Sustainability
Assessment Plan
May 2018

1. Program Mission Statement

The Sustainability major allows students to examine the environment as a physical, social, economic, cultural and psychological entity that humans have imperiled. From both a global and a local perspective, we provide students with the knowledge and skills to understand the origins of the problems the environment faces, we direct them to thinking about multi-faceted solutions, and we help them to develop possible personal and societal adaptations to a changing world.

2. Sustainability Academic Program Goals

Goal 1: Students will have a foundation of knowledge about the issues of sustainability from several disciplines, and will develop a basic understanding of how these disciplines can work together to create a more sustainable world.

Goal 2: Students will understand the complex ways human behavior has led to an unsustainable world.

Goal 3: Students will understand the complex ways human behavior can lead to a more equitable and sustainable world.

Goal 4: Students will be prepared to think about psychological, social and cultural adaptions that are necessary to survive in a changing climate.

Goal 5: Students will take a personal inventory of one's own contribution to the problems and the solutions of sustainability.

Goal 6: Students will learn basic knowledge and organizing skills to help build a movement around issues of sustainability

3. Sustainability Learning Objectives

Goal 1

Objective 1: Students will have basic scientific understanding of ecosystems and the limits of these systems.

Objective 2: Students will have an understanding of economic systems, the problems of capitalism and the necessary strain it puts on ecosystems.

Objective 3: Students will have a cross-cultural or trans-national comparative understanding of how humans interact with the environment in ways that both put undo strain on the environment, and ways that are less harmful to the environment. Included in this is a critical analysis of "the good life."

Objective 4: Students will be knowledgeable of both domestic and international public policy as it pertains to environmental issues.

Objective 5: Students will understand the individual psychological benefits of being aware of nature, how individual awareness creates a more healthy society and how we can persuade others to examine their relationship to building a healthy planet.

Objective 6: Students will understand how issues of equity and diversity, in the social sphere, are related to issues of sustainability.

Goals 2 – 6 are stand-alone learning goals and do not have associated learning objectives.

4. Measurable Learning Outcomes

We have added three additional general student learning outcomes, related to fundamental literacy skill development. These are specifically spelled out as being achieved through successful completion of the required, foundational **SUS 101** ***Introduction to Sustainability*** course, but these skills are further reinforced throughout required and elective courses in the major.

Goal A: Students will develop effective written communication skills.

Measurement: Students will demonstrate effective written communication skills in their course assignments.

Goal B: Students will develop effective oral communication skills.

Measurement: Students will demonstrate effective oral communication skills in class participation and in final project presentations.

Goal C: Students will develop skills using technology.

Measurement: Students will demonstrate effective use of technology through accessing course materials and submitting assignments online, and through the development of appropriate presentation media for final project presentations.

The following are Sustainability learning goals and objectives:

Goal 1: Students will have a foundation of knowledge about the issues of sustainability from several disciplines

Measurement: As a pre-test, students in the required (SUS 101) Introduction to Sustainability class take a nationally-used Sustainability Literacy Assessment to measure knowledge in three sustainability knowledge domains: environmental, human/social, economic.

Measurement: As a post-test, students retake the same Sustainability Literacy Assessment to measure their increased knowledge among three sustainability knowledge domains.

Goal 1: [Students] will develop a basic understanding of how these disciplines can work together to create a more sustainable world.

Measurement: Students will be required to develop project papers that demonstrate synthesis and integration of knowledge from all three sustainability domains: environmental, human/ social, economic.

Goal 1 – Objective 1: Students will have basic scientific understanding of ecosystems and the limits of these systems.

Measurement: Students will complete all the course requirements for ENVR 101: Introduction to Environmental Science.

Goal 1 – Objective 1B: Students may have an expanded scientific understanding of ecosystems and the limits of these systems.

Measurement: Students may elect to complete the course requirements for BIOL 119 *Ecology and Evolution*.

Goal 1 – Objective 2: Students will have an understanding of economic systems, the problems of capitalism and the necessary strain it puts on ecosystems.

Measurement: Students will complete all the course requirements for both ECON 101 *Macroeconomics* and ECON 102 *Microeconomics*.

Goal 1 – Objective 2A: Students may have an expanded understanding of economics systems and the strains the capitalism places on ecosystems.

> ***Measurement:*** Students may elect to complete all the course requirements for ECON 209 *Introduction to Political Economy*, ECON 255 *The Political Economy of Globalization*, ECON 325 *Ecological Economics and Political Ecology*, and/or ECON 326 *Energy and the Economy.*

Goal 1 – Objective 3: Students will have a cross-cultural or trans-national comparative understanding of how humans interact with the environment in ways that both put undo strain on the environment, and ways that are less harmful to the environment. Included in this is a critical analysis of "the good life."

> ***Measurement:*** Students will successfully complete all the course requirements for PSY 335 *Psychology of Environmental Sustainability*. Students may elect to complete all the course requirements for RELG 330 *Native Americans and the Environment*, ANTH 359 *The Pacific and Cultural Survival*, ANTH 230 *Culture and Gardens*, ANTH 270 *The Social Science of Food*, SC 101 *Water and Culture*, SOC 277 *Social Inequalities*, and/or WGS 285 *Gender, the Environment and Sustainability.*

Goal 1 - Objective 4: Students will be knowledgeable of both domestic and international public policy as it pertains to environmental issues.

> ***Measurement:*** Students will successfully complete all the course requirements for INTL 350 **Comparative Environmental Policy Analysis.**

Goal 1 – Objective 5: Students will understand the individual psychological benefits of being aware of nature, how individual awareness creates a more healthy society and how we can persuade others to examine their relationship to building a healthy planet.

> ***Measurement:*** Students will successfully complete all the course requirements for SUS 101 *Introduction to Sustainability* and PSY 335 *Psychology of Environmental Sustainability*.

Goal 1 – Objective 6: Students will understand how issues of equity and diversity, in the social sphere, are related to issues of sustainability.

> ***Measurement:*** Students will successfully complete all the course requirements for one or more elective courses: WGS 285 *Gender, the Environment and Sustainability*, SOC 277 *Social Inequalities*, ECON 209 *Introduction to Political Economy* and/or SOC 200 *Human and Animal Interaction*.

Goal 2: Students will understand the complex ways human behavior has led to an unsustainable world.

> ***Measurement:*** Students will successfully complete all the course requirements for SUS 101 Introduction to Sustainability and PSY 335 *Psychology of Environmental Sustainability*. Students may elect to deepen their insights in this area by successfully completing all the course requirements for one or more elective courses: ANTH 270 *The Social Science of Food*, SOC 277 *Social Inequality*, and/or WGS 285 *Gender, the Environment and Sustainability.*

Goal 3: Students will understand the complex ways human behavior can lead to a more equitable and sustainable world.

> ***Measurement:*** Students will successfully complete all the course requirements for SUS 101 Introduction to Sustainability and PSY 335 *Psychology of Environmental Sustainability*. Students may elect to deepen their insights in this area by successfully completing all the course requirements for one or more elective courses: ANTH 270 *The Social Science of Food*, SOC 277 *Social Inequality*, and/or WGS 285 *Gender, the Environment and Sustainability.*

Goal 4: Students will be prepared to think about psychological, social and cultural adaptions that are necessary to survive in a changing climate.

> ***Measurement:*** Students will successfully complete all the course requirements for SUS 101 Introduction to Sustainability and PSY 335 *Psychology of Environmental Sustainability*. Students may elect to deepen their insights in this area by successfully completing all the course requirements for one or more elective courses: RELG 330 *Native Americans and the Environment*, ANTH 359 *The Pacific and Cultural Survival,* SOC 277 *Social Inequality*, and/or SC 101 *Water and Culture*.

Goal 5: Students will take a personal inventory of one's own contribution to the problems and the solutions of sustainability.

> ***Measurement:*** Students will successfully complete all the course requirements for SUS 101 Introduction to Sustainability and PSY 335 *Psychology of Environmental Sustainability*. Students may elect to deepen their insights in this area by successfully completing all the course requirements for one or more elective courses: ANTH 270 *The Social Science of Food* and/or WGS 285 *Gender, the Environment and Sustainability.*

Goal 6: Students will learn basic knowledge and organizing skills to help build a movement around issues of sustainability.

> ***Measurement:*** Students will successfully complete all the course requirements for SUS 101 Introduction to Sustainability and PSY 335 *Psychology of Environmental Sustainability*.

5. Means of Assessment of Outcomes

Assessment of outcomes will be achieved through activities, testing, and assigned work in courses required for the Sustainability major. Learning goals for each course are described in **Appendix 1.** Key assessment measurement tools vary by course, but typically include final exams in introductory level courses or writing and presentation of research paper for upper level courses. A senior thesis paper and presentation is required for SUS 401 *Capstone*.

Goal	Objective	Outcome	How Outcome is Measured	Measurement Tool	Success Criteria	Data Location
General Student Learning Goals – Fundamental Literacies						
	Demonstrate effective writing skills	For SUS 101, all assignments and final papers will be additionally graded for writing effectiveness	Score on content and writing rubric	Locally developed grading rubric for content and writing	75% of students to score at or above C level; 50% at or above B level; 10% at or about A level	Faculty files
Goal	Objective	Outcome	How Outcome is Measured	Measurement Tool	Success Criteria	Data Location
General Student Learning Goals – Fundamental Literacies, *continued*						

	Demonstrate effective oral communication	For SUS 101, an oral presentation of the final synthesis project is required	Score on content and presentation rubric	Locally developed grading rubric for oral presentations	75% of students to score at or above C level; 50% at or above B level; 10% at or about A level	Faculty files
	Demonstrate effective use of technology	For SUS 101, all class assignments, readings, and additional media resources are accessed electronically; all homework assignments and papers are submitted electronically; the final project oral presentation is supported by presentation media	Download of class assignments using Moodle; submission of assignments to Moodle; appropriate use of *Powerpoint* or *Prezi* or other presentation media	Successful submission of assignments to Moodle for grading; locally developed grading rubric for oral presentation supported by presentation media	100% of assignments uploaded to Moodle for grading; 70% or above B level for use of presentation media	Faculty files
Goal 1 - Students will have a foundation of knowledge about the issues of sustainability from several disciplines, and will develop a basic understanding of how these disciplines can work together to create a more sustainable world.						
1	Demonstrate level of knowledge among three sustainability domains (environmental, human, economic)	Through pre-testing, assess areas of strength and weakness in knowledge base	Score on Sustainability Literacy Assessment Survey at beginning of semester	Sustainability Literacy Assessment survey	Completion of pre-test with >60% score overall	Faculty files
1	Demonstrate increase in acquired knowledge among three sustainability domains	Through post-testing, assess areas of strength and continued weakness in knowledge base	Score on Sustainability Literacy Assessment Survey at end of semester	Sustainability Literacy Assessment survey	Completion of post-test with >80% score overall	Faculty files
1	Demonstrate a basic understanding of how disciplines can work together to create a more sustainable world	Oral presentation and paper demonstrating synthesis and integration of content from all three domains	Score on grading rubric for final project	Locally developed grading rubric for content	75% of students to score at or above C level; 50% at or above B level; 10% at or about A level	Faculty files

Goal	Objective	Outcome	How Outcome is Measured	Measurement Tool	Success Criteria	Data Location
1	***Objective 1:*** Students will demonstrate a basic **scientific understanding of ecosystems** and the limits of these systems.	Students will enroll in ENVR 101 *Introduction to Environmental Science*	Completion of all course assignments supporting sustainability learning outcomes for ENVR 101	Final exam; locally developed grading rubric	75% of students to score at or above C level; 50% at or above B level; 10% at or about A level	Faculty files
	Objective 1B: Students may demonstrate an **expanded** scientific understanding of ecosystems	Students may enroll in elective courses BIOL 119L and/ *or* ENVR 102L	Completion of course assignments supporting sustainability student learning outcomes for BIOL 119L and/or ENVR 102L	Successful completion of course requirements of BIOL 119L and/or ENVR 102L; locally developed grading rubrics	75% of students to score at or above C level; 50% at or above B level; 10% at or about A level	Faculty files
1	***Objective 2:*** Students will have an **understanding of economic systems**, the problems of capitalism and the necessary strain it puts on ecosystems.	Students will enroll in two required courses: ECON 101 *Macroeconomics* and ECON 102 *Microeconomics*	Completion of course assignments supporting sustainability student learning outcomes for ECON 101 and ECON 102	Successful completion of course requirements of ECON 101 and ECON 102; locally developed grading rubrics	[Students] should earn grades of "C" or better; a grade of C reflects at least a superficial descriptive sense of how the economy operates.	Faculty files

Goal	Objective	Outcome	How Outcome is Measured	Measurement Tool	Success Criteria	Data Location
1	***Objective 2B:*** Students may have an expanded understanding of economic systems and the strains that capitalism places on ecosystems.	Students may enroll in elective courses: ECON 209, ECON 255, ECON 325, and/ or ECON 326	Completion of course assignments supporting sustainability student learning outcomes for ECON 209, ECON 255, ECON 325, and/or ECON 326	Successful completion of course requirements for ECON 209, ECON 255, ECON 325, and/or ECON 326; locally developed grading rubrics	[Students] should earn grades of "C" or better; a grade of C reflects at least a superficial descriptive sense of how the economy operates.	Faculty files
1	***Objective 3:*** Students will have a **cross-cultural or trans-national comparative understanding of how humans interact with the environment** in ways that both put undo strain on the environment, and ways that are less harmful to the environment. Included in this is a critical analysis of *"the good life."*	Students will enroll in PSY 335 *Psychology of Environmental Sustainability*; students may enroll in electives: RELG 330; ANTH 359; ANTH 230; ANTH 270; SC 101; SOC 277; and/or WGS 285.	Completion of course assignments supporting sustainability student learning outcomes for required course and relevant elective courses	Successful completion of course requirements of required course and relevant elective courses; locally developed grading rubrics	75% of students to score at or above C level; 50% at or above B level; 10% at or about A level	Faculty files
1	***Objective 4:*** Students will be **knowledgeable of both domestic and international public policy** as it pertains to environmental issues.	Students will enroll in the required course: INTL 350 *Comparative Environmental Policy Analysis*	Completion of course assignments supporting sustainability student learning outcomes for INTL 350	Successful completion of course requirements for INTL 350; locally developed grading rubrics	75% of students to score at or above C level; 50% at or above B level; 10% at or about A level	Faculty files
1	***Objective 5:*** Students will **understand the individual psychological benefits of being aware of nature…**	Students will enroll in the required courses: SUS 101 *Introduction to Sustainability* and PSY 335 *Psychology of Environmental Sustainability*	Completion of course assignments supporting sustainability student learning outcomes for SUS 101 and PSY 335	Successful completion of course requirements for SUS 101 and PSY 335; locally developed grading rubrics	75% of students to score at or above C level; 50% at or above B level; 10% at or about A level	Faculty files

Goal	Objective	Outcome	How Outcome is Measured	Measurement Tool	Success Criteria	Data Location
1	***Objective 6:*** Students will understand how issues of equity and diversity, in the social sphere, are related to issues of sustainability.	Students may enroll in the elective courses: WGS 285; SOC 277; ECON 209; SOC 200	Completion of course assignments supporting sustainability student learning outcomes for electives	Successful completion of elective course requirements ; locally developed grading rubrics	75% of students to score at or above C level; 50% at or above B level; 10% at or about A level	Faculty files
Goal 2: Students will understand the complex ways human behavior has led to an unsustainable world.						
		Students will enroll in SUS 101 and PSY 335; students may enroll in ANTHR 270, SOC 277, and/or WGS 285	Completion of course assignments supporting sustainability student learning outcomes for SUS 101 and PSY 335; completion of course requirements for relevant elective courses	Successful completion of course requirements for SUS 101 and PSY 335, and any relevant electives; locally developed grading rubrics	75% of students to score at or above C level; 50% at or above B level; 10% at or about A level	Faculty files
Goal 3: Students will understand the complex ways human behavior can lead to a more equitable and sustainable world						
		Students will enroll in SUS 101 and PSY 335; students may enroll in ANTHR 270, SOC 277, and/or WGS 285	Completion of course assignments supporting sustainability student learning outcomes for SUS 101 and PSY 335; completion of course assignments for relevant elective courses.	Successful completion of course requirements for SUS 101 and PSY 335; successful completion of course assignments for relevant elective courses; locally developed grading rubrics	75% of students to score at or above C level; 50% at or above B level; 10% at or about A level	Faculty files

Goal	Objective	Outcome	How Outcome is Measured	Measurement Tool	Success Criteria	Data Location
Goal 4: Students will be prepared to think about psychological, social and cultural adaptions that are necessary to survive in a changing climate.						
		Students will enroll in SUS 101 and PSY 335; students may enroll in RELG 330, ANTH 359, SOC 277, SC 101.	Completion of course assignments supporting sustainability student learning outcomes for SUS 101 and PSY 335; completion of course assignments supporting sustainability student learning outcomes for relevant elective courses.	Successful completion of course requirements for SUS 101 and PSY 335; successful completion of course assignments supporting sustainability student learning outcomes for relevant elective courses; locally developed grading rubrics	75% of students to score at or above C level; 50% at or above B level; 10% at or about A level	Faculty files
Goal 5: To take a personal inventory of one's own contribution to the problems and the solutions of sustainability.						
		Students will enroll in SUS 101 and PSY 335; students may enroll in ANTH 270, WGS 285	Completion of course assignments supporting sustainability student learning outcomes for SUS 101 and PSY 335; completion of course assignments supporting sustainability student learning outcomes for relevant elective courses.	Successful completion of course requirements for SUS 101 and PSY 335; successful completion of course assignments supporting sustainability student learning outcomes for relevant elective courses; locally developed grading rubrics	75% of students to score at or above C level; 50% at or above B level; 10% at or about A level	Faculty files

Goal	Objective	Outcome	How Outcome is Measured	Measurement Tool	Success Criteria	Data Location
Goal 6: To **learn basic organizing skills** to help build a movement around issues of sustainability.						
		Students will enroll in SUS 101 and PSY 335; students may enroll in WGS 285.	Completion of course assignments supporting sustainability student learning outcomes for SUS 101 and PSY 335; completion of course assignments supporting sustainability student learning outcomes for relevant elective courses.	Successful completion of course requirements for SUS 101 and PSY 335; successful completion of course assignments supporting sustainability student learning outcomes for relevant elective courses; locally developed grading rubrics	75% of students to score at or above C level; 50% at or above B level; 10% at or about A level	Faculty files

6. How assessment data will be utilized

The Individualized Major in Sustainability is still relatively new, with only one enrolled student (although several students have successfully graduated with a minor in Sustainability). This is the first time we have developed this formal assessment plan format, so the major faculty will use the data collected over this next year to better evaluate and assess the Sustainability program. Faculty in the Sustainability major will meet regularly throughout 2016-17 to discuss assessment outcomes, focusing on the outcomes of the previous academic year. Our goal is to determine if majors are satisfactorily meeting our stated student learning outcomes and making adequate progress. These assessments will utilize student performance records as noted in the assessment tools above.

Periodic assessment meetings provide the opportunity to discuss challenges and opportunities inherent within the sustainability major field of study, which is unique because it is so interdisciplinary. The assessment tools offer a means to gauge whether we are successful in our goal to develop graduates who understand the complexity of the issues and are equipped with the knowledge and change agency skills to make a positive difference. We will report on our findings and adapt the assessment plan as needed.

APPENDIX 1. **Descriptions and Learning Goals for Required Courses in *IMSU***

SUS 101 ***Introduction to Sustainability***
An overview of the concept of sustainability, its evolution and selected methodologies to quantify impacts. This course equips students to develop and evaluate solutions to national and local challenges by balancing factors that are environmental, economic and socio-cultural. Students who successfully complete SUS 101 will:

1. be able to define sustainability in actionable terms.
2. know how sustainability relates to their lives and their values, and how their actions impact issues of sustainability.
3. utilize their knowledge of sustainability to change their daily habits and consumer mentality.
4. understand how systems – ecosystems, individual humans in society – are interrelated.
5. possess and know how to apply change agent skills.
6. apply concepts of sustainability to their campus and community by engaging in the challenges and solutions of sustainability at Wells.

ENVR 101L ***Introduction to Environmental Science***
An introduction to environmental science including an analysis of natural resources and the environmental impact of their extraction and use. Environmental quality, pollution, toxicology and environmental science as the basis for effective environmental policy are among the topics covered. Students who successfully complete ENVR 101L will appreciate and understand:
1) The nature of the world's natural resources;
2) The impact on humans and on the environment of resource extraction and use;
3) The role of humans as effectors of environmental change;
4) How complex environmental problems can be addressed and solved;
5) Each individual's impact on the natural world;
6) The importance of environmental science as the basis for sound environmental policies.

ECON 101 ***Macroeconomics***
A survey of the basic principles of economic analysis and their application in an examination of the structure and functioning of market economy, with emphasis on the problems of inflation and unemployment.
(see general Economics program goals below)

ECON 102 ***Microeconomics***
A survey of basic microeconomic concepts with emphasis on the concepts of supply and demand, production, and distribution. Special attention will be paid to ideas of competition, market structure, efficiency, and equity using examples from current policy discussions. *(see general Economics program goals below)*

The **Economics** program goals are aimed at students to:
1. Develop understanding of the fundamental mechanisms of how an economy works and how the business world functions. This is accomplished by analysis of both theoretical models and empirical evidence from the actual and real-world economy.
2. Become aware of a broad and diverse array of economic and business theories, issues and concerns, and examine underlying policy implications.
3. Develop and foster intellectual curiosity and analytical and critical capabilities with attention to abstract and applied reasoning skills to think logically.
4. Develop quantitative skills and problem-solving abilities to comprehend and analyze mathematical and statistical reasoning.
5. Develop the ability to speak and communicate effectively with reasoning, critical analysis and valid arguments.
6. Develop an awareness of the global community environment and foster sensitivity to economic, social, biological and cultural diversity.

INTL 350 ***Comparative Environmental Policy Analysis***
International Studies major's goals are to help students:

(1) Understand the basic concepts within the studies of interactions among peoples and nation-states within their environments;
(2) Apply theories, research and concepts intelligibly and holistically in analyzing the world's events, actors and organizations;
(3) Possess critical thinking skills needed to retain, manage and synthesize complex information and ideas.

PSY 335 ***Psychology of Environmental Sustainability***
This course examines theoretical perspectives and empirical research on promoting environmentally sustainable behavior. Through team-based, service learning projects, students apply knowledge gained in the course to address sustainability issues on the Wells campus and in the surrounding community. Students in PSY 335 will:
• explore research and theory on the interactions between human behavior and the environment (1, 2); • examine ways in which increased understanding of human behavior may be the key to creating solutions to environmental problems;
• be encouraged to think critically about the ways in which psychological perspectives may provide insights into creating a sustainable future for the planet and its inhabitants;
• work in groups to address environmental issues on the Wells campus;
• enhance communication skills by conducting a presentation or workshop to which appropriate administrators, faculty, and/or students will be invited;
• enhance critical thinking about the complexity of environmental problems and the psychological underpinnings of environmentally destructive behavior;
• apply knowledge of the field in a real-world setting;
• work with others to better understand different perspectives and worldviews ;
• develop APA format writing skills; and
• facilitate and contribute to class discussions.

MATH 151 ***Elementary Statistics***
Fundamental techniques of applied statistics, descriptive statistics and data analysis, probability, population parameters, hypothesis testing, regression, and correlation.
Students who successfully complete MATH 151 will be able to:
1) describe the techniques of data analysis – summarizing and interpreting batches of data, with the aid of models;
2) articulate ideas important in the collection of data – as in designing experiments and sampling;
3) use the concepts and techniques of statistical inference – drawing conclusions from a set of data about the world it came from.

SUS 290 ***Internship in Sustainability***
Individually arranged participation in work at institutions devoted to sustainability.
Student learning outcomes are individually devised with the student and the internship site supervisor.

SUS 390 ***Advanced Internship in Sustainability***
Individually arranged participation in work at institutions devoted to sustainability. Students will develop at a more advanced level the skills and techniques demanded from a previous sustainability internship.
Student learning outcomes are individually devised with the student and the internship site supervisor.

SUS 401 ***Senior Project in Sustainability***
Students will complete research projects on a topic of their interest.
Student learning outcomes are individually devised in consultation with the student.

APPENDIX 2. **Descriptions and Learning Goals for Elective Courses in *IMSU***

ANTH 230 ***Culture and Gardens***
This course will travel through time and space to garden spaces and practices found in a wide range of cultures.
(sustainability student learning objectives have been requested)

ANTH 270 ***The Anthropology of Food*** (formerly *The Social Science of Food*)
This course looks at human relationships with food - the meaning of food, the origins of food, the political economy of food, and food controversies - all with the eye of an anthropologist.
(sustainability student learning objectives have been requested)

ANTH 359 ***The Pacific and Cultural Survival*** *(last offered Spring 2011)*
This course is a study of Pacific cultures and the social, economic, religious, political, and environmental challenges that threaten their survival. Topics such as global warming, depletion of the natural environment, political unrest, and economic crisis are considered in relation to local cultural responses.
(sustainability student learning objectives have been requested)

BIOL 119L ***Ecology and Evolution***
Organic evolution, the unifying concept in biology, and its relationship with ecology, the distribution and abundance of organisms. The role of ecology and evolution in environmental science and conservation biology.
Students who successfully complete BIOL 119L will be able to
1) Understand the basic components of the physical environment and describe how they interact to affect the living component of the environment, at multiple scales;
2) Understand basic evolutionary concepts, and why they are central to ecology;
3) Outline basic world climate patterns, and their importance;
4) Outline the pathways energy and nutrients take as they flow through an ecosystem;
5) Describe environmental interactions and behavior at the level of the organism, including homeostasis, acclimation, and developmental response;
6) Describe how species interact, showing how competition, predation, and coevolution operate to influence the interdependence of species;
7) Describe the concept of the population, including growth and regulators;
8) Describe the concept of the community, giving special attention to biodiversity and its role in community well-being;
9) Use the scientific method to formulate and test hypotheses, as well as communicate the results with the greater scientific community;
10) Have a basic understanding of statistics, and be able to construct, read, and interpret graphs;
11) Prepare a research report in the standard style of such reports in the literature of ecology and evolution;
12) Understand that the solutions to environmental problems demand both scientific and social understanding.

ECON 209 ***Introduction to Political Economy***
An analysis of economic theories focusing on the processes of production and accumulation within institutional and political contexts. Topics include the labor theory of value, monopoly capitalism, and the social structure of accumulation.
(see general Economics learning objectives below)

ECON 220 *Environmental Economics (consider adding as an elective to the major in future)*
Environmental Economics applies the fundamental postulates of general equilibrium theory to environmental problems. Topics include: Pareto optimality and externalities; the use of market and non-market incentives in equating social and private costs, including marginal methods and benefit-cost analysis.
(see general Economics learning objectives below)

ECON 255 ***The Political Economy of Globalization***
The world economy from the standpoint of producing and distributing a surplus. Topics include classical theories of imperialism, global finance, and global and domestic economies in an era where economic growth is limited by peak oil and climate change.
(see general Economics learning objectives below)

ECON 325 ***Ecological Economics and Political Ecology***
This course models the economy as a sub-system of larger ecosystem, and addresses questions such as optimal scale, investments in natural capital, sustainability, and thermodynamic limits to growth. Sustainable development is treated within the historical context of uneven development.
(see general Economics learning objectives below)

ECON 326 ***Energy and the Economy***
This course focuses upon the history of energy's role in the transformation from pre-industrial to contemporary society. The analytical framework includes theories of political economy, the energy return on investment, and the internal and biophysical limits to economic growth.
(see general Economics learning objectives below)

General Economics program goals:
1. Develop understanding of the fundamental mechanisms of how an economy works and how the business world functions. This is accomplished by analysis of both theoretical models and empirical evidence from the actual and real-world economy.
2. Become aware of a broad and diverse array of economic and business theories, issues and concerns, and examine underlying policy implications.
3. Develop and foster intellectual curiosity and analytical and critical capabilities with attention to abstract and applied reasoning skills to think logically.
4. Develop quantitative skills and problem-solving abilities to comprehend and analyze mathematical and statistical reasoning.
5. Develop the ability to speak and communicate effectively with reasoning, critical analysis and valid arguments. 6. Develop an awareness of the global community environment and foster sensitivity to economic, social, biological and cultural diversity.
7. Achieve adequate tools and skills that would enable a graduate to successfully obtain professional employment in the private or public sector, or acceptance into a reputable graduate program.
8. Achieve appropriate academic content and rigor comparable to any reputable undergraduate institution.
9. Become informed citizens who can independently think and study economic and business topics and who can effectively share their perspectives, results and implications from such study.

ENVR 102L ***Conservation of Biodiversity***
An introduction to the field of conservation science. Local and global aspects of species, ecosystem and landscape conservation will be discussed. Students who successfully complete ENVR 102L will be able to demonstrate their knowledge of the following:
1) major issues that define the discipline of conservation biology;
2) the nature and importance of biodiversity;
3) threats to biodiversity;
4) efforts and approaches to conservation of biodiversity, species, ecosystems and landscapes;
5) the history and significance of U.S. national parks;
6) local organizations and their efforts to protect local ecosystems and the biodiversity they contain.

ENVR 340 ***Sustainable Agriculture***
This course will examine the environmental consequences of agriculture as it is practiced today in tropical and temperate regions, and discuss the agroecological basis for tools and techniques designed to address these problems. Students who successfully complete ENVR 340 will be able to:
1) Apply ecological principles to agricultural systems;

2) Understand the environmental impact of temperate agriculture;
3) Become familiar with the environmental impact of tropical agriculture;
4) Discuss how government policies affect decisions made by farmers in the United States;
5) Describe how the application of ecological principles can be used to reduce the environmental impact of agriculture;
6) Prepare and deliver oral presentations related to sustainable agriculture.

RELG 330 ***Native Americans and the Environment*** *(last offered Fall 2011 – consider dropping from major?)*
This seminar will provide an overview of traditional Native American world views and ceremonial life. Special attention will be given to an in-depth exploration of the environmental philosophies and sacred practices of selected peoples.
(instructor is no longer on staff so sustainability learning objectives for the course are not available).

SC 101 ***Water and Culture***
Simply put, water is essential for human existence and culture is inherent to human experience. More to the point, our daily need for water is molded by basic biological needs and a diversity of cultural desires, tastes, and expectations. In the contemporary world, our connection to water is also affected by environmental constraints; at the local level, our particular socio-cultural relationship with water cannot be isolated from the global reality of increasing demands for water. The global challenge is that water is a finite and shrinking resource in a world with a growing thirst for water. This course focuses on present and future water challenges and even *"water wars"* and thereby exposes us to issues of cultural survival, sustainability, social justice, and human rights that connect the local to the global.
(sustainability student learning objectives have been requested)

SOC 200 ***Humans, Animals, and Interaction***
What can our close living and working relationships with non-human animals reveal about human society? Why do we eat some animals, but consider others (wo)men's best friend? This course examines our complicated and often contradictory relationships with animals.
Students should be able to:
- Understand the historical and social foundations for people's understandings of and interactions with non-human animals
- Explain classic and contemporary debates regarding the moral status of human-animals
- Critique the leading positions associated with animal welfare, animal rights, and deep ecology movements while articulating and supporting your own positions
- Identify how social institutions create, maintain, and reproduce inequalities impacting humans and non-human animals
- Consider the role(s) of non-human animals in our ability to create meaningful lives for ourselves and others
- Refine both written and oral communication skills

SOC 270 ***Social Science of Food*** *(last offered Fall 2011)*
This course looks at human relationships with food - the meaning of food, the origins of food, the political economy of food, and food controversies - all with the eye of a social scientist.
(sustainability student learning objectives have been requested)

SOC 277 ***Social Inequalities***
This course examines issues of poverty, wealth, power and powerlessness as they pertain to class and ethnicity. The main focus will be on the United States, but we will also examine global inequalities.
(sustainability student learning objectives have been requested)

WGS 285 ***Gender, the Environment, and Sustainability*** *(last offered Spring 2015 – will this be offered again/regularly?)*

This course investigates the intersection of gender, environment, and sustainability and explores the social, historical, political, and economic dimensions of environmental struggles and sustainability. Using local and global sources, gender is examined in the context of environmental inequality and justice, environmental activism, poverty, food security, consumption, reproductive health, ecofeminism, and technology.

*(**Note**: WGS 385 is a Topics course number; this specific class is not regularly offered. The last instructor was not rehired, so specific learning goals are not available).*

WGS Key Program Goals:

1) acquaint students with multiple historical and cultural perspectives on gender roles, particularly as experienced by women

2) help students explore the formation of gender/ed identities and the relationships between variously gendered persons within local communities and cross---culturally

3) familiarize students with the ways in which women's and gender studies has incorporated questions of power and gender into the practice of academic scholarship and how it contributes to the on---going transformations of scholarly methods and approaches

4) analyze social and political issues as they pertain to the social construction of difference.

5) develop students' habits of responsibility and accountability to self and community in completing course work, activist work and internships