[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*](mailto:%20ens@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)* | |
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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(2).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

260 Lake Michigan Hall • (616) 331-8200 [brooksadvising@gvsu.edu](mailto:brooksadvising@gvsu.edu) [www.gvsu.edu/brooksadvising](https://www.gvsu.edu/brooksadvising)