

Brooks College of Interdisciplinary Studies

**Environmental and Sustainability Studies Major, B.A., B.S. (2023-2024)**

A total of 35-37 credits 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#: \_\_\_\_\_ Anticipated Grad: \_\_\_\_\_ Advisor: \_\_\_\_\_

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

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

- \_\_\_ ENS 201: Introduction to Environmental and Sustainability Studies (SFS)
- \_\_\_ ENS 300: Principles of Sustainability (preq. ENS 201)(SWS)
- \_\_\_ ENS 301: Methods for Interdisciplinary ENS (preq. ENS 201, Jr. recommended)(SWS)

**TECHNICAL SKILLS (3-4 credits) Choose one course from the following:**

- \_\_\_ ENS 305: Sustainability Assessment and Reporting (preq. ENS 201)
- \_\_\_ GPY 200: Computer Cartography (preq. MTH 110) (MS, TS+BS)
- \_\_\_ GPY 307: Introduction to Geographic Information Systems (TS+BS)
- \_\_\_ GPY 370: Introduction to Remote Sensing (TS+BS)
- \_\_\_ NRM 250: Resource Measurement and Maps
- \_\_\_ PHO 171: Photography 1 (4 cr.)
- \_\_\_ STA 301: Questionnaire Design and Execution (preq. STA 215 or 312) (TS+BS)
- \_\_\_ STA 311: Introduction To Survey Sampling (preq. STA 216)
- \_\_\_ STA 341: Demographic Methods (preq. Jr., STA 215 or 312) (I-G)
- \_\_\_ WRT 200: Introduction to Professional Writing (preq. WRT 130 or 150)(SWS)
- \_\_\_ WRT 253: Document Production and Design (preq. WRT 130 or 150)
- \_\_\_ WRT 350: Business Comm. (preq. WRT 130 or 150)(SWS)

Check here if  
course substitution

**KEY**

- GP** = Cultures: Global Perspectives
- HA** = Foundations: Historical Analysis
- I-G** = Issues: Globalization
- I-H** = Issues: Health
- I-IIT** = Issues: Info/Innovation/Tech.
- I-S** = Issues: Sustainability
- LS** = Foundations: Life Sciences
- MS** = Foundations: Math Sciences
- PS** = Foundations: Physical Sciences
- SBS** = Foundations: Social/Behav. Sci.
- SFS** = Sustainable Food Syst. Certificate
- SWS** = Supplemental Writing Skills
- TS+BS** = Fulfills Technical Skills  
elective & BS degree requirement
- US** = Cultures: U.S. Diversity

**TRIPLE BOTTOM LINE OVERVIEW COURSES (9 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/Envir. (preq. Jr, WRT 130 or 150, HA or US)(I-S,GP)
- \_\_\_ ART 423: Animals in Art (preq. Jr.)
- \_\_\_ BIO 338: Environmental Ethics (preq. Jr., WRT 130 or 150)(I-S, SWS)
- \_\_\_ ENG 382: Literature & Envir. (preq. Jr., WRT 130 or 150) (I-S, SWS)
- \_\_\_ ENS 311: To Bee or Not to Bee: Honey Bees and Social Impact
- \_\_\_ HST 323: Michigan History
- \_\_\_ INT 330: The Idea of Nature (preq. Jr.) (I-S)
- \_\_\_ PNH 360: Voluntarism & Non-Profit Sector
- \_\_\_ PSY 362: Environmental Psychology

Check here if  
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 (LS)
- \_\_\_ ENS 310: How the Living Earth Works  
(preq. Jr.) (I-S)
- \_\_\_ GPY 100: Physical/Environmental Geography
- \_\_\_ NRM 330: Environmental Pollution  
(preq. CHM 109 or CHM 116)

Check here if  
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: Envir. Resource Economics  
(preq. Jr., ECO 200 or 211, Seidman permit) (I-S)
- \_\_\_ GPY 361: People, Envir., Dev. in the Amazon (preq. Jr.)
- \_\_\_ INT 322: Wicked Problems of Sustain. (preq. Jr.) (I-S)
- \_\_\_ NRM 150: Introduction to Natural Resources
- \_\_\_ NRM 451: Natural Resource Policy (preq. Jr. & NS) (I-S)
- \_\_\_ OSH 414: Environmental Safety and Health Regulations
- \_\_\_ PLS/ENS 303: Intro to U.S. Envir. Policy (preq. Jr.) (I-S)
- \_\_\_ PLS 314: International Law (preq. Jr. or PLS 211)
- \_\_\_ PNH 307: Local Politics and Administration (preq. Jr.)

Check here if  
course substitution

**SYNTHESIS AND APPLICATION (5 credits)**

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

**AND**

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

## 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, Water Resources, or Culture and the Built Environment

### Focus Area: Sustainable Food Systems

Complete the required food safety course and one course from each perspectives list; No course may count as both a Focus Area course and as a Triple Bottom Line course.

#### Requirement: Food Safety

\_\_\_ HTM 201: Good Food Gone Bad- Food Safety (1 cr.) (SFS)

OR

\_\_\_ HTM 250: Food Production and Kitchen Management (4 cr.) (SFS)

#### I. Social and Cultural Perspectives

\_\_\_ ART 423: Animals in Art (preq. Jr.)

\_\_\_ ENS 311: To Bee or Not to Bee; Honey Bees and Social Impact

\_\_\_ GPY 362 Farmers, Crops, and Our Challenging Ag. World  
(preq. Jr.) (I-G, GP, SFS)

\_\_\_ GPY 363: World Forests and Their Use (preq. Jr.) (I-S)

\_\_\_ INT 342: Food Matters (preq. Jr.) (I-H, SFS)

\_\_\_ SOC 288: Sociology of Food (SFS)

#### II. Physical and Life Science Perspectives

\_\_\_ BIO 319: Global Agricultural Sustainability  
(preq. Jr, completion of Foundations Life Sci) (I-S, SFS)

\_\_\_ ENS 392: Sustainable Agriculture: Ideas/Tech (preq. Jr.) (I-S, SFS)

\_\_\_ NRM 281: Principles of Soil Science (4 cr.)  
(preq. CHM 109 or 115) (SFS)

#### III. Political and Economic Perspectives

\_\_\_ GPY 345: Geography/Land Use Management of MI /GreatLakes

\_\_\_ GPY 361: People, Envir., & Dev. in the Amazon (preq. Jr.)

Check here if  
course substitution

### Focus Area: Energy

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

\_\_\_ GPY 363: World Forests and Their Use (preq. Jr.) (I-S)

\_\_\_ HST 323: Michigan History

\_\_\_ INT 330: The Idea of Nature (preq. Jr.) (I-S)

#### II. Physical and Life Science Perspectives

\_\_\_ BIO 105: Environmental Science (LS)

\_\_\_ BIO 215: General Ecology (4 cr.)  
(preq. BIO 120 or CMB 155 & CMB 156, BIO 121)

\_\_\_ EGR 360: Thermodynamics (preq. PHY 231 or 234, MTH 302,  
admitted to electrical, interdisciplinary, mechanical, or  
product design engineering major)

\_\_\_ GPY/ENS 412: Global Climate and Environmental Change  
(preq. Jr., GPY 100 or ENS 201 or NS course) (I-S)

#### III. Political and Economic Perspectives

\_\_\_ ECO 345: Environmental and Resource Economics  
(preq. Jr., ECO 200 or 211, Seidman Permit) (I-S)

\_\_\_ EGR 406: Renewable Energy: Structure/Policy/Analysis  
(preq. Jr., STA 215 or 200 or 312)

\_\_\_ NRM 451: Natural Resource Policy  
(preq. Jr., completion of NS or permission) (I-S)

Check here if  
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 (preq. Jr., WRT 130 or 150) (I-S, SWS)

\_\_\_ HST 323: Michigan History

\_\_\_ INT 330: The Idea of Nature (preq. Jr.) (I-S)

#### II. Physical and Life Science Perspectives

\_\_\_ BIO 107: Great Lakes and Other Water Resources (4 cr.) (LS)

\_\_\_ BIO 215: General Ecology (4 cr.) (preq. BIO 120, or CMB 155 & CMB 156, BIO 121; BIO 120 may be taken concurrently)

\_\_\_ GEO 105: Living with the Great Lakes (PS)

#### III. Political and Economic Perspectives

\_\_\_ GPY 345: Geography and Land Use Management of MI and the Great Lakes Area

\_\_\_ NRM 451: Natural Resource Policy (preq. Jr., completion of NS or permission) (I-S)

\_\_\_ OSH 414: Environmental Safety and Health Regulations

Check here if  
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/Envir (req. Jr., WRT 130 or 150, HA or US)(I-S,GP)
- \_\_\_ ENG 382: Literature & Envir. (req. Jr., WRT 130 or 150) (I-S, SWS)
- \_\_\_ GPY 410: Landscape Analysis and Green Infrastructure (req. Jr.)
- \_\_\_ HST 320: American Indians
- \_\_\_ HST 327: History of United States Urban Society
- \_\_\_ SW 150: Intro to Social Work & Social Welfare (SBS)
- \_\_\_ WGS 335: Women, Health and the Environment (req. Jr.) (I-S)

**II. Physical and Life Science Perspectives**

- \_\_\_ EGR 306: Urban Sustainability (req. Jr., MTH 110) (I-S)
- \_\_\_ GPY 312: Urban and Regional Environmental Planning
- \_\_\_ NRM 330: Environmental Pollution (req. CHM 109 or 116)

**III. Political and Economic Perspectives**

- \_\_\_ CJ 370: Environmental Crime and Justice (req. Jr.)
- \_\_\_ GPY/PNH 324: Urbanization (req. Jr.) (I-S, GP)
- \_\_\_ GPY 335: Globalization and Development (req. Jr.) (I-G)
- \_\_\_ GPY 361: People, Envir., & Dev. in the Amazon (req. Jr.)
- \_\_\_ HTM 368: Geotourism (req. Jr., HTM 202) (I-S)
- \_\_\_ SOC 351: Urban Sociology (req. Jr., SOC 101) (I-S, SWS)

Check here if  
course substitution

**COURSE SUBSTITUTIONS**

If an approved course is accepted as a substitution to fulfill a requirement for the ENS major, please specify.

\_\_\_\_\_ is substituting for:

\_\_\_\_\_ is substituting for:

\_\_\_\_\_ is substituting for:

**NOTES:****DEGREE REQUIREMENTS** (Select from B.A. or B.S. Option)**B.A.** 3rd semester proficiency in a foreign language:

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

**B.S.** Candidates for the B.S. must complete the following:

- \_\_\_ STA 215: Introductory Applied Statistics (3 cr.)  
(req. MTH 110 or equivalent) (MS)
- OR**
- \_\_\_ GPY 200: Computer Cartography (3 cr.) (req. MTH 110) (MS)

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

**AND** one of the following (3 cr.):

**GRADUATION REQUIREMENTS**

- Complete 2 Supplemental Writing Skills (SWS) courses
- Obtain a minimum of 120 credits
- Complete 58 credits at a senior institution
- Last 30 consecutive credits must be completed at GVSU
- Earn a cumulative GPA of at least 2.0
- Submit an [Application for Undergraduate Diploma](#)

- \_\_\_ AHS 301: Intro to Health Care Research (req. STA 215)
- \_\_\_ GPY 307: Introduction to Geographic Info Systems (TS+BS)
- \_\_\_ GPY 370: Introduction to Remote Sensing (TS+BS)
- \_\_\_ HST 290: Research Methods in History (req. STA 215 or 312)
- \_\_\_ PLS 300: Political Analysis (req. STA 215)
- \_\_\_ PSY 300: Research Methods in Psychology  
(req. PSY 101 and STA 215 or STA 312) (SWS)

**AND** one of the following (3 cr.):

- \_\_\_ GPY 407: Advanced GIS (4 cr.) (req. GPY 307)
- \_\_\_ GPY 470: Digital Image Processing (req. GPY 370)
- \_\_\_ STA 216: Intermediate Applied Statistics (req. STA 215 or 312)
- \_\_\_ STA 301: Questionnaire Design and Execution  
(req. STA 215 or 312) (TS+BS)
- \_\_\_ STA 314: Statistical Quality Methods (req. STA 215)
- \_\_\_ STA 318: Statistical Computing (req. STA 215)
- \_\_\_ STA 340: Statistics in the Media (req. Jr., STA 215) (I-IIT)

\*\*\*This form is a planning tool and does not constitute an agreement regarding program requirements. Download a fillable version of this curriculum guide at [www.gvsu.edu/ens/major](http://www.gvsu.edu/ens/major)

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