

# SUSTAINABLE ENVIRONMENTS (SUS E)

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Courses primarily for graduate students, open to qualified undergraduates:

## SUS E 501: Sustainable Design Studio I

(0-10) Cr. 5.

*Prereq: SUS E 521*

Addressing sustainable design at multiple scales of constructed and natural systems and artifacts, this studio engages multidisciplinary graduate students in a team-oriented, project-based learning environment. Faculty-directed 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.