

INTEGRATED SUSTAINABLE DEVELOPMENT

Program Information

The Master of Integrated Sustainable Development (MISD) is an interdisciplinary graduate degree program offered by the University of Florida (UF) College of Design, Construction and Planning (DCP) Sustainability and the Built Environment (SBE) Program. MISD is a STEM (Science, Technology, Engineering, and Mathematics) degree delivering education within the planning, design, construction, and operations of more sustainable and resilient built environments. Through a mix of pedagogical approaches (e.g., from research to collaborative studio projects), MISD students will learn the skills and strategies to facilitate a quadruple bottom line of ecological, cultural, social, and economic sustainability across local, state, national, and international scales.

The MISD curriculum focuses on collaborative and integrative design, construction, planning, and engineering problem-solving, as well as leadership and management, in the built environment. MISD students are critical thinkers, managers of complexity, and strategists capable of creating comprehensive assessments and solutions to cross-disciplinary problems with social, political, economic, ethical, and technical components.

Degrees Offered

DEGREES OFFERED WITH A MAJOR IN integrated sustainable development

- Master of Integrated Sustainable Development (M.I.S.D.)

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

Courses

Master of Integrated Sustainable Development (M.I.S.D.) COURSES

Required Courses

Code	Title	Credits
BCN 6584C	Building Energy Modeling	3
BCN 6585	Sustainable Construction	3
DCP 6221	Economics of Sustainability in the Built Environment	3
DCP 6230	Integrated Sustainable Development Studio	6

Electives (select five out of the following courses from a minimum of two disciplines)

Code	Title	Credits
ARC 6311C	Building Information Modeling	3
ARC 6883	Vernacular Architecture & Sustainability	3
ARC 6912	Architectural Research II	1-6
ARC 6621	Graduate Environmental Technology 2	3
BCN 6558C	Building Integrated Renewable Energy Systems	3
BCN 6580	High-Performance Green Building Delivery Systems	3
CGN 5605	Public Works Planning	3

CGN 5606	Public Works Management	3
EES 6007	Advanced Energy and Environment	3
ENV 5306	Municipal Refuse Disposal	3
ENV 6511	Biological Wastewater Treatment	3
ENV 6043	Life Cycle Assessment	3
LAA 6382	Ecological and Environmental Policy	3
TTE 5006	Advanced Urban Transportation Planning	3
URP 6645	Sustainable Urbanism in Europe	3
URP 6716	Transportation Policy and Planning	3
URP 6711	Transportation and Land Use Coordination	3
URP 6100	Planning Theory and History	3
URP 6421	Environmental Land Use Planning and Management	3
URP 6541	Economic Development Planning	3

Student Learning Outcomes

Integrated Sustainable Development (M.I.S.D.)

SLO 1 Knowledge

Delineate and apply principles of sustainability to problems of the built environment.

SLO 2 Skills

Understand the collaborative roles of an integrated project team (with professionals from a range of disciplines including civil/environmental engineering, architecture, construction management, interior design, landscape architecture, and urban and regional planning) in the delivery of sustainable development projects.

SLO 3 Professional Behavior

Demonstrate the capacity to undertake return on investment analysis of sustainable development projects for the built environment.

SLO 4

Apply a wide range of skills, tools and strategies to sustainable problem-solving combining engineering capabilities, innovation, design, and soft skills, like communication and facilitation.