[Brooks College of Interdisciplinary Studies](https://www.gvsu.edu/brooks/)

# [Environmental and Sustainability Studies Major, B.A., B.S. (2023-2024)](https://www.gvsu.edu/ens)

*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* *or (616) 331-8016.*

[*How to Declare a Major/Minor*](https://www.youtube.com/watch?v=MFiV7FG2Rs4&t=20s) *\** [*General Education Requirements*](https://www.gvsu.edu/gened/general-education-handbook-266.htm) *\** [*ENS Course Offerings*](https://www.gvsu.edu/ens/courses) *\** [*Approved ENS Subs*](https://www.gvsu.edu/ens/subchart) *\** [*Faculty/Staff Directory*](https://www.gvsu.edu/ens/facultystaff-directory-44.htm)

Name: G#: Anticipated Grad: Advisor:

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

 ENS 201: Introduction to Environmental and Sustainability Studies *(SFS)*

 ENS 300: Principles of Sustainability *(preq. ENS 201)(SWS)*Last Updated Date:

 ENS 301: Methods for Interdisciplinary ENS *(preq. ENS 201, Jr. recommended)(SWS)*

**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

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| **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 |

**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.*

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| **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 |

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| **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 |

**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.)*

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

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| **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)*1. **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)*1. **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)*1. **Political and Economic Perspectives**

 GPY 345: Geography/Land Use Management of MI /Great Lakes GPY 361: People, Envir., & Dev. in the Amazon *(preq. Jr.)* |
|  |  Check here if  course substitution |

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| **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.*1. **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)*1. **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)*1. **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 |

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| **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.*1. **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)*1. **Physical and Life Science Perspectives**

 BIO 107: Great Lakes and Other Water Resources *(4 cr.) (LS)* BIO 215: General Ecolog*y (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)*1. **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 |

**Additional Pages**

**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**:

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| **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.*1. **Social and Cultural Perspectives**

 ANT 340: Culture*/*Envir *(preq. Jr., WRT 130 or 150, HA or US )(I-S,GP)* ENG 382: Literature & Envir. *(preq. Jr., WRT 130 or 150) (I-S, SWS)* GPY 410: Landscape Analysis and Green Infrastructure *(preq 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 *(preq. Jr.) (I-S)*1. **Physical and Life Science Perspectives**

 EGR 306: Urban Sustainability *(preq. Jr., MTH 110) (I-S)* GPY 312: Urban and Regional Environmental Planning NRM 330: Environmental Pollution *(preq. CHM 109 or 116)*1. **Political and Economic Perspectives**

 CJ 370: Environmental Crime and Justice *(preq. Jr.)* GPY/PNH 324: Urbanization *(preq. Jr.) (I-S, GP)* GPY 335: Globalization and Development *(preq. Jr.) (I-G)* GPY 361: People, Envir., & Dev. in the Amazon *(preq. Jr.)* HTM 368: Geotourism *(preq. Jr., HTM 202) (I-S)* SOC 351: Urban Sociology *(preq. Jr., SOC 101) (I-S, SWS)* |
|  |  Check here if  course substitution |

**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

# TOTAL NUMBER OF CREDITS:

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

 STA 215: Introductory Applied Statistics *(3 cr.)*

*(preq. MTH 110 or equivalent) (MS)*

**OR**

 GPY 200: Computer Cartography *(3 cr.) (preq. MTH 110) (MS)*

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

 AHS 301: Intro to Health Care Research *(preq. 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 *(preq. STA 215 or 312)*

 PLS 300: Political Analysis *(preq. STA 215)*

 PSY 300: Research Methods in Psychology

*(preq. PSY 101 and STA 215 or STA 312) (SWS)*

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

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

 GPY 470: Digital Image Processing *(preq. GPY 370)*

 STA 216: Intermediate Applied Statistics *(preq STA 215 or 312)*

 STA 301: Questionnaire Design and Execution

*(preq. STA 215 or 312) (TS+BS)*

 STA 314: Statistical Quality Methods *(preq. STA 215)*

 STA 318: Statistical Computing *(preq. STA 215)*

 STA 340: Statistics in the Media *(preq. Jr., STA 215) (I-IIT)*

**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](https://www.gvsu.edu/cms4/asset/EFAB4AD2-A926-8D16-A5685AB71E0C7DC3/undergraduate_application_for_graduation%282%29.pdf)

*\*\*\*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*](https://www.gvsu.edu/ens/major)

# Brooks College Advising Center

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