

LEARNING DESIGN AND TECHNOLOGY (LDT)

LDT 505: Integrating Mobile Technologies into Learning Environments

3 Credits

Research on learning with mobile computers and models for mobile computer integration for K-12 schools, community organizations, and universities. LDT 505 Integrating Mobile Technologies into Learning Environments (3) Integrating Mobile Technologies into Learning Environments examines how people use and learn with mobile computers in their everyday lives around the world. The focus is on the uses and educational possibilities of mobile computers to serve as tools that can support people in various learning environments (such as schools, colleges and universities, training and professional development, museums, libraries, homes, and workplaces). Topical areas are covered that build from empirical studies about how people learn with mobile forms of computing: (1) how people use mobile computers in their everyday lives, (2) key theoretical perspectives on how people learn with mobile computers, and (3) research findings on integrating mobile computers into the design of learning environments. In addition to activities for the whole class, students select one course strand to support their own interests and final project. The course strands are tailored to students' interest and can include (1) integrating mobile computers to support families and young people, in and out of school, (2) integrating mobile computers to support adult learners in higher education (includes distance education), (3) integrating mobile computers to support workforce development, vocational education, professional development, certification achievement, and on-the-job training, and (4) integrating mobile computers within community-based organizations, personal hobbies, and cultural institutions.

LDT 525: Instructional Design Models, Strategies, and Tactics

3 Credits

Application of instructional design models and design of appropriate instructional strategies and tactics.

Prerequisite: LDT 415

LDT 527: Designing Constructivist Learning Environments

3 Credits

Designing learning environments based on constructivist principles of learning that provide modeling, coaching, and scaffolding.

LDT 537: Power, Politics, and Equity in Learning Environments

3 Credits

This course examines contemporary research that addresses questions of power, politics, and equity in learning environments and processes. The course is strongly rooted in the sociocultural tradition of the learning sciences. Students will discuss conceptual and methodological approaches and apply them to contexts relevant to their own research. Particular attention will be given to learning environments and their design, a central research practice of the learning sciences. The course considers ramifications of power for design work in learning research. Part 1 of the course explores what it means to think about power, politics, and equity in learning and includes reflection on personal experiences

as an entryway to the course topic. Part 2 surveys a range of theories and empirical studies that locate power, politics, and equity in learning in various ways. For example, the course considers how learning intersects with identity processes, ideology, and social movements. Part 3 approaches questions of learning environment design more deeply, asking in what senses designs and technologies have politics and how to engage in design with power, politics, and equity in mind.

LDT 544: Video for Instruction, Training, and Research

3 Credits

Theory, design models, and methodologies supporting the use of video in a variety of learning environments.

Prerequisite: INSYS447

LDT 549: Current Topics in Emerging Technologies

3 Credits

An in-depth seminar on the instructional and training design implications of specific new technologies as they emerge.

LDT 550: Learning Design Studio

3 Credits/Maximum of 12

Examines a range of skills, processes, and theories for designing and developing interactive educational materials.

LDT 553: Managing and Consulting for Instructional Development

3 Credits

Knowledge and skills in managing and coordinating an instructional development project and consulting with subject matter experts and clients.

Prerequisite: INSYS525

LDT 566: Using Technology to Enhance Learning Process

3 Credits

Technology has a long history of supporting thinking and learning both within and outside of school settings. With this history comes some controversy over * the utility of different technological tools, * the ways that different technologies should be used to support learning, and * the tradeoffs associated with different approaches to using technology to support learning. Thus, it is important to be strategic with and critical of technology use and build on empirical research to design tools and learning contexts that better meet the needs of learners. The main aim of this course is to help students understand that technology use has important tradeoffs that need to be considered when designing technology-enhanced learning contexts. The course will examine the costs and benefits of technology use and cover emerging research topics on technology-enhanced learning. The course will connect learning theories with concrete examples of how technology can be used to enhance important learning processes. Building on these course topics, students will be expected to propose concrete ways that they can change existing design/teaching processes to mitigate problems associated with technology use and enhance learning processes.

2 Learning Design and Technology (LDT)

LDT 574: Applied Qualitative Research for Work Practice, Innovation, and Systems Design

3 Credits

Investigates qualitative research paradigms and methodologies; develops skills in use of ethnographic methods in work practice, innovation and systems design.

Prerequisite: ADTED550

LDT 575: Designing Experimental Research in Learning, Design, and Technology

3 Credits

Designing research studies in Learning, Design, and Technology of a quantitative and experimental nature, which results in a research proposal.

LDT 576: Design-based Research Methods, Applications for Educational Research

3 Credits

The course focuses on design-based research methods in education.

LDT 577: Computer Supported Collaborative Learning

3 Credits

CSCL is an interdisciplinary branch within the Learning Sciences that focuses on the study of social learning processes with and without technology, and the development and evaluation of tools to improve the practice of collective cognition in learning contexts. CSCL also promotes a shift in mainstream education from a practice that prioritizes individual knowledge acquisition of inert forms of knowledge about things, to one that prioritizes higher forms of psychological function, such as control over learning processes, artifact creation, and collaborative knowledge building. The CSCL community is made up of a diverse collection of researchers and includes design and lab-based studies. As such, this class will provide an overview of a variety of literature in CSCL and take a collaborative approach towards exploring this exciting field. We will use collaborative technologies to discuss and build understanding of key CSCL theories, learn about CSCL methodologies, and create new tools, artifacts, and designs to articulate our developing understanding.

LDT 581: Theoretical Foundations of Learning, Design, and Technology

3 Credits

Analysis of theoretical foundations of the instructional systems (systems and cybernetics, communications, cognitive psychology, sociological, constructivist, ecological) for doctoral students.

Prerequisite: PH.D. or D.ED. candidacy

LDT 583: Survey of Research in Learning Sciences and Technology

3 Credits

Analysis and evaluation of research in domains of learning sciences and technology. This course reviews the empirical research literature from the Learning Sciences and Technology fields. Students will gain experiences reading and understanding research papers to understand

modern perspectives on the theories, models, methods, and tools used in the learning sciences.

Cross-listed with: SCIED 583

LDT 586: Diffusion and Adoption of Innovations and Change

3 Credits

Understanding change process in educational contexts, comparing various models, tailoring them to individual needs, and creating personalized model of change.

LDT 594: Research Topics

1-18 Credits/Maximum of 18

Supervised student activities on research projects identified on an individual or small group basis.

LDT 595: Internship

1-18 Credits/Maximum of 18

Supervised off-campus, nongroup instruction, including field experiences, practicums, or internships. Written and oral critique of activity required.

LDT 596: Individual Studies

1-9 Credits/Maximum of 9

Creative projects, including nonthesis research, which are supervised on an individual basis and which fall outside the scope of formal courses.

LDT 597: Special Topics

1-9 Credits/Maximum of 9

Formal courses given on a topical or special interest subject which may be offered infrequently.

LDT 597B: **SPECIAL TOPICS**

3 Credits

LDT 600: Thesis Research

1-15 Credits/Maximum of 999

NO DESCRIPTION.

LDT 601: Ph.D. Dissertation Full-Time

0 Credits/Maximum of 999

NO DESCRIPTION.

LDT 602: Supervised Experience In College Teaching

1-3 Credits/Maximum of 6

NO DESCRIPTION.

LDT 610: Thesis Research Off-Campus

1-15 Credits/Maximum of 999

NO DESCRIPTION.

LDT 611: Ph.D. Dissertation Part-Time

0 Credits/Maximum of 999

NO DESCRIPTION.

LDT 824: Making and Education: Fabrication, DIY and Content Creation in Learning, Design and Technology

3 Credits

This course will explore the historical roots of maker education and hobbyist learning activities, as well as the changing landscape of making, content creation and constructionist activities in formal and informal learning environments. The purpose of the course is to build upon students' knowledge, skills and understanding of different uses of historical, contemporary and emerging physical, digital and non-digital tools and technologies and their affordances for teaching and learning in formal and informal contexts.

LDT 832: Designing e-learning Within Course Management Systems

3 Credits

Practical design of instructor-facilitated online lessons taking advantage of the affordances and within the constraints of course management systems. LDT 832 Designing e-learning Within Course Management Systems (3) This course is intended for professionals in corporate and non-profit settings including those in online cyber schools, but will be informative for anyone designing online learning. Participants in this course learn to use the internal features of a CMS and to find and incorporate external tools (i.e., go outside the CMS, create something, bring it back inside). By controlling access and records, course management systems (CMS) provide a safe haven for online learning that protects the learners, the teachers, and the institution. But as closed systems, the CMS limits learning approaches to what is available within the CMS. This course requires directed hands-on experience with a CMS to develop understanding with the capability and limitations of management systems. Students who successfully complete this course will have an expanded repertoire for designing, developing, and implementing learning online and a skill set for integrating new tools and approaches into their instruction. This course provides professionals in corporate and non-profit and other settings with hands-on experiences with online management systems to gain command of, and extend its use. Topical areas that you will read, discuss, and write about include the affordances and constraints of Course Management Systems, the tension between safety online versus access to open resources, mandates (i.e., FERPA and accessibility issues), the current and future forms of virtual classrooms, instructional design models for e-learning, the role of lesson plans as learning objects, evidenced-based didactic and constructivist delivery strategies including project-oriented approaches, problem-based learning, and case-based learning, and e-learning assessment. Subsidiary topics covered include games, simulations, mobile learning, and other breaking current topics related to online course design and delivery. The role and significance of social learning approaches in online courses are emphasized as an essential dynamic in current online courses (e.g., asynchronous discussions, learning communities, and community of inquiry). You will be asked to prepare and then moderate a class discussion and also to participate in an external professional learning community. A central outcome of this course is to actually design effective learning in a CMS. The final course project consists of a learning module that you develop within a course management system of your choice on a topic of your choice for an audience of your choice, and includes serving as instructor or facilitator

of that module. You will also review lessons developed by others to provide formative feedback on those modules.

LDT 835: Supervised Field Experience in Online Instruction

3 Credits

The Supervised Field Experience in Online Teaching is a practical application of contemporary skills and practice related to online or hybrid (residential + online) education. This field experience allows students to apply and demonstrate their skills in designing, developing, and delivering online instruction to an authentic audience. The supervised field experience synthesizes and applies online program instruction in a real-world context. The experience can be tailored and differentiated to match the students' professional goals related to their desired role(s) within an educational system. The student's online teaching field experience will contain adequate rigor that both demonstrates practical application of skills learned during Learning, Design, and Technology certificate or degree coursework as well as provide new opportunities for professional development and growth.

LDT 843: Learning Technologies for Good and Evil

3 Credits

This course starts from the assumption that good outcomes of new technology for education and society are never guaranteed but rather that the use of technology for learning, or any other purpose, always entails ethical tensions—a struggle between "good" and "evil." The course provides a practical angle on these issues for learning technology designers, educators, and researchers. The course is organized into three parts. Part 1 provides initial conceptual frames for thinking about ethical issues in technologies for education and learning, including basic moral theory, utopian/dystopian thinking, and guiding values. Part 2 surveys a range of contemporary issues in technology and ethics that are relevant to education and learning. For example, the course considers issues of surveillance, engagement and addiction, and debates over profit-seeking. Part 3 focuses on drawing conclusions for practice, with application to individual students' professional contexts.

LDT 867: Designing and Researching Games and Online Communities for Teaching and Learning

3 Credits

This course focuses on historic and contemporary issues relevant to designing and researching games (digital and non-digital), and related media and online communities for learning. The purpose of the course is to provide an overview of relevant literature and timely topics related to games, learning and communities of practice in order to engage in effective research and design for learning and engagement. Drawing on interdisciplinary research, students will examine the history of digital games, research on game play and players, review how researchers from different disciplines have conceptualized and investigated learning through playing and designing games, and what we know about possible outcomes. The course also addresses how games and communities can effectively be designed to be inclusive of learners of different ages, backgrounds and abilities.

LDT 894: CAPSTONE EXPERIENCE

1-9 Credits/Maximum of 999

Supervised, professionally oriented student activities that constitute the culminating experience for the program.

LDT 895: Internship

1-18 Credits/Maximum of 18

Supervised, professionally oriented, off-campus, nongroup instruction, including field experiences, practicums, or internships. Written and oral critique of activity required.

LDT 896: Individual Studies

1-9 Credits/Maximum of 999

Creative projects with a professional orientation, including nonthesis research, that are supervised on an individual basis and which fall outside the scope of formal courses. Creative projects, including nonthesis research, that are supervised on an individual basis and which fall outside the scope of formal courses.

LDT 897: Special Topics

1-9 Credits/Maximum of 12

Forma courses given on a topical or special interest subject with a professional orientation that may be offered infrequently.