

SUSTAINABLE CONSTRUCTION

Program Information

The Major in Sustainable Construction inside of the a Master of Science in Construction Management degree will prepare students to effectively contribute to the design and construction of a high performance built environment comprised of green, energy-efficient buildings, renewable energy systems, and efficient infrastructure. Its objectives are to address:

1. Issues of resource efficiency, waste, human health, ecological economics, ethics, environmental justice, and industrial ecology;
2. Alternative practices that can significantly reduce the environmental impacts of the built environment, and
3. Exploring past and present thinking by leading theorists and practitioners in this newly emerging discipline.

The resulting degree awarded upon successful completion of the program will be a Master of Science in Construction Management (thesis) with a Major in Sustainable Construction.

In addition to writing a sustainability themed thesis, students must complete the following coursework:

Code	Title	Credits
BCN 6580	High-Performance Green Building Delivery Systems	3
BCN 6585	Sustainable Construction	3
BCN 6586	Construction Ecology and Metabolism	3
BCN 6641	Construction Value Engineering	3

Degrees Offered

Degrees Offered with a Major in Sustainable Construction

- Master of Science in Construction Management

Requirements for these degrees are given in the Graduate Degrees (<http://catalog.ufl.edu/graduate/degrees/>) section of this catalog.

Courses

Construction Management Departmental Courses

Code	Title	Credits
BCN 5470	Construction Methods Improvements	3
BCN 5618C	Comprehensive Estimating	3
BCN 5625	Construction Cost Analysis	3
BCN 5705C	Project Management for Construction	3
BCN 5715	Advanced Construction Labor Problems	3
BCN 5722	Advanced Construction Planning and Control	3
BCN 5729	Design-Build Delivery Methods	3
BCN 5737	Advanced Issues in Construction Safety and Health	3
BCN 5776	International Construction Business Management	3
BCN 5778	Facilities Operation and Maintenance	3
BCN 5789C	Construction Project Delivery	3

BCN 5874	Equipment and Methods for Heavy Construction	3
BCN 5885	Methods and Management for Heavy Construction	3
BCN 5905	Special Studies in Construction	1-5
BCN 5949	Graduate Construction Management Internship	1-3
BCN 5957	Advanced International Studies in Construction	1-4
BCN 6036	Research Methods in Construction	3
BCN 6558C	Building Integrated Renewable Energy Systems	3
BCN 6580	High-Performance Green Building Delivery Systems	3
BCN 6583	Sustainable Housing	3
BCN 6584C	Building Energy Modeling	3
BCN 6585	Sustainable Construction	3
BCN 6586	Construction Ecology and Metabolism	3
BCN 6641	Construction Value Engineering	3
BCN 6748	Construction Law	3
BCN 6785	Construction Information Systems	3
BCN 6905	Directed Independent Study in Construction	1-3
BCN 6933	Advanced Construction Management	1-5
BCN 6940	Supervised Teaching	1-3
BCN 6971	Research for Master's Thesis	1-15
BME 6585C	Bldg Energy Modeling	3
FES 6705	Communications in Emergency Management	3
FES 6724	Fire and Emergency Services Response Planning	3
FES 6726	Hazard Mitigation and Preparedness	3
FES 6735	International Emergency/Disaster Management	3
FES 6736	Homeland Security and Emergency Management	3
FES 6786	Research Methods in FES	3
FES 6806	Disaster Response and Recovery	3
FES 6826	Emergency Services - Disaster Planning	3
FES 6827	Business Continuity and Disaster Planning	3
FES 6836	Impacts of Natural and Man-made Disasters on Buildings	3
FES 6916	Research for Master's Report	3
FES 6940	Practicum in FES	1-3
FES 6971	Research for Master's Thesis	1-6
ICM 5905	Special Studies	1-3
ICM 6420	Commercial Management and Cost Control	3
ICM 6440	Construction Value Management	3
ICM 6642	Lean for Construction	1-3
ICM 6680	Principles of International Sustainable Construction	3
ICM 6682	Construction Ecology and Metabolism	3
ICM 6684	High-Performance Green Building Delivery Systems	3
ICM 6710	Construction Human Resource Management	3
ICM 6716	Construction Productivity and Methods Improvement	3
ICM 6750	Managing Construction Information Technology	3
ICM 6761	Advanced Planning, Scheduling, and Logistics	3
ICM 6762	Construction Risk Management	3
ICM 6770	Advanced Project Safety Management	3
ICM 6775	Manufactured Construction Processes	3

ICM 6905	Directed Independent Study in International Construction	1-3
ICM 6910	Supervised Research	1-3
ICM 6930	Construction Communication and Research	3
ICM 6934	International Construction Research	1-6

College of Design, Construction, and Planning Courses

Code	Title	Credits
DCP 6205	Ecological Issues in Sustainability and the Built Environment	3
DCP 6212	Sustainable Design Issues: Ecology, Architecture, and Planning	4
DCP 6218	Developing Sustainable Projects	3
DCP 6230	Integrated Sustainable Development Studio	6
DCP 6301	Sustainable Planning and Design Studio	6
DCP 6701	World Heritage Research and Stewardship	3
DCP 6710	History and Theory of Historic Preservation	3
DCP 6711C	Built Heritage: History and Materials Conservation I	3
DCP 6712C	Built Heritage: History and Materials Conservation II	3
DCP 6714C	Built Heritage Documentation I	3
DCP 6715	Built Heritage Documentation II	3
DCP 6716	Cultural Resource Management	3
DCP 6730	Preservation Policy	3
DCP 6905	Independent Study	1-3
DCP 6931	Special Topics in Design, Construction, and Planning	1-4
DCP 6943	Cultural Resource Survey	3
DCP 6971	Research for Master's Thesis	1-9
DCP 6979	Master's Research Project	1-6
DCP 7790	Doctoral Core 1: Paradigms and Theories of Inquiry	3
DCP 7794	Doctoral Core 4: Research Assessment and Professional Preparation	1
DCP 7911	Doctoral Core 2: Foundations of Research Design and Methodologies	3
DCP 7940	Supervised Teaching	1-3
DCP 7949	Professional Internship	1-5
DCP 7979	Advanced Research	1-12
DCP 7980	Research for Doctoral Dissertation	1-15

SLO 3 Develop and apply research methods to solve problems and generate new knowledge
Thesis Defense: 100% of students earn an average Rating of 3 or higher, 80% of students will earn a 4 or higher, from their committee members as recorded on the Thesis Defense Assessment Rubric

SLO 4 Communicate effectively in writing
Thesis Defense: 100% of students earn an average Rating of 3, 80% of students will earn a 4 or higher, or higher from their committee members as recorded on the Thesis Defense Assessment Rubric

SLO 5 Communicate effectively in professional situations
Thesis Defense: 100% of students earn an average Rating of 3, 80% of students will earn a 4 or higher, or higher from their committee members as recorded on the Thesis Defense Assessment Rubric

Student Learning Outcomes

M.E. Rinker Sr. School of Construction Management (MSCM) Sustainable Construction

SLO 1 Identify contemporary problems in the construction management discipline
Thesis Defense: 100% of students earn an average Rating of 3 or higher, 80% of students will earn a 4 or higher, from their committee members as recorded on the Thesis Defense Assessment Rubric

SLO 2 Create a rigorous literature review on a selected topic
Thesis Defense: 100% of students earn an average Rating of 3 or higher, 80% of students will earn a 4 or higher, from their committee members as recorded on the Thesis Defense Assessment Rubric