GEODESIGN

The Bachelor of Science in Sustainability and the Built Environment (BSSBE) enables students to explore creative solutions for the planning, design and construction of human structures and settlements.

About this Program

- **College:** Design, Construction and Planning (http://catalog.ufl.edu/UGRD/colleges-schools/UGDCP/)
- **Degree:** Bachelor of Science in Sustainability and the Built Environment
- **Specializations:** Interdisciplinary (http://catalog.ufl.edu/UGRD/colleges-schools/UGDCP/SUB_BSUB_BSUB01/SUB_BSUB/) | Geodesign (p. 1)
- **Credits for Degree:** 120
- **Contact:** Email (advising@dcp.ufl.edu?Subject=Sustainability%20and%20the%20Built%20Environment%20Major)

To graduate with this major, students must complete all university, college, and major requirements.

Department Information

The Sustainability and the Built Environment (SBE) Program at the College of Design, Construction and Planning teaches hands-on sustainability by using the university as a learning laboratory.
Website (https://dcp.ufl.edu/sustainability/)

CONTACT

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ARCHITECTURE BUILDING
GAINESVILLE FL 32611-5701
Map (http://campusmap.ufl.edu/#/index/0268)

Curriculum

- Sustainability and the Built Environment
- Sustainability and the Built Environment Minor

The Bachelor of Science in Sustainability and the Built Environment (BSSBE) concentrates on sustainability from an interdisciplinary lens that enables students to explore creative solutions for the planning, design, construction, and operations of human structures and settlements. Environmental policies, ethics, ecology, landscape architecture, economics, natural resources, sociology, and anthropology are an integral part of the BSSBE program.

Whether it is planning, 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. This program requires students to demonstrate an understanding of the relationship between the goals of sustainability and the activities of the built environment disciplines, including architecture, building construction, historic preservation, interior design, landscape architecture, and urban and regional planning. The degree program is supported by the globally recognized expertise in sustainability of the faculty in the College of Design, Construction and Planning and from across campus.

Graduates will have opportunities for work in various industries including public, private, and NGOs promoting the principles of sustainability. Additionally, students will be prepared to enter graduate school in architecture, building construction, historic preservation, interior design, landscape architecture and urban and regional planning.

Field trips to broaden and expand students' educational experiences through study of planning, design, construction, and sustainability projects are required and will be paid for by students.

Transfer Students

Transfer students must complete their AA degree and these courses with minimum grades of C:

- MAC 1147 or (MAC 1140 and MAC 1114)
- STA 2023
- ECO 2013
- ECO 2023

Transfer students must also have a 3.0 minimum overall GPA. Refer to the admissions website for transfer admission information, application deadlines, and the online application.
More Info (https://dcp.ufl.edu/admissions/)

Specializations

Geodesign

The geodesign specialization is for students interested in the application of geographic information systems in the sustainable design of the built environment.

Interdisciplinary

The interdisciplinary specialization is for students who want a general degree that emphasizes the importance of sustainability for all of the built environment fields.

Coursework for the Major

All students, regardless of specialization, are required to take 53 credits of core courses to develop knowledge of the fundamental concepts for sustainability and the built environment.

Students should meet with an advisor as early as possible in their academic careers to choose their specialization and to plan their course of study.

Core Courses

Code	Title	Credits
Select one:		3
BCN 1582	International Sustainable Development	
IDS 2935	Special Topics (Facets of Sustainability)	
ECO 2023	Principles of Microeconomics	4
ECO 2013	Principles of Macroeconomics	4
A history course in architecture, construction management, interior design, landscape architecture, or urban and regional planning		
LAA 1330	Site Analysis	3
STA 2023	Introduction to Statistics 1	3
DCP 3210	Sustainable Solutions for the Built Environment	3
DCP 3220	Social and Cultural Sustainability and the Built Environment	3
An approved ecology and the built environment course		
An approved ethics and/or environmental justice course		
An approved energy and/or climate change course		
An approved resource economics course		
DCP 3200	Methods of Inquiry for Sustainability and the Built Environment	3
DCP 4941	Practicum in Sustainability and the Built Environment	6
or DCP 4942	Field Experience in Sustainability and the Built Environment	
DCP 4290	Capstone Project in Sustainability and the Built Environment	6
Total Credits		**38**

Critical Tracking

Critical Tracking records each student's progress in courses that are required for progress toward each major. Please note the critical-tracking requirements below on a per-semester basis.

Equivalent critical-tracking courses as determined by the State of Florida Common Course Prerequisites (https://cpm.flvc.org/advance-search/) may be used for transfer students.

Semester 1

- Complete BCN 1582 with minimum grade of C
- Complete DCP 1010, DCP 1003, and LAA 1330 with minimum grades of C
- Complete MAC 1147 or (MAC 1140 and MAC 1114)
- 2.00 UF GPA required

Semester 2

- Complete ARC 1701 or ARC 1720 or BCN 1010 or IND 2100 or IND 2130 or LAA 2710 or URP 4000 with minimum grade of C
- Complete ECO 2023 with minimum grade of C
- 2.50 UF GPA required

Semester 3

- Complete DCP 2001 with minimum grade of C
- Complete ECO 2013 with minimum grade of C
- Complete STA 2023
- 2.75 UF GPA required

Semester 4

- Complete DCP 2002 with minimum grade of C
- Complete ENC 2256 with minimum grade of C
- 3.0 UF GPA required

Semester 5

- Complete DCP 3210 with minimum grades of C
- Complete one: AEB 4126, REL 2104, or REL 3492 with minimum grade of C
- Complete GEO 3162C with minimum grade of C
- 3.0 UF GPA required

Semester 6

- Complete DCP 3220

Semester 7

- Complete DCP 3200

Semester 8

- Complete DCP 4290

Model Semester Plan

To remain on track, students must complete the appropriate critical-tracking courses, which appear in bold. These courses must be completed by the terms as listed above in the Critical Tracking criteria.

This semester plan represents an example progression through the major. Actual courses and course order may be different depending on the student's academic record and scheduling availability of courses. Prerequisites still apply.

Students will not be required to take more credits than required in semesters with less than 3 credits in electives. DCP advisors have a list of 1 and 2 credit electives in which students may enroll.

Course	Title	Credits
Semester One		
Quest 1 (Gen Ed Humanities)		3
BCN 1582	International Sustainable Development (**Critical Tracking**; Gen Ed Social and Behavioral Sciences and International)	3
DCP 1003	Creating our Built Environment	1
DCP 1010	Geodesign Colloquium	1
LAA 1330	Site Analysis	3
MAC 1147	Algebra and Trigonometry (**Critical Tracking**; State Core Gen Ed Mathematics)	4
	Credits	**15**
Semester Two		
Select one history of a built environment course:		3
ARC 1701	Survey of Architectural History 1 (**Critical Tracking**; Gen Ed Humanities and International)	
ARC 1720	Survey of Architecture History (**Critical Tracking**; Gen Ed Humanities and International)	
BCN 1010	History of Construction (**Critical Tracking**; Gen Ed Humanities and International)	
IND 2100	History of Interior Design 1 (**Critical Tracking**; Gen Ed Humanities)	
IND 2130	History of Interior Design 2 (**Critical Tracking**; Gen Ed Humanities)	
LAA 2710	History of Landscape Architecture (**Critical Tracking**; Gen Ed Humanities and International)	
DCP 1241	Introduction to Sustainability and the Built Environment: Managing Wicked Problems in Space and Time	3
ECO 2023	Principles of Microeconomics (**Critical Tracking**; Gen Ed Social and Behavioral Sciences)	4
ENC 1101	Expository and Argumentative Writing (Gen Ed Composition)	3

Elective (lower-division)		2
	Credits	**15**
Semester Three		
DCP 2001	Introduction to GIS I	3
ECO 2013	Principles of Macroeconomics (**Critical Tracking**; State Core Gen Ed Social and Behavioral Sciences)	4
GEO 2200	Dynamic Planet Earth (Gen Ed Physical Sciences)	3
STA 2023	Introduction to Statistics 1 (**Critical Tracking**; Gen Ed Mathematics)	3
Elective (1000/2000 level)		2
	Credits	**15**
Semester Four		
Quest 2		3
DCP 2002	Introduction to GIS II	3
ENC 2256	Writing in the Disciplines (State Core Gen Ed Composition (http://catalog.ufl.edu/UGRD/academic-programs/general-education/#genedcoursestext))	3
State Core Gen Ed Biological or Physical Sciences (http://catalog.ufl.edu/UGRD/academic-programs/general-education/#genedcoursestext)		3
State Core Gen Ed Humanities (http://catalog.ufl.edu/UGRD/academic-programs/general-education/#genedcoursestext)		3
	Credits	**15**
Semester Five		
DCP 3210	Sustainable Solutions for the Built Environment (**Critical Tracking**)	3
Select one ethics and environmental justice course:		3
AEB 4126	Agricultural and Natural Resource Ethics (**Critical Tracking**)	
REL 2104	Environmental Ethics (**Critical Tracking**)	
REL 3492	Religion Ethics and Nature (**Critical Tracking**)	
GEO 3162C	Introduction to Quantitative Analysis for Geographers	4
Select one resource economics course:		3
AEB 2451	Economics of Resource Use (**Critical Tracking**)	
AEB 3450	Introduction to Natural Resource and Environmental Economics (**Critical Tracking**)	
AEB 4283	International Development Policy (**Critical Tracking**)	
FNR 4080	Sustainable Ecotourism Development (**Critical Tracking**)	
GEO 2500	Global and Regional Economies (**Critical Tracking**)	
URP 4230	3D Modeling, Visualization, and Simulation	3
	Credits	**16**
Semester Six		
DCP 3220	Social and Cultural Sustainability and the Built Environment (**Critical Tracking**)	3
Select one ecology for the built environment course:		3
FNR 4304C	Urban Forestry	
SWS 2007	The World of Water	
SWS 2008	Land and Life	
WIS 4203C	Landscape Ecology and Conservation	
WIS 4427C	Wildlife Habitat Management	
WIS 4523	Human Dimensions of Natural Resource Conservation	
URP 4283	Automation for Geospatial Modeling and Analysis	3
Approved electives		6
	Credits	**15**
Semester Seven		
DCP 3200	Methods of Inquiry for Sustainability and the Built Environment (**Critical Tracking**)	3
DCP 4945	Geodesign Practicum I	5
Approved elective		3
Elective (3000/4000 level)		3
	Credits	**14**
Semester Eight		
DCP 4290	Capstone Project in Sustainability and the Built Environment (**Critical Tracking**)	6
Approved electives		6
Elective (3000/4000 level)		3
	Credits	**15**
	Total Credits	**120**

Approved Electives

Electives

Code	Title	Credits
BCN 1582	International Sustainable Development	3
DCP 3200	Methods of Inquiry for Sustainability and the Built Environment	3
DCP 3210	Sustainable Solutions for the Built Environment	3
DCP 3220	Social and Cultural Sustainability and the Built Environment	3
ECO 2013	Principles of Macroeconomics	4
ECO 2023	Principles of Microeconomics	4
ENC 2256	Writing in the Disciplines	3
LAA 1330	Site Analysis	3
MAC 1147	Algebra and Trigonometry	4
STA 2023	Introduction to Statistics 1	3

History

Code	Title	Credits
ARC 1720	Survey of Architecture History	3
BCN 1010	History of Construction	3
IND 2100	History of Interior Design 1	3
IND 2100	History of Interior Design 1	3
LAA 2710	History of Landscape Architecture	3
URP 4000	Preview of Urban and Regional Planning	3

Ethics Requirement

Code	Title	Credits
ARC 1000	Architecture + Humanity	3
AEB 4126	Agricultural and Natural Resource Ethics	3
DCP 4930	Special Topics of Design, Construction and Planning	1-6
DCP 4930	Special Topics of Design, Construction and Planning (Community Resilience)	1-6
PHI 2631	Ethics and Innovation	3
PHI 3681	Ethics, Data, and Technology	3
PSY 3626	Psychology of Sustainability	3
REL 2104	Environmental Ethics	3

Resource Economics

Code	Title	Credits
AEB 2451	Economics of Resource Use	3
AEB 3450	Introduction to Natural Resource and Environmental Economics	3
AEB 4283	International Development Policy	3
FOR 4664	Sustainable Ecotourism Dev	
GEO 2500	Global and Regional Economies	3

Energy and Climate Change

Code	Title	Credits
AGG 3501	Environment, Food and Society	3
AOM 2520	Global Sustainable Energy: Past, Present and Future	3
ARC 4930	Special Topics Seminar in Architecture (Architecture and Climate)	1-6
BCN 1210	Construction Materials	3
BCN 4594	Building Energy Modeling	3
IDS 2935	Special Topics (Energy and Society)	1-3
WOH 3404	Global History of Energy	3

Other Approved Electives

Code	Title	Credits
AEB 2451	Economics of Resource Use	3
AEB 4126	Agricultural and Natural Resource Ethics	3
AEB 4283	International Development Policy	3
ANT 4403	Environment and Cultural Behavior	3
AOM 2520	Global Sustainable Energy: Past, Present and Future	3
ARC 1000	Architecture + Humanity	3

ARC 4882	Vernacular Architecture and Sustainability	3
BCN 1210	Construction Materials	3
BCN 1251C	Construction Drawing	3
BCN 4105	Sustainable Housing: Putting the 3 E's into Residential Practice	3
BCN 4594	Building Energy Modeling	3
DCP 1241	Introduction to Sustainability and the Built Environment: Managing Wicked Problems in Space and Time	3
DCP 4000	Overview of Historic Preservation	3
DCP 4214	Green Building Strategies	6
DCP 4215	Leadership in Sustainability	3
DCP 4216	WELL Building Strategies (WELL Practicum)	6
DCP 4300	AI in the Built Environment	3
DCP 4930	Special Topics of Design, Construction and Planning (Community Resilience)	1-6
DCP 4930	Special Topics of Design, Construction and Planning (Economics of Sustainability)	1-6
EEL 3872	Artificial Intelligence Fundamentals	3
EES 4050	Environmental Planning and Design	3
FNR 4660	Natural Resource Policy and Economics	3
FNR 3004	Forests, Conservation, and People	3
FNR 3500C	Forest Ecology	3
FNR 4510	Global Forests	3
GEO 2500	Global and Regional Economies	3
GEO 3372	Conservation of Resources	3
LAA 1920	Introduction to Landscape Architecture	3
LAA 3230	Theories of Landscape Architecture	3
PSY 3626	Psychology of Sustainability	3
REL 3492	Religion Ethics and Nature	3
SWS 2007	The World of Water	3
SWS 2008	Land and Life	3
URP 2001	Comparative Urbanization	3
URP 4000	Preview of Urban and Regional Planning	3
URP 4230	3D Modeling, Visualization, and Simulation	3
URP 4273	Survey of Planning Information Systems	3
URP 4640	Sustainable Urbanism in Europe	3
URP 4744	Neighborhood Planning	3
URP 4804	International Perspectives in Urban and Regional Planning	3
URP 4882	Defensible Space and CPTED in Urban Design	3
WIS 2552	Biodiversity Conservation: Global Perspectives	3
WIS 4203C	Landscape Ecology and Conservation	3
WIS 4523	Human Dimensions of Natural Resource Conservation	3
WIS 4427C	Wildlife Habitat Management	3

Geodesign

Code	Title	Credits
DCP 1241	Introduction to Sustainability and the Built Environment: Managing Wicked Problems in Space and Time	3
DCP 2001	Introduction to GIS I	3
DCP 2002	Introduction to GIS II	3
DCP 4945	Geodesign Practicum I	5
URP 4230	3D Modeling, Visualization, and Simulation	3
URP 4905	Exploration and Directed Study	1-3

Ecology

Code	Title	Credits
FNR 4304C	Urban Forestry	3
LAA 1920	Introduction to Landscape Architecture	3
SWS 2007	The World of Water	3
SWS 2008	Land and Life	3
WIS 4203C	Landscape Ecology and Conservation	3
WIS 4427C	Wildlife Habitat Management	3
WIS 4523	Human Dimensions of Natural Resource Conservation	3

Academic Learning Compact

The Bachelor of Science in Sustainability and the Built Environment requires students to demonstrate an understanding of the relationship between the goals of sustainability and the activities of the built environment disciplines, including architecture, building construction, historic preservation, interior design, landscape architecture, and urban and regional planning.

Before Graduating Students Must

- Complete a capstone or independent research project, present the results to a committee of the program's faculty, and receive acceptable assessment.
- Complete requirements for the baccalaureate degree, as determined by faculty.

Students in the Major Will Learn to

Student Learning Outcomes | SLOs

Content

1. Explain sustainability principles.
2. 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

5. 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

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.
12. Solve a built environment sustainability problem in a multidisciplinary team.

Curriculum Map

I = Introduced; R = Reinforced; A = Assessed

Courses	SLO 1	SLO 2	SLO 3	SLO 4	SLO 5	SLO 6	SLO 7	SLO 8	SLO 9	SLO 10	SLO 11	SLO 12
DCP 3200				I, R		I, R			I, R	I, R		
DCP 3210	I		I	I, R	I, R	I, R	I, R		I, R		I, R	
DCP 3220	R		R	R	R	R	R	I, R	R	R	R	I, R, A
DCP 4290	A	A	A	A	A	A	A	A	A	A	A	
DCP 4910	A	A	A	A	A	A	A	A	A	A	A	
DCP 4941	R		R	R	R	R	R	R	R		R	
DCP 4942	R		R	R					R			
Approved Electives[1]		R	R									
Ecology for the Built Environment (one course)[1]		I, R										
Energy and/or Climate Change (one course)[1]		I, R										

Ethics and Environmental Justice (one course)[1]	I, R
Resource Economics (one course)[1]	I, R

[1] Student chooses from courses listed in semesters 5-7 of the major's semester plan.

Assessment Types

- Capstone evaluation
- Final project evaluation