

**University of Florida Cover Page
for
New Degree Expedited Review**

Name of Unit(s) proposing a degree program: College of Design, Construction and Planning

Complete Name of Proposed Degree Program: Bachelor of Sustainability and the Built
Environment

Academic Specialty (Include CIP Code): (TBD) **Implementation Date:** 08/15/2008

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University Board of Trustees:

Signature/Chair, University of Florida Board of Trustees/Date

Date of notification to the FBOE for inclusion in the state inventory

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Program Description

The proposed Bachelor of Science in Sustainability and the Built Environment is a four year 120 credit hour program of which 48 hours are required courses including a 6 credit hour capstone course, and 21 hours of approved electives. Two tracks are proposed, one is a general degree program accessible to students at either the sophomore or junior levels. The second track is for students interested in a combined bachelors and masters degree. The combined degree offering that will be immediately available is: a 4+1 in urban and regional planning. Additional combined degrees under consideration and directly related to this degree are a 4+3 in architecture, a 4+2 in building construction, a 4+2 in interior design and a 4+2 in landscape architecture.

The degree is comparable to an Interdisciplinary Studies degree and will be administered at the College level. A director and faculty council will oversee the program.

Draft Catalogue Language

The Bachelor of Science in Sustainability and the Built Environment (BSSBE) will allow students to explore creative solutions for the planning, design and construction of human structures and settlements. Whether it is the redesign and rehabilitation of existing structures or innovative new design, students will be provided a theoretical foundation for seeking sustainable solutions to problems in the built environment. The globally recognized expertise in sustainability of the faculty in the College of Design, Construction and Planning and from across campus supports the degree program.

Graduates will have excellent opportunities for work in various green industries, for governmental agencies involved with regulation and management of the built environment and with non-profit organizations promoting the principles of sustainability. Additionally students will be prepared to matriculate into combined degree programs offered in association with the degree and to enter graduate school in a wide range of areas including architecture, building construction, interior design, landscape architecture and urban and regional planning.

The BSSBE is a limited-access major that requires a minimum 3.2 GPA. Native UF students should apply no later than the end of semester 3. Transfer students must complete their first semester with a minimum UF GPA of 3.2 before they can apply to this program. Students interested in pursuing the major should first contact the associate dean for undergraduate student and academic affairs in the College of Design, Construction and Planning.

Critical Tracking

By Semester 4 the student must complete the following courses with a minimum 'C+' or better:

- At least one course from those approved for the topic: Introduction to Sustainability and the Built Environment
- At least one course from those approved for the topic: History of a Built Environment Discipline
- ECO 2013 Macroeconomics
- ECO 2023 Microeconomics

- LAA 2330 Site Analysis

By Semester 5 the student must complete the following courses with a minimum ‘C+’ or better:

- DCP 3xxx Social and Cultural Sustainability
- DCP 3xxx Methods of Inquiry
- One course from those approved for the topic: Ethics and/or Environmental Justice

Recommended Semester Plan

<u>Semester 3</u>	<u>Credits</u>
A course from those approved for the topic: Introduction to Sustainability and the Built Environment	3
ECO 2013 Macroeconomics	3
A course from those approved for the topic: History of a Built Environment Discipline	3
LAA 2330 Site Analysis	3
Free Elective	<u>3</u>
	15
<u>Semester 4</u>	
ECO 2023 Microeconomics	3
Any remaining General Education course	3
Free Electives	<u>9</u>
	15
<u>Semester 5</u>	
DCP 3xxx Social and Cultural Sustainability	3
DCP 3xxx Methods of Inquiry	3
A course from those approved for the topic: Ethics and/or Environmental Justice	3
Approved Electives	<u>6</u>
	15
<u>Semester 6</u>	
DCP 3xxx Sustainable Problem Solving	3
A course from those approved for the topic: Ecology for the Built Environment	3
A course from those approved for the topic: Energy and/or Climate Change	3
Approved Electives	<u>6</u>
	15
<u>Semester 7</u>	
A course from those approved for the topic: Sustainability Practicum	6
A course from those approved for the topic: Resource Economics	3
Approved Elective	3
Free Elective	<u>3</u>
	15
<u>Semester 8</u>	
A course from those approved for the topic: Sustainability Capstone	6

Approved Electives	6
Free Elective	<u>3</u>
	15

ASSESSMENT OF NEED AND DEMAND

Demand for Graduates

The demand for graduates with this degree is here now. Whether it is working with LEED certification, designing and applying environmentally sensitive materials, marketing the availability of these materials to designers and their clients or working in regulatory and review agencies that enforce sustainability expectations, those working in the realm of the built environment recognize the importance of sustainability for the nation's future and the future of their industries. Green roofs provide an excellent example. New green roof products are coming on the market almost every day. While the original products are designed by architects and engineers, marketing the products must be accomplished by individuals who understand the importance of the use of green roofs and the ways they will benefit individual users and the greater good. Graduates with a UF Bachelor of Science in Sustainability and the Built Environment would be perfect for such a position. (Please refer to Appendix A, a request for interns to work in a business dedicated to sustainability. This came as an unsolicited request and serves as an early indication of the support this degree will receive).

College Goals and Degree Program Objectives

This degree proposal is in direct response to one of the goals established by the College in its 2007 Strategic Plan (ratified by the Faculty Council in 2007). The Goal reads as follows:

Goal 7: Assume a leadership role at the University of Florida and at the national level in offering courses and programs dealing with sustainability.

Strategies

- Develop and offer an undergraduate major (and minor) in Sustainability and the Built Environment
- Support Legislative Budget Request for campus-wide sustainability program
- Implement the Sustainable Design concentration and certificate during 2007-08
- Support research that advances the field of sustainability in the built and natural environments
- Develop additional courses in sustainability as part of a campus-wide program
- Ensure that DCP research centers, including but not limited to the Powell Center for Construction and the Environment, advance research on sustainability

- Actively participate in local, state, national and international issues regarding sustainability
- Give priority to research projects by faculty and students dedicated to sustainability issues
- Develop continuing professional education opportunities through courses in sustainability, including courses for LEED certification
- Green DCP facilities through coordinated efforts of faculty, student and staff, led by the Sustainability Committee
- Establish DCP Sustainability Committee as a standing college committee engaged in activities related to instruction, research and service

Measures

- *# of students selecting sustainability courses and specializations/certificates*
- *# of courses offered*
- *course enrollments*
- *# of joint endeavors with professional and community groups to advance applications of sustainability*
- *Research outputs in sustainability (articles, books, chapters, funded and unfunded projects)*

The following list of degree objectives serves as a summary of the description and rationale.

Degree Objectives:

1. To provide a globally recognized program that emphasizes the theory and principles of sustainability and their relationship to the planning, design, construction, and management of the built environment.
2. To build on the rare combination of disciplines found in the UF's College of Design, Construction and Planning and the existing faculty's strength and expertise in the area of sustainability.
3. To create a nucleus for research in the interdisciplinary area of sustainability and the built environment.
4. To add interdisciplinary work in sustainable built environments to the list of service learning opportunities the College can offer its students and the global community.
5. To increase undergraduate student credit hours generated in the College of Design, Construction and Planning by providing a flexible undergraduate degree program.
6. To provide opportunities for combined bachelor and master degree programs in architecture, building construction, interior design, landscape architecture and urban and regional planning resulting in a higher caliber of graduate student and increased graduate student credit hour production within the College of Design, Construction and Planning.
7. To serve as a preparatory program for traditional master degree programs in architecture, building construction, interior design, landscape architecture and urban and regional planning, thereby increasing graduate student credit hour generation.

Relationship to National, State and Existing Campus Programs

The College of Design, Construction and Planning is the only AAU institution to offer these six built environment disciplines of architecture, building construction, historic preservation, interior design, landscape architecture and urban and regional planning. Nor does any other Florida institution of higher learning offer this collection of disciplines. This new degree capitalizes on this unique association of disciplines by cutting across them to create a cluster of faculty and courses to address an issue of pressing human need: a sustainable built environment. The new degree is supported by a core group of senior faculty who are already globally recognized for their leadership in sustainability. Additionally, there is a similar core of

existing junior faculty who are developing expertise and recognition for their work in sustainability and the built environment and they too shall support this new degree. (Please see Appendix B.)

Tangible examples of the leadership shown in this area by the College are the design and construction of the campus' first LEED rated building for the Rinker School of Building Construction and the subsequent design and implementation of a green roof on the Perry Construction Yard. These accomplishments resulted from the collaboration of experts in architecture, building construction, interior design and landscape architecture. Other examples of leadership shown by the College are the Graduate Certificate in Sustainable Architecture offered through the School of Architecture and the Graduate Certificate in Sustainability offered through the College.

In addition to the faculty of the College of Design, Construction and Planning, a number of other colleges have faculty who are leaders in the area of sustainability. These include the Colleges of Agriculture and Life Sciences, Engineering, Liberal Arts and Sciences, Law and Business. This degree proposes to take advantage of this collective strength by incorporating into the curriculum many of the courses offered by these individuals. These course offerings were identified in the 2006 study prepared by the College of Law's Conservation Clinic entitled "Fostering Curriculum Development and Cross-Campus Collaboration in Sustainability at the University of Florida". In that study courses were evaluated and classified as follows:

Tier 1 – those based in sustainability theory and practice, either in an interdisciplinary manner or in the context of a single discipline

Tier 2 – those which generally relate to the principles of sustainability, and

Tier 3 – those which implicitly address one or more of the principles of sustainability.

The study found the following distribution of courses:

Tier 1 – 17 courses (8 in Design, Construction and Planning, 4 in Agriculture and Life Sciences, 3 in Liberal Arts and Science and 1 each in Engineering and Law)

Tier 2 – 39 course in 8 colleges

Tier 3 – at least 53 courses with almost every college represented.

The study revealed no degree or minor offered at the University of Florida that emphasized sustainability, although the following programs did exist:

- The graduate certificate in sustainable architecture within the School of Architecture
- The "sustainability subject area" within the graduate School of Natural Resources and the Environment Interdisciplinary Ecology Program
- The Environmental Studies Minor for students in the College of Engineering
- The Environmental and Land Use Law Certificate Program with the College of Law, and
- The Tropical Conservation and Development Program in the Center for Latin American Studies.

Since the time of the Conservation Clinic study, the College of Design, Construction and Planning graduate certificate in sustainability was developed and adopted and an undergraduate minor is under development by the University's Sustainability Committee. Its home College will be the College of Liberal Arts and Sciences and the College of Agriculture and Life Sciences are

logical choices. If this undergraduate minor is created it will be complimentary to the Bachelor of Science in Sustainability and the Built Environment.

Role of Proposed Program in Fulfilling the University's Work Plan

“From Achievement To Recognition: The Strategic Work Plan for the University of Florida” March 8, 2007, contains several goals and statements that this proposal specifically addresses:

(15) Goal: Continue to improve the academic quality of undergraduate students and develop strategies to improve the graduation rates incrementally while maintaining academic integrity of degree programs and providing students the flexibility to find a major that is the best fit for their interests and talents.

- This degree will provide an additional undergraduate educational opportunity for students at the University of Florida.
- It is designed to be a highly flexible degree program to accommodate a broad range of students.

(18) Goal: As appropriate, increase the size and quality of graduate and professional programs to align with top ten AAU public institutions while addressing state, regional and national needs.

- This degree will enhance the offerings of our College, adding to its national reputation and contributing to our innovative programs.
- No other AAU institution offers the full range of built environment disciplines found here in the College and this new degree program only enhances its uniqueness.
- Determining ways of accommodating human settlement in sustainable ways is of importance to the state, region, nation and globe.

Ecology and Environment and Interdisciplinary Work

- The Work Plan includes an emphasis on ecology and environment; and interdisciplinary collaboration. Given that sustainability is generally accepted to be built on an understanding of the three “Es”, ecology, economy and ethics, the proposed degree will be responsive to and dependent on all. Sustainability is inherently interdisciplinary and the degree will be supported by a broad range of specialists within the College of Design, Construction and Planning and across campus.

(42) Goal: Strengthen the educational and research facets of professional programs and colleges with special emphasis on interdisciplinary endeavors, as appropriate.

- The degree program specifically responds to this Goal. There are currently successful researchers in six disciplines within the College that sometimes collaborate. Creating a nucleus of faculty clearly associated with the specialty of sustainability will significantly contribute to the potential for additional interdisciplinary collaboration among them.

“The University of Florida aspires to join the ranks of the nation's top public research universities.”

- Perhaps the most important in the Work Plan, this statement clearly emphasizes the role of research with the institution. The degree program proposed and the interdisciplinary

research it will foster are seen as a critical step in the progress of research in sustainability and the built environment.

“The ultimate goal of the university is excellence in every facet of its work and while recognizing the importance of setting priorities, a part of the strategy of indentifying promising areas of investment is not to let other areas fall into neglect or to suggest that support of their projects and areas are not also essential.

- A focus on sustainability and the built environment is not specifically mentioned as a priority in the work plan, but it has clearly become a priority within the University community and a new degree program with it as its focus would further demonstrate the University’s leadership in this realm.

Where will the Students come from?

Given the concerns about limits to energy, water and land, our College increasingly faces the need to develop innovative solutions for the built environment. While many individual faculty from our six disciplines are directly addressing issues of sustainability within their own areas, we believe an interdisciplinary degree that will coalesce the globally recognized expertise of the existing faculty in the area of sustainability as applied to built environments, will be very popular.

This program is designed to accommodate no more than 30 students in each year’s cohort. As previously explained, it is a limited access major with a relatively high GPA admission requirement of 3.2. Native UF students will apply no later than the end of semester 3 and transfer students must complete a semester at UF before they can apply.

Our primary source of students then will be those who wish to focus in the interdisciplinary area, who learn of the degree program while studying within one of our existing academic units or in one of the many academic units across campus which introduces the concept of sustainability and its underlying theories. A secondary source of students will be the fifty or so native UF students who take a design studio course and decide the design track is not for them. This degree will offer these students an alternative, providing they are focused on concerns of sustainability.

RESOURCES

Teaching

To assess the program’s impact on teaching resources, it is necessary to recap the existing and new courses that will support the program. The data from Tables 1 and 2 below were used to complete tables 3 and 4 in Appendix C of this proposal.

Table 1 Existing DCP Courses/New DCP Courses **REQUIRED** for the BSSBE

Course Number	Name	Existing or Proposed	Faculty	Credit Hours	Number of Semesters Offered per Year	Additional Faculty FTE/Yr to Support Degree	Additional GTA FTE/Yr to Support Degree
LAA 2330	Site Analysis	Existing	Linscott	3	2	.0*	.25*
DCP 3xxx	Social & Cultural Sustainability	Proposed	Williams	3	1	.0625**	0
DCP3xxx	Methods of Inquiry	Proposed	Carr	3	1	.0625**	0
DCP 3xxx	Sustainable Problem Solving	Proposed	Torres	3	1	.0625**	0
FTE Totals						.1875	.25

* Presumes new degree will capture some existing students enrolled in this course

**Based on the assumption that 50% of the class will be in the BSSBE degree and the balance will be from other majors in the college or across campus

Table 2 Existing DCP Courses/New DCP Courses that serve as **POTENTIAL TOPICAL COURSES** for the BSSBE

Course Number	Name	Existing or Proposed	Topic Course will Address	Faculty	Credit Hours	Number of Semesters Offered per Year	Additional Faculty FTE/Yr to Support Degree	Additional GTA FTE/Yr to Support Degree
BCN 1582	International Sustainable Develop.	Existing	Intro to Sustainability & Built Environment	Kiebert/Ries	3	2	.0*	.25*
DCP 1xxx	Introduction to Sustainability	Proposed	Intro to Sustainability & Built Environment	Tanzer	3	1	.0625**	.125**
ARC 1701	Survey of Arch History	Existing	History of a Built Enviro. Discipline	Staff	3	3	0***	0***
BCN 3012	History of Construction	Existing	History of a Built Enviro. Discipline	Dukes	3	4	0***	0***
IND 2100	History of Interior Des 1	Existing	History of a Built Enviro. Discipline	Hylton	3	1	0***	0***

Course Number	Name	Existing or Proposed	Topic Course will Address	Faculty	Credit Hours	Number of Semesters Offered per Year	Additional Faculty FTE/Yr to Support Degree	Additional GTA FTE/Yr to Support Degree
IND 2130	History of Interior Des 2	Existing	History of a Built Enviro. Discipline	Hylton	3	1	0***	0***
LAA 2710	History of Land Architecture	Existing	History of a Built Enviro. Discipline	Williams	3	1	0***	0***
URP 4000	Preview of Urban & Regional Planning	Existing	History of a Built Enviro. Discipline	GTA	3	3	0***	0***
DCP 4xxx	Sustainability Practicum	Proposed	Sustain. Practicum	Macedo, Acomb	6	1	.25	.25
DCP 4xxx	Field Experience in Sustainability	Proposed	Sustain. Practicum	TBD	6	2	.25	0
DCP 4xxx	Capstone Project in Sustainability	Proposed	Sustain. Capstone	Gold, Torres, Acomb, Ries	6	1	.25	0
DCP 4xxx	Independent Research in Sustainability	Proposed	Sustain. Capstone	Kuenstle Ries, Kibert	3 - 6	1	.25	0
FTE Totals							1.0625	.625

* Presumes new degree will capture some existing students enrolled in this course

** Based on the assumption that 50% of the class will be in the BSSBE degree and the balance will be from other majors in the college or across campus

*** Presumes all students in the new degree program would already be enrolled in this or a similar course, as these are large enrollment classes that serve a wide variety of students from across campus.

Table 3 Summary of Additional FTEs to Support BSSBE (from Tables 1 and 2)

	Faculty	GTA's
FTEs from Teaching Required Courses (Table 5-1)	.1875	.25
FTEs from Teaching Topical Courses	1.0625	.625
FTEs for Administration	.25	0
Totals	1.5	.875

Administration

Initially the director for the degree program will be an existing faculty member who will serve without release time. Eventually the Director will be selected from existing faculty and provided with a .25 FTE release.

Advising

Advisement will be provided by the program director and the two existing advisors located in the Dean's Office.

Space

Most courses needed to support this degree exist. Vacant seats will first be filled and then course caps will be raised to accommodate the increased demand. Two courses have excellent potential to be delivered electronically, BCN 1582 and the new Introduction to Sustainability course. Eight new courses are required for the degree program, six will require classroom space, one will require studio space and one will require students to work as interns in an off-campus setting. The classroom and studio space for the new classes will be found in areas under the control of the College at off-peak times.

Thus the new degree will require the equivalent of one and a quarter FTEs of teaching faculty support, a quarter FTE of administrative support for a faculty member and the earmarking of approximately one FTE of Graduate Teaching Assistance. Initially this support will come from within the existing College budget. The funding for faculty support will be used to buy out the time of existing faculty who wish to teach the courses that support the degree. A combination of adjunct faculty and doctoral students will be used to replace the bought out faculty. Eventually additional state and donor support will be sought to support this degree program.

CURRICULUM

The proposed Bachelor of Science in Sustainability and the Built Environment is a four year 120 credit hour limited access program of which 48 hours are required courses including a 3 credit hour capstone course, and 21 hours of approved electives. There is no other comparable degree program within the SUS.

The degree is comparable to an Interdisciplinary Studies degree and will sit at the College level. A director and BSSBE faculty council will oversee the program. A combination of existing and new courses in the College will support the degree along with a wide variety of courses from the Colleges of Liberal Arts and Sciences, Business, Agriculture and Life Sciences and Engineering. Preliminary discussions with Associate Deans from Liberal Arts and Sciences, Agriculture and Life Sciences and Business were very supportive and targeted courses are believed to have capacity for the additional students. Most departments have also been supportive of the degree.

The curriculum is described in greater detail on the following pages beginning with a summary sheet, supported by a narrative describing required courses, required topical courses and approved electives.

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 Practicum in Sustainability	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)	

Course Descriptions for Required Courses Bachelor of Science in Sustainability and the Built Environment

ECO 2013 Principles of Macroeconomics

Credits: 3.

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

ECO 2023 Principles of Microeconomics

Credits: 3.

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)

LAA 2330 Site Analysis

Credits: 3.

Inventory, analysis and evaluation of site development procedures; emphasis on landscape ecology.

DCP 3xxx Social and Cultural Aspects of Sustainability

Credits: 3

An exploration of the importance of considering the human users of the built environment when searching for sustainable solutions. Social, behavioral, and multicultural perspectives related to social sustainability will be examined.

DCP 3xxx Methods of Inquiry for Sustainability and the Built Environment

Credits: 3

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 environments.

DCP 3xxx Sustainable Problem Solving

Credits: 3

Case studies will be used to examine how sustainability can be achieved in the built environment from the choosing of materials and finishes to patterns of regional land use.

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

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

Credits: 3.

Professor Tanzer is developing this course description and syllabus. It will be submitted at a later date for approval.

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 2XXX – New Course –Environmental Ethics

Exploration of competing secular and religious views regarding human impacts on and moral responsibilities toward nature and of the key thinkers and social movements in contention over them.

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 3022 Introduction to Soils in the Environment

Credits: 3.

Fundamentals of soil science emphasizing the physical, chemical and biological properties of soils in relation to growth of native and agricultural plants and environmental uses. (P)

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.

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.

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 4554 Conservation Biology

Credits: 3; Prereq: AGR 3303 or PCB 3063, PCB 3034C, PCB 3601C, PCB 4044C or FOR 3153C, and WIS 3401.

This course is an overview of the major problems in conservation and of the biological principles and theories to preserve this diversity.

WIS 4523 Human Dimensions of Natural Resource Conservation

Credits: 3; Prereq: WIS 3401 or WIS 4554.

Local and international models are used to provide an interdisciplinary overview of the theory and practice of conservation education, environmental communication and integrated resource management and conservation.

WIS 4427C Wildlife Habitat Management

Credits: 3; Prereq: WIS 3401.

Application of land management practices and their effects on wildlife habitats in Florida.

WIS 4203C Introduction to Landscape Ecology

Credits: 3; Prereq: STA 3024 and PCB 3034C, PCB 3601C, PCB 4044C or FOR 3153C.

Central constructs and methods of landscape ecology are applied to wildlife ecology and conservation.

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.

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

Students from diverse backgrounds will engage in service learning through the development of sustainable solutions to challenges in the built environment. (UCC1 and Syllabus attached)

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;

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 BSSBE 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)

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 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.

Sustainability Capstone

DCP 4xxx Capstone Project in Sustainability

Credits: 6

Each student will undertake an individual project under the direction of a faculty member, with a focus on comprehensive solutions to a problem in sustainability. (UCC1 and Syllabus attached)

or

DCP 4xxx Independent Research in Sustainability

Credits: 6

Students will undertake an individual research project under the direction of a faculty member, with a focus on comprehensive solutions to a problem of sustainability. (UCC1 and Syllabus attached)

or

Any 6 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 BSSBE Governing Board (access to class may be subject to instructor's permission).

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

The following courses are approved electives for the BSSBE. Students may request approval for the use of other courses by applying to the Chair of the BSSBE 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 BSSBE (access may be subject to instructor's permission).

or

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

or

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

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.

Appendix A



INDIGO Internship Overview

An internship at Indigo is a unique experience unlike any that you could have anywhere in Gainesville.

Why? We are the ONLY green building materials supply store in Florida with products and business that deals directly with the green building initiatives in our area.

Who we are and what is our mission?

Indigo is not just another retail space. We consider a triple bottom line which includes: environment, community and economics. While we are committed to being the most complete source for green building products and eco-friendly household gifts in Florida, we are also committed to education and community outreach.

Furthermore, we are committed to researching and retailing innovative materials and products in the growing green building market that can lead to a healthier home/working environment, reduce carbon emissions in all phases of production and construction, and support local economies.

What skills are we looking for?

Research, cost comparison, website, outreach, green home design, green product knowledge

What skills will you walk away with?

Communication and presentation, green product knowledge and research, community networking skills and outreach coordination skills.

What experiences will you gain that you can use in your field?

Integration of green home design principles, knowledge about sustainable products on the cutting edge, and implementation of architectural design various projects for customers and the community just to name a few.

Internships applications will be accepted for part time and full time positions starting the first week of January 2008. Please submit an e-mail resume with cover letter to:

Michael Amish

mike@indigogreenstore.com

OR a paper resume can be delivered or mailed to:

Michael Amish

322 SW 4th Ave

Gainesville, FL 32601

Appendix B

Sustainability Expertise of Faculty in the College of Design, Construction and Planning Senior Faculty

Charles J. Kibert, Ph.D. – Professor, Rinker School of Building Construction

Charles J. Kibert was the Director of the Center for Construction and Environment from 1991-1999 and of the Rinker School from 1999-2002. He is a co-founder and chairman of the Cross Creek Initiative, a non-profit industry/university joint venture seeking to implement sustainability principles into construction. His research interests are: construction waste management, environmental impacts of construction, construction and demolition (C&D) debris recycling, and sustainable development and construction. He is the Coordinator of an international working group known as Task Group 16 of Conseil International du Batiment (CIB) on the subject of Sustainable Construction. Dr. Kibert teaches a newly developed graduate course on sustainable construction, and an undergraduate course on sustainability at the University of Florida, as well as continuing education courses to industry on these subjects. He organized the 1st International Conference on Sustainable Construction held in Tampa, Florida in November 1994, an event attended by 300 construction industry people from 30 countries. He also organized Green Building Materials '96 held in Gainesville, Florida in June 1996. His publications include *Construction Ecology: Nature as a Basis for Green Buildings* (2002) and *Green Building Design and Delivery* (2007).

Kim Tanzer – Professor, School of Architecture

Kim Tanzer's teaching and research focuses on the relationship between the human body and large shared spaces such as the city and the landscape, with an emphasis on creating sustainable environments. In her writing, teaching and architectural and urban design she forges connections between the phenomenal experience of space and more abstract understandings of the environment developed by architectural professionals. In addition to recent architectural projects, including the preliminary design of the Center for Women's Studies and Gender Research on the University of Florida campus and a master plan with Tina Gurucharri for Gainesville's Depot area, Tanzer has worked extensively in Gainesville's Fifth Avenue/Pleasant Street historically African-American neighborhood. For her community-based teaching, practice and service she has received local and national awards. In addition to numerous scholarly and popular articles Tanzer recently co-edited *The Green Braid: Towards an Architecture of Ecology, Economy, and Social Equity*, with Rafael Longoria, published by Routledge Press and Volume 60, Issue 4 of the *Journal of Architectural Education* entitled "Environmental Architectures and Sustainability" with Vincent Canizaro. Tanzer currently serves as the President of the Association of Collegiate Schools of Architecture, following a three year term as the Southeast Regional Director from 2000-2003. During the 2005-06 academic year she served as Chair of the University of Florida Faculty Senate, and in that capacity as a member of the University of Florida Board of Trustees. She served as a member of the Editorial Board of the *Journal of Architectural Education* from 2005-2007. Tanzer was co-founder and founding Executive Director of the Florida Community Design Center and retains a seat on the Board of Directors. She maintains a private architectural practice in Gainesville.

Martin Gold – Associate Professor, School of Architecture

Professor Gold has over ten years of experience in design, teaching and research specializing in the environmental technologies with an emphasis on infrastructural, multifamily and residential projects responsive to the climate and character of the Florida landscape. These efforts have garnered state and national design awards. He teaches graduate and undergraduate design studio, lecture and seminar courses and supervises master and doctoral projects that advance research based environmental design and sustainable methodologies with a focus on acoustics and illumination. Mr. Gold's research and practice in acoustics is nationally recognized including awards and work on a variety of project types including large scale commercial, municipal, environmental, religious and residential. He presents seminars on acoustics and sustainable design annually to professional design organizations, municipal agencies and universities.

Michael Kuenstle - School of Architecture

Michael W. Kuenstle, AIA received his Graduate Architecture degree from Columbia University in 1991 and his Bachelor of Architecture degree from the University of Houston in 1989. He served as Adjunct Associate Professor at the New York Institute of Technology from 1990 to 1993 and has served as Assistant and Associate Professor in the School of Architecture at the University of Florida since 1993. He is co-founder and principal partner in the research-based architecture firm of Clark + Kuenstle Associates, Inc. and has exhibited, published and received design awards for his building projects throughout the U.S. and Canada. He received his early technical training in the Chicago office of Skidmore, Owings and Merrill and has continued to work on projects in New York, Los Angeles, Atlanta, and Toronto and most recently in Florida where Kuenstle now practices and teaches architecture full time. His current teaching and research focus on issues related to building design principles and practices for sustainable and livable coastal communities, building aerodynamics, and school facilities design and construction in the state of Florida. He served as principle investigator for two significant funded research projects for the Florida Department of Education and is co-author of the following publications: *Education Facility Security Handbook* (2007), *Florida Building Code Handbook* (2006) and *Florida Safe School Design Guidelines* (2004). Kuenstle currently serves as State Director to the Florida Association of the American Institute of Architects.

Glenn Acomb – Lecturer, Department of Landscape Architecture

Professor Acomb joined the faculty from private practice in 2000 after having served on the Adjunct Faculty for 5 years. His scholarly interests include sustainability in site and land development, community design, and water conservation in the landscape. He is co-founder of the University of Florida's Program for Resource Efficient Communities, an IFAS Extension Service cross-discipline research group that explores sustainability in land development throughout Florida. His funded research includes the sustainable site and landscape design of the Madera Model Home for the St. Johns River Water Management District and the preparation of a collection of prototypical site and landscape designs for single-family residential lots. Professor Acomb designed the University of Florida's first green roof, atop the Charles Perry Construction Yard building in spring, 2007, through research funding from the Florida Department of Transportation.

Peggy Carr – Professor, Department of Landscape Architecture

Professor Carr is Associate Dean for Undergraduate Student and Academic Affairs of the College of Design, Construction and Planning. Her primary area of research interest is the relationship between land use change and regional conservation strategies – making land use sustainable. She is the co-author of the book *Smart Land-Use Analysis, The LUCIS Model* (2007). In the last ten years she has served as the principal investigator for projects for the U.S. Agency for International Development, U.S. Environmental Protection Agency, Florida Department of Environmental Protection, St. Johns River Water Management District, 1000 Friends of Florida, and the Florida Trail Association.

Kay Williams – Associate Professor, Department of Landscape Architecture

Professor Williams joined the faculty in 1981 with scholarly interests in cultural landscapes, cultural sustainability and history and theory of landscape architecture. She currently serves as Chair of the College of Design, Construction and Planning Faculty Council and has served the profession of landscape architecture in her capacities as Chair of the Landscape Architecture Body of Knowledge Task Force, 2000-present, Chair, of the American Society of Landscape Architects LARE Preparation Task Force (later the ASLA Committee on LARE Preparation) 1997-00, and as Chair of the Landscape Architecture Accreditation Board, from 2000-03.

Paul Zwick, Ph.D. – Professor, Department of Urban and Regional Planning

Dr. Zwick is Associate Dean for Research and Graduate Programs. His research has been directed at the design, development, and analysis of paradigms used for computer applications in Urban and Environmental Planning, and Engineering. More specifically, his research efforts have been directed at the analysis and design of dynamic models and the use of spatial analysis systems, commonly referred to as geographic information systems. For the past eight years he has been the principal or co-principal investigator for the development of an environmental geographic information system for the Florida Department of Transportation and for the Florida Geographic Data Library. The FGDL is a data library for the dissemination of GIS data to the citizens of Florida, including secondary schools, libraries, planning agencies, private corporations and businesses, and individual citizens. He is the co-author of the book *Smart Land-Use Analysis, The LUCIS Model* (2007).

Ruth Steiner, Ph.D. – Associate Professor, Department of Urban and Regional Planning

Dr. Steiner received her doctoral degree from the University of California, Berkeley. Her research and teaching areas include transportation policy and planning; land use and transportation interactions; multimodal transportation planning; growth management; transportation concurrency; pedestrian and bicycle facility design; travel behavior; travel demand management; planning research design; environmental impact assessment; and school siting. From 1990-1994, she worked as a research associate at Lawrence Berkeley National Laboratory in Berkeley, California on a project to analyze the energy consumption in the transportation sector in Organisation of Economic Co-operation and Development (OECD) countries. She is co-author of *Energy Efficiency and Human Activity: Global Trends and Prospects* (Cambridge University Press, 1992). Transportation and the infrastructure and energy demands it creates will be an important part of sustainable solutions for our communities of the future.

Junior Faculty

Robert Ries – Rinker School of Building Construction

Robert J. Ries is the Rinker Professor of Construction and Associate Director of the Powell Center for Construction and the Environment in the M. E. Rinker, Sr. School of Building Construction. Dr. Ries's primary research work is focused on improving the environmental performance of buildings and the built environment. His work includes environmental life cycle assessment (LCA) in the building domain, LCA studies of building systems, modeling construction processes, and building process modeling. His research also addresses developing LCA methodology such as incorporating optimization, managing uncertainty, and assessing impact at variable temporal and spatial scales. Recent work has been published in journals such as *Energy and Buildings*, *Building and Environment*, *Journal of Industrial Ecology*, and *the International Journal of Life Cycle Assessment*. Dr. Ries teaches courses in green design and construction and sustainable development that are both required and elective courses in the undergraduate and graduate programs in the School.

Architecture New Hire - School of Architecture

The School of Architecture is in the process of hiring a new faculty member with expertise in sustainability. This individual would be expected to enhance the College's capability in the area of sustainability and the built environment. Here is a brief job description for this position.

Technology and Sustainability

Applicants for this position must be capable of teaching environmental technology with a focus on the integration of sustainable design strategies through building environmental systems, site ecology and emergent technologies. The successful candidate is expected to advance our curriculum in the area of sustainable design; develop graduate seminars; direct Master's and PhD research; and have the experience or ability to teach design studio.

Joseli Macedo, Ph.D. – Assistant Professor, Department of Urban and Regional Planning

Dr. Macedo was trained as an architect and urbanist, and worked for several years as an architect and professional planner in the public and private sectors receiving her certification from the American Institute of Certified Planners in 1996. After earning her Ph.D. at the University of Florida, she returned to her native Brazil where she taught at two private universities, the Pontificia Universidade Católica do Paraná and the Universidade Tuiuti do Paraná, for three years. Currently, Dr. Macedo teaches studios, seminars and service learning courses at the undergraduate and graduate level community. She also serves as the Undergraduate Coordinator for her Department.

Dr. Macedo's research focuses on international development planning, sustainable cities and urban design. Her work in Latin America includes projects in housing and community development and in environmental planning. Dr. Macedo has completed several projects as a consultant, such as the Consolidated Plan for the City of Miami, Florida, and the Plan for Monitoring and Regulation of Water Supply Watersheds in the Metropolitan Region of Curitiba in Brazil. Presently, she is the Director of TROPARC – Center for Environmental Design and Planning in the Americas, and she also directs a Study Abroad program every summer in Curitiba, Brazil, a city internationally recognized for its sustainable planning practices.

Dawn Jourdan – Joint Appointment – Department of Urban and Regional Planning and College of Law

Dr. Jourdan holds a joint appointment with the Colleges of Architecture and Law at the University of Florida. Her research focuses on the impact of federal, state, and local regulation on land use decisions. Dawn's current research addresses the effectiveness of policy to create housing opportunities for the poor. A legal advocate by training, Dawn has worked with the American Planning Association and 1000 Friends of Florida, among other interest groups, to defend the principles of planning and growth management. Her expertise in land use policy is important to understanding sustainability within the regulatory context.

Maruja Torres – Associate Professor, Department of Interior Design

Dr. Torres-Antonini earned her doctorate under a Fulbright Fellowship from our College of Design, Construction and Planning at the University of Florida. She is registered to practice architecture in Venezuela by the national professional board, Colegio de Ingenieros de Venezuela. Prior to joining our faculty in the Summer of 2006, Dr. Torres-Antonini taught at Universidad Simón Bolívar in Caracas, Venezuela and at Iowa State University in Ames. Her teaching experience centers on design studio, architectural and interior design history and theory, and environmental behavior. She is a member of and ad-hoc reviewer for the Interior Designers Educators Council (IDEC) and the Housing Educators Research Association (HERA), and member of the international Environmental Design Research Association (EDRA).

Her research has addressed a range of issues at the human-environment interface, including passive solar design of vernacular buildings, gaming simulation applications for sustainability education, and environmental behavior issues of collaborative housing. Her doctoral dissertation investigated the physical and social features of cohousing as instruments for achieving a sense of community. Most recently she coordinated a two-year research extension project for the development of a historic house museum in Northern Iowa. Other research efforts, conference presentations, and publications have addressed historic house museum development, interior design pedagogy, privacy issues in cohousing communities, and the potential of cohousing to effect social change.

**TABLE 1-A
PROJECTED HEADCOUNT FROM POTENTIAL SOURCES
(Baccalaureate Degree Program)**

Source of Students (Non-duplicated headcount in any given year)*	Year 1		Year 2		Year 3		Year 4		Year 5	
	HC	FTE	HC	FTE	HC	FTE	HC	FTE	HC	FTE
Upper-level students who are transferring from other majors within the university**	5	3.75†	5	3.75	5	3.75	5	3.75	5	3.75
Students who initially entered the university as FTIC students and who are progressing from the lower to the upper level***	5	3.75	20	15	20	15	20	15	20	15
Florida community college transfers to the upper level***	4	3	4	3	4	3	4	3	4	3
Transfers to the upper level from other Florida colleges and universities***	1	0.75	1	0.75	1	0.75	1	0.75	1	0.75
Transfers from out of state colleges and universities***	0	0	0	0	0	0	0	0	0	0
Other (Explain)***Sophomore students transferring from other majors within the university	15	11.25	30	22.5	45	33.75	45	33.75	45	33.75
Totals	30	18.75	60	45	75	56.25	75	56.25	75	56.25

* List projected annual headcount of enrolled students majoring in the program.

** If numbers appear in this category, they should go DOWN in later years.

*** Do not include individuals counted in any PRIOR CATEGORY in a given COLUMN.

†FTE was calculated as follows: HCxSCHper year/40

**TABLE 1-A1
ANTICIPATED STUDENT COHORTS**

	Year 1 HC	Year 2 HC	Year 3 HC and Beyond
FTIC	0	0	0
Sophomore	15	15	15
Junior	15	30	30
Senior	0	15	30
Total	30	60	75

**TABLE 2
PROJECTED COSTS AND FUNDING SOURCES**

Instruction & Research Costs (non-cumulative)	Year 1					Year 5					Subtotal E&G and C&G
	Funding Source					Funding Source					
	Reallocated Base* (E&G)	Enrollment Growth (E&G)	Other New Recurring (E&G)	New Non- Recurring (E&G)	Contracts & Grants (C&G)	Continuing Base** (E&G)	New Enrollment Growth (E&G)	Other*** (E&G)	Contracts & Grants (C&G)		
Faculty Salaries and Benefits	0	0	0	0	0	\$0	60,000	0	0	0	\$60,000
A & P Salaries and Benefits	0	0	0	0	0	\$0	0	0	0	0	\$0
USPS Salaries and Benefits	0	0	0	0	0	\$0	0	0	0	0	\$0
Other Personnel Services	0	0	0	0	0	\$0	0	0	0	0	\$0
Assistantships & Fellowships	0	0	0	0	0	\$0	30,000	0	0	0	\$30,000
Library	0	0	0	0	0	\$0	0	0	0	0	\$0
Expenses	0	0	0	0	0	\$0	0	0	0	0	\$0
Operating Capital Outlay	0	0	0	0	0	\$0	0	0	0	0	\$0
Special Categories	0	0	0	0	0	\$0	0	0	0	0	\$0
Total Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$90,000	\$0	\$0	\$0	\$90,000

*Identify reallocation sources in Table 3.

**Includes recurring E&G funded costs ("reallocated base," "enrollment growth," and "other new recurring") from Years 1-4 that continue into Year 5.

***Identify if non-recurring.

Faculty and Staff Summary	Calculated Cost per Student FTE			
	Year 1	Year 5	Year 1	Year 5
Total Positions (person-years)	0	1.5		
Faculty			Total E&G Funding	\$0
A & P	0	0	Annual Student FTE	18.75
USPS	0	0	E&G Cost per FTE	\$0
				\$1,600

**TABLE 3
ANTICIPATED REALLOCATION OF EDUCATION & GENERAL FUNDS**

Program and/or E&G account from which current funds will be reallocated during Year 1	Base before reallocation	Amount to be reallocated	Base after reallocation
Graduate Teaching Assistantships*	0	0	\$0
1.5 FTE New Faculty Line**	0	0	\$0
Totals	\$0	\$0	\$0

*Support for Graduate Teaching Assistantships will not be reallocated, only earmarked.

** The new money needed to support the equivalent of 1.5 FTE is estimated to be \$90,000.

**TABLE 4
ANTICIPATED FACULTY PARTICIPATION***

Faculty Code	Faculty Name or "New Hire" Highest Degree Held Academic Discipline or Speciality	Rank	Contract Status	Initial Date for Participation in Program	Mos. Contract Year 1	FTE Year 1	% Effort for Prg. Year 1	PY Year 1	Mos. Contract Year 5	FTE Year 5	% Effort for Prg. Year 5	PY Year 5
A	Kim Tanzer (Intro to Sustain.) Architecture	Professor	Tenure	Fall 2009	9	1.00	0.06	0.00	9	1.00	0.06	0.06
A	Kay Williams (Cultural. Sustain.) Landscape Architecture	Asso. Prof.	Tenure	Fall 2009	9	1.00	0.06	0.00	9	1.00	0.06	0.06
A	Maruja Torres (Sust. Prob. Solv.) Interior Design	Asst. Prof.	Tenure	Fall 2009	9	1.00	0.06	0.00	9	1.00	0.06	0.06
A	Peggy Carr (Methods of Inq) Landscape Architecture	Professor	Tenure	Spring 2010	12	1.00	0.06	0.00	12	1.00	0.06	0.06
A	Sustainability Practicum TBD	TBD	TBD	Fall 2010	0	0.00	0.00	0.00	9	1.00	0.25	0.25
A	Field Experience in Sustainability TBD	TBD	TBD	Fall 2010	0	0.00	0.00	0.00	9	1.00	0.25	0.25
A	Capstone in Sustainability TBD	TBD	TBD	Spring 2011	0	0.00	0.00	0.00	9	1.00	0.25	0.25
A	Ind Research in Sustainability TBD	TBD	TBD	Spring 2011	0	0.00	0.00	0.00	9	1.00	0.25	0.25
A	Degree Director TBD	TBD	TBD	Fall 2008	0	0.00	0.00	0.20	9	1.00	0.25	0.25
Total Person-Years (PY)								0.00				1.49

Faculty Code	Source of Funding	PY Workload by Budget Classification	
		Year 1	Year 5
A	Existing faculty on a regular line	0.20	1.49
B	New faculty to be hired on a vacant line	0.00	0.00
C	New faculty to be hired on a new line	0.00	0.00
D	Existing faculty hired on contracts/grants	0.00	0.00
E	New faculty to be hired on contracts/grants	0.00	0.00
Overall Totals for		Year 1 0.20	Year 5 1.49

*Please refer to Tables 5-1 thru 5-3 in the Preproposal for further explanation