assessment Term
Fall

Assessment Cycle
Every Three Years

Anticipated assessment population
All students from all sections

How the assessment will be scored
Answer key and departmentally-developed rubric

Who does the scoring?
Departmental faculty

Standard of success
70% of students will score 70% or higher.

Assessment #2

Learning Outcome

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

Assessment #1

Assessment Tool
Outcome-related exam questions

Anticipated Next Assessment Year
2028

Anticipated Next Assessment Term
Fall

Assessment Cycle
Every Three Years

Anticipated assessment population
All students from all sections

How the assessment will be scored
Answer key and departmentally-developed rubric

Who does the scoring?
Departmental faculty

Standard of success
70% of students will score 70% or higher.

Assessment #2

Learning Outcome

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

Assessment #1

Assessment Tool
Outcome-related project

Anticipated Next Assessment Year
2028

Anticipated Next Assessment Term
Fall

Assessment Cycle
Every Three Years

Anticipated assessment population
All students from all sections

How the assessment will be scored
Departmentally-developed rubric

Who does the scoring?
Departmental faculty

Standard of success
70% of students will score 70% or higher.

Assessment #2

Course Objectives

	Objective(s)
1.	Compare different definitions of sustainability and their relative merits.
2.	Identify sustainable development goals.
3.	Analyze a country's progress in meeting sustainable development goals.
4.	Define a "wicked problem" and provide an example.
5.	Describe how systems thinking can be used to address “wicked problems”.
6.	Explain the importance of the nine planetary boundaries.
7.	Assess mitigation and adaptation strategies for addressing climate change.
8.	Analyze how biodiversity loss and environmental degradation affect human well-being.
9.	Explain how humans affect nitrogen and phosphorus cycling, and what can be done to mitigate disruption of this cycling.
10.	Understand the concept of futures thinking.
11.	Explain what externalities are, and how they can lead to pollution, resource exploitation, and environmental injustices.
12.	Evaluate the relative merits and pitfalls of valuing ecosystem services.
13.	Explain the economic, environmental and social advantages of a circular economy.
14.	Explain how a life cycle analysis can help move toward a circular economy.
15.	Explain the implications of shifting from a concept of economic progress based upon endless expansion to one based on thriving in balance.
16.	Analyze how poor countries’ debt affects sustainable development.
17.	Analyze how indigenous people's rights, sustainability, and biodiversity are intertwined.
18.	Examine the implications of a globalized economy that relies on extractive resources often located in poor countries.
19.	Understand the strengths and weaknesses of valuation methods to estimate of the values of environmental resources and services.
20.	Identify various components and considerations of sustainability in supply chains.
21.	Explain how one's race can affect exposure to environmental "goods" as well as environmental "bads".

General Education Area(s)

Area 1: Writing
No

Area 2: 2nd Writing or Communication/Speech
No

Area 3: Mathematics
No

Area 4: Natural Science
Yes

Area 4 Natural Science Applicability
Area 4: Natural Science (AA)
Area 4: Natural Science (AAS)
Area 4: Natural Science (AS)

Area 5: Social and Behavioral Science
No

Area 6: Arts and Humanities
No

MTA General Education
Yes

MTA Applicability
MTA Science (no lab)

Review

Is conditional approval requested?
No

Is this course currently conditionally approved, and you are now submitting it for full approval?
No

Key: 5085

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

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