

Brooks College of Interdisciplinary Studies  
**Environmental and Sustainability Studies Major, B.A., B.S. (2024-2025)**

A total of 35 credits, plus 9-12 credits for B.A or B.A.S. are required to complete the major in Environmental and Sustainability Studies (ENS). Contact the ENS Program at [ens@gvsu.edu](mailto:ens@gvsu.edu) or (616) 331-8016.

[How to Declare a Major/Minor](#) \* [General Education Requirements](#) \* [ENS Course Offerings](#)  
[Approved ENS Subs](#) \* [Faculty/Staff Directory](#)

Name: \_\_\_\_\_

G#: \_\_\_\_\_

Advisor: \_\_\_\_\_

Anticipated Grad: \_\_\_\_\_

Last Updated: \_\_\_\_\_

**CORE COURSES: All required (9 credits)**

\_\_\_\_\_ ENS 201: Introduction to Environmental and Sustainability Studies, 3cr

\_\_\_\_\_ ENS 300: Principles of Sustainability, 3cr (*req. ENS 201*)

\_\_\_\_\_ ENS 301: Methods for Interdisciplinary ENS, 3cr (*req. ENS 201, Jr. recommended*)

**TECHNICAL SKILLS (3 credits)** Choose **one** course from the following:

\_\_\_\_\_ ART 391: Civic Studio: Art in Public, 3cr (*req. Jr.*)

\_\_\_\_\_ DS 202: Digital Data and Design, 3cr

\_\_\_\_\_ ENS 305: Sustainability Assessment and Reporting, 3cr (*req. ENS 201*)

\_\_\_\_\_ GPY 200: Computer Cartography, 3cr (*req. MTH 108 & 109 or 110*)

\_\_\_\_\_ GPY 307: Introduction to Geographic Information Systems, 3cr

\_\_\_\_\_ GPY 370: Introduction to Remote Sensing, 3cr

\_\_\_\_\_ NRM 250: Resource Measurement and Maps, 3cr

\_\_\_\_\_ PHO 170: Introduction to Photography, 3cr

\_\_\_\_\_ STA 301: Questionnaire Design and Execution, 3cr (*req. STA 215 or 312*)

\_\_\_\_\_ STA 311: Introduction To Survey Sampling, 3cr (*req. STA 216*)

\_\_\_\_\_ STA 341: Demographic Methods, 3cr (*req. Jr., STA 215 or 312*)

\_\_\_\_\_ WRT 200: Introduction to Professional Writing, 3cr (*req. FW*)

\_\_\_\_\_ WRT 253: Document Production and Design, 3cr (*req. FW*)

\_\_\_\_\_ WRT 350: Business Communication, 3cr (*req. FW*)

\_\_\_\_\_ Course Substitution \_\_\_\_\_

**SYNTHESIS AND APPLICATION (5 credits min.)**

\_\_\_\_\_ ENS 401: Environmental Problem Solving (Capstone), 3cr (*req. Jr., ENS 201*)

**AND**

\_\_\_\_\_ ENS 490: Internship (minimum 2 cr.)    **OR**    \_\_\_\_\_ ENS 491: Practicum (minimum 2 cr.)

**PREREQUISITE KEY**

**req.** = Prerequisite

**Jr.** = Junior Standing

**FA** = Foundations: Arts

**FW** = Foundations: Writing

**HA** = Foundations: Historical Analysis

**LS** = Foundations: Life Sciences

**MS** = Foundations: Math Sciences

**NS** = Foundations: Natural Sciences

**US** = Cultures: U.S. Diversity

## TRIPLE BOTTOM LINE OVERVIEW COURSES (9 -10 credits)

One course from **each** of the following three groups.

No course may count toward both a Focus Area and the Triple Bottom Line Overview.

### I. Social and Cultural Perspectives

*The arts, humanities, and social sciences create, interpret, and analyze cultural narratives that influence humans' interactions with their environments.*

- \_\_\_\_\_ ANT 340: Culture & Environment, 3cr (req. Jr., FW & HA or US)
- \_\_\_\_\_ ART 295: Space Studio: Art, Installation, Environment, Site, 3cr
- \_\_\_\_\_ ART 391: Civic Studio: Art in Public, 3cr (req. Jr.)
- \_\_\_\_\_ ART 423: Animals in Art, 3cr (req. Jr.)
- \_\_\_\_\_ BIO 338: Environmental Ethics, 3cr (req. Jr., FW)
- \_\_\_\_\_ ENS 242: Climate Change in Popular Culture, 3cr
- \_\_\_\_\_ ENG 382: Literature and the Environment, 3cr (req. Jr., FW)
- \_\_\_\_\_ ENS 238: Exploring Michigan's Waterways Through Time, 3cr
- \_\_\_\_\_ ENS 311: To Bee or Not to Bee: Honeybees and Social Impact, 3cr
- \_\_\_\_\_ ENS 381: Study Abroad in ENS, 3cr to 9cr (permit required)
- \_\_\_\_\_ HST 323: Michigan History, 3cr
- \_\_\_\_\_ INT 330: The Idea of Nature, 3cr (req. Jr.)
- \_\_\_\_\_ INT 370: Anishinaabeg Lifeways: Past, Present, and Future, 3cr
- \_\_\_\_\_ PNH 360: Voluntarism and the Nonprofit Sector, 3cr
- \_\_\_\_\_ PSY 362: Environmental Psychology, 3cr
- \_\_\_\_\_ Course Substitution \_\_\_\_\_

### II. Physical and Life Science Perspectives

*Knowledge from the physical and life sciences defines the context and limits of humans' interactions with their environments.*

- \_\_\_\_\_ BIO 105: Environmental Science, 3cr
- \_\_\_\_\_ ENS 310: How the Living Earth Works, 3cr (req. Jr.)
- \_\_\_\_\_ GPY 100: Phys. & Environ. Geography, 3cr
- \_\_\_\_\_ NRM 330: Environmental Pollution, 3cr (req. CHM 109 or 116)
- \_\_\_\_\_ PHY 215: Energy in Modern Life, 4cr (req. MTH 108 & 109 or 110)
- \_\_\_\_\_ Course Substitution \_\_\_\_\_

### III. Political and Economic Perspectives

*Policy studies, economics, and the social sciences describe and analyze social structures that influence humans' interactions with their environments.*

- \_\_\_\_\_ ECO 345: Environmental and Resource Economics, 3cr (req. Jr, ECO211, permit)
- \_\_\_\_\_ ENS/PHI 302: Environmental Justice, 3cr
- \_\_\_\_\_ ENS/PLS 303: Introduction to U.S. Environmental Policy, 3cr (req. Jr.)
- \_\_\_\_\_ GPY 361: People, Environment, and Development in the Amazon, 3cr (req. Jr.)
- \_\_\_\_\_ GSI 365: Global Climate Justice, 3cr (req. Jr., GSI 201 or ENS 201 or permit)
- \_\_\_\_\_ INT 322: Wicked Problems of Sustainability, 3cr (req. Jr.)
- \_\_\_\_\_ NRM 150: Introduction to Natural Resource Conservation, 3cr
- \_\_\_\_\_ NRM 451: Natural Resource Policy, 3cr (req. Jr., NS or permit)
- \_\_\_\_\_ OSH 414: Environmental Safety and Health Regulations, 3cr
- \_\_\_\_\_ PLS 314: International Law, 3cr (req. Jr. or PLS 211)
- \_\_\_\_\_ PNH 307: Local Politics and Administration, 3cr
- \_\_\_\_\_ Course Substitution \_\_\_\_\_

## FOCUS AREA COURSES (9-10 credits minimum)

Students must complete the required coursework in at least one of the following Focus Areas:  
*Sustainable Food Systems, Energy and Climate Change, Water Resources, or Culture and the Built Environment*

### **Focus Area: Sustainable Food Systems**

Complete one course from each perspectives list; no course may count as both a Focus Area course and as a Triple Bottom Line course.

#### **I. Food Safety Perspectives**

- \_\_\_\_\_ CMB 140: Living Foods! Ferment them Yourself, 4cr
- \_\_\_\_\_ HTM 201: Good Food Gone Bad- Food Safety, 3cr
- \_\_\_\_\_ HTM 250: Food Production and Kitchen Management, 4cr

#### **II. Social and Cultural Perspectives**

- \_\_\_\_\_ ART 423: Animals in Art, 3cr (*req. Jr.*)
- \_\_\_\_\_ ENS 311: To Bee or Not to Bee: Honeybees and Social Impact, 3cr
- \_\_\_\_\_ GPY 362 Farmers, Crops, and Our Challenging Ag. World, 3cr (*req. Jr.*)
- \_\_\_\_\_ GPY 363: World Forests and Their Use, 3cr (*req. Jr.*)
- \_\_\_\_\_ SOC 288: Sociology of Food, 3cr
- \_\_\_\_\_ Course Substitution \_\_\_\_\_

#### **III. Physical and Life Science Perspectives**

- \_\_\_\_\_ BIO 319: Global Agricultural Sustainability, 3cr (*req. Jr, LS*)
- \_\_\_\_\_ ENS 310: How the Living Earth Works, 3cr (*req. Jr.*)
- \_\_\_\_\_ ENS 392: Sustainable Agriculture: Ideas/Tech, 3cr (*req. Jr.*)
- \_\_\_\_\_ NRM 281: Principles of Soil Science, 4cr (*req. CHM 109 or 115*)
- \_\_\_\_\_ Course Substitution \_\_\_\_\_

#### **IV. Political and Economic Perspectives**

- \_\_\_\_\_ GPY 345: Geography/Land Use Management of MI /Great Lakes, 3cr
- \_\_\_\_\_ GPY 361: People, Envir., & Dev. in the Amazon, 3cr (*req. Jr.*)
- \_\_\_\_\_ INT 342: Food Matters, 3cr (*req. Jr.*)
- \_\_\_\_\_ Course Substitution \_\_\_\_\_

### **Focus Area: Energy and Climate Change**

Complete one course from each perspectives list; no course may count as both a Focus Area course and a Triple Bottom Line course.

#### **I. Social and Cultural Perspectives**

- \_\_\_\_\_ ENS 242: Climate Change in Popular Culture, 3cr
- \_\_\_\_\_ GPY 363: World Forests and Their Use, 3cr (*req. Jr.*)
- \_\_\_\_\_ HST 323: Michigan History, 3cr
- \_\_\_\_\_ IDS 350: Building Bridges Through Conversation, 3cr (*req. Jr.*)
- \_\_\_\_\_ INT 330: The Idea of Nature, 3cr (*req. Jr.*)
- \_\_\_\_\_ Course Substitution \_\_\_\_\_

#### **II. Physical and Life Science Perspectives**

- \_\_\_\_\_ BIO 105: Environmental Science, 3cr
- \_\_\_\_\_ BIO 215: Ecology, 4 cr (*req. BIO 121*)
- \_\_\_\_\_ EGR 360: Thermodynamics, 4cr (*req. PHY 231 or PHY 234; MTH 302; and admitted to electrical, interdisciplinary, mechanical, or product design and manufacturing engineering major*)
- \_\_\_\_\_ ENS 310: How the Living Earth Works, 3cr (*req. Jr.*)
- \_\_\_\_\_ GPY/ENS 412: Global Climate and Environmental Change, 3cr (*req. Jr., GPY 100 or ENS 201 or NS course*)
- \_\_\_\_\_ PHY 215: Energy in Modern Life, 4cr (*req. MTH 108 & MTH 109 or MTH 110*)
- \_\_\_\_\_ Course Substitution \_\_\_\_\_

#### **III. Political and Economic Perspectives**

- \_\_\_\_\_ ECO 345: Environmental and Resource Economics, 3cr (*req. Jr., ECO 211, Seidman Permit*)
- \_\_\_\_\_ EGR 406: Renewable Energy: Structure/Policy/Analysis, 3cr (*req. Jr., STA 215 or 200 or 312*)
- \_\_\_\_\_ GSI 365: Global Climate Justice, 3cr (*req. GSI 201 or ENS 201 or instructor permission*)
- \_\_\_\_\_ NRM 451: Natural Resource Policy, 3cr (*req. Jr., completion of NS or permission*)
- \_\_\_\_\_ Course Substitution \_\_\_\_\_

### **Focus Area: Water Resources**

Complete one course from each perspectives list; no course may count as both a Focus Area course and as a Triple Bottom Line course.

#### **I. Social and Cultural Perspectives**

- \_\_\_\_\_ BIO 338: Environmental Ethics, 3cr (*preq. Jr., FW*)
- \_\_\_\_\_ ENS/NRM/SOC 222 - Social Inquiry and West Michigan Water, 3cr
- \_\_\_\_\_ ENS 238 - Polluted, Poisoned, and Pillaged: Exploring Michigan's Waterways Through Time, 3cr
- \_\_\_\_\_ HST 323: Michigan History, 3cr
- \_\_\_\_\_ INT 330: The Idea of Nature (*preq. Jr.*)
- \_\_\_\_\_ Course Substitution \_\_\_\_\_

#### **II. Physical and Life Science Perspectives**

- \_\_\_\_\_ BIO 107: Great Lakes and Other Water Resources, 4cr
- \_\_\_\_\_ BIO 215: General Ecology, 4cr (*preq. BIO 121*)
- \_\_\_\_\_ ENS 310: How the Living Earth Works, 3cr (*preq. Jr.*)
- \_\_\_\_\_ GEO 105: Living with the Great Lakes, 3cr
- \_\_\_\_\_ Course Substitution \_\_\_\_\_

#### **III. Political and Economic Perspectives**

- \_\_\_\_\_ GPY 345: Geography and Land Use Management of MI and the Great Lakes Area, 3cr
- \_\_\_\_\_ NRM 451: Natural Resource Policy, 3cr (*preq. Jr., completion of NS or permission*)
- \_\_\_\_\_ OSH 414: Environmental Safety and Health Regulations, 3cr
- \_\_\_\_\_ Course Substitution \_\_\_\_\_

### **Focus Area: Culture and the Built Environment**

Complete one course from each perspectives list; no course may count as both a Focus Area course and as a Triple Bottom Line course.

#### **I. Social and Cultural Perspectives**

- \_\_\_\_\_ ANT 340: Culture & Environment, 3cr (*preq. Jr., FW & HA or US*)
- \_\_\_\_\_ ART 295: Space Studio: Art, Installation, Environment, Site, 3cr
- \_\_\_\_\_ ENG 382: Literature & Environment, 3cr (*preq. Jr., FW*)
- \_\_\_\_\_ GPY 410: Landscape Analysis and Green Infrastructure, 3cr (*preq. Jr.*)
- \_\_\_\_\_ HST 320: American Indians, 3cr
- \_\_\_\_\_ HST 327: History of United States Urban Society, 3cr
- \_\_\_\_\_ INT 370: Anishinaabeg Lifeways: Past, Present, and Future, 3cr
- \_\_\_\_\_ SW 150: Intro to Social Work & Social Welfare, 3cr
- \_\_\_\_\_ WGS 335: Women, Health and the Environment (*preq. Jr.*)
- \_\_\_\_\_ Course Substitution \_\_\_\_\_

#### **II. Physical and Life Science Perspectives**

- \_\_\_\_\_ EGR 306: Urban Sustainability, 3cr (*preq. Jr., MTH 108 and MTH 109 (or MTH 110)*)
- \_\_\_\_\_ ENS 310: How the Living Earth Works, 3cr (*preq. Jr.*)
- \_\_\_\_\_ GPY 312: Urban and Regional Environmental Planning, 3cr
- \_\_\_\_\_ NRM 330: Environmental Pollution, 3cr (*preq. CHM 109 or 116*)
- \_\_\_\_\_ Course Substitution \_\_\_\_\_

#### **III. Political and Economic Perspectives**

- \_\_\_\_\_ CJ 370: Environmental Crime and Justice, 3cr (*preq. Jr.*)
- \_\_\_\_\_ ENS/PHI 302: Environmental Justice, 3cr
- \_\_\_\_\_ ENS 305: Sustainability Assessment and Reporting, 3cr (*preq. ENS 201*)
- \_\_\_\_\_ GPY/PNH 324: Urbanization (*preq. Jr.*)
- \_\_\_\_\_ GPY 335: Globalization and Development (*preq. Jr.*)
- \_\_\_\_\_ GPY 361: People, Envir., & Dev. in the Amazon (*preq. Jr.*)
- \_\_\_\_\_ HTM 368: Geotourism (*preq. Jr., HTM 202*)
- \_\_\_\_\_ SOC 351: Urban Sociology (*preq. Jr., SOC 101*)
- \_\_\_\_\_ Course Substitution \_\_\_\_\_

**DEGREE REQUIREMENTS** *(Select from B.A. or B.S. Option)*

**B.A.**

Twelve credits are required. Third-semester proficiency in a foreign language of the student's choice, either classical or modern, equivalent to a 201 course in a GVSU language program.

3rd semester proficiency in a foreign language

\_\_\_\_\_ 201 Course OR \_\_\_\_\_ Pass Proficiency Exam

**B.S.**

Candidates for the B.S. must complete nine to 10 credits:

**Interdisciplinary Methods:**

\_\_\_\_\_ ENS 301: Methods for Interdisciplinary ENS, 3cr (*preq. ENS 201, Jr. recommended*)

**Quantitative Analysis** - Select 1 course from the following:

\_\_\_\_\_ GPY 200: Computer Cartography, 3cr (*preq. MTH 108 & 109 or 110*)

\_\_\_\_\_ PHY 215: Energy in Modern Life, 4cr (*preq. MTH 108 & 109 or 110*)

\_\_\_\_\_ STA 215: Introductory Applied Statistics, 3cr (*preq. MTH 108 & 109 or 110*)

**Additional Quantitative or Qualitative Skills** - Select 1 course from the following:

\_\_\_\_\_ AHS 301: Intro to Health Care Research, 3cr (*preq. STA 215*)

\_\_\_\_\_ DS 202: Digital Data and Design, 3cr

\_\_\_\_\_ GPY 307: Introduction to Geographic Information Systems, 3cr

\_\_\_\_\_ GPY 370: Introduction to Remote Sensing, 3cr

\_\_\_\_\_ GPY 407: Advanced GIS, 4cr (*preq. GPY 307*)

\_\_\_\_\_ GPY 470: Digital Image Processing, 3cr (*preq. GPY 307*)

\_\_\_\_\_ HST 290: The Historian's Craft, 3cr (*preq. Math Sciences GE Foundation*)

\_\_\_\_\_ PLS 300: Political Analysis, 3cr (*preq. STA 215*)

\_\_\_\_\_ PSY 300: Research Methods in Psychology, 3cr (*preq. PSY 101, WRT 150, and (STA 215 or STA 312)*) STA 216: Intermediate Applied Statistics, 3cr (*preq. STA 215 or STA 312*)

\_\_\_\_\_ STA 301: Questionnaire Design and Execution, 3cr (*preq. STA 215 or STA 312*)

\_\_\_\_\_ STA 314: Statistical Quality Methods, 3cr (*preq. STA 215*)

\_\_\_\_\_ STA 318: Statistical Computing, 3cr (*preq. STA 215*)

\_\_\_\_\_ STA 340: Statistics in the Media, 3cr (*preq. Jr., STA 215 or 220 or 312*)

TOTAL NUMBER OF CREDITS: \_\_\_\_\_

**GRADUATION REQUIREMENTS**

\_\_\_\_\_ 2 Supplemental Writing Skills (SWS) courses

\_\_\_\_\_ Last 30 consecutive credits completed at GVSU

\_\_\_\_\_ Complete 58 credits at a senior institution

\_\_\_\_\_ Earn a cumulative GPA of at least 2.0

\_\_\_\_\_ Obtain a minimum of 120 credits

\_\_\_\_\_ [Submit an Application for Undergraduate Diploma](#)

\*\*\*This form is a planning tool and does not constitute an agreement regarding program requirements.

Brooks College Advising Center  
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