



SUSTAINABILITY

2012-2014 Sustainability Course Inventory

As part of the Sustainability Tracking, Assessment, and Ratings System (STARS) 2.0, through the Association for the Advancement of Sustainability in Higher Education (AASHE), Wartburg College completed a sustainability course inventory in January 2014. Following are the findings from the academic years of 12-13 and 13-14, in which 598 courses were offered 1872 times.

Course connection to sustainability was evaluated using the Wartburg College definition of Sustainability: *The responsible utilization of resources (natural, manufactured and economic) in a fashion that minimizes as much as possible the impacts on the environment and socio-economic parameters. This pattern of use will allow the availability of limited resources for future generations as well as help promote healthier socio-economic conditions.*

Sustainability Courses

The courses in which the primary and explicit focus is on sustainability and/or on understanding or solving one or more major sustainability challenge

10 courses offered 18 times during the 12-13 and 13-14 academic years

Biology		
BI 117	Environmental Biology	Sustainability focus of the course is apparent from its title.
BI 204	Conservation of Natural Resources	Sustainability focus of the course is apparent from its title.
BI 206	Ecology of Guyana and Trinidad I	Sustainability focus of the course is apparent from its title.
BI 208	Island Ecology	Sustainability focus of the course is apparent from its title.
BI 216	Ecology of Guyana II	Sustainability focus of the course is apparent from its title.
ENV 100	Explorations Environmental Science	Sustainability focus of the course is apparent from its title.

Chemistry and Engineering		
CH 190	Environmental Chemistry	Sustainability focus of the course is apparent from its title.

Business		
BA 418	Sustainable Economics and Finance	Sustainability focus of the course is apparent from its title.
EC 418	Sustainable Economics and Finance	Sustainability focus of the course is apparent from its title.

Social Sciences		
SO 350	Environmental Sociology	Sustainability focus of the course is apparent from its title.

Courses Including Sustainability

A course that includes sustainability is primarily focused on a topic other than sustainability, but incorporates a unit or module on sustainability or a sustainability challenge, includes one or more sustainability-focused activities, or integrates sustainability issues throughout the course.

77 courses offered 284 times during the 12-13 and 13-14 academic years

Business - Including sections on social entrepreneurship, triple bottom line, or social and environmental aspects as a way to evaluate businesses success and/or impact		
AC 122	Principles of Accounting II	Determining the cost of products, including job order costing, standard costing, direct costing, and activity-based costing. Decision-making based on cost behavior patterns. Capital budgeting, cash flows, and ratio analysis. Includes analysis using triple bottom line.
AC 223	Cost Accounting	Cost accounting fundamentals and applications to decision making: relationships of cost, volume, and profit; standard costs; variance analysis; activity-based costing; quantitative methods and models used in cost accounting, including triple bottom line.
BA 240	Social Venture Planning	Assessing feasibility and planning in for-profit or non-profit organization, particularly with social/environmental benefit in the mission. Marketing, finance, management, and strategic aspects of the business plan. Legal aspects of business organization. Social/environmental metrics and assessment.
BA 247	Personal Creativity and Innovations in Organizations	Survey of creative and innovative capacities within society and organizations. Special attention to the forces that drive innovation, including: creative minds, ethical dilemmas, political constructs, technology, and globalization. Creative capacity building exercises involving self-reflection, personal openness to change, and non-conformist ideas.
BA 334	Business Finance	Introductory finance course. Introduction to financial markets, financial ratio analysis, valuation of bonds and stocks, long-term planning, working capital management. Includes education of triple-bottom line.
BA 338	Portfolio Management	Students manage an endowment fund by determining how the funds are invested. Study of techniques for analyzing a variety of investment opportunities. Part of class is managing an actual portfolio, evaluating stocks based on social and environmental responsibility.
BA 361	Operations Management	Survey of operating practices and models in manufacturing and service-oriented firms. Introduction to operational issues, including quality control. Designing, acquiring, operating, and maintaining inventories, facilities, processes. Including sections on social entrepreneurship, triple bottom line, or social and environmental aspects as a way to evaluate businesses success and/or impact.

BA 377	Nonprofit Management	Explores management skills needed within the non-profit organization. Emphasis on non-profit organizational types, trustee's responsibilities, trustee recruitment/termination/development, financing structure, fundraising, financial management, employee empowerment, strategic planning and leadership within the non-profit. Understand the startup and scale process for blended value companies. Service learning component. Including sections on social entrepreneurship, triple bottom line, or social and environmental aspects as a way to evaluate businesses success and/or impact.
BA 424	Consumer Behavior	Analysis of the consumer decision-making process before, during, and after purchasing goods or services. Influences of culture, subculture, social class, families, marketers on the consumer. Basic issues, latest findings, applications of consumer behavior in relation to marketing strategy. Group Project. Including sections on social entrepreneurship, triple bottom line, or social and environmental aspects as a way to evaluate businesses success and/or impact
BA 433	Trends in Marketing	Analysis of the consumer decision-making process before, during, and after purchasing goods or services. Influences of culture, subculture, social class, families, marketers on the consumer. Basic issues, latest findings, applications of consumer behavior in relation to marketing strategy. Group project. Green-washing.
BA 435	Financial Modeling and Valuation	Providing in-depth application and integration of tools of financial analysis learned in that course, but also adding new analytical tools that will likewise be integrated and applied. The additional material here includes the cost of capital, capital structure, and company valuation, while previous topics such as financial planning and capital budgeting are significantly expanded upon. Applications will involve analyzing data for real-world corporations, financial modeling in Excel, and several complex case studies. Finally, and very significantly, each of these will be integrated into recent literature in the field regarding balancing or otherwise reconciling the traditional goals of financial management and investors with evolving concerns of both and other stakeholders about social, environmental, and governance issues.
BA 441	Multinational Management	Multinational organizational behavior and its implications for home and host countries. Analysis of organizational strategy, economic impact of multinationals, appropriate public policies toward foreign direct investment. Including sections on social entrepreneurship, triple bottom line, or social and environmental aspects as a way to evaluate businesses success and/or impact.
BA 447	Entrepreneurship	Exploration of entrepreneurship culminating in development of a business plan. Introduction to complexity and multidimensional nature of the subject through thorough articulation of business plan. Including sections on social entrepreneurship, and triple bottom line.

Biology		
BI 120	Science of Water	Investigation of physical and chemical properties of water as applied to geological, meteorological, ecological phenomena.
BI 120 Lab	Science of Water Lab	Lab class to supplement the lecture portion of Science of Water.
BI 131	Biology of Ordinary Things	Observations of ordinary phenomena connected to basic biological and chemical concepts. Development of explanatory models using various forms of scientific representations with teaching standards and technology. Sustainability connection of the course is apparent from its title.
BI 131 Lab	Biology of Ordinary Things Lab	Lab class to supplement the lecture portion of Biology of Ordinary Things. Sustainability connection of the course is apparent from its title.
BI 132	Extreme Biology	Examination of the chemical and biological processes required for life, the adaptations of these processes in organisms that live in extreme environments, and the evolution of such organisms. Sustainability connection of the course is apparent from its title.
BI 133	How Animals Work	An introduction to the anatomy, physiology and diversity of animals. Particular emphasis placed on the physical problems that nature's environments present to animals. Sustainability connection of the course is apparent from its title.
BI 133 Lab	How Animals Work Lab	Lab class to supplement the lecture portion of How Animals Work. Sustainability connection of the course is apparent from its title.
BI 151	Biology I: Ecosystems, Cells, & Evolution	Introductory course providing a background in ecosystems, cell biology, evolution, and genetics with a laboratory experience that produces skills necessary for success in biology. Sustainability connection of the course is apparent from its title.
BI 151 Lab	Biology I: Ecosystems, Cells, & Evolution Lab	Lab class to supplement the lecture portion of Biology I: Ecosystems, Cells, & Evolution.
BI 207	Vertebrate Ecology of the Prairie	Field biology course. Introduction to higher vertebrates (mammals and birds) of North American grassland ecosystems with emphasis on tall and mixed grass prairies. Focus on ecology and conservation. E Sustainability connection of the course is apparent from its title.
BI 207 Lab	Vertebrate Ecology of the Prairie Lab	Lab class to supplement the lecture portion of Vertebrate Ecology of the Prairie.
BI 209	Ecology	Introduction to the ecology of plants and animals. Cycling of elements, interrelationships of organisms, energy relationships, structure of ecosystems, communities and their distribution. Laboratory work and field trips required.
BI 209 Lab	Ecology Lab	Lab class to supplement the lecture portion of Ecology.
BI 315	Ornithology	Introduction to the biology of birds. Emphasis on field work involving identification and ecology of birds. Early morning (7 a.m.) field trips. Preparation for a lifelong interest in bird identification and avian ecology. Sustainability connection of the course is apparent from its title.
BI 315 Lab	Ornithology Lab	Lab class to supplement the lecture portion of Ornithology.

BI 320	Aquatic Biology	Survey of aquatic organisms and their adaptations to different habitats. Sustainability connection of the course is apparent from its title.
BI 320 Lab	Aquatic Biology Lab	Lab class to supplement the lecture portion of Aquatic Biology.
BI 325	Behavioral Ecology	Introduction to study of animal behavior. Emphasis on role of evolution in shaping animal behavior. Sustainability connection of the course is apparent from its title.
BI 325 Lab	Behavioral Ecology Lab	Lab class to supplement the lecture portion of Behavioral Ecology.
BI 455	Methods of Biological Research	Methods of scientific study. Searching the literature, hypothetico-deductive method, research process, data collection and analysis, preparation of figures and tables, writing process. Past research has focused on sustainability related topics.
BI 461	Science Seminar	Weekly seminar sequence exploring historical, ethical and interdisciplinary elements of biology. Capstone course for science majors helps them connect concepts to world.

Chemistry/Engineering

ES 402	Engineering Seminar	Quantitative and qualitative cost-benefit analysis. Detailed examination of the Canon of Engineering Ethics. The Engineers' Creed. Including section on energy loads
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Journalism and Communications

CA 461	Communication Arts Capstone	Philosophical, sociological, ethical, legal dimensions of communication. Student synthesis of communication knowledge and experience. Career preparation guidance including résumés, portfolios, demonstration tapes. Seminar. Multiple student projects have focused on environment during the time frame evaluated.
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Health & Physical Education

HE 242	Consumer Health	Issues related to purchasing health goods and services. Quackery, nontraditional health care, sources of consumer protection in the health marketplace. Including sections on outdoor recreation.
HE 440	Community & Public Health	Overview of community health. Nature, principles, functions of voluntary and governmental health organizations. Impact of political, sociological, economic factors on human health.
PE 270	Outdoor Recreation	Types, skills, techniques of outdoor recreation and living. Preparation for camp work and personal leisure activities. Off-campus. Covers "Leave No Trace" principals.

History

HI 305	The American Frontier	The 19th-century American frontier with primary focus on trans-Mississippi West. Settlement process, clashes among cultural groups, conflicts over use of resources, adaptation of cultural patterns to new conditions. Covering historical periods, which include or were influenced by environmental factors
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HI 306	History of American Foreign Relations	Foreign relations from the American Revolution to present. Concepts that guided and influenced American diplomacy. Covering historical periods, which include or were influenced by environmental factors
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Math/Computer Science/Physics

MA 106	Mathematics in Modern Society	Study of contemporary mathematics and its role in modern society. Emphasis on the use of mathematical models in a variety of societal settings. Topics selected to illustrate the essential role mathematics plays in our world, in terms of practicality and inherent interest and beauty. Includes Mathematic modeling of sustainable living principals.
MA 214 01	Statistical Methods	Basic terminology, concepts, techniques of describing data and inferring properties of populations (large groups) by using samples (small groups) from those populations. Includes some probability theory and use of calculators and computers to manipulate and analyze data. Mathematic modeling of sustainable living principals.
MA 250 01	Applied Calculus	Topics from algebra, differential and integral calculus. Emphasis on functions, difference equations, derivatives, integrals, applications. Mathematic modeling of sustainable living principals.
MA 307 01	Mathematical Modeling	“Real world” mathematical modeling situations. Challenges students to construct and/or select models creatively and analyze how well these models work. Emphasis on importance of using existing models and techniques and the necessity of adequately testing and refining results. Mathematic modeling of sustainable living principals.
PHY 120	Science of Water	Investigation of physical and chemical properties of water as applied to geological, meteorological, ecological phenomena.
PHY 120	Science of Water Lab	Lab class to supplement the lecture portion of Science of Water.
PHY 132	Earth Science	Basic elements of geology and meteorology using local environments as much as possible. Laboratory and field work.

Religion & Philosophy

PJ 101	Intro to Peace and Justice Studies	Introduction to the interdisciplinary field of peace and justice studies. Theoretical foundation for analyzing underlying structures of peace, justice, violence and conflict. Development of a worldview rooted in the possibilities of peace and justice.
RE 215	Contemporary Moral Problems: Poverty/Racism	Integration of biblical, theological, sociological perspectives to guide ethical action on contemporary issues. Ethical analysis of related public policy concerns. Rotating themes in alternate years. Includes Social Justice.
RE 350	Christian Ethics	Critical engagement with the Christian ethical tradition. Analysis of personal character, decision making, social issues. Some attention to other ethical systems. Includes section on religious views on the environment.

Social Sciences		
PS 290	Environmental Politics	Interrelation of individuals, political processes, and the global environment. Emergence of environmental ideas and values and their intertwining with the policy process, issues regarding protection of the environment, international cooperation in environmental management.
PS 304	The Developing World	Role of democratic and authoritarian regimes in less-developed countries. Interrelation between governmental policies and economic, political, military, social, cultural factors. Interdependent linkages with developed world systems, focus on developmental issues, human rights.
PS 306	History of American Foreign Relations	Foreign relations from the American Revolution to present. Concepts that guided and influenced American diplomacy. Covering historical periods, which include or were influenced by environmental factors
PS 310	Policy Formulation, Administration, and Analysis	Comparative analysis of the policy process, from formulation through administrative implementation. Focus on industrialized democracies, examining policy-making and administrative processes in a set of policy-issue domains and within the broader political-cultural environment. Research projects have focused on sustainability topics
SO 101	Introduction to Sociology	Survey of the diverse field of sociology, introducing concepts, methods, principles that help in understanding such social processes and institutions as culture and socialization, group dynamics, social inequality, families, educational systems, social change. Discusses intersection of environment and society.
SO 270	Social Problems	Social problems in economic, government, education, and family institutions as well as inequality, conformity and deviance, the environment, the changing world. Emphasis on alternate social policy approaches to these problems.
SO 302	Communities	Societal, environmental factors influencing community growth, decline. Power structures; rural, urban differences; community influence on human well-being.
SO 315	Sociological Theory	A focus on the nature and development of sociological theory. Attention is given to the major varieties of theory, the theorists who developed them, and the social and historical contexts of theory development and construction. Discusses intersection of environment and society.
SO 380	Women in Cross-Cultural Perspective	Examination and analysis of women's social, economic, political situations throughout the globe. Use of anthropological and sociological analytic techniques and literature from the cultures to understand women's work, family roles, linkages among race, sex, and class, and the introduction of social change across cultures. Falls under social justice view of sustainability.
SO 402	Global Communities	Examination of communities of place and interest in an international context. Two to three weeks of travel to locations outside the United States. Opportunities for interaction with community representatives and service in agencies.

SO 460	Perspectives in Sociology	Historical, conceptual, and professional influences that shape sociology. A focus on classical and contemporary perspectives, ethical standards, and relationship to other disciplines and society. Seminar with communication skills emphasis.
WS 150	Introduction to Women's Studies	Introduction to basic concepts, terms, approaches to the interdisciplinary field of women's studies. Consideration of historical and contemporary construction of gender as also shaped by race and class. Impact of language, education, family, religion, etc., on our understanding of "women." Alternative pedagogy, strong emphasis on collaborative learning models. Falls under social justice view of sustainability.

Social Work		
SW 201	Human Behavior & Social Environment	Understanding and assessment of individual behavior through use of an ecological/social systems model. Human development through the life span in the light of family, psychosocial, psychological, cultural, biological, environmental factors. Includes sections on lead paint impacts, and pollution impacts on children and their development.
SW 210	Meeting the Needs of Children	Concepts, policies, practices designed to meet the needs of children. Foster care, residential living, protective services, day care. Includes a community-based service-learning component. Includes sections on lead paint impacts, and pollution impacts on children and their development.

Other		
GM 304	China Seminar	Readings, presentations, discussions in preparation for ID 304, May Term immersion in China, introduction to Chinese history, culture, social issues. <i>Covering sections on the intersection of societies with social justice and/or the environment.</i>
GM 359	Tanzania: Culture & Current Issues	Preparation for ID 359. Special focus on AIDS crisis in Africa. Readings, presentations on history, geography, culture, religion. <i>Discuss the changing environments impacts on communities.</i>
ID 304	China in Transition	Introduction to Chinese culture, social life through a visit to the People's Republic of China, study at a local university, personal interaction with Chinese learning partners. <i>Covering sections on the intersection of societies with social justice and/or the environment,</i>
ID 305	Humanity and the Environment	Impact of humans and their technology on the long-term sustainability of the environment and life on earth. Based on perspectives of science, ethics, economics, sociology.
ID 307	The American Landscape	Americans' changing attitudes toward their environment and the impact of those attitudes on the development of American society and on global developments.
ID 345	Food	What is the relationship between human beings and food? Through various disciplines we will explore the issues that surround food, its history, production, consumption, place in culture and religion, and symbolism. Work with College garden, and discuss organic and modern growing methods.

ID 359	Tanzania and the Global AIDS Crisis	Study in Tanzania with special focus on the global AIDS crisis. Service-learning opportunities with Maasai villagers. Discuss the changing environments impacts on communities.
ID 360	The Metropolis: Place of Convergence	Participation, reflection on urban life and issues from cultural, sociological, political, environmental perspectives. Independent project exploring dimensions of leadership and service related to issues that arise in the urban context.
IS 101	Asking Questions, Making Choices:	Development of critical inquiry and communication skills as students take responsibility for their learning and actions within the context of a Wartburg liberal arts education. There are multiple sections of this course, happening simultaneously with a wide variety of subjects., including at least two sections on social justice, sustainability, or social entrepreneurship.
IS 201	Living in a Diverse World:	Expansion of critical inquiry and communication abilities as students recognize the challenges and opportunities of living in a diverse world and connect this widened world view to liberal arts education. There are multiple sections of this course, happening simultaneously with a wide variety of subjects., including at least two sections on social justice, sustainability, or social entrepreneurship.
LS 260	Urban Lifestyles	Readings, group discussions, activities in and around Denver, Colo. Written reflections exploring personal and societal issues that arise in the urban context and students' own participation in the life of the city.
SCH 101	First Year Scholar Seminar	Springboard to liberal arts with special emphasis on the interdisciplinary nature of the liberal arts. Topics will vary. Enrollment limited to students admitted to the Wartburg Scholars Program. Sustainability focus through partnership with sustainability department, and review of subjects through sustainability lens.

ART

No sustainability courses

Education

No sustainability courses

English & Modern Language

No sustainability courses

Music

No sustainability courses
