# SUSTAINABLE ENVIRONMENTS

## Master of Design in Sustainable Environments

The Master of Design in Sustainable Environments (MDesSE) is an initial 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 (BSCRP, 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:**

**SUSE 5010: Sustainable Design in Communities**
Credits: 5. Contact Hours: Lecture 2, Studio 6.
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 through engagement with a Central Iowa community.

**SUSE 5020: Sustainable Design Capstone Studio**
Credits: 6. Contact Hours: Studio 12.
This advanced studio provides a community-based context for an interdisciplinary design team to work on a variety of self-directed, applied design research and intervention projects at multiple scales. Students utilize a common theoretical framework to organize their research and inform their interventions. Field trips.

**SUSE 5110: Sustainable Design Colloquium I**
Credits: 3. Contact Hours: Lecture 3.
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.

**SUSE 5120: Sustainable Design Seminar**
Credits: 1. Contact Hours: Lecture 1.
Students begin design research in sustainability issues by learning how to build a network of professional and academic contacts related to their individual research topics. Assignments include developing and engaging in an immersion experience related to their research.

**SUSE 5130: Sustainable Design Research Writing**
Credits: 3. Contact Hours: Lecture 3.
Students develop a comprehensive and conclusive research manuscript for submission to a conference or journal in their discipline. SUSE student manuscripts detail their capstone projects. Non-majors compose papers detailing completed research projects in their own discipline.

**SUSE 5210: Foundation of Sustainable Design**
Credits: 3. Contact Hours: Lecture 3.
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.

**SUSE 5310: Human Dimensions of Sustainability**
Credits: 3. Contact Hours: Lecture 3.
This interdisciplinary seminar uses applied research with communities to ground students in the issues and conditions impacting social and economic sustainability. Students develop a broad understanding of community sustainability through weekly readings, discussions, and small made objects. Topics of focus include university-community partnerships, participatory design, and social constructions of sustainability.

**SUSE 5400: Methods for Sustainable Design**
Credits: 3. Contact Hours: Lecture 3.
Overview of qualitative, quantitative and design research methods. In-depth application of methods relevant to capstone project proposal development (SUSE 5020). Proposal must address research questions, articulation of research methods and preliminary findings grounded within contemporary theoretical discourse on Sustainable Environments. (Typically Offered: Spring)

**SUSE 5500: Making Resilient Environments**
(Cross-listed with CRP 5500).
Credits: 3. Contact Hours: Lecture 2.
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, recorver from, and adapt to actual or potential future adverse events. (Typically Offered: Spring)