INSTRUCTIONAL DESIGN AND EDUCATIONAL TECHNOLOGY, MS

Program Description

The Master of Science Degree in Instructional Design and Educational Technology (IDET) is a fully online program oriented toward trainers, instructional designers, e-learning specialists, professional educators in K-12, higher education, and corporate, military, health, and public service sectors. The IDET program is consistent with state, national, and international standards, supported by the Association for Educational Communications and Technology (AECT), Association for Talent Development (ATD), International Association for K12 Online Learning (iNACOL) standards and the International Society for Technology in Education (ISTE) standards. The IDET Program offers current professional grade technology tools and uses current design models with service outlet opportunities. The program’s goal is to enable graduates to solve learning and performance problems by means of applying instructional design principles, emergent technology applications and software, learning theories, best practices, and relevant research. These projects are supported and encouraged to involve community and international collaborators and allows students a considerable amount of flexibility to explore areas of personal interest. IDET students work with their faculty advisor to develop a program of study emphasizing the aspects of Educational Technology they wish to focus on, fitting to each student’s learning and career goals.

Students acquire skills and knowledge in the following areas:

- describing the historical and theoretical underpinnings of the field;
- applying current mobile and computing applications and Internet resources useful in diverse learning environments;
- conducting project-based learning and associated learning events;
- applying learning theories and instructional strategies appropriate for given categories of human capabilities;
- using instructional design theory, models, principles, and processes;
- designing and developing instructional materials in a variety of technology-based formats;
- designing and developing instructional hypermedia with the latest course authoring tools;
- exploring emerging technology including virtual and augmented reality development;
- developing online instruction;
- exploring current STEM related technology and engineering applications, strategies, and pedagogies.

All students must successfully complete the IDET 5397 Instructional Design and Educational Technology Practicum (3 sch), including a program-progressive electronic portfolio and oral defense prior to graduation. Elective courses may not be taken. However, students who have earned appropriate graduate credit hours from a duly accredited college or university may be allowed to transfer a maximum of nine previous semester of graduate-level credit hours based upon approval by an assigned faculty advisor. Transferred courses may not be more than seven years old on the day of the student’s graduation.

Students in this program experience local and global collaboration through project-based learning with meaningful community service learning outcomes. Some of these projects involve partnerships with K-12, higher education, and local learning environments. The IDET space platform, formerly interconnect.tamucc.edu, highlights some of those past and ongoing projects and opportunities.

Student Learning Outcomes

The IDET Master’s Program is driven by three major Student Learning Outcomes (SLOs). Graduates will:

- Plan and develop effective, efficient instruction and related assessments using instructional design processes and principles to solve 21st century learning and performance problems.
- Design and develop complete, effective instruction for online learning environments in an active learning management system.
- Demonstrate knowledge, skills, and application of the field’s underlying theories, knowledge base, and tools in an electronic portfolio, or website.

For Additional Information

Website: https://gradschool.tamucc.edu/degrees/education/Instr_Design_Ed_Tech.html

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Admission Requirements

Students are eligible to pursue graduate-level course work in Instructional Design and Educational Technology if they meet COEHD graduate admission requirements as specified in the COEHD’s Graduate Policies and Regulations (http://catalog.tamucc.edu/graduate/education-human-development/) section of this catalog.

Program Requirements

Prerequisites

Applicants entering into the program will be required to take an online module that assists learners in use of the learning management system at TAMU-CC.

Required Courses

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<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tr>
<td>EDFN 5301</td>
<td>Introduction to Research</td>
<td>3</td>
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<tr>
<td>ERST 5302</td>
<td>Studies in Equality of Educational Opportunities</td>
<td>3</td>
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Core Courses

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<th>Code</th>
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<tr>
<td>IDET 5300</td>
<td>Instructional Design and Educational Technology Foundations</td>
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Courses

IDET 5300 Instructional Design and Educational Technology Foundations
3 Semester Credit Hours (3 Lecture Hours)
Conceptual foundations of the field of Instructional Design and Educational Technology. Considers historical factors that contributed to the development of the field. Considers underlying systems concepts. Introduces major publications and professional organizations in the field. Includes a research project.

IDET 5301 APPLICATIONS IN INTEGRATED SOF
3 Semester Credit Hours (3 Lecture Hours)
Practical application skills for using record keeping, and mail-merge skills for using integrated software in a school environment. Portfolio that includes materials related to classroom management and communication, record keeping, and instruction will be developed.

IDET 5302 Computer Applications in Education
3 Semester Credit Hours (3 Lecture Hours)
Introduces the uses of technology in classroom environments. Examines and practices technology integration within classroom environments, using various applications, instructional and productivity software, as well as evaluation tools and resources. Addresses development of integrated instructional activities and a collaborative final project related to selected instructional goals.

TXVSN Professional Development Award

All students who successfully complete IDET 5360 Design Strategies for Online Instruction and Learning Management Systems (3 sch) and IDET 5365 Instructional Materials Development for Learning Management Systems (3 sch) complete the professional development required to design and teach courses on the Texas Virtual School Network. A TAMUCC College of Education Professional Development Award will be granted to each student successfully completing those courses as documentation for TxVSN networks or other agencies. See http://txvsn.tamucc.edu/ for more information.

IDET 5303 Instructional Hypermedia
3 Semester Credit Hours (3 Lecture Hours)
Application of a variety of computing applications integral to effective hypermedia development. Study of hypermedia design research. Production of a series of hypermedia objects in audio, video, and graphic production, as well as a final project related to selected instructional goals.

IDET 5304 Instructional Design
3 Semester Credit Hours (3 Lecture Hours)
Provides an introduction to instructional design theory, principles, and techniques and related learning theories. Considers various instructional design models including the Instructional Systems Development Model. Includes development of a final instructional design project. While there is no prerequisite for this course it is recommended that IDET 5304 be completed first.

IDET 5305 Instructional Design Applications
3 Semester Credit Hours (3 Lecture Hours)
Specification of research-based instructional strategies for various categories of learning outcomes. Applied use of educational technologies to design and develop instructional materials that are consistent with research findings in the field.

IDET 5310 Internet Resources in Education and Training
3 Semester Credit Hours (3 Lecture Hours)
Surveys uses of Internet resources for instruction. Considers design standards and software tools for web development. Considers instructional strategies involving use of Internet resources to support learning.
IDET 5320  Project Based Learning and Related Strategies for Technology Integration  
3 Semester Credit Hours (3 Lecture Hours)  
A course designed to enable participants to thoughtfully plan for integration of computers and other media in instruction. Examines the Project-Based Learning Model to engage learners in projects requiring investigation, analysis, synthesis, and presentation in real-world situations. Considers a rationale for technology integration, learning theory, evaluation of interactive media, strategies for technology integration, and related student assessment.

IDET 5360  Design Strategies for Online Instruction and Learning Management Systems  
3 Semester Credit Hours (3 Lecture Hours)  
This course is designed to provide educators with an overview of the instructional and programmatic factors that should be considered when designing, developing, and delivering an online course. Incorporates research-based knowledge consistent with International Association for K-12 Online Learning (iNACOL) and Texas Virtual School Network (TxVSN) standards. This course considers the specific needs of online students as well as the pedagogical and technical skills necessary to succeed when teaching online. Aspects of course website usability and accessibility are also addressed.

IDET 5365  Instructional Materials Development for Learning Management Systems  
3 Semester Credit Hours (3 Lecture Hours)  
A course addressing research and best practices related to the development of instructional activities and materials for online instruction within a learning management system environment. Incorporates research-based knowledge consistent with International Association for K-12 Online Learning (iNACOL) and Texas Virtual School Network (TxVSN) standards. Consistent with those standards, researches sound instructional strategies for promoting student success. Covers legal, ethical, and safe behavior related to technology use. Considers research on the development and delivery of assessments and assignments that meet standards-based learning goals. Reviews research on assessment and measurement of learning and use of data from assessment and other sources to formatively modify content.

IDET 5380  Educational Technology for Administrators  
3 Semester Credit Hours (3 Lecture Hours)  
This course serves the modern administrator regarding problems of use, selection, and management of administrative educational technology at the campus level.

IDET 5390  Professional Seminar  
3 Semester Credit Hours (3 Lecture Hours)  
Contemporary issues in educational technology; topics vary with professional interests and needs of participants.

IDET 5396  Directed Individual Study  
3 Semester Credit Hours

IDET 5397  Instructional Design and Educational Technology Practicum  
3 Semester Credit Hours (3 Lecture Hours)  
Students will design and assemble their IDET Masters journey professional portfolio and complete a service-based, on-the-job guided practice in the planning and use of educational technologies and instructional design skills within a program-approved learning environment.

IDET 5696  Directed Individual Study  
1-6 Semester Credit Hours (1 Lecture Hour)  
May be repeated when topics vary.

IDET 6301  Foundations of Instructional Design  
3 Semester Credit Hours (3 Lecture Hours)  
Explores theoretical, conceptual, technological and historical foundations of instructional design and educational technology. Examines the historical development of using technology for educational purposes. Includes intensive examination and application of contemporary learning theories and instructional design principles and processes related to use of technology in instructional environments.

IDET 6315  Project-Based Learning Types and Emerging Technologies  
3 Semester Credit Hours (3 Lecture Hours)  
This course takes a deeper look regarding emerging technologies and research-based practices in project-based and related learning environments. Students will be invited into a project-based experiential process that includes a local service outlet. Extension of Web 2.0, web conferencing, audio, emerging technologies and pedagogical practices are explored and integrated into their research of their project. Students review research on project-based and related learning environments, critically analyze the research, and develop a related theoretically-based paper for submission to a professional publication or conference.

IDET 6345  Visual Literacy  
3 Semester Credit Hours (3 Lecture Hours)  
This fully online course acquaints learners with a blend of instructional design, development, and production competencies that will contribute to their visual literacy. Visual literacy is the ability to understand and use images, including the abilities to describe cultural and psychological meanings of images one encounters, as well as to think, learn, and express oneself with images. Instructional design and development skills learned will be based on theoretical and research issues related to visual literacy. Because the course is taught via the Web at a distance, learners will have to provide their own PowerPoint, graphics development, spreadsheets, and word processing software or use those provided in public spaces. Computer labs at TAMU-CC have the necessary software. Any work may be done in this class in collaboration with others from the class. Students are expected to work with others as much as time permits and are expected to learn from and teach each other about visual literacy. The course is available at http://Bb9.tamucc.edu.

IDET 6360  Design Strategies for Online Instruction and Learning Management Systems  
3 Semester Credit Hours (3 Lecture Hours)  
Addresses concepts, structures, and design strategies for effective online instruction through exploration within a learning management system. Researches and develops experiential strategies for active learning, interaction, and collaboration. Considers student diversity, academic needs and accommodations, professional development, and online interactions. Also addresses arranging media and content within an LMS. Course content is consistent with International Association for K-12 Online Learning (iNACOL) and Texas Virtual School Network (TxVSN) standards.
IDET 6365 Instructional Materials Development for Learning Management Systems
3 Semester Credit Hours (3 Lecture Hours)
A course addressing research and best practices related to the development of instructional activities and materials for online instruction within a learning management system environment. Incorporates research-based knowledge consistent with International Association for K-12 Online Learning (iNACOL) and Texas Virtual School Network (TxVSN) standards. Consistent with those standards, researches sound instructional strategies for promoting student success. Covers legal, ethical, and safe behavior related to technology use. Considers research on the development and delivery of assessments and assignments that meet standards-based learning goals. Reviews research on assessment and measurement of learning and use of data from assessment and other sources to formatively modify content.

IDET 6370 Online Course Design, Development, and Review
3 Semester Credit Hours (3 Lecture Hours)
Participants in this project-based course must have access to a networked computer. Students learn how to create engaging instruction for online learners. The course is delivered as a workshop and field-based experience in which students create online instructional content in the Blackboard learning management system. Emphasis will be placed on application of learner-centered instructional strategies. Legal issues related to copyright and accessibility will be addressed. The course consists of 4 phases: First, students explore ways to design engaging learning experiences by applying learner-centered pedagogy to course design and development. Second, students learn how to support academic integrity and follow ADA and copyright guidelines in their online course designs. Third, students fully develop a highly interactive, engaging online course where an instructor has a lot of personal presence. Fourth, students learn how to evaluate a course for quality and review a peer's course design. Upon successful course completion students will receive a Professional Development and Continuity of Learning Certificate and a Certificate.

IDET 6375 Theoretical Foundations and Frameworks of Learning Environments
3 Semester Credit Hours (3 Lecture Hours)
The course is available at http://Bb9.tamucc.edu. This blended course provides students, faculty, and instructional designers with a clear, concise introduction to the major pedagogical and psychological theories and their implications for the design of new learning environments for schools, universities, or corporations. Students analyze and explore a survey of the most important contemporary theories forming the foundational design of student-centered learning environments and the new applications of educational technologies. The major products of this course include three theoretical framework writing samples: a deconstructive analysis, a synthesized construction, and a proposed theoretical framework or model for a selected former constructivist environment learning solution as a possible leading conference paper submission.

IDET 6380 Design and Development Research
3 Semester Credit Hours (3 Lecture Hours)
The course is available at http://Bb9.tamucc.edu. This blended course acquaints learners with processes and products of design and development research. Students analyze and explore design-based research and other literature to identify a societal problem to address. They then design a potential educational solution. They describe methods to evaluate the impacts and effects of the potential solution. The product of the course is a research proposal as well as knowledge of research processes to be followed for future studies.

IDET 6390 Special Topics in Instructional Design and Educational Technology
3 Semester Credit Hours (3 Lecture Hours)
Application of research regarding contemporary theoretical and applied issues in instructional design and educational technology. Topics vary with professional needs and interests and participants.