

INSTRUCTIONAL TECHNOLOGIES (ITEC)

ITEC 299 How to Learn with Your Mobile Device (Units: 3)

How to identify your learning preferences and styles, create strategies to improve and augment learning, and use a variety of learning aids and devices to support learning. E-learning aids to include Podcasts, web searches, electronic note-taking, cell phones, blog and wikis, intelligent tutors, etc.

Course Attributes:

- E1 LLD Pre-Fall 2019

ITEC 315 Learning 21st Century Skills with Emerging Instructional Technologies (Units: 3)

Prerequisites: GE Areas A1*, A2*, A3*, and B4* all with grades of C- or better or consent of the instructor.

Acquiring essentials of learning 21st-century skills such as problem-solving, critical thinking, creativity, and collaboration using cutting-edge digital technologies within the framework of contemporary learning theory/instructional design principles. Interaction with and examination of an array of software applications to develop 21st-century skills.

Course Attributes:

- UD-D: Social Sciences
- Social Justice

ITEC 333 Digital Pioneers: Creating Innovative Digital Entrepreneurs (Units: 3)

Prerequisites: GE Areas A1*, A2*, A3*, and B4* all with grades of C- or better or consent of the instructor.

Learning and practice in advanced digital literacy; production and critical evaluation of digital products; create and evaluate personal products. Students advance from naïve digital creators to apprentice-level experts, manage and produce effective and innovative digital products, and learn critical evaluation techniques to validate the product, sources, and online presence. (Plus-minus letter grade only)

Course Attributes:

- E1 LLD Pre-Fall 2019
- UD-C: Arts and/or Humanities
- Am. Ethnic & Racial Minorities

ITEC 487 Children and Television (Units: 3)

Prerequisite: Upper-division standing.

How children use and are affected by mass media, particularly television. Theory and research describing children and television. Role of television in children's development.

(This course is offered as BECA 487 and ITEC 487. Students may not repeat the course under an alternate prefix.)

ITEC 601 Computer Fundamentals for Teachers (Unit: 1)

Prerequisite: Senior standing.

Basic computer skills as they apply to teaching. Development of competencies in operation and care of computer-related hardware, basic troubleshooting techniques, appropriate uses of computer-based technology in teaching and learning, and evaluation of educational software. Students will demonstrate basic skills in writing, presentation, email, and database software as applied to instruction.

ITEC 699 Independent Study (Units: 1-3)

Prerequisite: Upper-division standing or consent of the instructor.

Enrollment by petition approved by the instructor, adviser, and department chair.

An intensive study of a particular problem under the direction of a member of the department.

ITEC 711 Instructional Computing in Elementary Schools (Units: 3)

Prerequisite: Graduate standing or consent of the instructor.

Integrating digital technologies in classroom instruction within current technology standards context; developing interactive learning materials using digital software; exploring concepts related to digital literacy and citizenship. Equivalent to ITEC 712. Cannot be applied to the degree in Instructional Technologies. Meets multiple subject credential state requirements.

ITEC 715 Foundations of Instructional Multimedia (Units: 3)

Prerequisite: ITEC 740 or equivalent.

Plan, design, and develop computer-based multimedia using current theories and practices. Includes graphic screen design, navigation, user interface design, and audio and video files. Components are combined using authoring software into a working interactive project.

ITEC 720 Fieldwork in Educational Technology (Units: 3-5)

Prerequisites: ITEC 801; 12 units in Instructional Technology; consent of the instructor.

Work in educational and business settings to select, design, create, and/or evaluate instructional materials and procedures. (CR/NC grading only)

ITEC 740 Computer Design of Instructional Graphics I (Units: 3)

Prerequisite: Demonstration of computer literacy.

Theories of visual communication and graphic design as the foundation for the development of instructional computer graphics using industry standard graphics software applications. Image manipulation and typography skills support projects for computer presentations multimedia, web, and print.

ITEC 745 Instructional Web Authoring I (Units: 3)

Prerequisite: ITEC 715 or ITEC 740.

Fundamentals of web authoring including screen design, use of Web page creation tools, and functional use of HTML. The integration of instructional materials with web browsers. Design and implementation of instructional strategies using websites.

ITEC 770 Instructional Videography I (Units: 3)

Prerequisite: Graduate standing or consent of the instructor.

Introduction to the design and production of instructional videos. Develop and produce video projects and acquire technical competence in visualizing, scripting, aesthetics, shooting, editing, and field testing. Activity. May be repeated for a total of 6 units with the instructor's permission.

ITEC 800 Theoretical Foundations of Instructional Technologies (Units: 3)

Prerequisite: Graduate standing or consent of the instructor.

Develop the theoretical basis for the field of instructional design. Review classical, current, and emerging theories of learning, learning design, and instruction. Practice in training and instructional approaches with experience integrating theories into instructional design.

ITEC 801 Introduction to Learning Design, Design Thinking, and Innovation (Units: 3)

Prerequisite: Graduate standing or consent of the instructor.

Explore and apply various instructional design, design thinking, and innovation principles, frameworks, theories, and models to develop unique learning solutions. Develops the skills of being a professional instructional scriptwriter as well as learn to use the storyboarding technique to develop digital learning solutions.

ITEC 805 Needs Assessment and Program Evaluation (Units: 3)

Prerequisite: Graduate standing or consent of the instructor.

Develop the knowledge and skills needed to assess and address performance problems. Gain a deeper understanding of different needs assessment approaches and techniques. Develop proficiency in appropriately selecting a technique according to the context of the needs assessment. Understand the big picture while exploring the connection between needs assessment and program evaluation. Understand the components of program evaluation in the context of formative and summative evaluation.

ITEC 815 Integration of Instructional Computing (Units: 3)

Prerequisite: ITEC 715 or equivalent.

Integration of computing into instruction and utilization of a variety of hardware, systems, and peripherals in classrooms. Development of integration projects including desktop publishing, video, the web, and multimedia.

ITEC 816 Designing Digital Learning Spaces of the Future (Units: 3)

Prerequisite: Graduate standing or consent of the instructor.

The design of a Learning Space that incorporates the parameters and practices of student-centered learning and current and advanced technologies to optimize the learning experience for users. Examine adaptive, assistive, and accessibility practices and technologies with a focus on Universal Design for Learning principles. Explore a wide variety of tools and technologies to enhance the learning experience in classrooms, corporate training, virtual learning networks, and micro- or mobile laboratories. Study applications of networking and connectivity and possible applications of current and advanced technologies, e.g., augmented/virtual realities and 3D printing.

ITEC 818 Digital Game Play Design for Learning (Units: 3)

Prerequisite: Graduate standing.

Examination of game design theories, learning theories, and instructional design models. Survey of game design fundamentals and game play elements. Developing a game prototype by application theories and models. Introduction to and hands on practice with a game design engine. (Plus-minus letter grade only)

ITEC 819 Mobile Application Design and Development (Units: 3)

Prerequisite: Graduate standing or consent of the instructor.

Understand the process of analytical reasoning and problem-solving ability in designing a mobile application. Develop an understanding of computational thinking. Design an Android mobile application to address the needs for assistive technology, integrating GIS capabilities, and students assessment.

ITEC 823 Instructional Multimedia Tools: Flash I (Units: 3)

Prerequisite: Graduate standing or consent of the instructor.

Develop multimedia skills through experience with hardware and software tools for the production of instructional multimedia. Development of competence at storyboarding, authoring, graphics, digital sound, animation, and movie editing in the context of applying interactive principles which promote learning.

ITEC 825 Digital Product Usability Testing (Units: 3)

Prerequisite: Graduate standing or consent of the instructor.

Formative evaluation as an integral part of the professional practice of implementing instructional design projects. Usability testing is a highly marketable skill that can increase earnings as soon as a student graduates. Students work on teams in service of a real-world client, designing user testing, conducting testing, and evaluating and writing up a Formal Usability Evaluation Study that is presented to the client.

ITEC 830 Design of Learning Environments with Emerging Technologies (Units: 3)

Prerequisites: ITEC 800 and ITEC 801 or consent of the instructor.

Provide instructional designers with knowledge in learning theories and skills in designing personal learning environments (PLE) with emerging technologies. Exploration of new learning paradigms for 21st Century learners, the educational value of emerging technologies, and interface design.

ITEC 833 Instructional Products Design Studio (Units: 3)

Prerequisites: ITEC 800 and ITEC 801.

New digital technologies and equipment in a studio environment with a focus on conceptualization, design, and development of an instructional prototype and creating an appealing and effective product for today's classroom or corporate training room. Activity.

ITEC 835 Instructional Multimedia Tools: FLASH II (Units: 3)

Prerequisite: ITEC 823.

Advanced design and development techniques for Flash. Project-based learning and use of advanced authoring techniques in Flash.

ITEC 840 Graphics and Web Development (Units: 3)

Prerequisite: Graduate standing or consent of the instructor.

Theories of visual communication and graphic design as the foundation to develop instructional computer graphics using current industry-standard graphic software applications. Image manipulation and typography skills that support projects for computer presentations multimedia, web, and print. Explore current industry standard and cross-platform web authoring tools such as HTML 5.

ITEC 842 Cognition, Mind, and Learning for Educators (Units: 3)

Prerequisite: ITEC 800 or consent of the instructor.

Recent developments in cognition, learning, and instruction for educators, including perspectives on behaviorism, developmentalism, socio-historical constructivism, cognitive science, metacognition, situated cognition, learning transfer, transformational learning, multiple intelligences, and cultural influences on cognition.

ITEC 845 Instructional Internet Authoring II (Units: 3)

Prerequisite: ITEC 745.

Design and development of Internet sites with platform neutral programs. Creation, maintenance, and updating of websites including server configuration and maintenance, shocked movies, and streaming video and audio.

ITEC 850 Design and Management of Training Projects (Units: 3)

Prerequisites: ITEC 800 and ITEC 801.

Project design and management in the context of instructional systems design as applied to the development and implementation of major training projects in corporate settings. Includes program development, supervision, group processes, and staff and client relations.

ITEC 852 Instructional Technologies in Organizations (Units: 3)

Prerequisites: ITEC 800 and ITEC 801 or consent of the instructor.

Performance technology as a means of improving human performance in organizations. Exploration of fundamental concepts and current approaches to the use of training technologies in the context of organizational development. Includes presentations by managers of training departments and other related areas within corporate, not-for-profit, and government sectors.

ITEC 854 Design of Print Instructional Materials (Units: 3)

Prerequisite: ITEC 801.

Design and production of instructional print materials for training and educational purposes using a variety of applications including word processing, page layout, and slide presentation.

ITEC 860 Distance Education (Units: 3)

Prerequisites: ITEC 800 and ITEC 801 or consent of the instructor.

Introduction to the principles of teaching and learning at a distance: distance learning, distributed learning, e-learning, online learning, and hybrid or blended learning. Explore the complexities of designing instruction in various distance contexts (corporate training, education, military training, non-profit organizations, informal learning, etc.). Develop an understanding of fundamental instructional concepts supporting various distance and blended/hybrid instructional and learning strategies, tactics, and media. Apply these concepts in a real context through frequent online learning activities, working in teams to develop and facilitate a significant distance education module during the course.

ITEC 865 Fundamentals of Designing Interactive E-Learning Courses (Units: 3)

Prerequisite: Graduate standing or consent of the instructor.

Apply various frameworks and models to design interactive E-learning environments. Explore the current trends in the field of E-learning such as section 508 for accessibility, learning analytics, microlearning, just in time learning, xAPI, etc. Understand the importance of conducting usability testing in developing interactive e-learning environments. Become proficient in one of the industry-standard E-learning development platforms.

ITEC 894 Creative Work (Units: 3)

Prerequisites: Consent of the instructor and graduate major adviser; approval of Advancement to Candidacy (ATC) and Culminating Experience (CE) forms approved by Graduate Studies before enrollment.

Design, develop, and produce an instructional product or work. (CR/NC grading only)

ITEC 895 Field Study (Units: 3)

Prerequisites: Consent of the instructor; approval of Advancement to Candidacy (ATC) and Culminating Experience (CE) forms by Graduate Studies before registration.

Design, produce, and field test an instructional unit using the instructional systems approach and documenting the process in a narrative case study. (CR/NC grading only)

ITEC 899 Independent Study In Instructional Technologies (Units: 1-3)

Prerequisites: ITEC 800 and ITEC 801. Enrollment by petition approved by the instructor, adviser, and department chair.

Development of an instructional unit or field internship under the direction of a member of the department.