

# INSTRUCTIONAL DESIGN AND TECHNOLOGY (IDN)

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## **IDN 525. Foundations of Instructional Design. 3 Credits.**

This course introduces students to the dynamic field of instructional design, which is a systematic approach to developing engaging, effective learning experiences using a range of media and technologies. Using a project-based approach, class members develop competence in each phase of the instructional design process as they plan a learning solution for a real-world problem. Students walk away with a robust understanding of the creative process of instructional design, applicable to a range of fields including education, business, community-based work, and healthcare.

**Prerequisites:** None

**Offered:** Every year, Fall and Spring

## **IDN 526. Cognitive Science and Educational Design. 3 Credits.**

This course investigates theoretical perspectives on learning, instruction and the use of digital multimedia materials for education. Our focus is on the practical application of these theories: How can they be used to guide design decisions in the development of educational resources and environments? Readings include empirical studies as well as theoretical material to help students become comfortable with interpreting and applying theory and research to design. Over the course of the semester, students draw on the theories they have examined to develop a detailed design proposal and prototype for an instructional resource.

**Prerequisites:** None

**Offered:** Every year, Fall

## **IDN 527. Society, Culture & Learning. 3 Credits.**

This course addresses questions of how social and cultural context and society influence learning. We examine theories and approaches that reflect the importance of society and culture, analyzing the strategies that can be applied to the design of learning resources and environments. Readings include both theoretical material and research studies, with an emphasis on practical applications of theory. The final project for the course is a design proposal and prototype for an instructional media resource that specifically addresses social and cultural considerations.

**Prerequisites:** None

**Offered:** Every year, Spring

## **IDN 528. Collab Design of Digital Environments. 3 Credits.**

In this course, students explore how we create and express our identities in digital spaces, both as individuals and as collaborative groups. Using a design thinking approach, students simultaneously explore the principles of remote collaborative work and apply what they learn to their own engagement in small teams. Throughout the semester, these teams establish group norms, use consensus-based decision making, develop empathy maps, engage in brainstorming, visualize projects through storyboarding and work collaboratively to build a virtual learning resource.

**Prerequisites:** None

**Offered:** Every year, Fall

## **IDN 529. Educational Media Design Lab. 3 Credits.**

This course examines the principles, techniques and current practices used to produce and/or deliver multimedia applications for education. Students gain an overview of the foundations of good design; then, through a series of project-based assignments, they experience a range of software tools used to create media such as text, graphics, animation, audio and video. Course makes use of a variety of applications. Students elect their lab choices based on their own specific interests, needs and level of proficiency.

**Prerequisites:** None

**Offered:** Every year, Spring

## **IDN 530. Web Design for Instruction. 3 Credits.**

What factors contribute to an effective web design that can engage users and support their learning? In this course, students investigate web-based instructional resources. They examine relevant theoretical frameworks and use these principles to analyze the design of existing web resources, including graphics and functionality. Students develop a design document and a working prototype of a web-based instructional resource using various web design tools. Topics include principles of HTML, CSS, UX, and approaches to mobile design.

**Prerequisites:** None

**Offered:** Every year, Summer

## **IDN 531. Design of Interactive Educational Environments. 3 Credits.**

This course examines the design of interactive environments, including games, simulations and microworlds, from both theoretical and practical perspectives. Topics include information representation, types of interactivity, user control and pedagogical implications of interactivity, as well as the effective design of these resources for education. Students develop proficiency in the use of an interactive authoring environment or game design platform, depending on the individual's technical background, creating a functioning prototype of their design.

**Prerequisites:** None

**Offered:** Every year, Summer

## **IDN 532. Design and Development of Online Learning. 3 Credits.**

What does it take to design a compelling online learning experience, one that engages students and fosters their construction of new understandings? This class examines current approaches to planning, development and implementation of online courses. Students apply research-based principles and methods to develop an online "mini-course," designed to support a successful learning experience for the user. This course provides excellent foundational training in Learning Management Systems.

**Prerequisites:** None

**Offered:** Every year, Fall and Summer

## **IDN 533. Producing Educational Video and Digital Training. 3 Credits.**

This course examines the use of video in education, including theoretical approaches to visual learning as well as practical considerations about planning, writing, producing and integrating video resources. Students investigate artistic and technical practices used in combining audio, still images and moving pictures into coherent messages. Additional topics include directing, cinematography, audio, lighting, editing and effective distribution. Depending on levels of technical preparation, students use a range of applications to plan and produce short video segments.

**Prerequisites:** None

**Offered:** Every year, Fall

**IDN 534. Implementing Digital Media for Learning. 3 Credits.**

This course examines the challenges of implementing digital environments for learning in real-world contexts. Through research articles and case studies, students explore issues such as selecting, budgeting and evaluating technology resources. Within the structure of the class, students may choose to focus on implementing media in K-12 environments (in and out of school), higher education, industry or public spaces.

**Prerequisites:** None

**Offered:** As needed

**IDN 535. New Directions in Digital Environments. 3 Credits.**

As new digital resources are developed, instructional designers need to be able to understand and evaluate their practicality and value for educational use. This course empowers students to analyze and critique current popular trends in educational technology, and present their original ideas for implementation of these technologies in a variety of teaching and learning environments. By definition, topics in this course change each time it is offered, but may include such areas as artificial intelligence, virtual and augmented reality, handheld devices and interactive media. By the end of the course, students will emerge with a futuristic vision of learning technology for the future based on current trends.

**Prerequisites:** None

**Offered:** Every year, Spring

**IDN 536. Independent Study. 3 Credits.**

This course includes supervised study of special topics in instructional design. This option is designed to allow a student to further customize his or her course of study if needed. Each student must submit a proposed course of study including assessment plan for approval prior to enrolling.

**Prerequisites:** None

**Offered:** As needed

**IDN 537. Designing Accessible Learning Experience. 3 Credits.**

In this course, students explore the use of Universal Design for Learning (UDL) principles, accessibility guidelines, and assistive technologies (AT) in the design of learning experiences that can meet the diverse needs of modern learners in school settings as well as in the workplace. Students explore strategies for addressing different needs, abilities, and preferences in digital environments, and evaluate software and corresponding pedagogical approaches to support learners. Course projects emphasize hands-on experience with UDL and AT, including the development of a digital accessibility tool kit and a comprehensive redesign of an existing learning experience to meet the UDL principles.

**Prerequisites:** None

**Offered:** Every year, Spring

**IDN 550. Capstone Experience. 3 Credits.**

The capstone is the culmination of a student's work in the instructional design program. It prepares students to utilize their new proficiency in their current role, or to enter the workforce as instructional designers. In this final course, students use a project management framework to design and develop a unique project reflecting the skills and knowledge gained throughout the program. The project serves to demonstrate fluency with the elements of an instructional design analysis, technical competency, and the ability to leverage theory to inform design. The course also supports students in preparing their resumes and electronic portfolios.

**Prerequisites:** None

**Offered:** As needed