Cross Listing Course Form (4/3/14)

I: Criteria

- be requested by both departments or programs;
- count as credit toward an existing major, minor, or certificate program;
- not be experimental or have a reserved variable content course number (x90-X99);
- carry the same title (both parent and sibling courses) and, if possible, carry the same course number;
- be implemented within comparable course levels, e.g., (U), (UG), or (G);
- be offered under an existing rubric.

Under no circumstances will a course have more than three crosslistings.

II: Submit all courses requested for crosslisting:

<table>
<thead>
<tr>
<th>Requesting Dept / Program (must be department of parent course)</th>
<th>Business Technology, Missoula College</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent Course Prefix and Number</td>
<td>BGEN 160S</td>
</tr>
<tr>
<td>Sibling Course(s) Prefix (Pre CCN) and Number</td>
<td>EVST 160S</td>
</tr>
<tr>
<td>Course Title</td>
<td>Issues in Sustainability</td>
</tr>
</tbody>
</table>

III: Endorsement/Approvals:

Complete the form and obtain signatures from the appropriate Dean(s) by the due date.

<table>
<thead>
<tr>
<th>Please type / print name</th>
<th>Signature</th>
<th>Date</th>
<th>Approve *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requestor: Lisa Swallow</td>
<td>[Signature]</td>
<td>9-24-14</td>
<td></td>
</tr>
<tr>
<td>Phone/ email: 243-7810</td>
<td><a href="mailto:lisa.swallow@umontana.edu">lisa.swallow@umontana.edu</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parent Program Chair/Director: Cheryl Gallipeau 243-7874</td>
<td>[Signature]</td>
<td>9-3-14</td>
<td></td>
</tr>
<tr>
<td>Sibling Program Chair(s)/Director(s): Phil Condon</td>
<td>[Signature]</td>
<td>9-24-14</td>
<td></td>
</tr>
<tr>
<td>Dean(s): Jenny McNulty CHS Lynn Stocking, MC 243-7801</td>
<td>[Signature]</td>
<td>9-23-14</td>
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</tr>
</tbody>
</table>

*Signatory Comments (required for disapproval):

IV. Rationale

Do these courses need to be cross listed to fill an external requirement?

If YES, define external requirement and attach documentation.

If NO, complete narrative: In 500 words or less explain why only cross-listing this course serves the need for delivering academic content. You must identify how both the parent and sibling units contribute to the cross-listed course’s content and how cross listing contributes to the respective units’ missions of serving students. The narrative must also identify additional reasons for cross listing such as a specialized need for advertising to prospective students, sharing resources across departments (equipment, space, instructors, etc.), or mutual contribution to course content.

(See Section VI below)
CCS160S/BGEN160S
Issues in Sustainability
FALL 2014
Missoula College of the University of Montana

CCS160S-AU14-Swallow
BGEN160S-AU14-Swallow
Credit Hours: 3
Prerequisites: None
Professor: Lisa Swallow
Office Phone: 243-7810
Office Hours: MW 12-1 or by appointment
Email: lisa.swallow@umontana.edu

COURSE DESCRIPTION:
This literature-intensive course is intended to expose the student to a variety of essays addressing the balance of economic development with the principles of triple bottom line. The student is offered an introduction to sustainability concepts, natural systems/cycles and environmental economics. Natural capitalism and triple bottom line maximization is explored, along with the role of corporations and small businesses in sustainable development. A survey of issues surrounding corporate social responsibility, sustainability reporting and sustainability-driven innovation will be conducted.

STUDENT PERFORMANCE OUTCOMES
• Define sustainability; identify facets of conventional vs. natural capitalism
• Delineate natural cycles and ecosystem services and discuss human impact on environment
• Using metrics to determine sustainability including IPAT, Carbon Footprint, Ecological Footprint
• Identify characteristics of sustainable corporations and critically examine alignment of sustainability and economic development objectives; examine biomimicry as an innovative method of adapting nature’s best ideas for human use
• Outline principles of triple bottom line [3E] and the Natural Step framework
• Identify objectives and key indicators of corporate social responsibility
• Discuss socially responsible investing
• Identify trends shaping global markets; discuss product/process design considerations in a sustainable environment
• Articulate how the trend towards business sustainability is impacting markets, management and product innovation
• Identify key issues surrounding climate change and discuss adaptation vs. abatement policies
• Critically analyze sustainability as a social vision and enumerate/discuss facets of a sustainable lifestyle
COURSE MATERIALS
- Readings are either posted in .pdf file format in Moodle or can be accessed online. The web addresses are on Moodle, in each unit’s “Readings & Outcomes” files.
  o Online access – I will post supplemental articles, announcements and grades to Moodle. If you don’t know how to access it yet, please do so by the end of the first week of class.

USE OF PERSONAL ELECTRONIC DEVICES
Cell phones or other electronic devices are great communication tools; however, while you are in class, put them aside. These are my guidelines:
- Your cell phone should be turned off or on vibrate. If you are expecting an important call/message, keep it on your desk. If a call/text comes in, take your phone and quietly leave the room to take care of your call/text. Return when finished.
- There will be no use of cell phones or other tablets during the midterm or final exam.
- You may bring an I-pod to class only during the days we are working on projects that do not include lectures.

If you have a hard time complying with this, I will have to ask you to leave the class.

ACADEMIC HONESTY
The professor, school, and the University rely upon and cherish a community of trust. The professor firmly endorses, upholds, and embraces the University’s Student Conduct Code. Even one misconduct infraction can destroy an exemplary reputation that has taken years for the University to build. Acting in a manner consistent with the University’s policies will benefit every member of the community, not only while you attend the University, but also in your future business endeavors. All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the professor and/or a disciplinary sanction by the University. All students need to be familiar with the Student Conduct Code. The Code is available for review online at http://life.unt.edu/vpsa/student_conduct.php.

STUDENT WITH DISABILITIES
Students with disabilities may request reasonable modifications by contacting me. UM assures equal access to instruction. You must provide a letter from your DSS coordinator as outlined on their website so we can discuss your needs and provide accommodations throughout the course, including exams.

GRADING SCALE
Plus/minus grades will not be given in this course. The total points earned will be divided by the total points available to arrive at the percentage of points earned. Letter grades will be allocated as follows:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>90 - 100%</td>
<td>A</td>
</tr>
<tr>
<td>80 - 89%</td>
<td>B</td>
</tr>
<tr>
<td>70 - 79%</td>
<td>C</td>
</tr>
<tr>
<td>60 - 69%</td>
<td>D</td>
</tr>
<tr>
<td>59% -</td>
<td>F</td>
</tr>
</tbody>
</table>
GRADING MATRIX
Grades will be based on your class participation and papers as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class Participation – various depending upon project</td>
<td>90</td>
</tr>
<tr>
<td>Paper 1 (2 pages)</td>
<td>10</td>
</tr>
<tr>
<td>Unit Quizzes</td>
<td>75</td>
</tr>
<tr>
<td>Company Sustainability Paper Outline</td>
<td>20</td>
</tr>
<tr>
<td>Company Sustainability Paper</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>385</strong></td>
</tr>
</tbody>
</table>

PAPERS
All papers should be double-spaced and in 11 point or larger font. You should include full citation for any works including books, magazine articles, web sites and interviews that you use in preparing your papers including those that have been assigned in class (i.e. you need to include cites for all references you used to draw your conclusions even if they aren’t directly quoted). You are encouraged (and sometimes required) to include references that were not assigned. No late papers will be accepted.

COURSE READING AND PARTICIPATION
Readings should be read by the day listed in the schedule if possible and no later than the end of the week assigned (i.e. Saturday). You will be expected to discuss the readings in class on a regular basis. I will provide some leading questions to begin discussions. Your comments should be based on knowledge gained from the assigned readings and other outside sources you feel are relevant. In addition to expounding on your own thoughts, you should respond to other students – these may contain questions, alternative points of view or related comments. They should not just be brief affirmations such as “I agree” or “Good point.” If you agree or think something is a good point, expound on why you believe that.

CLASS PARTICIPATION
You will be expected to attend class on a regular basis and come prepared to discuss the assigned readings and other outside sources if you like. I will be keeping track of your participation and assigning participation grades for each of the seven units throughout the term.

TOPICAL OUTLINE
Unit 1 – What is Environmentally Neutral or Sustainable Development?
Definition of sustainability; natural cycles; economic systems and ecosystem services; natural capitalism; The Natural Step framework

Unit 2 – Ecological Footprint & Other Metrics
Ecological Footprint analysis at different scales [individual, corporation, region, nation, world]; identify and determine carbon footprint and process of calculating greenhouse gas inventory; business impact on carrying capacity, GDP vs. GPI

Unit 3 – Introduction to Sustainable Business and Innovation
Triple bottom line; biomimicry; sustainability-driven innovation

Unit 4 – Corporate Social Responsibility [CSR]: Stakeholders, Value and Reporting
Defining CSR; Social responsibility reporting and investing, global and market reporting indices
Unit 5 – Markets & Products in a Sustainable Paradigm
Green market segmentation; green consumers; sustainable product attributes; sustainable product design models

Unit 6 – Climate Change
What is climate change, alternative policies to address climate change, climate change risks/opportunities as pertains to business

Unit 7 – Sustainability as a Social Vision and Lifestyle
Envisioning change; the new economy and lifestyle impact

VI. Justification for third crosslisting:
In 500 words or less describe the extenuating circumstances making a third course necessary.

This course is part of the Environmental Studies (EVST) Sustainable Business Focus Area of Study. In EVST, focus areas complement the breadth of the core requirements with depth in an area of study. EVST undergraduates are required to have a second major, a minor, or to select one of the Environmental Studies focus areas (most elect the latter).

All Focus Areas of Study require the completion of the general requirements of the Environmental Studies major. Each Focus Area of Study has additional requirements, generally consisting of a set of courses, or courses to choose among, totaling 20 credits (see: http://www.cas.umt.edu/evst/undergraduate/current-students/focus-areas.php).

Students in the Sustainable Business Focus Area select courses from: BGEN/CCS 160S (Issues in Sustainability); ACTG 201; ACTG 202 (Accounting); MIS 257 (Business Law); ENST 382, 476, 487 (Env. Law, Env Citizenship, Globalization, Justice & Env); COMX 349 (Communication, Consumption & Env); BMGT 357 (Entrepreneurship for non-business majors); GPHY 421 (Sustainable Cities); and GPHY 466 (Env. Planning).

BGEN 160 counts toward SOBA undergraduate business degree and if cross-listed would count toward the required 36 credits of EVST courses for the major degree.

Further justification for cross-listing is also based on: (1) the curricular relevance of the course to both degrees; (2) the close and regular interaction between the two units in developing and updating the course; and (3) facilitating timely graduation and attracting environmental studies student to the course and the Sustainable Business Focus Area.

Interdisciplinary Relevance: Business graduates entering the workforce are increasingly asked to be prepared to understand and appreciate how businesses can operate in ways that provided environmental and social benefits, while maintaining profitability. Such priorities are increasingly important to both business and consumers. Corporate environmental performance is critical to addressing environmental concerns as well. As such, the area of sustainable business is of critical importance in the field of environmental studies and environmental practice.

Cross-Departmental Coordination: For the first several years this course was offered
EVST and the Honors College paid for the instructor and the course was developed and is regularly updated through close discussions between the instructor and EVST faculty to meet an emerging curricular need to prepare students with knowledge and analytic skills in this interdisciplinary topic area.

**Facilitating Timely Graduation/Fostering Student Interest:** Because EVST is an interdisciplinary degree that requires students to take many non-EVST courses, it is often challenging for students (not only but especially transfer students and students who declare EVST as their major as upper division students) to accumulate the minimum of 36 credits within EVST and graduate in a timely manner. Because cross-listing BGEM 160 allows EVST students to count the course toward their major requirements, cross-listing enables students to more readily complete degree requirements and will be particularly beneficial in drawing students’ attention to the course and attracting them to this Focus Area early in their academic careers and better enable them to pursue it later on as well. BGEM also provides an introduction to sustainable business and thereby can also attract EVST students to SOBA’s Sustainable Business Strategies Certificate.

**VII Copies and Electronic Submission.** After approval, submit signed original, and electronic file to the Faculty Senate Office, UH 221, eamie.foos@mso.umt.edu.
Environmental Studies
Major Requirements

The undergraduate Environmental Studies Program at The University of Montana-Missoula offers an education that emphasizes community service and environmental problem solving. In keeping with an interdisciplinary approach, our students study and apply the different perspectives of the humanities and the social and natural sciences to environmental issues. Environmental Studies students practice the necessary communication,
mathematical, and technical skills to engage in effective environmental thought and action. Environmental Studies students participate in community service throughout their years in the program.

The Environmental Studies major is designed to be flexible yet provide a foundation in the natural sciences, social sciences, and humanities for students who want to focus their undergraduate education on the environment as an organizing theme. To balance the breadth of the core requirements, Environmental Studies students are expected to obtain depth in an area of focus by adding another major, or a minor or two, or selecting one of the Environmental Studies focus areas, or designing their own. For the Bachelor of Arts Degree (B.A.) Environmental Studies majors complete a minimum of 120 credit hours of which 36 must be from Environmental Studies and 39 must be from courses that are 300 level or above.

Degree candidates must complete (or demonstrate equivalent experience in) the following:

1. Core curriculum:

Many of these courses also fulfill General Education requirements; substitutions are possible.

Check the catalog for prerequisites for non-Environmental Studies courses. Some may require consent of instructor.

Natural Science:

- ENSC 105N (EVST 101N) Environmental Science
- HMY 121N Intro to General Chemistry
- BIOB 101N Discover Biology or BIOB 160N Principles of Living Systems
  - or BIOB 170N Principles of Biological Diversity

Information Technology, Research & Critical Thinking Skills:

- ENST 201 (EVST 201) Environmental Information Resources

Policy:

- One of the following: ENST 382 Environmental Law (EVST 302W Intro to Env Regulation) or ENST 367W (EVST 367) Environmental Politics & Policies

Humanities:

- ENST 230H (EVST 167) Nature & Society
- One of the following: ENST 335LW (EVST 305LW) The Environmental Vision or ENST 430 (EVST 430) Culture and Agriculture

Social Science:

- ENST 225 (EVST 225) Community & Environment
- One of the following: ENST 489S (EVST 477S) Env Justice Issues & Solutions or ENST 487W (EVST 487W) Globalization, Justice & Env.
Elective Environmental Studies Courses:

- 9 credits, in addition to required courses from above, selected from 300 or 400 level courses offered by the Environmental Studies Program

Native American Studies course:

Choose one 3 credit course from among the following:

- NASX 105 (NAS 100H) Intro to Native American Studies
- NASX 231X (NAS 231X) Indigenous World View Perspective
- NASX 303X (NAS 303E) Ecological Perspectives in Native American Traditions
- NASX 304X (NAS 301E) Native American Beliefs/Philosophy
- NASX 354X (NAS 324X) Indians of Montana Since the Reservation Era
- NASX 340X (NAS 329) Native American Literature
- NASX 306X (NAS 341) Contemporary Issues of American Indians
- NASX 488X (NAS 410) Studies in Native American Autobiography
- NASX 201X (NASL 201X) Indian Culture as Expressed Through Language
- NASX 235X (NASL 202L) Oral & Written Traditions of Native America

Quantitative Skills:

- M 115 Probability and Linear Math
- A statistics course such as: STAT 216 Intro to Statistics or FORS 201 Forest Biometrics or PSYX 222 Psychological Statistics or SOCI 202 Social Statistics

One Additional 3 credit science course from the following:

- ERTH 303N Weather and Climate
- GEO 108N Climate Change
- BIBO 170N Principles of Biological Diversity (if not used to satisfy the Introductory Biology requirement)
- BIOO 335 Rocky Mountain Flora
- NRSM 265 (FOR 265) Elements of Ecological Restoration
- NRSM 385 (FOR 385) Watershed Hydrology

A two-semester foreign language sequence

2. Approved community service/internship experience:

Three credits of Internship from the following Environmental Studies courses:

- ENST 398 Internship Variable or EVST 390 Supervised Internship PEAS

3. An overall course of study approved by a faculty advisor:

To obtain depth of knowledge in an area of focus, students are expected to select a minor or double major from another campus discipline, or select an emphasis (Visit the Focus Areas (focus-areas.php) of Study page to view a list of these, or create your own!).
EVST Focus Areas of Study

Environmental Studies Undergraduate Focus Areas

All Focus Areas of Study require the completion of the general requirements of the Environmental Studies major. In addition, each Focus Area of Study has additional special requirements below.
Sustainability Studies - Food, Water, Energy, Business

Sustainability is a major organizing theme within Environmental Studies. Students focusing on this area will increase their understanding of our earth's limited capacity to support all forms of life and to provide for the needs of human society. Students will learn how to reduce our demands on the earth through increased resource efficiency and choosing simpler but more joyful lifestyles. Students have the opportunity to identify and develop more sustainable means of providing food, shelter, mobility and other necessities by working and innovating in the local community. Students complete 20 credits of advisor-approved courses and/or internships and may further focus their studies in these areas:

**Sustainable Business:** Students focus on creating and maintaining enterprises that meet social needs sustainably. Students may select courses from: BGES/CCS 160S (Issues in Sustainability); ACTG 201-2 (Accounting); MIS 257 (Business Law); ENST 382, 476, 487 (Env. Law; Env. Citizenship; Globalization, Justice & Env); COMX 349 (Communication, Consumption & Env); BMGT 357 (Entrepreneurship for non-business majors); BGEN 445 (Sustainability Reporting); GPHY 421 (Sustainable Cities); GPHY 466 (Env. Planning). Students are encouraged to intern with local businesses or the Sustainable Business Council. Students can obtain a Sustainable Business Strategy Certificate (http://www.business.umt.edu/DegreesPrograms/ManagementAndMarketing/Management_Certificates/SustainableBusinessStrategy.aspx) described at the UM School of Business web page. Double majors in EVST/Business are encouraged to take: MGMT 348, 430, 445, 446, 458. Faculty Advisor - Vicki Watson (mailto:vicki.watson@umontana.edu).

**Sustainable Energy:** Students interested in sustainable energy should take ENST 204, 291, 480, and 494, (EVST 204, 210, 450, 460 and 470) and the energy related courses (http://ace.coe.umn.edu/NRG/default.html) offered by the College of Technology. Students should arrange an energy related internship. Also recommended are ECNS 201S, 433 (ECON 111S, 440). Faculty advisors - Len Broberg (mailto:len.broberg@msa.umn.edu) Josh Slotnick (mailto:joshua.slotnick@msa.umn.edu).

Sustainable Food and Farming (http://www.cas.umn.edu/evst/undergraduate/current-students/focus-areas-old/food-farming.php): Students focus on creating and maintaining sustainable food systems. Students must complete 6 supervised internship credits in the Program in Ecological Agriculture and Society ENST 396 (PEAS, EVST 390); ENST 430 and 480 (EVST 430 and 450). In addition, students must complete 9 more credits of advisor-approved courses or internships. These could include courses such as ENST 494 (Practicum in Sustainable
ENVIRONMENTAL WRITING & LITERATURE

Faculty advisor - Phil Condon

Students focus on the careful reading of American Nature & Environmental Nonfiction Writing and the creative writing of their own work in the field. Students must complete ENST 335L and ENST 373A; at least one 3 credit course at the 200-level or above in CRWR or LIT or JOUR; at least either one, internship credit (Carnas magazine, the Environmental Writing Institute, Wild Mercy Reading Series, or some other environmental publication); or one independent study credit ENST 492, arranged with instructor in either original nature writing or in nature literature study.

Suggested Courses:
- ENST 335L: The Environmental Vision
- ENST 373A: Nature Works
- CRWR 212A: Intro Nonfiction Workshop
- CRWR 312A: Intermediate Nonfiction Workshop
- LIT 201: Intro to Literary Studies
- LIT 373: Studies in Literary Forms
- JRNL 201: Diversity in Media
- JRNL 474: Magazine Freelance Writing
- JRNL 432: Documentary Photojournalism
- EONS 320: Public Finance
- EONS 403: Introduction to Econometrics
- ENST 382: Environmental Law
- ENST 387: Environmental Politics and Policy
- ENST 488S: Environmental Justice Issues
- ENST 487: Globalization, Justice, and the Environment
- COMX 347/ENST 377: Rhetoric, Nature and Environment
- HSTA 380: Problems in American Constitutional History
- HSTA 382: History of American Law
- PHL 101 or 105: Introduction to Philosophy
- PHL 110E: Intro to Ethics
- PHL 114E: Political Ethics
- PHL 243: Philosophical Reasoning
- PHL 233: Intro to Logic Deduction
- PHL 235: Intro to Logic: Inductive Scientific Discovery
- PHL 220E: Business Ethics
- PHL 210E: Moral Philosophy
- PHL 324E: Morality and the Law
- PHL 351: Philosophy and Feminism
- PHL 422: Philosophy of Science/Environment Ethics
- PHL 412: Ethics and Public Affairs
- PSEI 210: Intro to American Government
- PSEI 352: American Political Thought
- PSEI 370: Courts and Judicial Politics (an intro to the American judicial process)
- PSEI 461: Administrative Law
- PSEI 471: American Constitutional Law
- PSEI 474: Civil Rights Seminar
- SOCI 211: Intro to Criminology
- SOCI 221: Criminal Justice System
- SOCI 318: Sociological Research Methods
- SOCI 312: Criminal Adjudication
- SOCI 435: Law and Society

ENVIRONMENTAL PRE-LAW

Faculty advisor - Len Broberg

The Pre-Law focus area of study is designed to prepare students for law school and a career in environmentally oriented legal and policy matters. Students focusing on environmental law must consult with the EVST pre-law faculty advisor Len Broberg to design a suitable pre-law program. The pre-law focus area is a flexible program that allows students to strengthen their background within their law area of interest. See http://www.cas.umt.edu/prelaw/default.htm for further information.

The members of the Pre-Law Advising Committee suggest the following classes as relevant for Pre-Law students:
- BOGEN 235: Business Law
- LIT 376: Literature and other Disciplines: The Trial in Literature
- EONS 201S: Principles of Microeconomics
- EONS 302: Intermediate Microeconomics
- EONS 320: Public Finance
- EONS 403: Introduction to Econometrics
- ENST 382: Environmental Law
- ENST 387: Environmental Politics and Policy
- ENST 488S: Environmental Justice Issues
- ENST 487: Globalization, Justice, and the Environment
- COMX 347/ENST 377: Rhetoric, Nature and Environment
- HSTA 380: Problems in American Constitutional History
- HSTA 382: History of American Law
- PHL 101 or 105: Introduction to Philosophy
- PHL 110E: Intro to Ethics
- PHL 114E: Political Ethics
- PHL 243: Philosophical Reasoning
- PHL 233: Intro to Logic Deduction
- PHL 235: Intro to Logic: Inductive Scientific Discovery
- PHL 220E: Business Ethics
- PHL 210E: Moral Philosophy
- PHL 324E: Morality and the Law
- PHL 351: Philosophy and Feminism
- PHL 422: Philosophy of Science/Environment Ethics
- PHL 412: Ethics and Public Affairs
- PSEI 210: Intro to American Government
- PSEI 352: American Political Thought
- PSEI 370: Courts and Judicial Politics (an intro to the American judicial process)
- PSEI 461: Administrative Law
- PSEI 471: American Constitutional Law
- PSEI 474: Civil Rights Seminar
- SOCI 211: Intro to Criminology
- SOCI 221: Criminal Justice System
- SOCI 318: Sociological Research Methods
- SOCI 312: Criminal Adjudication
- SOCI 435: Law and Society

In addition, the Sociology Department offers special topic, writing intensive seminars as SOCI 438 Seminar in Crime & Deviance, SOCI 441 Capstone: Inequality and Social Justice, SOCI 480 Capstone: Rural and Environmental Change, or SOCI 488. Writing for Sociology.

Environmental Studies Program

www.cas.umt.edu/evst  •  evst@mso.umt.edu

Office: Jeannette Rankin Hall (JRH) 106A  •  406.243.6273

Focus Areas of Study for Undergraduates

All Focus Areas of Study require the completion of the general requirements of the Environmental Studies Program major. In addition, each Focus Area has additional special requirements. See the suggested courses listed below and meet with your advisor to customize your focus area courses to meet your academic goals.

SUSTAINABILITY STUDIES:

Sustainability is a major organizing theme within Environmental Studies. Students focusing on this area will increase their understanding of our earth's limited capacity to support all forms of life and to provide for the needs of human society. Students will learn how to reduce our demands on the earth through increased resource efficiency and choosing simpler but more joyful lifestyles. Students have the opportunity to identify and develop more sustainable means of providing food, shelter, mobility and other necessities by working and innovating in the local community. Students complete 20 credits of advisor-approved courses and/or internships and may further focus their studies in these areas.

• Sustainable Business:
  Faculty Advisor - Vicki Watson

Students focus on creating and maintaining enterprises that meet social needs sustainably. Students can obtain a Sustainable Business Strategy Certificate described at the School of Business Administration/Dent of Management and Marketing webpage. Certificate courses are all upper division, so EVST recommends these foundation courses:
- SGEN/CCS 100S Issues in Sustainability
  Offered online & face to face through Missoula College. Mountain Campus students will need a College Restriction Override form available at Registrar's Office webpage, http://www.umt.edu/registrar/}

  ACTG 201: Principles of Financial Accounting
  ACTG 202: Principles of Managerial Accounting
  MIS 267: Business Law
  ENST 382: Environmental Law
  &or 476: Environmental Citizenship
  &or 487: Globalization, Justice & Environment
  COMX 349: Communication, Consumption & Environment
  BMGT 357: Entrepreneurship for non-business students

AY 2014-15
Sustainable Energy: Faculty advisors - Len Broberg & Josh Slotnick
Students interested in sustainable energy should take ENST 204, 291, 480, and 494, and the energy related courses offered by Missoula College. Also recommended are ECNS 201S, 433. Students should arrange an energy related internship.

Suggested Courses:
- ENST 204 Sustainable Technology Applications
- ENST 291 Sustainable Business Practices
- ENST 480 Food, Agriculture and Environment
- ENST 494 Appropriate Technology
- ECNS 201S
- ECNS 433 Economics of the Environment

Offered by Missoula College, Dept. of Applied Computing & Electronics/Energy Technology:
- NGY 101 Intro to Sustainable Energy
- NGY 102 Intro to Sustainable Energy II
- NGY 213 Power Systems Technology
- NGY 214 Energy Storage and Distribution
- NGY 235 Building Energy Efficiency
- NGY 241 Alternative Fuels
- NGY 242 Solar Thermal & Wind Systems
- NGY 243 Fundamentals of Photovoltaic Design & Installation
- NGY 244 Bioenergy
- NGY 245 Fuel Cells
- NGY 246 Geothermal Technology

Sustainable Food & Farming: Faculty advisor - Neva Hassanein & Josh Slotnick
Students focus on creating and maintaining sustainable food systems. Students must complete 6 credits in ENST 396, Supervised Internship PEAS (Program in Ecological Agriculture & Society); ENST 430 and 480. In addition, students must complete 9 more credits of advisor-approved courses or internships.

Suggested Courses:
- ENST 396 Supervised Internship PEAS
- ENST 430 Culture and Agriculture
- ENST 480 Food, Agriculture and Environment
- NRSM 210 Soils, Water & Climate
- ANSC 262 Range Livestock Production
- NRSM 424 Community Forestry and Conservation
- NUTR 221N Basic Human Nutrition
- PHAR 324 Medicinal Plants
- ANTY 133H Food and Culture
- GPHY 434 Food and FamrIne

Sustaining Water Resources & Watersheds: Faculty advisor - Vicki Watson
Students focus on sustainable use of water resources and watersheds. Students must complete 20 credits of advisor-approved courses or internships (see below). Note: Some of these courses require prerequisites not in the environmental studies core requirements. Students can also work with the WM Watershed Health Clinic.

Suggested Courses:
- BIOE 428 (fall) Freshwater Ecology
- BIOE 430 (summer) Stream Ecology (Flathead Lake Bio Station)
- BIOE 453 (summer) Lake Ecology (Flathead Lake Bio Station)
- BIOO 340 (fall) Biology and Management of Fisheries
- BIOO 416 (fall) Field Methods in Fisheries
- CHIM 442 (odd falls) Aquatic Chemistry
- GPHY 335 (fall) Water Policy
- GEO 320 (spring) Global Water
- GEO 327 (alternate years) Geoclimatology
- GEO 408 (odd springs) Global Biogeochemistry
- GEO 421 (fall) Hydrology
- GEO 420 (fall) Hydrogeology
- GEO 460 (spring) Process Geomorphology
- NRSM 210 Soils, Water & Climate
- NRSM 385 (fall & spring) Watershed Hydrology & Lab
- NRSM 410 (odd springs) Environmental Soil Science
- NRSM 450 (intermittent) Riparian Ecology Management
- NRSM 485 (intermittent) Watershed Management
- WILD 408 (spring) Advanced Fisheries

Environmental Justice: Faculty advisors - Robin Saha and Dan Spencer
With this focus area students will develop the capacity for thoughtful active participation in the quest for environmental and social justice. Students gain in-depth understandings of a wide range of environmental injustices and the role of race, class, and gender in shaping quality of life, enjoyment of environmental amenities and access to natural resources both domestically and internationally. Students learn about the ways that business, government, financial institutions, and the labor and environmental movements can work toward a more just and sustainable society. Students must complete 21 credits including the following: ENST 489S, 487, a 3 credit internship ENST 398 and 12 credits of advisor-approved electives. See Robin Saha for more extensive list of recommended courses.

Suggested Courses:
- ENST 489S Environmental Justice Issues
- ENST 487 Globalization Justice and Environment
- ENST 476 Env Citizenship
- ENST 493 Environmental Justice In Latin America (summer travel course)
- ENST 291 Culture and Agriculture
- ANTY 122S Race and Minorities
- ANTY 352E Indigenous Peoples & Global Development
- COMX 347 Rhetoric, Nature and Environmentalism
- ECNS 444 Infr Environmental Economics & Climate Change
- GPHY 323S Economic Geography of Rural Areas
- GPHY 432 Human Role in Environmental Change
- GPHY 433 Cultural Ecology
- HSTR 391E History of International Human Rights
- HIST 275 U.S. Immigration and Ethnicity
- NASX 475X Tribes
- NASX 403 Contemporary Tribal Resource Issues
- NRSM 170N International Environmental Change
- NRSM 425 Natl Resource & Environmental Economics
- SOCI 220S Race, Gender, and Class
- SOCI 371 Social Change and Global Development
- SOCI 270S Gender and Society
- SW 323 Women and Social Action in the Americas

Environmental Science: Faculty advisor - Vicki Watson
Students will develop interdisciplinary science literacy to qualify as environmental scientists. Students should consult with the EVST science advisor to design a course of study that includes at least 40 credits of a relevant mix of biology, ecology, soil science, chemistry, hydrology, geology, climatology, GIS & math. A double major or minor in a relevant field science discipline is recommended.