Undergraduate Academic Assessment Plan 2012-13

Sustainability and the Built Environment

College of Design, Construction & Planning

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Sustainability and the Built Environment College of Design, Construction and Planning Undergraduate Academic Assessment Plan

Mission Statement

To provide a globally recognized undergraduate program that emphasizes the theory and principles of sustainability and their relationship to the planning, design, construction, and management of the built environment. The degree will allow students to focus on creative solutions to the challenges of building in a world with limited supplies of energy, water and land through hands-on sustainable problem solving both inside and outside of the classroom.

The mission of the program aligns with one of the goals of the College adopted in its 2007 Strategic Plan that states "the College will assume a leadership role at the University of Florida and at the national level in offering courses and programs dealing with sustainability." Among the strategies for accomplishing this goal was the creation of this degree program.

The mission also aligns with the 2007 Strategic Work Plan of the University which placed 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, program is 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.

Student Learning Outcomes (SLOs)

- 1. Demonstrate knowledge of sustainability principles.
- 2. Demonstrate knowledge of research methodologies for the built environment disciplines.
- 3. Demonstrate knowledge in the areas of resource economics, ecology, social and cultural sustainability, ethics and sustainability, and energy and sourcing as they link to climate.
- 4. Demonstrate appropriate level of critical thinking for analysis in decision making: Synthesize information from multiple sources in solving problems for the built environment and apply principles and theories of sustainability to problems in the built environment.
- 5. Demonstrate ability to utilize effective oral communications.
- 6. Demonstrate ability to utilize effective written communications.
- 7. Demonstrate ability to publicly present ideas and solutions to problems in the built environment.
- 8. Demonstrate ability to use a variety of appropriate methods to communicate ideas and solutions graphically.

Curriculum Map

Sustainability and the Built Environment College of Design, Construction & Planning

Reinforced

Key: <u>I</u>ntroduced

<u>A</u>ssessed

Courses	DCP3200	DCP3210	DCP3220	DCP4290	DCP4910	DCP4941	DCP4942	Ethics and Environmental	Additional Assessments	Additional Assessments	Additional Assessments
SLOs								Justice*	Energy and/ or Climate Change course*	Resource Economics course*	Ecology for the Built Environment course*
Content Knowledge											
#1		Ι	R	A Capstone Evaluation	A Final Project Evaluation	R	R				
#2	Ι	R	R	A Capstone Evaluation	A Final Project Evaluation						
#3		R	R	A Capstone Evaluation	A Final Project Evaluation	R	R	IR	IR	IR	IR
Critical Thinking											
#4		Ι	Ι	A Capstone Evaluation	A Final Project Evaluation	R	R				
Communication											
#5		Ι	Ι	A Capstone Evaluation	A Final Project Evaluation	R					
#6	IR	R	R	A Capstone Evaluation	A Final Project Evaluation		R				
#7		Ι	Ι	A Capstone Evaluation	A Final Project Evaluation	R					
#8		Ι	Ι	A Capstone Evaluation	A Final Project Evaluation	R					

• *Student choose from the following courses: <u>https://catalog.ufl.edu/ugrad/current/design/majors/sustainability-and-the-built-environment.aspx</u>

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Assessment Cycle

All SLOs will be assessed each year.

Assessment Cycle Chart

Assessment Cycle for:	
Sustainability and the Built Environment	College of Design, Construction & Planning
Analysis and Interpretation:	October - November
Improvement Actions:	January - March
Dissemination:	April - May

	Year	11-12	12-13	13-14	14-15	15-16	16-17
SLOs							
Conte	nt Knowledge						
1.	Demonstrate knowledge of sustainability principles.	Х	Х	Х	Х	Х	Х
2.	Demonstrate knowledge of research methodologies for the built environment disciplines.	Х	Х	Х	Х	Х	Х
3.	Demonstrate knowledge in the areas of resource economics, ecology, social and cultural sustainability, ethics and sustainability, and energy and sourcing as they link to climate.	Х	Х	Х	Х	Х	Х
Critica	al Thinking						
4.	Demonstrate appropriate level of critical thinking for analysis in decision making: Synthesize information from multiple sources in solving problems for the built environment and apply principles and theories of sustainability to problems in the built environment.	Х	Х	Х	Х	Х	Х
Comm	unication						
5.	Demonstrate ability to utilize effective oral communications.	Х	Х	Х	Х	Х	Х
6.	Demonstrate ability to utilize effective written communications.	Х	Х	Х	Х	Х	Х
7.	Demonstrate ability to publicly present ideas and solutions to problems in the built environment.	Х	Х	Х	X	Х	Х
9.	Demonstrate ability to use a variety of appropriate methods to communicate ideas and solutions graphically.	Х	Х	X	X	X	Х

Methods and Procedures

The primary assessment tool to be used for the Sustainability and Built Environment program is the capstone/independent study project undertaken by each student. Each student is required to do one of these courses in their final semester. They are required to make a mid-term presentation, a final presentation and must submit a comprehensive paper, properly referenced describing their independent effort.

A student survey administered during their final semester will be used to assess their perceptions of their educational experience.

Faculty who teach in the Sustainability and the Built Environment program, outside guests and members of the Governing Board attend the final presentation and during/after the presentation they evaluate each student's proficiency vis a vis each student learning outcome using a Likert scale. These data sets are collected each semester and summarized to provide basic statistical results by cohort.

The results are reviewed by the Governing Board and modifications of curriculum content are discussed and implemented as needed.

A copy of the assessment form used for capstone/independent study projects is in Figure 1.

Figure 1: Assessment Form Used for Capstone/Independent Study Projects

Bachelor of Sustainability and the Built Environment Capstone Evaluation Form

Student Name					
Please rate the student work using the criteria below. The indicators under the main headings are not to be individually assessed; they are merely there to help you evaluate the overall competence of that specific concern. The work you are seeing is that of graduating seniors, so please evaluate them as you would a job applicant. Please indicate your assessment of each area detailed below by checking the appropriate letter(s).	Exceeds Expectations	Very Good	Good	Average	Inadequate
KNOWLEDGE OF SUSTAINABILITY	5	4	3	2	1
1. Explain sustainability principles.					
 Integrate knowledge and principles from sustainability-related disciplines. 					
3. Describe the role of the built environment in sustainability					
4. Combine information from multiple sources to solve problems.					
CRITICAL THINKING SKILLS	5	4	3	2	1
Frame sustainable problems and potential solutions within a global context.					
6. Collect and analyze data to solve problems.					
7. Produce sustainable solutions for problems of the built environment.					
8. Integrate multiple disciplinary, cultural, and stakeholder perspectives for sustainable problem solving.					
COMMUNICATION SKILLS	5	4	3	2	1
9. Produce an effective oral presentation.					
10. Produce effective written communications.					
11. Integrate a variety of visual techniques to enhance the communication of ideas and solutions.					

Assessment Oversight

Name	Department Affiliation	Email Address	Phone Number
Peggy Carr (Interim	Design, Construction &	<u>mcarr@ufl.edu</u>	352 392-4836 x308
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	Architecture & Urban		
Are decours March la	Planning	and a da	252 202 4026 201
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(Director of Student	Deen		
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	Communities, College		
	of Agriculture and Life		
	Sciences		