

# USER EXPERIENCE DESIGN (UXD)

## UXD 101 | DESIGN PRINCIPLES FOR USER EXPERIENCE DESIGN (FORMERLY ISM 101) | 4 quarter hours (Undergraduate)

This course introduces user experience design principles using code. User experience design principles include: affordance, conceptual model, consistency, constraint, discoverability, feedback, mapping, and signifiers. Students will analyze user experience design principles through activities and group discussion. Students will apply user experience design principles through design exercises and projects. This is an introductory-level course, prior experience is not expected, beginners are welcome.

## UXD 205 | INTERSECTIONAL THEMES AND DESIGN (FORMERLY ISM 205) | 4 quarter hours (Undergraduate)

This lecture and user experience design research course focuses on contemporary feminist theoretical debates and explores the complex relations and tensions between gender, sexuality, race/ethnicity and class as they relate to and intersect design. Through critical readings, central theories will be scrutinized to see how they are able to theorize other power dimensions such as heteronormativity, racism, (post)colonialism and classism.

## UXD 208 | VIRTUAL WORLDS AND ONLINE COMMUNITIES (FORMERLY ISM 208) | 4 quarter hours (Undergraduate)

Environments such as social networking sites, multiplayer online games and other online communities are becoming an increasingly large part of how we work, play, and learn. This course introduces the fundamentals for the interdisciplinary study of cyberculture and online social behavior. By examining core scholarship in this area, together with analyzing an existing virtual world, game, or online community, students will learn to research and understand new technologically-enabled social forms as they are emerging.

**WRD 104 is a prerequisite for this class.**

## UXD 210 | INTRODUCTION TO USER EXPERIENCE DESIGN (FORMERLY ISM 210) | 4 quarter hours (Undergraduate)

This course familiarizes students with the user-centered design process, including user and task analysis, interaction design, prototyping, and evaluation. Students study human perception, cognition and motor abilities as they relate to the design of interactive systems. In a series of projects, students design and revise both low-fidelity and high-fidelity interactive prototypes as they apply a user-centered design process. Emphasized topics include user profiles, information architecture, and usability testing. Students provide written analysis of their research and process.

## UXD 220 | PROTOTYPING METHODS I (FORMERLY ISM 220) | 4 quarter hours (Undergraduate)

This course focuses on designing information and interaction through prototyping, with an emphasis on information architecture and interaction design. Students create working low to mid-fidelity prototypes that demonstrate a range of design patterns for interactive systems.

**UXD 101 and UXD 210 are prerequisites for this class.**

## UXD 222 | DATA VISUALIZATION DESIGN (FORMERLY ISM 222) | 4 quarter hours (Undergraduate)

This course discusses the basic problems and techniques of visualizing quantitative and qualitative data. Topics include: perception, types of information, representation of univariate and multivariate data and relational information, analysis of representations, presentation, and dynamic and interactive visualizations. Students will create visualizations using graphical software.

**UXD 101 is a prerequisite for this class.**

## UXD 225 | CODING DESIGN FRAMEWORKS (FORMERLY ISM 225) | 4 quarter hours (Undergraduate)

User Experience Designers facilitate communication between people, communities, and computer-based systems. We think in terms of code, without necessarily writing the code ourselves. This class introduces user experience design students to code-facilitated systems thinking: breaking down people's activities and community activity into a set of steps that allows the use of computer-based systems as tools. Students work with code to build prototype systems based on the needs of people, with a focus on ethical and inclusive design. Topics include: algorithms, system thinking, instruction sets, UxD software design and engineering, and use-case scenarios.

**UXD 210 and IT 130 are prerequisites for this class.**

## UXD 227 | COMPUTING HUMAN LIVES | 4 quarter hours (Undergraduate)

Data structures shape and organize the data that keeps track of people's lives online. This class will introduce students to multiple types of data structures as they relate to designing user experiences in interactive applications. Students will learn via direct experience, working with code and data relevant to user experience design. Conceptual topics include: ethics, inclusion, accessibility, and human-centered approaches to data privacy and control.

**UXD 101 is a prerequisite for this class.**

## UXD 251 | UI/UX PROTOTYPING WORKSHOP | 2-2.25 quarter hours (Undergraduate)

This course introduces students to creating interactive software prototypes through hands on, in-depth experience with a professional prototyping software package. Students will explore fundamental strategies in executing the design of cross-platform websites and applications, from mobile to desktop. Topics and techniques covered during lectures will be reinforced through in-class exercises and projects. Specific tools selected by the instructor. Tools covered vary with each offering. Contact instructor for more information. Course may be repeated with different topics.

**UXD 101 is a prerequisite for this class.**

## UXD 260 | USER EXPERIENCE RESEARCH AND EVALUATION (FORMERLY ISM 260) | 4 quarter hours (Undergraduate)

This course provides in-depth knowledge about user research and usability evaluation methods. Students will engage with user research methods including (but not limited to) interviews, personas, and scenarios as well as prototype evaluation methods including (but not limited to) expert inspections and usability testing. Students will learn when to apply particular research and evaluation methods, the advantages and disadvantages of each method, and how to integrate such methods into their professional practice. Students will also learn to effectively and professionally communicate their findings.

**UXD 210 is the prerequisite for this class.**

**UXD 270 | USER-CENTERED WEB DESIGN (FORMERLY ISM 270) | 4 quarter hours (Undergraduate)**

Principles of interactive design for web pages and sites. Design patterns for information navigation. Use of HTML and CSS to produce standards- and accessibility-compliant web pages. Overview of technologies supporting dynamic and interactive content.

**IT 130 or HCI 201 is a prerequisite for this class**

**UXD 320 | PROTOTYPING METHODS II (FORMERLY ISM 320) | 4 quarter hours (Undergraduate)**

This course will deepen s skills in design and prototyping by challenging students to solve real-world problems. Students will apply organizational and analytical strategies learned in UXD while developing more advanced prototyping skills with a range of tools and methods.

**UXD 220 or GD 215 or GD 216 are the prerequisites for this class.**

**UXD 329 | AI APPROACHES FOR USER EXPERIENCE DESIGN | 4 quarter hours (Undergraduate)**

Artificial intelligence is an increasingly important part of design processes, including user experience design. In this class, students will encounter both simple and complex artificial intelligence, using code libraries to experiment with intelligent agents, chat bots, as well as automated and generative design. This forward-thinking class prepares students for the near future of design processes in which human designers work closely with AI programmers. Topics include: machine and deep learning, data science and predictive analytics for UxD, and designing for adaptive systems.

**UXD 225 or IT 130 is a prerequisite for this class.**

**UXD 336 | INTERACTIVE MEDIA SCRIPTING FOR PROGRAMMERS (FORMERLY ISM 336) | 4 quarter hours (Undergraduate)**

Object-oriented programming in ActionScript for students who already know how to program. Students will design, code and test interactive media using standard and custom designed classes. PREREQUISITE(S): Experience in at least one high-level programming language.

**UXD 360 | USER EXPERIENCE RESEARCH METHOD (FORMERLY ISM 360) | 4 quarter hours (Undergraduate)**

Overview of user research and usability evaluation methods. User research includes interviews, profiles and scenarios. Usability evaluation methods include expert inspections and usability testing.

**UXD 210 is the prerequisite for this class.**

**UXD 381 | QUANTITATIVE DESIGN RESEARCH METHODS | 4 quarter hours (Undergraduate)**

In this course, students are introduced to quantitative design methods used to understand users. Specifically, students will learn the role of quantitative design research in the design process and how to select the most appropriate methods to collect and analyze quantitative data about users. Methods taught include (but are not limited to) surveys, web analytics, A/B testing, card sorting, and eye tracking. Students will also learn how to effectively communicate and summarize their findings using description and basic statistics reported in formats such as design documents, presentations, reports, and visualizations.

**UXD 210 and IT 223 are prerequisites for this class.**

**UXD 382 | QUALITATIVE DESIGN RESEARCH METHODS | 4 quarter hours (Undergraduate)**

In this course, students are introduced to qualitative design methods used to understand users and the context of technology use. Students will understand the role of qualitative design research in the design process and learn how to select the most appropriate methods to collect and analyze qualitative data about users including (but are not limited to) contextual inquiry, interviews, secondary research, and focus groups. Students will learn methods for synthesizing qualitative data such as affinity diagramming experience mapping. User personas, scenarios, and sketches, will also be practiced to effectively communicate and summarize findings.

**UXD 210 and IT 223 are prerequisites for this class.**

**UXD 390 | TOPICS IN INTERACTIVE AND SOCIAL MEDIA (FORMERLY ISM 390) | 4 quarter hours (Undergraduate)**

Specific topics will be selected by the instructor and may vary with each quarter. PREREQUISITE(S): For specific prerequisites, see syllabus or consult with course instructor.

**UXD 394 | USER EXPERIENCE DESIGN PROJECTS (FORMERLY ISM 394) | 4 quarter hours (Undergraduate)**

The User Experience Design Projects Capstone 2-course sequence engages students in design scenarios in connection with an organization, initiative, or creative project. Students work in groups to assess project needs, apply research methods, generate ideas, develop and test prototypes, and implement solutions, all from a human-centered design approach. Students must successfully complete both User Experience Design Projects Capstone 1 and 2 in sequence to receive any credit. At the end of the UX Design Projects Capstone sequence students will 1) present results to an audience [communications], 2) create a comprehensive case study [connecting concepts/reflection], and 3) create content relevant for a professional portfolio and/or resume based on the course project. These courses provide students with an opportunity to integrate their major area of design study with concepts introduced in their general education program while satisfying both the Experiential Learning requirement and the Capstone requirement.

**UXD 395 | USER EXPERIENCE DESIGN PROJECTS 2 (FORMERLY ISM 395) | 4 quarter hours (Undergraduate)**

The User Experience Design Projects Capstone 2-course sequence engages students in design scenarios in connection with an organization, initiative, or creative project. Students work in groups to assess project needs, apply research methods, generate ideas, develop and test prototypes, and implement solutions, all from a human-centered design approach. Students must successfully complete both User Experience Design Projects Capstone 1 and 2 in sequence to receive any credit. At the end of the UX Design Projects Capstone sequence students will 1) present results to an audience [communications], 2) create a comprehensive case study [connecting concepts/reflection], and 3) create content relevant for a professional portfolio and/or resume based on the course project. These courses provide students with an opportunity to integrate their major area of design study with concepts introduced in their general education program while satisfying both the Experiential Learning requirement and the Capstone requirement.

**UXD 399 | INDEPENDENT STUDY (FORMERLY ISM 399) | 1-8 quarter hours****(Undergraduate)**

Independent study supervised by an instructor. Independent study form required. Can be repeated for credit. Variable Credit. PREREQUISITE(S): None. (variable credit)