# **MASTER OF SCIENCE IN INSTRUCTIONAL DESIGN AND TECHNOLOGY**

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Graduates of this program are prepared for career opportunities in settings such as teaching with technology in the K-12 classroom, creating digital materials for non-profit organizations, designing courses for higher education, or producing instructional resources for the health professions and corporate environments.

The field of instructional design applies what we know about how people learn to the thoughtful design and implementation of instructional materials, such as websites, videos, podcasts, online courses, social media sites, interactive simulations and educational games. Our fully online program prepares students for professional work or advanced study in instructional design by providing opportunities to develop a solid grounding in core competencies of the field, including instructional design models, theories of learning, principles for the design of instructional media, specific technical skills for media production, and approaches to the selection, integration and evaluation of digital materials for learning.

Courses in Theoretical Foundations of Education address learning theories, theoretical approaches to multimedia design, instructional design models, and elements of the instructional design process, including the needs assessment, generation of a design solution, and formative and summative evaluation of an instructional resource.

Courses in Design Fundamentals emphasize the application of theory to short-term design projects, fostering familiarity and essential competencies in a range of media (e.g., podcasts and videocasts, websites, social media, games and simulations, learning management systems, design for handheld devices and public spaces). The process of working in a team to plan and implement an instructional resource is also a focus.

Elective courses allow students to focus on specific skills to support their own particular interests and goals, such as working with a Learning Management System (LMS), creating video content, websites or interactive presentations, and designing accessible learning experiences utilizing principals of Universal Design for Learning.

## **MS in Instructional Design and Technology Curriculum**

To earn the master's degree, students must complete 30 credits of coursework, with a minimum GPA of 3.00. The sequence of courses is composed of required foundational courses, electives and the Capstone Experience.

#### Foundations

15 credits (five courses), required for all candidates, focus on theoretical foundations of education and fundamentals of design. These courses include extensive exposure to research literature investigating the efficacy of media for educational applications, since it is the ability to

understand and apply research that allows instructional designers to bridge the gap between theory and practice.

#### Electives

Individuals select an additional 12 credits (four courses), according to their own areas of interest. Topics include in-depth theoretical and practical aspects of producing educational resources (e.g., web design, design of online courses, video production, interactive digital media) with hands-on use of specific software applications. Other elective options explore the process of selecting, implementing and evaluating digital resources for instruction in a range of environments (K-12, higher education, industry and nonprofit organizations, informal learning and creating accessible materials for individuals with diverse learning needs).

#### **Capstone Experience**

The required 3-credit (one course) Capstone Experience includes:

Career Exploration, including preparation of the resume and portfolio. Throughout their coursework, students select their best work to post on an electronic portfolio for critique; in the Capstone, they further refine the portfolio. Consistent with program objectives, this allows the student to demonstrate competence with a range of software applications and serves to present student work to prospective employers.

Introduction to Project Management. To develop effective instructional design projects, students need to understand the basics of project management. In some cases, instructional designers may even be asked to serve as project managers. This component of the Capstone explores the basics of project management and the terminology used in this field.

The Thesis Project. Each student chooses a topic of personal and/or professional interest, researches existing approaches to and resources for instruction on this topic, and prepares a proposal for the design of a learning resource. The proposal includes a needs analysis, design details and an evaluation plan. The final step is the creation and presentation of a working prototype of the proposed resource. This project serves to demonstrate the candidate's fluency with elements of an instructional design analysis as well as with the use of theory to inform design.

Code Required Fou	Title ndation Courses	Credits	
Theoretical Foundations of Education:			
IDN 525	Foundations of Instructional Design	3	
IDN 526	Cognitive Science and Educational Design	3	
IDN 527	Society, Culture & Learning	3	
Design Foundations:			
IDN 528	Collab Design of Digital Environments	3	
IDN 529	Educational Media Design Lab	3	
Elective Courses			
Production, Implementation & Evaluation:			
Select 12 credits of the following: 12			
IDN 530	Web Design for Instruction (3 credits)		
IDN 531	Design of Interactive Educational Environments (3 credits)		
IDN 532	Design and Development of Online Learning (3 credits)		

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Total Credits		30
IDN 550	Capstone Experience	3
Capstone Experience		
IDN 537	Designing Accessible Learning Experience	
IDN 536	Independent Study (3 credits)	
IDN 535	New Directions in Digital Environments (3 credits)	
IDN 534	Implementing Digital Media for Learning (3 credits)	
IDN 533	Producing Educational Video and Digital Training (3 credits)	

## **Student Learning Outcomes**

Upon completion of the Instructional Design and Technology program, students will demonstrate the following competencies:

- Communication: Communicate effectively in visual, oral and written form, taking into account the type of information being delivered and the diverse backgrounds, roles and varied responsibilities of the audience.
- 2. **Collaboration**: Collaborate effectively with peers, including the use of consensus-building, negotiation, conflict resolution skills and constructive feedback.
- Research and Theory: Draw on their understanding of the discipline of instructional design and pertinent research to inform their design decisions, explaining and applying key concepts of instructional design approaches and models, learning theory and multimedia principles.
- 4. Ethical Issues: Identify and respond to ethical, legal and political implications of design in the workplace.
- 5. **Technology**: Analyze and apply existing and emerging technologies for instruction, with regard for the learning need, the learners and the learning context.
- 6. Planning and Analysis: Utilize the instructional design approach to conduct a needs assessment to recommend appropriate design solutions and strategies; address the needs of the target audience and the learning context; and create a plan for the development, implementation and evaluation of instruction.
- 7. **Design**: Design instructional interventions in accordance with the instructional design plan, incorporating appropriate principles of visual design, interaction design and learning strategies, and addressing social, cultural, political and individual differences that may influence learning.
- 8. **Development**: Produce instructional materials in a variety of delivery formats that align with the content analyses, proposed technologies, delivery methods and instructional strategies included in the planning and design phases.
- 9. **Implementation**: Use technology effectively to implement a design plan; target appropriate strategies to prepare individuals and/or the environment for implementation.

 Assessment: Design assessments; evaluate instructional interventions; utilize evaluation to guide iterative design of learning resources.

## Admission

Successful applicants to this program come from diverse backgrounds in universities, schools, businesses or the nonprofit world, but all share an interest in using digital media for education. There are no specific technological prerequisites; all students will advance their levels of technical skills as they progress through the program.

Applications for the online Master of Science in Instructional Design and Technology program are considered on a rolling basis. Students may begin the program in fall or spring, and can complete the program in five semesters by taking two courses per semester; courses are offered in fall, spring and summer. We encourage candidates to submit applications as early as possible to ensure consideration for the semester desired.

To qualify for admission to the program, students must have earned a bachelor's degree from an accredited institution with a preferred minimum GPA of 3.00. Candidates must submit:

- 1. completed application form
- 2. resume
- 3. letter of intent
- 4. official transcripts of all undergraduate and graduate work completed
- 5. two letters of recommendation (professional and/or academic)

Candidates will be interviewed in person, by phone or online as appropriate.

## Retention

To remain in the program, a student must maintain a GPA of 3.00. A student who receives a grade of C+ or below in a course may be asked to retake the course to earn a minimum grade of B-. Students who fail to maintain the minimum GPA in any semester may be allowed to remain in the program with probationary status at the discretion of the dean of the School of Education; however, granting of probationary status is subject to the dean's approval and is neither automatic nor guaranteed.

The School of Education is fully accredited by the Council for the Accreditation of Educator Preparation (CAEP). The U.S. Department of Education recognizes CAEP as a specialized accrediting body for schools, colleges and departments of education.