

HUMAN CENTERED DESIGN

College of Human Ecology

Graduate Study in Design + Environmental Analysis

Master of Science in HUMAN ENVIRONMENT RELATIONS

Two-Year Graduate Program

CONCENTRATION: Emerging Technology for Design

The MS in Emerging Technology for Design (ETD) introduces students to innovative emerging technologies as tools for creativity and research. Some examples of faculty research topics in ETD include: design computing and cognition, architectural robotics, design process and design visualization using Virtual Reality (VR) and Augmented Reality (AR), advanced visualization technologies for environment-behavior simulation, generative and parametric design and fabrication, Building Information Modeling (BIM) and simulation, and human-computer interaction as related to emerging technology for design.

CAREERS

Students who complete the ETD concentration within the MS in HER will be well positioned for careers in industry, research institutes, and academic settings employing virtual reality, augmented reality and other technologies for UX research and design.

M.S. REQUIREMENTS/SUGGESTED COURSEWORK

A. Required Core DEA Field Courses:

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| DEA 6100 | Studies in Design Thinking | 3 credits |
| DEA 6200 | Studies in Human-Environment Relations | 3 credits |
| DEA 7100 | DEA Graduate Pro Seminar (1 credit / semester x 4 semesters) | 4 credits |

B. Required Foundational Courses for Concentration:

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|----------|---|-----------|
| DEA 5210 | Interaction Design Studio | 4 credits |
| DEA 5520 | Virtual Experience of Designed Environments | 3 credits |

C. Research Methods:

| | | |
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| DEA 6560 | Research Methods in Social Sciences | 4 credits |
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D. Statistics: ONE (1) 3-4 credit (5000-level or higher) course

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| Various | Statistics ⁱ | 3-4 credits |
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E. DEA Breadth: Choose THREE (3) of the following courses

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|----------|---------------------------------------|-----------|
| DEA 6040 | Future Body Craft | 3 credits |
| DEA 6210 | Architectural Robotics | 3 credits |
| DEA 6500 | Problem-Seeking through Programming | 3 credits |
| DEA 6510 | Human Factors and Inclusive Design | 3 credits |
| DEA 6520 | The Ambient Environment | 3 credits |
| DEA 6610 | Environments and Health | 3 credits |
| DEA 6650 | Poverty, Children and the Environment | 3 credits |
| DEA 6700 | Applied Ergonomic Methods | 3 credits |

F. Thesis Courses:

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| DEA 8990 | Master's Thesis ⁱⁱ | 8-12 credits |
|----------|-------------------------------|--------------|

G. Minor Courses:

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| Various | Courses for minor varies: typically 2 or 3, 3-or 4-credit courses | 6-12 credits |
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| Summary of Curriculum | Number of Courses | Course Credits |
|---|-------------------|------------------------------------|
| A. Required DEA Field Courses | 3 ⁱⁱⁱ | 10 |
| B. Required Foundational Courses for Concentration | 2 | 7 |
| C. Research Methods | 1 | 4 |
| D. Statistics | 1 | 3-4 |
| E. DEA Breadth | 3 | 9 |
| F. Thesis Courses ⁱⁱ | 1-2 | 8-12 |
| G. Minor Field Courses | 3 | 6-12 |
| Total Courses: 14-15 | | Total Course Credits: 47-58 |

ⁱ e.g: BTRY 6010, BTRY 7180, ILRST 5100, ILRST 6100, PSYCH 6750, HD 6750.

ⁱⁱ Thesis credits determined at the discretion of thesis committee; the number of courses and credits listed merely indicate typical range.

ⁱⁱⁱ Includes DEA 7100 as 1 course (but is required to be taken 4 times (1 credit each))

NOTE: A minimum grade of B- will be required for courses taken within the major. If a grade lower than a B- is received on a course taken within the major, the student will be required to retake the course.

Course offerings may change year to year. Consult the Courses of Study for current offerings.