

IDT - Instructional Design and Technology

IDT 617 Foundations of Instructional Technology (3 Credit Hours)

Required introductory overview to the field of instructional technology. Topics include a history of the field, basic instructional design, generally accepted theoretical practices and major formats of instructional media. Emphasis is given to instructional technology trends as applied to various industries, including K-12, military, industry training, and others.

IDT 618 Digital Age Teaching and Learning (3 Credit Hours)

In this class, contemporary digital tools and Internet resources are used to develop instructional plans and contribute to teaching techniques. The course is designed with three components: effectively integrating technology into the delivery of the curriculum, evidence-based good teaching practices utilizing technology that spans across grades and subject levels, and the technologies that support those practices. Upon completion of this course students should be able to pass, or apply for exemption from their school district's TSIP exam.

IDT 620 Foundations of Artificial Intelligence (AI) in Education and Learning Technologies (3 Credit Hours)

This course introduces students to the foundational concepts of Artificial Intelligence (AI) as applied to education and learning design. Students will explore key AI frameworks and theories within the context of learning design, including the use of AI tools in various educational processes. Topics covered include AI-enhanced course design, AI application in instructional delivery, the role of AI in assessments and personalized feedback, AI in research and evaluation, and AI's impact on academic integrity, as well as additional ethical considerations.

IDT 621 Applications of Artificial Intelligence (AI) in Education and Learning Technologies (3 Credit Hours)

This course focuses on the practical application of AI in designing instructional strategies, activities, and materials. Students will use AI tools to brainstorm various pedagogical techniques as well as to create still images, videos, animations, audio narration, slides-based presentations, gamification, virtual environments, and personal AI learning assistants/chatbots. Through hands-on projects, students will demonstrate mastery of the instructional design process by developing AI-enhanced tools and media to solve real-world instructional problems.

IDT 630 Foundations of Human Performance Technology (3 Credit Hours)

This course will introduce students to the field of Human Performance Technology (HPT). Students will explore what HPT is, why instructional designers should know about it, how performance improvements can be measured, and most critically, how it can be applied in real environments to solve real problems. Students will gain practice in thinking systematically about performance, and they will enhance their value as instructional design professionals by being able to offer solutions to organizational needs that go beyond traditional instruction.

IDT 647 Online Learning (3 Credit Hours)

This course is an applied survey on online instruction, including relevant online learning theory and design considerations, as well as tools and principles, with an emphasis on K-12 education. Topics include theories and principles of online learning, effectively identifying, locating, evaluating, preparing, and using educational technology as instructional resources in an online environment.

IDT 725 Human Performance Assessment (3 Credit Hours)

This course focuses on the theory, design, and evaluation of measurement instruments used to assess individual knowledge, performance, and attitudes. Topics include fundamentals of measurement, reliability, validity, and instrument selection, construction, and use. Students will develop and evaluate instruments for instructional and research purposes.

Prerequisites: FOUN 722 or equivalent

IDT 730 Principles and Practices of Human Performance Technology (3 Credit Hours)

This course explores both the principles and practices of human performance technology, with roughly equal emphasis on both. Students will learn what HPT is, how it's applied in practice, and how and why instructional designers need to know about it. Particular emphasis is given to determining whether or not problems are best amenable to instructional solutions.

IDT 735 Noninstructional Interventions (3 Credit Hours)

This project-based course examines several different non-instructional interventions that can be used to promote performance improvement. Major methodologies common in the field will be explored as a class, and students will also be required to familiarize themselves with other methodologies of their choice. Emphasis will be on the following interventions: job analysis/work design, performance development, human resource development, organizational communication, organizational design and financial systems.

IDT 737 Consulting Skills for Instructional Designers (3 Credit Hours)

This project-based course is designed to develop and enhance the ability of instructional designers to work as partners and consultants to clients and superiors. The focus is on consulting skills per se, and not any particular content. All students will be required to do an individual consulting project, supervised by the instructor.

IDT 739 Needs Analysis and Assessment (3 Credit Hours)

This project-based class will focus on the process of doing a needs analysis and assessment, from start to finish. Although theoretical considerations regarding needs analyses will be explored, the emphasis is on actually conducting the analysis. Students will work in teams under the supervision of the instructor to conduct a needs analysis for an external client.

IDT 746 Foundations of Distance Education (3 Credit Hours)

An analysis of the trends, issues, and theories of distance education in education, business, and military applications. Students will examine various distance education systems, policies and lessons from different perspectives.

IDT 749 Instructional Systems Design (3 Credit Hours)

Students will gain hands-on experience applying a theoretical understanding of instructional design and development to actual projects. Students will learn and use the Instructional Systems Design Process from initial learner profile analysis to design and development through to evaluation. Students will work individually and in teams to gain experience similar to real-world instructional design situations. Students will master the fundamental practices upon which the instructional design process is based.

IDT 751 Computer-Based Multi-Media Design (3 Credit Hours)

This course covers the theory, design, and evaluation of computer-based multimedia instruction. Students will demonstrate a thorough understanding of instructional theory and design strategies for computer-based drills, tutorials, hypermedia, simulations, games, tools, open-ended learning environments, tests, and web-based instruction. Class projects will center on the design and development of instruction utilizing at least two of these methodologies.

Prerequisites: IDT 749 and IDT 849

IDT 752 Diffusion and Adoption of Instructional Technology Innovations (3 Credit Hours)

This course will explore theories, research, and strategies related to the diffusion and adoption of instructional technology innovations in education and training. The course will explore why and how individuals, groups, and organizations adopt or fail to adopt an innovation or change.

IDT 755 Theory and Design of Instructional Simulation (3 Credit Hours)

This course focuses on learning theory, design and evaluation of instructional simulations and simulators. Topics include history, instructional design, validation, and integration of instructional simulations.

IDT 756 Instructional Gaming: Theories and Practice (3 Credit Hours)

Provides both a conceptual framework and experience in the design and development of instructional games. The course introduces the student to the history, research, theory, and practice of instructional games. Topics include discussions of relevant learning theories associated with instructional gaming, analysis and design of games and current research in instructional gaming.

IDT 760 Cognition and Instructional Design (3 Credit Hours)

Students will be introduced to the theoretical frameworks that form the basis of instructional systems theory and design. Focus will be on learning theories, instructional psychology, and instructional system theory. Recent developments in cognition, learning and instruction for educators will also be considered. Topics include perspectives of behaviorism, social-historical constructivism, cognitive science, situated cognition, and cultural influences on cognition.

IDT 761 Applied Instructional Design Tools (3 Credit Hours)

Problem-based course in which students gain experience applying knowledge from IDT 749/IDT 849 to real-world instructional and instructional technology problems. Project work is individual, paired, and in teams. Students demonstrate mastery of the instructional design and development process through production of tools, technologies, media or materials that successfully resolve an instructional problem. Focus is on rapid prototyping model.

Prerequisites: IDT 749 or IDT 849

IDT 763 Instructional Design Theory (3 Credit Hours)

Students will investigate traditional and contemporary instructional design theories and models. Behavioral, cognitive, generative, problem-based learning, and constructivist theories as well as cognitive hierarchies will be examined, compared, contrasted and applied to various instructional situations.

IDT 764 Instructional Message Design (3 Credit Hours)

This course is a study of the application of perceptual and learning principles to the design of instructional media for use in educational and training applications. The focus is on the development and application of heuristics from the research literature. We will examine verbal and iconic signs as well as visual imagery, and their role in the instructional and learning processes.

IDT 773 Advanced Instructional Design Techniques (3 Credit Hours)

Exploration and application of techniques, tools and competencies characteristic of expert designers. Topics may include: instructional strategies, use of design software, program design, advanced analysis techniques, motivation design, rapid prototyping, reducing design cycle time, and designing instruction for diverse learner populations.

Prerequisites: IDT 749/IDT 849

IDT 775 Designing Online Instruction (3 Credit Hours)

An applied survey of online instruction, including relevant theory and design considerations. Topics include efficacy of online learning, design considerations when using course management systems and similar online learning technologies, research and future directions.

IDT 795 Topics in Instructional Design and Technology (1-3 Credit Hours)

Provides opportunities for master's and doctoral students to explore topics related to instructional design.

IDT 801 Instructional Design and Technology Seminar (3 Credit Hours)

Introduces new Ph.D. students to the field of instructional design and technology and provides orientation to doctoral level study. The course includes reading, critiquing and analyzing empirical research, theories, and real-world instructional problems. Potential student research agendas consistent with faculty or programmatic research foci will be explored. Academic and technological expectations will be communicated and practiced.

IDT 810 Trends and Issues in Instructional Design and Technology (3 Credit Hours)

Exploration and discussion of trends and issues of current and historical significance to instructional design. Readings will include contributions of key scholars, past and present, in instructional design and related fields. Includes analysis of trends and issues to track and predict their impact on the future of the field.

Prerequisites: 9 hours IDT coursework

IDT 825 Human Performance Assessment (3 Credit Hours)

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IDT 879 Research Residency in Instructional Design and Technology (3 Credit Hours)

An introduction to conducting instructional technology research. Students will work in consultation with their advisor to develop a proposal for a study related to instructional technology as part of their research residency that will be submitted for presentation at a nationally refereed conference or to a refereed journal.

IDT 895 Topics in Instructional Design and Technology (3 Credit Hours)

Provides opportunities for master's and doctoral students to explore topics related to instructional design.

IDT 898 Research Residency II (1-3 Credit Hours)

A mentored research project by the student's advisor. Students work independently with their advisor to complete the research residency project. This course focuses on obtaining appropriate human subjects approval, collecting and analyzing data, and preparing a manuscript suitable for presentation or publication in nationally refereed journal or conference. Course may be repeated as needed, but only 3 hours may be counted toward degree requirements.

Prerequisites: IDT 879