

Draft Bachelor of Science in Sustainability and the Built Environment

College of Design, Construction and Planning

University of Florida, Box 115701, Gainesville, FL 32611

Lower Division

FALL	SPRING	FALL	SPRING
Composition 3 CR GE-C	Humanities 3 CR GE-H	xxxxx 3 CR Intro Sustainability & Built Enviro	ECO 2023 3 CR GE-S Microeconomics
Humanities 3 CR GE-H	Physical/ Biological Science 3 CR GE-PB	ECO 2013 3 CR GE-S Macroeconomics	Physical/ Biological Science 3 CR GE-PB
Physical/ Biological Science 3 CR GE-PB	Math 3 CR GE-M	xxxxx 3 CR GE-H History of a Built Enviro Discipline	Elective 3 CR Lower Division
Math 3 CR GE-M	Elective 3 CR Lower Division	LAA 2330 3 CR Site Analysis	Elective 3 CR Lower Division
Elective 3 CR Lower Division	Elective 3 CR Lower Division	Elective 3 CR Lower Division	Elective 3 CR Lower Division
Credits 15 CR	Credits 15 CR	Credits 15 CR	Credits 15 CR

BSBE Suggested 1st and 2nd Year Coursework

General Education - Non Specified & Electives

Communication GE-C	3 credits - 24,000 words
Computation/Math GE-M	6 credits
Humanities GE-H	3 credits
Phy/Biol Sciences GE-PE	9 credits
Soc/Behav Sciences GE-S	3 credits
Elective courses	21 credits

BSBE Required Coursework

History of a Built Environment Discipline GE-H	3 credits
DCP 2xxx Introduction to Sustainability GE-I	3 credits
LAA 2330 Site Analysis	3 credits
ECO 2013 Macroeconomics GE-S	3 credits
ECO 2023 Microeconomics GE-S	3 credits

Upper Division

FALL	SPRING	FALL	SPRING
DCP 3xxx 3 CR Social and Cultural Sustainability	DCP 3xxx 3 CR Sustainable Prob Solving	xxxxx 6 CR Sustainability Practicum	xxxxx 6 CR Sustainability Capstone
DCP 3xxx 3 CR Methods of Inquiry	xxxxx 3 CR Ecology for the Built Enviro		
xxxxx 3 CR Ethics and/or Environmental Justice	xxxxx 3 CR Energy and/or Climate Change	xxxxx 3 CR Resource Economics	Approved 3 CR Elective Course
Approved 3 CR Elective Course	Approved 3 CR Elective Course	Approved 3 CR Elective Course	Approved 3 CR Elective Course
Approved 3 CR Elective Course	Approved 3 CR Elective Course	Free 3 CR Elective Course	Free 3 CR Elective Course
Credits 14	Credits 15	Credits 15	Credits 16

BSBE Suggested 3rd Year Coursework

DCP 3xxx Social and Cultural Sustainability	3 credits
DCP 3xxx Methods of Inquiry	3 credits
DCP 3xxx Sustainable Prob Solving	3 credits
Course in Ethics and/or Environmental Justice	3 credits
Course in Energy and/or Climate Change	3 credits
Course in Ecology for the Built Environmen	3 credits
Approved Electives	12 credits

BSBE Suggested 4th Year Coursework

A Sustainability Practicum	6 credits
Course in Resource Economics	3 credits
A Sustainability Capstone Project	6 credits
Approved Electives	9 credits
Free Electives	6 credits

Bachelor of Arts/Sciences in Sustainability and the Built Environment 120 credit hours (Lower & Upper Division combined)

Required Gen Ed Course	Required Course	Free Elective
Required Topic (See list of approved courses/topic)	Approved Elective (See list of approved electives)	

Draft
Syllabi for Required Courses
Bachelor of Arts/Science in Sustainability and the Built Environment

UNIVERSITY OF FLORIDA
WARRINGTON SCHOOL OF BUSINESS

SYLLABUS

ECO 2013 Principles of Macroeconomics

3 Credits Lecture

Prerequisites: None

General

The nature of economics, economic concepts and institutions; growth, unemployment and inflation; money and banking; economic policies; and the international economy. (S)

UNIVERSITY OF FLORIDA
WARRINGTON SCHOOL OF BUSINESS

SYLLABUS

ECO 2023 Principles of Microeconomics

3 Credits Lecture

Prerequisites: None

General

Theories of production, determination of prices and distribution of income in regulated and unregulated industries. Attention is also given to industrial relations, monopolies and comparative economic systems. (S)

**UNIVERSITY OF FLORIDA
COLLEGE OF DESIGN, CONSTRUCTION AND PLANNING
DEPARTMENT OF LANDSCAPE ARCHITECTURE**

SYLLABUS

LAA 2330 Site Analysis

3 credits

Lecture

Prerequisites: None

General

This course is integrative with co-requisites for majors and can be an elective for students from other disciplines. Discussions concern the effective process to evaluate site and context characteristics where the result must meet various program requirements. Emphasis is on the application of scientific and design knowledge to problem solving as representative of the landscape architectural design process.

Objectives

In addition to the knowledge and skills from prerequisite courses, the following objectives are included:

- Develop and improve our knowledge of natural and cultural resources and user needs which directly affect planning, design and management decisions.
- Develop and refine our ability to selectively inventory the above resources based upon the following variables: specific site, locale or region: general program intent; and appropriate scales of concern.
- Develop and refine our ability to analyze inventory data relative to key issues and program requirements, thus providing the wherewithal to organize and locate our proposed programs elements.
- Develop and refine our ability to synthesize natural, cultural and user analysis data; to identify important opportunities and constraints; and to graphically portray this holistic view of site and context.
- Develop and refine our ability to articulate a statement of objectives concerning the site and each program element or activity, establishing the means with which you can effectively evaluate planning concept and design decisions.

Performance

- The objectives are the basis for student evaluations.
- The student must demonstrate a clear understanding of process and will be required to repeat parts of work which do not meet acceptable levels of performance.
- The two co-requisite courses in the semester must be passed in order for the student to advance to the next semester.

Texts

Various, selected and reserved references, required text (s).

A Guide to Site Environmental Planning, Rubenstein
Apalachee Savannahs Scenic Byway, Linscott (3 Books)
City Form and Natural Process: towards a new urban vernacular, Hough
Design with Nature, McHarg
Designing Places for People, Deasy Ed.
Ecology of Greenways, Smith (Course Text)
Ecosystems of Florida, Myers and Ewel (2cys - 1 Personal)
Energy-Conserving Site Design, McPherson
Foundations for Visual Project Analysis, Sardon
Landscape Analysis and Design, USDA Forest Service
Landscape Ecology, Forman and Godron (2 copies - Personal)
Landscape Planning: environmental applications. Marsh

People Places: Cooper Marcus
Plants, People and Environmental Quality, Robinette
Regenerative Design for Sustainable Development, Lyle
Site Planning, Lynch, Kevin
The Florida Experience, Carter
The Living Landscape, Steiner
User Analysis, Madden & Projects for Public Places

UNIVERSITY OF FLORIDA
COLLEGE OF DESIGN, CONSTRUCTION AND PLANNING

SYLLABUS

DCP 3xxx Social and Cultural Aspects of Sustainability 3 Credits Lecture

**Prerequisites: DCP 1xxx Introduction to Sustainability and the Built Environment
or BCN 1582 International Sustainable Development**

"Sustainable development is a dynamic process which enables people to realize their potential and improve their quality of life in ways which simultaneously protect and enhance the earth's life support systems" ([Forum for the Future](#))

General

Although sustainability grew out of the ecological movement, there are clearly social components as well. Ecological and technological responsibility, environmental ethics, and economic issues immediately come to mind, but there are also the concerns of social justice, physical and mental well-being, lifestyle decisions, participatory decision-making, multiculturalism, policy, and cultural enrichment. For a community to be socially sustainable, individuals and the community as a whole must support the qualities, values, relationships, and resources that contribute to well-being and an acceptable quality of life. How can the physical environment contribute to this goal? How can sustainability support larger cultural issues? Does our culture and/or worldview need to change in order to more completely embrace a sustainable lifestyle and built environment? For example, George Santayana identified three types of aesthetics—sensory, formal, and symbolic. Do traditional concepts of aesthetics work with sustainability, or do new models need to be explored?

This course explores the interface of users and the built environment from social, behavioral, and multicultural perspectives as it relates to social sustainability. Physical planning, design and management can facilitate individual and community sustainability. The basis for this must start with an understanding of user needs. Through lectures, readings, and discussions, students will gain a basic understanding of the user, pertinent theories of social and behavioral design and planning, and how physical design can help or hinder the goals of social sustainability. The cultural impact on the built environment will be explored as it is manifested (or not) in a range of settings from intimate to large scale. Case studies, projects, and other activities will begin to test prototypes, problems, and applications.

Objectives:

A student in this course should become knowledgeable in:

- social and behavioral aspects of environmental design (basic human needs, preference, life cycle, control of space, way-finding, neighboring, affordances, etc.)
- multicultural perspectives
- participatory planning and design processes
- post occupancy evaluations
- public health issues (walkability, active living, safety, restorative and therapeutic environments)
- social justice
- environmental ethics
- the aesthetics of sustainability (J. Baird Callicott, Robert Thayer, Joh Suk Koh)

Performance

Grading will be based upon 3 tests, projects and quizzes, and one major paper. Exact percentages are not possible at this time because students will likely be asked to attend and review visiting lecturers, presentations, and other learning opportunities. Rough percentages are:

Tests – 50%

Paper – 20%

Projects and quizzes – 30%

Texts

No specific text will be required, however readings will include:

Jon Lang, Creating Architectural Theory and Urban Design

Lennard, S. H. and H. L. Lennard. 1987. *Livable Cities: People and Places: Social and Design Principles for the Future of the City*. California, USA: Gondolier Press.

Stephen and Rachel Kaplan, With People in Mind

Clare Cooper Marcus and Carolyn Francis, People Places

Roderick Nash, The Rights of Nature

Robert Thayer, Grey World, Green Heart

J. Baird Callicott “The Land Aesthetic” in Ecological Prospects, edited by Christopher Key Chapple

UNIVERSITY OF FLORIDA
COLLEGE OF DESIGN, CONSTRUCTION AND PLANNING

SYLLABUS

DCP 3xxx Methods of Inquiry

3 Credits

Lecture

**Prerequisites: DCP 1xxx Introduction to Sustainability and the Built Environment
or BCN 1582 International Sustainable Development**

General

This course explores the breadth of “methods of inquiry”—the process of asking and then answering questions-- commonly used by planners, designers, and builders, as well as those who study the built and managed environment. All of the disciplines represented in the College of Design, Planning and Construction engage in a variety of methods that create new knowledge and/or insights, test theories in diverse applications, inform critique, and assess objectively the successes and failures of built and managed environments.

While no course can adequately cover the myriad methods used, this course will help undergraduate students gain an overview of methodologies that can help shape meaningful and appropriate critique that can then lead to informed decision-making.

Objectives:

Through introduction to a broad array of approaches, students will become equipped to better:

- formulate pertinent questions and evaluate alternative approaches
- hone and communicate their decision-making processes
- understand the literature and applications of sustainability
- critique and assess policies, methodologies, theories, etc. of use in their studies and work towards sustainability in the built environment
- understand their own potential entry into research and/or knowledge-based design and planning.

Topics include:

- Characteristics and methodologies of critical thinking
- Overview of pertinent qualitative and quantitative research methods
- Case study methodologies
- Post Construction Evaluation / Post Occupancy Evaluation
-

Performance

- Examinations shall test a student’s knowledge and understanding of demonstrated solutions to problems in sustainability.

- Projects and papers shall be assigned that help refine the student's understanding of the objectives listed above.

Potential Texts

Readings and references include:

Peter A. Facione , “Critical Thinking: What It Is and Why It Counts”

<http://www.insightassessment.com/articles.html>

Katherine Crewe and Ann Forsyth, LandSCAPES: A Typology of Approaches to Landscape Architecture. *Landscape Journal* 22, 1: 37-53. 2003.

Orr, David, Ecological Literacy

McAvin, Meyer, et al, "Landscape Architecture and Critical Inquiry", *Landscape Journal*, Vol 10, No 2. Fall, 1991

Attoe, Wayne, Architecture and Critical Imagination, John Wiley & Sons, New York, NY, 1978

Zeisel, John. Inquiry by Design, , New York: Cambridge University Press. 2006

Linda Groat and David Wang, Architectural Research Methods, John Wiley & Sons, Inc., New York. 2002

Best, John W. and Kahn, James V., Research in Education, New York: Allyn and Bacon. 1993

Mason, E. J. & Bramble, W. J. Understanding and Conducting Research: Applications in Education and the Behavioral Sciences (2nd ed.). New York: McGraw-Hill Book Company. `1989

Francis, Mark. A Case Study Method for Landscape Architecture. Washington DC: Landscape Architecture Foundation. 1999

McCracken, G. The Long Interview. (Sage University Paper Series on Qualitative Research Methods, Vol. 13). Beverly Hills, Ca.: Sage. 1990

UNIVERSITY OF FLORIDA
COLLEGE OF DESIGN, CONSTRUCTION AND PLANNING

SYLLABUS

DCP 3xxx Sustainable Problem Solving 3 Credits Lecture

**Prerequisites: DCP 1xxx Introduction to Sustainability and the Built Environment
or BCN 1582 International Sustainable Development**

General

The purpose of this course is to use case studies to examine how sustainability can be achieved in the built environment.

Objectives:

Examples of projects to be examined through case studies include:

- Stormwater Management including Green Roofs
- Building Design including choice of materials and energy demands
- Food Production and Distribution
- Transportation Systems
- Patterns of Land Use

Through exploration of these case studies students will be expected to learn:

- 1) the interplay of ecological, economic and cultural issues and their influence on successful sustainable solutions;
- 2) the range of disciplinary expertise involved in sustainability and the built environment;
- 3) the importance of innovation to quality built environments.

Performance

- Examinations shall test a student's knowledge and understanding of demonstrated solutions to problems in sustainability.
- Projects and papers shall be assigned that help refine the student's understanding of the objectives listed above.

Texts

To be determined

Draft
List of Approved Courses in Required Topic Areas
Bachelor of Arts/Science in Sustainability and the Built Environment:

The following courses fulfill the coursework requirements in specified topic areas for the BSBE. Students may request approval for the use of other courses for each topic area by applying to the Chair of the BSBE Governing Board.

Courses Recommended for the 2nd Year

Introduction to Sustainability and the Built Environment

BCN 1582 International Sustainable Development

Credits: 3.

Provides an overview of international trends in reducing the environmental impacts of land development and construction. Surveys best practices in a dozen countries around the world. (S, N)

OR

DCP 1xxx Introduction to Sustainability

[Kim Tanzer is developing this course description and syllabus](#)

History of a Built Environment Discipline

ARC 1701 Architectural History 1

Credits: 3.

A general survey of social, political and cultural factors which have generated art and architecture. (H, I) (WR)

BCN 3012 History of Construction

Credits: 3.

Traces western building technology from prehistoric man to the present. Development of the art and science of building. (H, N)

IND 2100 History of Interior Design 1

Credits: 3.

History of interior spaces, design philosophy, interior elements in architectural and sociological context. Record of human achievement expressed in the built environment. Foundation for contemporary design and interior preservation practice. Ancient world through early nineteenth century. Slide lecture, discussion, outside research. (H)

IND 2130 History of Interior Design 2

Credits: 3; Prereq: IND 2100.

Continuation of History of Interior Design 1. Evolution of contemporary design philosophy. Foundation for contemporary design and interior preservation practice. Nineteenth century revivals through current developments. Slide lecture, discussion, outside research. (H)

LAA 2710 History of Landscape Architecture

Credits: 3.

Landscape Architecture is the art and science of arranging functions and spaces within the ecology of the land and the culture of the humans who inhabit it. Survey of the history of humans as it is expressed in such diverse areas as urban form, community planning, gardens, parks and recreational areas, agricultural patterns and land management. Open to all students. (H, I)

URP 4000 Preview of Urban and Regional Planning

Credits: 3.

An overview of the comprehensive planning process designed for undergraduates who may be considering a career in urban and regional planning or who may be pursuing studies where some knowledge of the planning process is desirable. (H)

Courses Recommended for the 3rd Year

Ethics and/or Environmental Justice

AEB 4126 Agricultural and Natural Resource Ethics

Credits: 3.

An examination of the political, economic, environmental and ethical value issues involved in agricultural practices and policies, including agricultural research. (H, S) (WR)

REL 3103 Religion and Nature in North America

Credits: 3.

Investigation of the ways that religion and nature have evolved and influenced one another during the cultural, political and environmental history of North America since European contact.

REL 3492 Religion Ethics and Nature

Credits: 3.

Religious perspectives on nature and the environment, focusing on different theological understandings of the natural world, approaches to using natural resources and efforts to understand human responsibility for the realm of nature. (H)

PHM 3032 Ethics and Ecology

Credits: 3.

A normative study of the relationships between human beings and the environment, with special emphasis on land and resources. (H)

SYD 3410 Urban Sociology

Credits: 3; Prereq: SYG 2000 or department permission.

The development of cities and their spatial and social structure. Critical problems and solutions. Integration of people in the social setting. Social implications of city planning. (WR)

SYD 4512 Social Institutions and Environment

Credits: 3; Prereq: SYG 2000 or consent of instructor.

Provides a study of the promise and limitations of new social institutions associated with environmental improvement, such as fair trade, corporate social responsibility and eco-labeling schemes.

Ecology for the Built Environment

PCB 3601C Plant Ecology

Credits: 3; Prereq: introductory college biology or botany.

Principles of ecology at scales ranging from individual plants to landscapes. Emphasis is on species, ecosystems, and environmental programs in Florida.

EES 4316 Industrial Ecology

Credits: 3.

Linkage of industrial activity with environmental and social sciences. Corporate environmental management and environmental ethics. Resources, laws and economics. Environmental account. Industrial products and processes and life cycle assessments. Case studies of corporate environmental policies.

SOS 2007 The World of Water

Credits: 3.

Course explores the full range of water issues including abundance and quality of water in the environment, water policy, and conflict. (P)

SOS 2008 Humans, Soils, and Environmental Impact

Credits: 3.

Course will focus on relationships between human activities and soil and environmental quality. Lectures will concentrate on fundamentals of soil and environmental science, using case studies to illustrate basic principles. Intended for non-majors. (B)

SOS 4231C Soil, Water and Land Use

Credits: 3.

Suitabilities/limitations of soils for different uses; using soil surveys and related information to plan use/management of land; behavior of water in soils/landscapes; policies for and implications of water allocation among urban, agricultural, and natural resource uses. (P)

GEO 3352 The Human Footprint on the Landscape

Credits: 3.

Study of human-environment relationships from a primarily geographic perspective, focusing on the human forces that shape landscapes.

EES 4103 Applied Ecology

Credits: 2.

Application of ecological principles to technological resource management and problem solving. (B)

ORH 3000 Introduction to Ecosystem Restoration

Credits: 4; Coreq: BOT 2010C or BSC 2010C or instructor permission.

This course covers restoration theory and planning, disturbed land reclamation, woodland/wetland/river restoration, invasive species, community involvement, and monitoring, and emphasizes plant selection, establishment and maintenance.

EVS 3000 Environmental Science

Credits: 3.

Interactions of humans and their environments, Earth's resources, pollution and environmental management.

FOR 3153C Forest Ecology

Credits: 3.

Ecological principles and their application to the management of forests; major sections include tree population and forest community dynamics, and ecosystem processes. (B)

FOR 4090C Urban Forestry

Credits: 2; Prereq: 4 FY or higher.

Introduction to the nature, scope and components of the urban forest, including biology, culture, protection and aspects of management, planning and policy.

WIS 4541 Terrestrial Wildlife Resources

Credits: 3; Prereq: WIS 3401.

Principles and problems associated with the conservation and management of wildlife in terrestrial environments, from urban areas to wilderness, with emphasis on the ecological relationships underlying management strategies.

Energy and/or Climate Change

AGG 3501 Environment, Food and Society

Credits: 3.

Global issues and trends in population growth, natural resource (soil, water and plant genetic biodiversity) utilization, climate change and potential impacts of current trends on agriculture, natural resources, global food security and sustainability. (B)

AOM 2520 Global Sustainable Energy: Past, Present and Future

Credits: 3.

Students will explore the global history of energy sources. New energy sources will be investigated and international solutions to future needs will be analyzed.

EES 3008 Energy and Environment

Credits: 3.

Consideration of the energy basis for man and nature including principles of energy analysis, systems ecology and public policy. (P)

GEO 3250 Climatology

Credits: 3; Prereq: introductory atmospheric science or physical geography, or instructor permission.

Genesis of regional climates and their global distribution. Emphasis on world regional climatology; secondary topics: applied climatology and climate change. (P)

ARC 3610 Environmental Technology 1

Credits: 3; Coreq: ARC 3321 or ARC 4074.

Principles and practices relating to control of the thermal/atmospheric environment and to plumbing in buildings.

ARC 4620 Environmental Technology 2

Credits: 3; Coreq: ARC 4322 or ARC 6241.

Fundamentals of architectural lighting, acoustics, electrical power distribution and building communications.

LAA 4xxx Water Conservation through Site Design and Green Roofs

Credits: 3.

This course will explore the impacts of development on the natural systems of the site with a focus on water resources, and how through sustainable site planning and design methodologies these impacts can be mitigated.

Courses Recommended for the 4th Year

Sustainability Practicum

DCP 4xxx Practicum in Sustainability

Credits: 6; Prereq: DCP 3xxx Social and Cultural Sustainability and DCP 3xxx Sustainable Problem Solving

This is a class in which students from diverse backgrounds will engage in service learning through the development of sustainable solutions to challenges in the built environment.

or

DCP 4xxx Field Experience in Sustainability

Credits: 6; Prereq: DCP 3xxx Seminar in Sustainability and DCP 3xxx Sustainable Problem Solving

A field experience with a governmental, non-governmental or private office that focuses on issues of sustainability.

or

Any 6 credit or greater upper division or graduate studio in Architecture, Interior Design, Landscape Architecture or Urban and Regional Planning with a sustainability emphasis, approved by Chair of the BSBE Governing Board, subject to instructor's approval.

Resource Economics

SYO 4352 Consumption, Economy and Society

Credits: 3; Prereq: SYG 2000 or consent of instructor.

Introduces the field of economic sociology, defined as the study of economic life using the sociological imagination.

GEO 2500 Global and Regional Economies

Credits: 3.

This course highlights contemporary perspectives, themes and research in economic geography, focusing on issues and problems associated with regional and global economic and demographic change. Regional variations and disparities in growth and development are analyzed and policy implications discussed. (S) (WR)

GEO 3502 Economic Geography

Credits: 3.

A comprehensive geographical survey of major economic activities such as agriculture, forestry, fishing, mining, manufacturing and commerce. Emphasis will be upon the study of the characteristics of distribution and the regional patterns of these activities. (S) (WR)

GEO 3602 Urban and Business Geography

Credits: 3; Prereq: junior standing, or instructor permission.

An empirical and theoretical spatial analysis of the various economic, population and social facets within and between urban settlements. (S) (WR)

ECP 3113 Population Economics

Credits: 4; Prereq: ECO 2023.

World population trends and characteristics. Effects of population growth on age structure, labor force participation, wage rates, productivity, saving, consumption, investment, technological change, human capital formation, mobility and pensions, in both less developed and more developed countries. Effects of population growth on natural resources and the environment.

Economic determinants of geographic mobility, mortality rates, fertility rates, family size, marriage and divorce. Costs of children. Population policy and economic development. (S, N)

ENV 4601 Environmental Resources Management

Credits: 2. Prereq: ENV 3040C.

Theory and application of engineering economics and systems analysis to the design of environmental management systems.

AEB 2014 Economic Issues, Food and You

Credits: 3.

This course emphasizes the role of agriculture and economics. The how's and why's of their influence on food prices and the world food situation, the environment, natural resources and government policy; and economic issues, including inflation and money. (S)

AEB 2450 Valuing Environmental Protection in Florida

Credits: 3.

An introduction to how economists value the environment and regulations designed to protect our natural resources from overuse and degradation.

AEB 3103 Principles of Food and Resource Economics

Credits: 4.

An introduction to the field of food and resource economics; principles of economics as applied to agriculture; economic problems of the agricultural industry and the individual farmer. (S)

AEB 3281 Agricultural Macroeconomics

Credits: 3; Prereq: ECO 2013.

An introduction to the world economy from a macroeconomic perspective. Focuses on the linkages arising from international trade and capital flows in the agricultural sector.

AEB 3450 Introduction to Natural Resource and Environmental Economics

Credits: 3; Prereq: AEB 3103 or ECO 2023. Credit cannot be received for both AEB 3450 and ECP 3302.

The course is designed to introduce students to natural and environmental resource economics. Emphasis is placed on understanding economic concepts such as resource scarcity, market failure, externality, property rights and common property resources, and their application to studies of forest, land, water, energy, and coastal resources.

AEB 4283 International Development Policy

Credits: 3; Prereq: AEB 3103 or ECO 2023.

A study of how factors such as poverty, population, technology, resources, trade and the environment affect man's effort to develop. The roles of the public and private sectors are discussed as well as the process of policy formulation and implementation. Emphasis is placed upon the agricultural sector and its role in process of economic development, especially in countries where problems of hunger, demographic pressure and poverty are pervasive. (S)

FOR 4541 Forest Economics

Credits: 3; Prereq: ECO 2023 or the equivalent.

The economics of forestry and forest resources: private and public interests in both timber and non-timber forest outputs; concepts of externalities, conservation, efficiency and equity; techniques in valuation of forest resources; application of economic principles to issues in forest resources.

FOR 4664 Sustainable Ecotourism Development

Credits: 3.

An interdisciplinary and applicable study of the tools and techniques managers and planners use to provide sustainable ecotourism opportunities in Florida and worldwide. Topics include integrating ecotourism with other resource uses, landscape level ecotourism planning, sustainable community development, minimizing and monitoring ecotourism impacts, and creating a diversity of ecotourism opportunities.

FNR 4623C Integrated Natural Resource Management

Credits: 3; Prereq: refer to the department.

An integrative approach to the study of forest resource management for the production of multiple products, such as timber, recreation, wildlife, rangeland, etc., utilizing the case study approach.

Sustainability Capstone

DCP 4xxx Capstone Project in Sustainability

Credits: 3; Prereq or Coreq: DCP 4xxx Practicum in Sustainability

Students will undertake an individual project under the direction of a faculty member, with a focus on comprehensive solutions to a problem in sustainability. A final presentation will be made to at least two faculty members with demonstrated expertise in sustainability.

OR

DCP 4xxx Independent Research in Sustainability

Credits: 3; Prereq or Coreq: DCP 4xxx Practicum in Sustainability

Students will undertake an individual research project under the direction of a faculty member, with a focus on comprehensive solutions to a problem in sustainability. A final presentation will be made to at least two faculty members with demonstrated expertise in sustainability.

OR

Any 3 credit or greater upper division or capstone studio in Architecture, Interior Design, Landscape Architecture, or Urban and Regional Planning with a sustainability emphasis, approved by Chair of the BSBE Governing Board (access to class may be subject to instructor's permission).

Draft
List of Approved Elective Courses
Bachelor of Arts/Science in Sustainability and the Built Environment:

The following courses are approved electives for the BSBE. Students may request approval for the use of other courses by applying to the Chair of the BSBE Governing Board.

Approved Electives

Any upper division or graduate course taught in the College of Design, Construction and Planning will be accepted as approved elective credit for the BSBE (access may be subject to instructor's permission).

OR

Any topical courses on the BSBE approved list not taken to meet a topical course requirement will be accepted as approved elective credit for the BSBE.

OR

The following additional courses fulfill the coursework requirements for approved elective credit for the BSBE.

AGR 4268C Sustainable Agriculture Systems Analysis

Credits: 3; Prereq: AGR 3005 or SOS 3022.

An introduction to the use of PC-based tools for improving agricultural production and environmental quality. Focus is on food security, environmental quality and sustainable agriculture.

EES 3000 Environmental Science and Humanity

Credits: 3.

Interaction of technology and industrialization with earth's resources and the resultant effect on environmental quality. Identification of air, water and land pollution: causes, effects, and controls. Concepts of environmental management and the socioeconomic and institutional factors influencing environmental quality. Intended for non-ENV majors. (B)

EES 4050 Environmental Planning and Design

Credits: 3.

Principles and practices of environmental planning. Planning for and designing sustainable communities and regions. Exploration of quantitative methods for the evaluation of environmental impacts and analysis of carrying capacity of economic development. Exploration of theories of spatial and temporal organization of systems of humanity and nature.

ENV 4612 Green Engineering Design and Sustainability

Credits: 3; Prereq: EES 4200 or EES 4201, ENV 4514C.

This course approaches design of products and processes from a "green" engineering perspective, where one of the primary objectives is minimization of environmental impacts. Three scales of pollution prevention will be covered: macroscale (life-cycle assessments), mesoscale (unit operations design), and microscale (molecular level).

FNR 4660C Natural Resource Policy and Administration

Credits: 3; Prereq: junior or senior standing.

Factors in evolution of forest, range, wildlife and related natural resources administration and policies in the United States; policy components; policy formation implementation, administration and change processes; introduction to criteria for evaluating effectiveness of policies and administration.

FOR 3004 Forests, Conservation and People

Credits: 3.

A general background course for non-FRC students interested in management, use and conservation of forest resources. Topics include resource description, historical perspectives, current issues, forest biology and management principles. (B)

FOR 4060 Global Forests

Credits: 2; Prereq: 4FY or higher.

An overview of important international issues and developments related to forest resource use and tree management systems in a wide variety of contexts.

GEO 3372 Conservation of Resources

Credits: 3; Prereq: sophomore standing, or instructor permission.

A survey of natural resources and a study of wise and wasteful practices of these resources. Course satisfies resource certification for social studies teachers.