

Reporting Fields

* Figures required to calculate the percentage of courses with sustainability content: ②

	Undergraduate	Graduate
Total number of courses offered by the institution	788.0	0.0
Number of sustainability courses offered	8	0.0
Number of courses offered that include sustainability	50	0.0

Course inventory with course descriptions¹

PRINCIPIA COLLEGE CATALOG 2104-2015

http://catalog.principiacollege.edu/archives/Principia_College_Catalog_2014-2015.pdf

ARTH 232 Art of the Italian Renaissance 3.0 SH [GEA] (ART) This course thematically treats the variety of visual art created in Italy in the 15th and 16th centuries, including works by the world-famous Leonardo da Vinci, Michelangelo, Raphael, and Andrea Palladio. It also explores the achievements of many other artists in the major centers - Florence, Rome, and Venice - and in courtly settings.

ARTS 295 Sustainable Design 3.0 SH [] () This course is based on the analysis of how green design is delivered in the built environment. It is designed to model the breadth of societal cooperation required to solve sustainability problems; it explores the principles developed by the most energy conscious building practices today. The course teaches basic visual communication skills, green terminology, drafting practices, and culminates in a group-designed project.

BNR 120 Plants and Society 4.0 SH [GESL] (BNR) Explores basic plant biology, plant culture, from house plant care to home gardening to large-scale agriculture. Topics include introductory plant physiology, the impacts of light, temperature, soil, and fertilizer on plant growth, and pest control. Special emphasis is placed on the development and environmental impacts of large-scale agriculture (including the development and use of genetically modified organisms in agriculture).

BNR 190 Global Environmental Issues 3.0 SH [GESN] (MNS) Exploration of major environmental issues that are global in scale. By examining topics such as deforestation, agriculture, climate change, and the worldwide decline of biological diversity, students will learn to think critically about environmental issues. They will also learn to recognize and sort through the many conflicting perspectives that surround most of these issues. Special emphasis is placed on the role of science in helping to identify and solve global environmental problems.

¹ The 8 courses designed specifically for our new Sustainability minor are entered in boldface

BNR 232 Wildlife Conservation 3.0 SH [] (MNS) This course explores major local and global wildlife issues focusing on the impacts of population growth, land use, tourism, development, and other human activities. This course also examines a range of conservation and planning strategies to protect wildlife species.

BNR 255 Natural Resources Management 4.0 SH [] (BNR) This course focuses on the biological and physical science aspects of natural resource management at local, national, and global scales. Topics covered include management of soil, water, forest, and watershed resources. In the laboratory component, students will learn field measurement techniques and computer skills commonly used in managing natural resources as well as develop and write scientific lab reports.

BNR 264 Sugarbush Management 4.0 SH [GESL] (BNR) Course exposes students to historical, scientific, business, and conservation aspects of managing a maple-dominated woodland for syrup production. Central to this course is the planning and implementation of a small-scale “sugarbush” on the college campus, complete with tapping, evaporating, and marketing the final product.

BNR 290 Environmental Policy 3.0 SH [] (MNS) This course includes the formulation and implementation of environmental policy, with special reference to the impact of political and economic factors. Specific consideration will be given to major environmental regulations.

BNR 291 Sustainable Development 3.0 SH [] (MNS) This course is a study of the global issues of sustainability. Through the readings, students develop a conceptual model of sustainable development, and apply that model to case studies in the west and in developing countries. Working through the Principia Center for Sustainability, the class takes on a special campus sustainability project.

BNR 356 Global Change Biology 3.0 SH [] () This course examines changes in Earth’s atmosphere, soils, and waters, the distribution of heat and precipitation, the continuity of landscapes, and exotic species invasions. Responses are examined at multiple levels of biological organization. Special attention is paid to positive and negative feedback loops. The course relies on current scientific literature and requires synthesis of diverse physical and biological sciences.

BNR 362 Conservation 2.0 - 4.0 SH [GESN] (MNS) This course focuses on how natural resources of a given country are managed. Students study conservation management strategies of representative ecosystems as well as species management and the interface of native culture and resource conservation.

BNR 390 Forest Resource Management 4.0 SH [] (BNR) A course in the ways we manage forest lands to provide an array of goods and services to mankind. This course teaches the concepts of sustainable forestry and the field techniques that allow the manager to evaluate, plan, and implement forest management activities. Students learn specific skills in forest measurements, applied silviculture, and the use of management decision support tools.

BNR 391 Soil and Water Conservation 3.0 SH [] (MNS) Past and present issues in soil and water conservation will be examined. Principles of erosion, conservation tillage, irrigation, and drainage will be discussed. Current issues such as water conflicts, integrated watershed management, and green roofs will also be covered.

BUAD 270 Business, Society & Sustainability 3.0 SH [] () Explores the historical and current context for sustainable business including Corporate Social Responsibility and sustainable business models that emphasize long-term value for all stakeholders and support eco and socio-efficiency and eco and socio-effectiveness. Techniques are studied to embed sustainable development into the functions of business: Marketing, Accounting, Operations, Investing, Product Design, and Management. Case studies, readings, and projects are used.

BUAD 330 Management 3.0 SH [GESS] (SSCI) A seminar course that evaluates several major management models that have been employed internationally over the past several decades. The works of noted thought leaders in management philosophies and business models are examined and compared to current management theory and practice. The qualities required of management to be effective in planning, organizing, leading, and controlling organizations on an ethical basis are identified and stressed.

CHEM 111 Environmental Chemistry 4.0 SH [GESL] (CHEM) Introduction to environmental problems and the chemical aspects of these concerns. Basic concepts of chemistry are introduced in the context of environmental issues. Designed to develop an awareness of environmental issues and to use that information as informed global citizens and voters. Includes labs.

CHEM 201 Environmental Testing 4.0 SH [GESL] (CHEM) Application of chemistry to field analysis of contaminants in the environment. Focuses on writing a site assessment manual for testing of air, water, and soil. Includes labs.

CHEM 301 Adv Environmental Chemistry 4.0 SH [] () Study of the chemistry of air, water, and soil and how industries and activities affect the chemical balances in nature. Includes a laboratory section which concentrates on environmental chemical analysis.

ECON 203 Principles of Microeconomics 3.0 SH [] (SSCI) An introduction to economics with special emphasis on microeconomic concepts. These focus on decision-making by individuals and organizations such as firms, government departments, and supra-national organizations. Students develop economic perspectives on a wide variety of topics; examples include the minimum wage, environmental legislation, Social Welfare policy, and entrepreneurship. First course in the economics and in the business administration majors' sequence

ECON 271 Environmental Economics 3.0 SH [] (SSCI) This course provides an economic perspective on natural resource and environmental issues. Topics such as sustainability, pollution, allocation of non-renewable resources, ecosystem management, and global climate change are examined using two different approaches: traditional economic theory; and ecological economics, which considers economic activity in the context of the biological and physical systems in which it occurs.

ECON 316 Economic Development 3.0 SH [] (SSCI) This course focuses on the economic factors and processes that can contribute to economic growth and development. Topics covered include: the role of population growth, free markets vs. market controls, the role of education, sources of capital for development (domestic saving vs. foreign investment) and the impact of government economic policies (fiscal and monetary). The course examines economies in Africa, Asia, and Latin America to communicate the enormity and complexity of the task of economic development.

EDUC 130 Outdoor Education 3.0 SH [GESS] (SSCI) This course is designed to give students in-depth exposure to a wide variety of skills applicable to the outdoor educator. Students gain a strong foundation in group facilitation, team building, leadership, group processing, debriefing, diversity, and Leave No Trace outdoor ethics. Hands-on skills include knot tying, fire building, camping, and ropes course work.

EDUC 170 Environmental Education 3.0 SH [GESS] (SSCI) This course integrates ecological concepts with theories about teaching and learning. Students gain practical experience designing and delivering creative hands-on learning units. Students learn how to adapt these lessons and methods to a variety of different age groups, settings, and outcomes. Course material focuses on constructivist teaching methods, eco literacy, and “green” teaching.

EDUC 275 Pedagogy of Place 3.0 SH [GESS] () Place-based education uses the community, cultural heritage, environment, landscapes, geography, economics, sustainability, and current issues to immerse students in authentic experiences that foster connections between the environmental and human forces that shape a region. This interdisciplinary approach builds ecological and cultural literacy.

EDUC 295 Wilderness Literacy 3.0 SH [] () Outdoor educators have many opportunities to facilitate the exploration of wilderness through discussions, readings, and field experiences. Methods associated with teaching and learning about attitudes and beliefs regarding wilderness will be modeled and taught through the study of writers, philosophers, poets, and their relationship to the Wilderness Act, land conservation, and establishment of the National Park System.

EDUC 310 Global Education 3.0 SH [] () Explores historical and contemporary issues in educational systems around the world. Course will examine international education through political, social, and cultural lenses. Students will compare and evaluate the progress of education on a global scale.

ENGR 180 Project Management 3.0 SH [] (MNS) A hands-on course for learning the basic principles of planning, implementing, and managing a project. Students will participate as team members in a community-based project and will analyze the project, integrating what they are learning with their personal experience. The course will emphasize problem solving, effective communication, ethics, and citizenship.

ENGL 180 Environmental Themes 3.0 SH [GEH] (LIT) Readings (essays, poetry, and short stories) focus on the theme of nature and how it relates to human culture. The wide variety of

roles that nature has played in literature are examined. Reflective writing, analytical writing, and creative writing are used to explore and communicate ideas.

GEOL 225 Environmental Geology 3.0 SH [GESN] (MNS) Geology from the perspective of the interrelationship of humanity and the Earth and the value of understanding the Earth in land use planning. Topics include geologic hazards, such as earthquakes, volcanoes, landslides, coastal erosion; water supply and contamination issues; waste management; hazardous geologic materials; mineral and energy resource issues; and global changes.

GEOL 230 Nonrenewable Resources 3.0 SH [GESN] (MNS) Survey of Earth's nonrenewable energy and material, as well as water resources - their occurrence in or on the Earth's crust, how they are extracted, processed, and used, and the impacts of these steps on the environment.

GLBL 225 Global Studies I 3.0 SH [GEH] () This course introduces students to issues that are global in scope and that raise complex problems that need to be considered with the concepts and tools of more than one discipline.

GLBL 226 Global Studies II 3.0 SH [GESS] () This course introduces students to how a complex global problem is approached differently by three or more disciplines in terms of questions asked, theoretical perspectives applied, methods used to gather data and research a question, and recommendations proposed.

PHIL 255 Global Ethics 3.0 SH [] (RPHL) Course focuses on ethics and moral problems both as they relate to the world community and from various standpoints within that community. Ethical traditions from Africa, Asia, Europe, and Latin America are considered. Intercultural moral conflicts are examined from a wide array of religious, cultural, and moral vantage points. More sensitivity, understanding, and assessment of needs are stressed.

PHIL 265 Business Ethics 3.0 SH [] (RPHL) This course focuses on major philosophical and ethical questions surrounding modern western business practices. Students receive a brief introduction to moral philosophy, become familiar with important literature in the field of business ethics, and begin to understand the place of morality in business.

PHYS 177 Environmental Physics 3.0 SH [GESN] (MNS) Physics governing the interaction between humanity and the environment; focuses on energy. Covers the basic physics of energy, methods of energy generation and use, and the relationship between environmental energy flows and climate.

REL 222 The Bible and the Environment 3.0 SH [GEH] (RPHL) This course critically examines and interprets relevant biblical texts within the context of the current ecological crisis with the intent of articulating a biblical case that responds to the challenge to live faithfully and responsibly as stewards of the Earth and its resources.

SOAN 050 Community Service Program No Credit [] () In local, national, and international communities, with agencies, and institutions, students work together with others committed to meeting social needs. Students are encouraged to learn from those they serve, broaden their

knowledge of diversity, develop social responsibility and realize their obligation to serve our global community.

SOAN 235 Environmental & Social Change 3.0 SH [GESS] (SSCI) Examines the interface between social and environmental problems plus strategies to resolve such problems. Analyzes the impact of industrialization and globalization on humanity and ecosystems in traditional and more industrialized societies. Evaluates the feasibility of ecologically, economically, and socially sustainable rural and urban human settlement patterns.

SOAN 244 Int'l Human Rights Law & Advcy 3.0 SH [GESS] (SSCI) This course examines the global mechanisms, forces, and laws for promoting and protecting human rights; rights implementation via issues of evidence, ethics, and socio-political feasibility; legal concepts that apply to torture, political repression, war crimes and genocide, women's rights, children's rights, and violations of non-human rights; advocacy on behalf of those oppressed by violations of human and non-human rights law.

SOAN 265 Food in Society 3.0 SH [GESS] (SSCI) The course will demonstrate how the political economy of the food system has emerged as a significant area of sociological/ anthropological research and become essential to the study of sustainability. Drawing on interdisciplinary sources, this course explores the consequences raised by the relation of food and food consumption to inequality, diet, and food as a cultural symbol.

SOAN 270 Indigenous Cultures 3.0 SH [GESS] (SSCI) Explores practices of indigenous peoples around the world and uses the lens of globalization to examine present day issues. Examines the process of "modernization" and its effects on the role of the state and cultural preservation. Explores the role of indigenous peoples' values and knowledge related to resource management and environmental sustainability as well as cultural preservation.

SOAN 280 Global Urban Studies 3.0 SH [] () This course examines urban areas (cities) in a global context and is divided into four parts: global cities defined, living in cities, the health of cities, and the future of cities. Primary emphasis will be placed on analysis of "slums" and "ghettos" as well as the sustainable cities global movement.

SOAN 323 Refugees: Culture and Conflict 3.0 SH [] (SSCI) This course looks at refugee groups around the world along with governmental and nongovernmental organizations that service refugees. Explores the kinds of conflicts leading ethnic groups to become refugees; the options for resettlement for refugee groups; the issues related to resettlement; as well as how refugee groups adapt culturally to their new surroundings during the resettlement process; how "race," class, and gender impact both how refugees experience conflict and their integration into new communities. This course is intended to be a service learning course in that students are encouraged to enroll in the SOAN 050 community service at the International Institute.

SOAN 340 Peace and Conflict 3.0 SH [] (SSCI) Study of non-violent methods used by organizations, cultures, and societies to resolve conflicts. Reasons for success/failure of such methods. Covers disarmament, justice, and universal human rights. Includes theoretical approaches and perspectives and the impact of laws on society.

SOAN 375 Globalization and Culture 3.0 SH [] (SSCI) Uses both theories and case examples to explore the concept of globalization through the lens of cultural anthropology. Analyzes the global flows of money, people, commodities, media, and ideas while considering how class, gender, and ethnicity affect the way globalization is experienced around the world.

SMGT 360 Leadership 3.0 SH [] () Designed to survey the dynamic nature of leadership. Goals include: to explore basic theories and concepts of leadership, to identify personal leadership styles and learn how to adopt and use them, to improve and expand one's range of leadership skills, and to develop a personal approach to effective leadership by integrating personal leadership style and experience with leadership theory

SUS 151 Introduction to Sustainability 3.0 SH [] (MNS) An introduction to the basic principles underlying the topic of sustainability. Students will use the ecosystems model of a nature's sustainable system to study energy, recycling, growth, and stability in human systems of the economy, manufacturing, resource use, and building design. The course includes guest lecturers to provide students with a view of sustainability issues from a multidisciplinary approach.

SUS 250 Energy and Living Systems 4.0 SH [] (MNS) In this course students begin to think about the mechanical and living systems in everyday life and how to make them more sustainable. Students learn a systems approach to thinking as they focus on the home and building energy systems such as insulation, conservation measures, and home energy generation important to sustaining our modern way of life.

SUS 395 Sustainability Internship 1.0 - 3.0 SH [] () The issue of sustainability is one of the most theoretically and practically complex questions of our time. Experiential learning outside the classroom provides an opportunity to gain hands-on experience with corporations, organizations and agencies successfully acting as change agents in solving problems related to local, national and global sustainability. Available to students enrolled in any major degree discipline.

SUS 401 Sustainability Project 1.0 - 3.0 SH [] () Practical project under faculty supervision designed in accordance with student qualifications and interests.