

# Extended Realities (EXRE)

## Courses

### EXRE 1990. Elective. (1-4 Hours)

Offers elective credit for courses taken at other academic institutions.

### EXRE 2990. Elective. (1-4 Hours)

Offers elective credit for courses taken at other academic institutions.

### EXRE 3990. Elective. (1-4 Hours)

Offers elective credit for courses taken at other academic institutions.

### EXRE 4990. Elective. (1-4 Hours)

Offers elective credit for courses taken at other academic institutions.

### EXRE 5010. Immersive Media: Extended Realities (XR) History, Theory, and Impact. (4 Hours)

Introduces the historical foundation and conceptual frameworks with which to analyze and interrogate extended reality experiences, including virtual reality, augmented reality, and mixed reality. Covers the theoretical, cultural, and technological developments that have informed contemporary XR. Explores the promises, dreams, and expectations, as well as the ethical concerns and philosophical dilemmas, associated with the field. Offers students an opportunity to create XR experiences and prototype their own ideas.

**Corequisite(s):** EXRE 5011

### EXRE 5011. Seminar for EXRE 5010. (1 Hour)

Offers students an opportunity to analyze and critique extended reality experiences. Examines historical, seminal, and new experiences. Discusses the XR experiences using industry nomenclature and basic research methodology.

**Corequisite(s):** EXRE 5010

### EXRE 5020. Developing Extended Realities (XR). (4 Hours)

Examines how to create extended reality (XR) experiences including virtual reality (VR), augmented reality (AR), and mixed reality (MR). Studies coding and developing projects in XR using current hardware and software, including scripting, sensing, interactions, and preproduction methods that are specific to XR. Examines simulation sickness, sensing, eye tracking, empathy, and narrative in XR.

### EXRE 5030. Designing Extended Realities (XR). (4 Hours)

Studies the craft and theory of designing, executing, and directing compelling extended reality experiences. Covers techniques to analyze, advise, and critique designs in the XR industry, or the many industries this experience augments, via a hands-on, experiential learning approach. Offers practical, professional, and theoretical instruction in writing and design, spatial narrative, and world building. Presents methodologies for formatting and directing interactive scripts and voice-overs. Shares professional methods as well as strategies and approaches to world building in the metaverse. Explores all forms in the broad field of extended reality, including games, animation, 360 video, journalism, and advertising. Offers networking opportunities through invited guests, publishers, and partners in XR.

### EXRE 5973. Topics in Extended Realities (XR). (4 Hours)

Focuses on a specific topic that is of timely relevance to the domain of extended reality. Explores current discourses in the field and draws directly from ongoing instructor expertise and research. Offers students an opportunity to develop original projects in response to course topic, informed by case studies, critical readings, instructor and guest lectures, class discussions, and exercises. Emphasizes developing skills and strategies for self-directed XR experience production, including experimentation, planning, development, iteration, revision, and critique of creative work. May be repeated once.

### EXRE 6500. Extended Realities (XR) Studio. (4 Hours)

Focuses on the design of experiences and artifacts using extended reality technologies for the development and critique of XR projects. Includes planning and design of the final work. Students use multiple ideation methods to develop project ideas and work in critical groups to strengthen project ideas and then prototype. Requires the completion of a project and presentation of the work.

### EXRE 6962. Elective. (1-4 Hours)

Offers elective credit for courses taken at other academic institutions.

### EXRE 7500. Extended Realities (XR) Project. (4 Hours)

Offers students an opportunity to focus on the creation of extended reality experiences. Includes planning and design of the experiences. Discusses and reflects on the design process at the crossroads of methodological, systematic iteration, and creative exploration.

**Prerequisite(s):** EXRE 5010 with a minimum grade of C-

**EXRE 7990. Thesis. (4 Hours)**

Offers students support in developing and producing the written component of an extended reality thesis that integrates and applies their accumulated knowledge. Encourages student participation within a practice and research community consisting of classmates, advisor(s), and external professionals.

**Prerequisite(s):** EXRE 5030 with a minimum grade of C-