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

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

_____ART 391: Civic Studio: Art in Public, 3cr *(preq. Jr.)*
_____DS 202: Digital Data and Design, 3cr
_____ENS 305: Sustainability Assessment and Reporting, 3cr *(preq. ENS 201)*
_____GPY 200: Computer Cartography, 3cr *(preq. 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 *(preq. STA 215 or 312)*
_____STA 311: Introduction To Survey Sampling, 3cr *(preq. STA 216)*
_____STA 341: Demographic Methods, 3cr *(preq. Jr., STA 215 or 312)*
_____WRT 200: Introduction to Professional Writing, 3cr *(preq. FW)*
_____WRT 253: Document Production and Design, 3cr *(preq. FW)*
_____WRT 350: Business Communication, 3cr *(preq. FW)*
_____Course Substitution _____

SYNTHESIS AND APPLICATION (5 credits min.)

_____ENS 401: Environmental Problem Solving (Capstone), 3cr *(preq. Jr., ENS 201)*
AND
_____ENS 490: Internship (minimum 2 cr.) **OR** _____ENS 491: Practicum (minimum 2 cr.)

PREREQUISITE KEY

preq. = 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 (*preq. Jr., FW & HA or US)*
_____ART 295: Space Studio: Art, Installation, Environment, Site, 3cr
_____ART 391: Civic Studio: Art in Public, 3cr *(preq. Jr.)*
_____ART 423: Animals in Art, 3cr *(preq. Jr.)*
_____BIO 338: Environmental Ethics, 3cr *(preq. Jr., FW)*
_____ENS 242: Climate Change in Popular Culture, 3cr
_____ENG 382: Literature and the Environment, 3cr *(preq. 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 *(preq. 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 *(preq. Jr.)*
_____GPY 100: Phys. & Environ. Geography, 3cr
_____NRM 330: Environmental Pollution, 3cr *(preq. CHM 109 or 116)*
_____PHY 215: Energy in Modern Life, 4cr *(preq. 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 *(preq. Jr, ECO211, permit)*
_____ENS/PHI 302: Environmental Justice, 3cr
_____ENS/PLS 303: Introduction to U.S. Environmental Policy, 3cr *(preq. Jr.)*
_____GPY 361: People, Environment, and Development in the Amazon, 3cr *(preq. Jr.)*
_____GSI 365: Global Climate Justice, 3cr *(preq. Jr., GSI 201 or ENS 201 or permit)*
_____INT 322: Wicked Problems of Sustainability, 3cr *(preq. Jr.)*
_____NRM 150: Introduction to Natural Resource Conservation, 3cr
_____NRM 451: Natural Resource Policy, 3cr *(preq. Jr., NS or permit)*
_____OSH 414: Environmental Safety and Health Regulations, 3cr
_____PLS 314: International Law, 3cr *(preq. 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 *(preq. Jr.)*
_____ENS 311: To Bee or Not to Bee: Honeybees and Social Impact, 3cr
_____GPY 362 Farmers, Crops, and Our Challenging Ag. World, 3cr *(preq. Jr.)*
_____GPY 363: World Forests and Their Use, 3cr *(preq. Jr.)*
_____SOC 288: Sociology of Food, 3cr
_____Course Substitution _____

III. Physical and Life Science Perspectives

_____BIO 319: Global Agricultural Sustainability, 3cr *(preq. Jr, LS)*
_____ENS 310: How the Living Earth Works, 3cr *(preq. Jr.)*
_____ENS 392: Sustainable Agriculture: Ideas/Tech, 3cr *(preq. Jr.)*
_____NRM 281: Principles of Soil Science, 4cr *(preq. 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 *(preq. Jr.)*
_____INT 342: Food Matters, 3cr *(preq. 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 *(preq. Jr.)*
_____HST 323: Michigan History, 3cr
_____IDS 350: Building Bridges Through Conversation, 3cr *(preq Jr.)*
_____INT 330: The Idea of Nature, 3cr *(preq. Jr.)*
_____Course Substitution _____

II. Physical and Life Science Perspectives

_____BIO 105: Environmental Science, 3cr
_____BIO 215: Ecology, 4 cr *(preq. BIO 121)*
_____EGR 360: Thermodynamics, 4cr *(preq. 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 *(preq. Jr.)*
_____GPY/ENS 412: Global Climate and Environmental Change, 3cr *(preq. Jr., GPY 100 or ENS 201 or NS course)*
_____PHY 215: Energy in Modern Life, 4cr *(preq. MTH 108 & MTH 109 or MTH 110)*
_____Course Substitution _____

III. Political and Economic Perspectives

_____ECO 345: Environmental and Resource Economics, 3cr *(preq. Jr., ECO 211, Seidman Permit)*
_____EGR 406: Renewable Energy: Structure/Policy/Analysis, 3cr *(preq. Jr., STA 215 or 200 or 312)*
_____GSI 365: Global Climate Justice, 3cr *(preq. GSI 201 or ENS 201 or instructor permission)*
_____NRM 451: Natural Resource Policy, 3cr *(preq. 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: Research Methods in History, 3cr *(preq. STA 215 or STA 312)*
_____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
_____Complete 58 credits at a senior institution
_____Obtain a minimum of 120 credits
_____Last 30 consecutive credits completed at GVSU
_____Earn a cumulative GPA of at least 2.0
_____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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brooksadvising@gvsu.edu
https://www.gvsu.edu/brooksadvising/