

SUSTAINABLE ENVIRONMENTS

Master of Design in Sustainable Environments

The Master of Design in Sustainable Environments (MDesSE) is an advanced interdisciplinary degree that focuses on holistic design strategies for the production of sustainable, resilient environments and artifacts. MDesSE students and faculty constitute a multidisciplinary, highly interactive community that is deeply engaged in understanding, promoting, and conceiving sustainable practices in design, planning, and artistic production. Students from a variety of backgrounds such as design, art, planning, education, engineering, science, etc., engage in research projects and are challenged to develop individual sustainable design strategies for issues of current relevance that conserve resources, ameliorate ecological problems, and promote social, political, and economic justice.

Coursework focuses on developing skills in modes of representation and information dissemination; foundational and emerging theoretical discourse; as well as research methods and design interventions. The degree concludes with an integrated capstone experience through a student-defined thematic project. Capstone projects are situated in different parts of the world and include themes that draw upon each student's specific area of interest while being informed by the theories, skills, methods, and tactics learned throughout the MDesSE program.

The Master of Design in Sustainable Environments degree consists of 35 credits, typically distributed over three semesters (fall, spring, and summer); however, students may choose to distribute these credits over four or five semesters. The degree is geared toward students with professional degrees in art (BFA, MFA), architecture (BArch, MArch), graphic design (BFA, MFA), interior design (BFA, MFA), industrial design (BID, MID), landscape architecture (BLA, MLA), community and regional planning (BSCR, MCRP, MUP), or engineering. Graduate students can also pursue the following double degrees in the College of Design: MArch/MDesSE, MCRP/MDesSE, MFA in IVA/MDesSE and MLA/MDesSE.

Courses primarily for graduate students, open to qualified undergraduates:

SUS E 501: Sustainable Design Studio I

(3-6) Cr. 6.

Prereq: Graduate standing or senior classification with instructor permission
Exploring the challenges faced in implementing social, environmental, and economic sustainable solutions, this studio engages students in an interdisciplinary, team-oriented and project-based learning environment. Projects will include theoretical investigations and applications of an interdisciplinary design process through brief readings and discussions.

SUS E 502: Sustainable Design Studio II

(0-10) Cr. 5.

Prereq: SUS E 501, SUS E 512, SUS E 531

This advanced studio provides a community-based context for an interdisciplinary design team to work on a variety of faculty-directed projects including funded, basic, and applied research. Coursework addresses sustainable design at multiple scales, engaging both systems and artifacts. Field trips.

SUS E 511: Sustainable Design Colloquium I

(3-0) Cr. 3.

Prereq: Admission to MDSE program

Study and discuss practices of sustainable design and design research. Investigate responsibilities, roles, technologies and methods for studying and advancing the art and science of designing sustainable environments.

SUS E 512: Sustainable Design Colloquium II

(1-0) Cr. 1.

Prereq: SUS E 511

A graduate student-led seminar designed to foster the knowledge and skills to support innovation, entrepreneurship, and leadership in the field of sustainable design. Invitation of outside speakers.

SUS E 513: Sustainable Design Colloquium III

Cr. 3.

Prereq: Sus E 540, Sus E 502

Research expands and integrates findings from the prerequisite courses. Students develop independently-defined research to produce a comprehensive and conclusive written document.

SUS E 521: Foundation of Sustainable Design

(3-0) Cr. 3.

Prereq: Graduate standing or senior classification with instructor permission.

Introduction to the broad frameworks and tools for implementing sustainability among a variety of environments, industries, and enterprises. Investigates the role and opportunity for sustainable design strategies.

SUS E 531: Human Dimensions of Sustainability

(3-0) Cr. 3.

Prereq: Graduate standing or senior classification with instructor permission.

This seminar provides students from multiple disciplines with a grounding in designers' interactions with clients, consumers, communities, cultures, and biospheres. Through a review of literature and the production of new case studies in sustainable design, students discover and represent conditions in which products of design operate across scales, markets, social conditions, geographic domains, academic disciplines, and zones of professional responsibility.

SUS E 540: Methods for Sustainable Design

(3-0) Cr. 3. S.

Prereq: senior or graduate standing.

Overview of qualitative, quantitative and design research methods. In-depth application of methods relevant to capstone project proposal development (SUS E 502). Proposal must address research questions, articulation of research methods and preliminary findings grounded within contemporary theoretical discourse on Sustainable Environments.

SUS E 550: Making Resilient Environments

(Cross-listed with C R P). (3-0) Cr. 3. S.

Prereq: senior or graduate standing.

Major theories and ideas revolving around the concept of resilience. Assessing the social and political processes associated with policy making for resilience. Application of the concept of resilience in order to understand and evaluate environments. Evaluate the different approaches toward resilience and develop an understanding of the relationship between sustainability and resilience. Case studies of communities that proactively prepare for, absorb, recover from, and adapt to actual or potential future adverse events.