A total of 35-37 credits are required to complete the major in Environmental and Sustainability Studies.

**Name: ____________________________ Date: ____________________ Advisor: ____________________**

### CORE COURSES: All required (9 credits needed)
- ENS 201: Introduction to Environmental and Sustainability Studies (SFS)
- ENS 300: Principles of Sustainability (preq. ENS 201)
- INT 301: Interdisciplinary Research Methods

### TECHNICAL SKILLS (3-4 credits needed) Choose one course from the following:
- ENS 305: Sustainability Assessment and Reporting (preq. ENS 201)
- GPY 307: Introduction to Geographic Information Systems
- GPY 370: Introduction to Remote Sensing
- NRM 250: Resource Measurement and Maps
- PHO 171: Photography 1
- STA 301: Questionnaire Design and Execution (preq. STA 215 or 312)
- STA 311: Introduction To Survey Sampling (preq. STA 216)
- STA 341: Demographic Methods (preq. Jr., STA 215 or 312) (I)
- WRT 200: Introduction to Professional Writing (preq. WRT 150)
- WRT 253: Document Production and Design (preq. WRT 150)
- WRT 350: Business Communication (preq. WRT 150)

### TRIPLE BOTTOM LINE OVERVIEW COURSES (9 credits needed) 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 (preq Jr, WRT 150, HP or US)(I,GP)
- ART 423: Animals in Art (preq. Jr.) (I)
- BIO 338: Environmental Ethics (preq. Jr., WRT 150) (I)
- ENG 382: Literature and the Environment (preq. Jr., WRT 150) (I)
- HST 323: Michigan History
- PA 360: Voluntarism and the Non-Profit Sector
- PSY 362: Environmental Psychology

#### 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 (NS)
- ENS 310: How Biosphere Works (preq. ENS 201, Jr., completion of NS)
- GPY 100: Physical & Environmental Geography
- NRM 330: Environmental Pollution (preq. CHM 109 or CHM 116)

#### 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 (preq. Jr., ECO 200 or 211, Seidman permit) (I)
- GPY 361: People, Environment, and Development in the Amazon (preq. Jr.) (I)
- INT 322: Wicked Problems of Sustainability (preq. Jr.) (I)
- NRM 150: Introduction to Natural Resources
- NRM 451: Natural Resource Policy (preq. Jr., completion of NS or permission) (I)
- OSH 414: Environmental Safety and Health Regulations
- PA 307: Local Politics and Administration (preq. Jr.) (I)
- PLS/ENS 303: Introduction to U.S. Environmental Policy (preq. Jr.) (I)
- PLS 314: International Law (preq. Jr. or PLS 211)

### 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 for Everyone
OR
__HTM 250: Food Production and Kitchen Management

I. Social and Cultural Perspectives
__ART 423: Animals in Art (preq. Jr.) (I)
__ENS 311: To Bee or Not to Bee; Honey Bees and Social Impact (I, GP, SFS)
__GPY 362 Farmers, Crops, and Our Challenging Ag. World (preq. Jr.) (I, GP, SFS)
__GPY 363: World Forests and Their Use (preq. Jr.) (I, GP)
__HNR 151: Food for Thought I (preq. HNR College) (I, SFS)
__INT 342: Food Matters (preq. Jr.) (I, SFS)
__SOC 288: Sociology of Food (SFS)

II. Physical and Life Science Perspectives
__GPY 412: Global Climate and Environmental Change (preq. Jr., either GPY 100 or ENS 201 or completed NS) (I, SFS)

III. Political and Economic Perspectives
__ECO 345: Environmental and Resource Economics (preq. Jr., ECO 200 or 211, Seidman Permit) (I)
__EGR 406: Renewable Energy Systems: Structure/Policy/Analysis (preq. Jr., STA 215 or 200 or 312) (I)
__NRM 451: Natural Resource Policy (preq. Jr., completion of NS or permission) (I)

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)
__HST 323: Michigan History (I)

II. Physical and Life Science Perspectives
__BIO 105: Environmental Science (NS)
__BIO 215: General Ecology (preq. BIO 120, or CMB 155 & CMB 156, BIO 121)
__EGR 360: Thermodynamics (preq. PHY 231 or 234, MTH 302, and admitted to electrical, interdisciplinary, mechanical, or product design/manufacturing engineering major)
__GPY/ENS 412: Global Climate and Environmental Change (preq. Jr., either GPY 100 or ENS 201 or completed NS) (I, SFS)

III. Political and Economic Perspectives
__ECO 345: Environmental and Resource Economics (preq. Jr., ECO 200 or 211, Seidman Permit) (I)
__EGR 406: Renewable Energy Systems: Structure/Policy/Analysis (preq. Jr., STA 215 or 200 or 312) (I)
__NRM 451: Natural Resource Policy (preq. Jr., completion of NS or permission) (I)

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 150) (I)
__HST 323: Michigan History (I)

II. Physical and Life Science Perspectives
__BIO 107: Great Lakes and Other Water Resources (I)
__BIO 215: General Ecology (preq. BIO 120, or CMB 155 & CMB 156, BIO 121; BIO 120 may be taken concurrently)
__GEO 105: Living with the Great Lakes (NS)

III. Political and Economic Perspectives
__GPY 345: Geography/Land Use Management of MI/Great Lakes Area (I)
__NRM 451: Natural Resource Policy (preq. Jr., completion of NS or permission) (I)
__OSH 414: Environmental Safety and Health Regulations (I)
DEGREE REQUIREMENTS

□ 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)

   AND one of the following (3 cr.):
   ___AHS 301: Intro to Health Care Research (req. STA 215)
   ___GPY 307: Introduction to Geographic Info Systems
   ___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)

   AND one of the following (3 cr.):
   ___GPY 370: Introduction to Remote Sensing
   ___GPY 407: Advanced GIS (4 cr.) (req. GPY 307)
   ___STA 216: Intermediate Applied Statistics (req. STA 215 or 312)
   ___STA 301: Questionnaire Design and Execution
   (req. STA 215 or 312)
   ___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)

This form is a planning tool and does not constitute an agreement regarding program requirements. It is imperative that you meet with an academic advisor early and often in your career.

TOTAL NUMBER OF CREDITS__________