Educational Technology

In the College of Education

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Courses Acceptable on Master’s

Degree Program in Education (EDTEC)

Refer to Courses and Curricula and Regulations of the Division of Graduate Affairs sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

EDTEC 532. Producing Digital Learning Media (1-3)
Two hours of activity per unit.
Digital learning media production for professionals in health, law, science, business, publishing, and other settings. Use of web- and video-based technologies, presentation, and data analysis tools for training and education. Not open to students in educational technology master’s degree or certificate programs.

EDTEC 540. Educational Technology (3)
Six hours of activity.
Rationale, foundations, theories, careers, trends, and issues in educational technology. Implications of educational technology for instruction and information in schools, government, and corporations.

EDTEC 541. Educational Web Development (3)
One lecture and six hours of laboratory.
Prerequisite: Basic computer literacy.
Systems, graphic design, and usability principles applied to design and development of web-based educational multimedia. Planning and prototyping digital media.

EDTEC 544. Instructional Design (3)
One lecture and six hours of laboratory.
Prerequisites: Educational Technology 540 and 541.
Systematic design of products for education and training. Use of analyses and content mapping to set instructional goals. Instructional methods derived from learning theories for use in schools, universities, corporations, and other settings. Rapid prototyping of instructional products.

EDTEC 561. Advanced Web-Based Multimedia Development (3)
Six hours of activity.
Prerequisites: Educational Technology 540 and 541.
Educational visualization with digital video, animation, sound, 2D and 3D graphics for mobile and web-based learning.

EDTEC 570. Advanced Teaching with Technologies (3)
Prerequisite: Educational Technology 470 or equivalent work experience.
Design of project-based and problem-based learning using Internet resources. Constructivist learning with online databases. Collaboration with distant classrooms and experts.

EDTEC 572. Technology for Course Delivery (3)
One lecture and six hours of laboratory.
Prerequisites: Educational Technology 540 and 541.
Use of technology to support planning, presenting, and managing instructor-led courses. Strategies for integrating audience response systems, collaborative tools, and social software into courses.

EDTEC 590. Evaluation Techniques for Performance Technologist (3)
Two lectures and three hours of activity.
Prerequisites: Educational Technology 540 and 541. Recommended: Education 690.
Design and use of tools to collect, analyze, and communicate data about learning and performance.

EDTEC 596. Topics in Educational Technology (1-3)
Selected problems in educational technology. May be repeated with new content. See Class Schedule for specific content. Limit of six units of any combination of 296, 496, 596 courses applicable to a bachelor’s degree. Maximum credit of six units of 596 applicable to a bachelor’s degree. Credit for 596 and 696 applicable to a master’s degree with approval of the graduate adviser.

GRADUATE COURSES

EDTEC 640. Psychology of Technology-Based Learning (3)
Six hours of activity.
Prerequisite: Educational Technology 544.
Principles of human learning and cognition applied to design and use of technology-based learning systems. Development of research-based guidelines for designing educational products and services.

EDTEC 650. eLearning Design and Development (3)
Two lectures and three hours of laboratory.
Prerequisite: Educational Technology 544. Recommended: Educational Technology 572.
Theories and models of online learning at home, work, and school. Use of systems dynamics in design, development, and evaluation of e-learning courses and self-adaptive online educational systems. Future societal and economic impacts of learning at a distance.

EDTEC 670. Exploratory Learning Through Simulation and Games (3)
One lecture and six hours of laboratory.
Prerequisites: Educational Technology 540 and 541.
Design, evaluation, and use of simulations and games for education and training. Instructional applications of role plays, board games, and multiplayer virtual worlds. Theories of motivation and interest.

EDTEC 671. Learning Environment Design (3)
One lecture and six hours of laboratory.
Prerequisites: Educational Technology 544 and 561.
Design and development of individualized instruction delivered through e-learning; learning management systems; informal learning for corporate and museum education.

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EDTEC 684. Management of Educational Technology (3)
Six hours of activity.
Prerequisite: Educational Technology 540. Recommended: Educational Technology 544.
Management of instructional design and performance interventions. Development of timelines, staffing plans, communication strategies, and budgets.

EDTEC 685. Informational and Instructional Technologies for Organizations (3)
Six hours of workshop and activities.
Prerequisites: Educational Technology 540 and 541.
Organizational and informational systems that support instructional products and services. Individual, team, and organizational analyses. Incentives, feedback, coaching, job-aids, selection, knowledge management, and other performance improvement strategies.

EDTEC 700. Seminar in Educational Technology (1-3)
Prerequisite: Educational Technology 540.
Selected areas, topics in educational technology. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units applicable to a master’s degree.

EDTEC 775. Directed Internship in Educational Technology (2-6) Cr/NC
Prerequisite: Consent of staff; to be arranged with department chair.
Supervised internship in an educational or training setting. Application to take course must be made during preceding semester.

EDTEC 798. Special Study (1-6) Cr/NC/RP
Prerequisite: Consent of staff; to be arranged with department chair and instructor.
Individual study. May involve fieldwork. Maximum credit six units applicable to a master’s degree.