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# Learning Design and Technology

In the School of Journalism and Media Studies  
In the College of Professional Studies and Fine Arts

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## Faculty

Marcie J. Bober-Michel, Ph.D., Professor of Learning Design and Technology, Area Coordinator (Graduate Adviser)  
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## General Information

Learning Design and Technology offers graduate study leading to a Master of Arts degree in education with a concentration in learning design and technology. The concentration enables students to prepare for careers as performance technologists, instructional designers, corporate trainers, and elearning practitioners. State-of-the-art coursework and internships in companies, agencies, and schools prepare candidates to analyze performance problems and design, develop, and evaluate instructional strategies, and products. Students graduate with a portfolio to include video, multimedia, print and online materials. For further information, contact the area coordinator of learning design and technology.

## Admission to Graduate Study

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the \$55 application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the School of Journalism and Media Studies (refer to the appropriate degree section for the address to submit additional information).

### Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions  
Enrollment Services  
San Diego State University  
San Diego, CA 92182-7416

- (1) Official transcripts (in sealed envelopes) from all postsecondary institutions attended;

NOTE:

- Students who attended SDSU need only submit transcripts for work completed since last attendance.
- Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.

- (2) GRE scores (<http://www.ets.org> SDSU institution code 4682);

- (3) English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

### Learning Design and Technology

Complete the program application via DecisionDesk, <http://gra.sdsu.edu/decisiondesk/>. See [http://jms.sdsu.edu/index.php/admissions/ldt\\_admissions\\_requirements](http://jms.sdsu.edu/index.php/admissions/ldt_admissions_requirements) for details.

## Master of Arts Degree in Education

### Admission to the Degree Curriculum

Applicants must satisfy the general requirements for admission to the university with classified graduate standing, as described in Part Two of this bulletin.

### Advancement to Candidacy

All students must satisfy the general requirements for advancement to candidacy as described in Part Four of this bulletin.

### Specific Requirements for the Master of Arts Degree

In addition to meeting the requirements for admission to the university with classified graduate standing, the student must satisfy the basic requirements for the master's degree described in Part Four of this bulletin. Students must also meet the requirements as described below. Courses common to the concentration are Learning Design and Technology 690 and Plan A, which requires Education 799A, or Plan B, in which three options are available, Education 791A (3 units) and 791B (1 unit); or Education 791A (3 units) and 791B (3 units); or Education 795A (3 units) and 795B (3 units). All candidates for the Master of Arts degree in education who elect Plan B must pass a comprehensive examination.

### The Comprehensive Examination

This written examination, designed to evaluate achievement in the concentration, is required of all candidates for the master's degree in education. A student is eligible to take the comprehensive examination only after advancement to candidacy.

The examination is offered during the semester in which students are enrolled in Education 795B. For information on examination dates, contact the area coordinator of learning design and technology.

### Selection of Plan A or Plan B

In general, applicants will be programmed for Plan B, the seminar plan. After the student is approximately half way through the program, has secured an adviser and established a thesis plan, permission to transfer to Plan A may be requested. Plan A is designed for students who have a particular research problem they wish to investigate in some detail. Requests for transfer to Plan A must be prepared as an official change in program for the master's degree, countersigned by the faculty adviser, and submitted to the Office of Graduate Programs in the College of Education.

Both Plan B options provide students the opportunity (1) to have two experiences which emphasize research or evaluation and writing, (2) to participate actively in the projects of the other members of the seminar, and (3) to subject their own work to critical evaluation by the other seminar members. Both plans require the ability to formulate and define research or evaluation problems, to assemble data pertinent to the problem, to draw conclusions, and to present the study in acceptable written form. It is expected that the two seminars will be at least as demanding as the thesis with respect to the difficulty and quantity of work required. Selection of one of the Plan B options must be made with the approval of the master's degree faculty adviser.

### Course Requirements

Students should consult with the master's degree adviser prior to taking coursework leading to the Master of Arts degree.

**Concentration in Learning Design and Technology  
(Major Code: 08992) (SIMS Code: 664642)**

Course requirements for the concentration include:

1. LDT 690 Research Methods for Learning Design (3)
2. Core program (6 units)
  - LDT 540 Educational Technology (3)
  - LDT 544 Instructional Design (3)
3. Electives (15-18 units): Courses in education and related fields, selected with the approval of the adviser on the basis of the student's interests and goals. A minimum of nine units must be taken in courses at the 600- and 700-level.
4. Research (3-6 units)
  - ED 791A Evaluation Techniques (3) AND
  - ED 791B Practicum: Evaluation (1-3)
  - OR**
  - ED 795A Seminar (3) AND
  - ED 795B Seminar (3)
  - OR**
  - ED 799A Thesis (3 units) Cr/NC/RP

**Specialization in Educational Computing within  
Learning Design and Technology Concentration  
(Major Code: 08992) (SIMS Code: 664643)**

Students specializing in educational computing must include Learning Design and Technology 544 and 572 in their program of study. Recommended electives to be approved by the program adviser include Learning Design and Technology 561, 596, 670, 671, 684, 775, and Special Education 650. The specialization prerequisite is Learning Design and Technology 540.

**Specialization in Workforce Education and Lifelong Learning  
(Major Code: 08992) (SIMS Code: 664644)**

This specialization will allow students to prepare themselves as professionals who will focus on the development of education and training programs for youth and adults who are traditionally undereducated, non-college educated and who work in non-management jobs.

Students specializing in Workforce Education and Lifelong Learning pursue the following program: The prerequisite is Learning Design and Technology 540. Learning Design and Technology 544 is a required course to be included in the core. Recommended electives to be approved by the program adviser may include: Learning Design and Technology 572, 640, 650, 670, 684, 685; Administration, Rehabilitation and Postsecondary Education 631, 730, 747; Dual Language and English Learner Education 601; Teacher Education 631, 639.

**Distance Education Certificate**

(SIMS Code: 664603)

This certificate program will provide necessary skills to in-service managers, instructors, instructional designers, evaluators, local site coordinators, and other professionals working in distance education systems and programs in higher education, K-12, business, and government, including personnel in law enforcement, and the military. Students who complete the certificate program and meet all other criteria may apply to be admitted to the M.A. program in learning design and technology. For application or further information, see the program adviser in Learning Design and Technology.

**Prerequisites:** A bachelor's degree from an accredited institution with a grade point average of at least 2.85 (when A equals 4) in the last 60 semester (90 quarter) units attempted. A satisfactory score on the verbal and quantitative sections of the GRE General Test (combined score of 950). At least three years of experience in distance, open or extended education, training, HRD or a related field. Mastery in telecommuting and learning new information technology applications.

Required courses (9 units):

- LDT 640 Psychology of Technology-Based Learning (3)
- LDT 650 eLearning Design and Development (3)
- LDT 684 Managing the Learning Design Process (3)

Electives: (3 units) to be selected from the following with approval of program adviser:

- LDT 544 Instructional Design (3)
- LDT 670 Learning Through Games and Simulations (3)
- LDT 671 Learning Environment Design (3)
- LDT 685 Performance Technology for Organizations (3)
- LDT 700 Seminar in Learning Design and Technology: Best Practices in Distance Education (1)
- LDT 700 Seminar in Learning Design and Technology: Cybergogy and Engaged Learning (1)
- LDT 700 Seminar in Learning Design and Technology: Management Issues in Distance Education (1)

**Instructional Design Certificate**

(SIMS Code: 664602)

The purpose of this certificate is to prepare specialists who can develop or assist in the development of software to meet specific instructional, training or management needs. There are two competency areas incorporated in the certificate: instructional design and educational computing. Students must complete a minimum of 18 units with a 3.0 (B) grade point average and no less than a C in any course. For application or further information, see the director of the program in Learning Design and Technology.

**Prerequisites:** A bachelor's degree from an accredited institution with a grade point average of at least 2.85 (when A equals 4) in the last 60 semester (90 quarter) units attempted. A satisfactory score on the verbal and quantitative sections of the GRE General Test.

Required courses (6 units):

- LDT 540 Educational Technology (3)
- LDT 544 Instructional Design (3)

Elective courses: Twelve units at the 600- or 700-level to be selected with the approval of the program director.

**Instructional Technology Certificate**

Refer to *General Catalog*.

**Courses Acceptable for Master's  
Degree Program in Education (LDT)**

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**

**LDT 515. Games, Play, and Learning (3)**

Prerequisite: Upper division or graduate standing.

Analysis of games and play from cognitive, historical, motivational, and social perspectives. Design of simple learning games. Survey of the game industry and use of games in education and training.

**LDT 525. Virtual Reality, Imaginary Worlds, and Future of Learning (3)**

Prerequisite: Upper division standing or admission to a graduate program in learning design and technology or journalism and media studies.

Learning experiences using virtual reality and worlds. Cognitive load in novel environments, sensory perception, theories and models of social interaction. Implications of virtual interaction.

### **LDT 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 learning design and technology master's concentration or certificate programs. (Formerly numbered Educational Technology 532.)

### **LDT 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. (Formerly numbered Educational Technology 540.)

### **LDT 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. (Formerly numbered Educational Technology 541.)

### **LDT 544. Instructional Design (3)**

One lecture and six hours of laboratory.

Prerequisite: Learning Design and Technology 540.

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. (Formerly numbered Educational Technology 544.)

### **LDT 561. Advanced Multimedia Design for Learning (3)**

Six hours of activity.

Prerequisite: Learning Design and Technology 540.

Educational visualization with digital video, animation, sound, 2D and 3D graphics for mobile and web-based learning. (Formerly numbered Educational Technology 561.)

### **LDT 570. Advanced Teaching with Technologies (3)**

Prerequisite: Learning Design and 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. (Formerly numbered Educational Technology 570.)

### **LDT 572. Managing the Technology-Rich Classroom (3)**

One lecture and six hours of laboratory.

Prerequisite: Learning Design and Technology 540.

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. (Formerly numbered Educational Technology 572.)

### **LDT 596. Topics in Learning Design and Technology (1-3)**

Selected problems in educational technology. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine 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**

### **LDT 630. Mobile Applications for Learning (3)**

Two lectures and two hours of activity.

Prerequisites: Learning Design and Technology 540 and 541.

Mobile learning models and examples. Design principles and development processes. Adapting mobile learning for different environments, settings, and cultures. Future trends.

### **LDT 640. Psychology of Technology-Based Learning (3)**

Six hours of activity.

Prerequisite: Learning Design and 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. (Formerly numbered Educational Technology 640.)

### **LDT 650. eLearning Design and Development (3)**

Two lectures and three hours of laboratory.

Prerequisite: Learning Design and Technology 544.

Recommended: Learning Design and Technology 572.

Theories and models of online learning at home, work, school, and university. Analysis, design, and development of e-learning courses and systems. Future societal and economic impacts of learning at a distance. (Formerly numbered Educational Technology 650.)

### **LDT 670. Learning Through Games and Simulations (3)**

One lecture and six hours of laboratory.

Prerequisites: Learning Design and 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. (Formerly numbered Educational Technology 670.)

### **LDT 671. Learning Environment Design (3)**

One lecture and six hours of laboratory.

Prerequisites: Learning Design and Technology 544 and 561.

Design and development of individualized instruction delivered through e-learning; learning management systems; informal learning for corporate and museum education. (Formerly numbered Educational Technology 671.)

### **LDT 680. Evaluation Techniques for the Performance Technologist (3)**

Two lectures and two hours of activity.

Prerequisites: Learning Design and Technology 540.

Recommended: Learning Design and Technology 690.

Design and use of tools to collect, analyze, and communicate data about learning and performance. (Formerly numbered Educational Technology 590 and 680.)

### **LDT 684. Managing the Learning Design Process (3)**

Six hours of workshop and activities.

Prerequisite: Learning Design and Technology 540 and 541.

Recommended: Learning Design and Technology 544.

Management of instructional design and performance interventions. Development of timelines, staffing plans, communication strategies, and budgets. (Formerly numbered Educational Technology 684.)

### **LDT 685. Performance Technology for Organizations (3)**

Six hours of workshop and activities.

Prerequisites: Learning Design and 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. (Formerly numbered Educational Technology 685.)

**LDT 690. Research Methods for Learning Design (3)**

Two lectures and three hours of activity.

Prerequisite: Admission to the master's degree program.

Planning and executing research in learning design. Analyzing, interpreting, and reporting results to stakeholders.

**LDT 696. Advanced Topics in Learning Design and Technology (1-3)**

Prerequisite: Graduate standing.

Intensive study in specific areas of learning design and technology. May be repeated with new content. Maximum credit six units. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

**LDT 700. Seminar in Learning Design and Technology (1-3)**

Prerequisite: Learning Design and 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. (Formerly numbered Educational Technology 700.)

**LDT 775. Directed Internship in Learning Design and 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. (Formerly numbered Educational Technology 775.)

**LDT 795. Capstone Seminar in Learning Design and Technology (3)**

Prerequisites: Advancement to candidacy and Learning Design and Technology 690.

Learner and content analysis, needs assessment, and product design, development, and evaluation for authentic learning design and performance problems and opportunities.

**LDT 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. (Formerly numbered Educational Technology 798.)

**LDT 799A. Thesis or Project (3) Cr/NC/RP**

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for the master's degree.

**LDT 799B. Thesis or Project Extension (0) Cr/NC**

Prerequisite: Prior registration in Thesis or Project 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis or project is granted final approval.

