Important: The EDTEC Student Handbook is an unofficial publication; readers are advised that EDTEC Department policy, San Diego State University policy, the SDSU General Catalog, and the SDSU Graduate Bulletin are official sources for Department information and take precedence over this publication.

Introduction

This resource is designed to help you address your questions about the multiple academic programs offered through the Department of Educational Technology (EDTEC) at San Diego State University. It covers, among other things, program requirements, courses, technical tools, and social resources. After reading the Student Handbook, you'll be familiar with:

- the field of educational technology;
- the different programs that EDTEC offers;
- the requirements for completing an academic program in the EDTEC Department; and
- the academic, technical, professional, and social resources available to EDTEC students.

What is Educational Technology?

Practitioners in the field of Educational Technology apply research in learning theory, psychology, and emergent technologies to solve instructional and performance problems. The Presidential Commission on Instructional Technology (1970) highlighted four areas in which Educational Technologists perform--areas that remain relevant today:

- Design of instruction to solve performance problems or meet learning needs
- Development and implementation of instructional products (programs, processes, "events," etc.)
- Management of instructional settings and resources
- Evaluation of instructional products (programs, processes, "events," etc.)

While our field has changed dramatically over the years (reflecting new technologies, media, and thinking about how we learn), much about it remains constant.

**Design** activities include needs assessment (learners, tasks, content, etc.) and conceptualizing learning systems and other solutions consistent with those needs.

**Development/production** involves creating learning assets that meet instructional needs. Assets take many forms, including but not limited to: print-based materials, audio and videotapes, computer-assisted instructional programs, Internet sites and portals, multimedia presentations, interactive video programs, simulations and games, and assessment or evaluation tools.

**Management** activities include media center administration, project supervision and direction, and resource allocation.

**Evaluation** involves determining whether or not programs or projects are "on-track" (and where improvement or revision may be warranted) or measuring the impact of (or assigning worth or value to) instructional products, programs, or processes.

Instructional needs or performance problems exist in any organization or setting where people work, learn, or take advantage of services. Relevant scenarios might include:
• providing need-to-know information about child care or school readiness to limited-English proficient parents.
• training customers to use a product or employees to use new equipment.
• teaching school teachers to integrate computers and other advanced technologies into instruction.
• providing programs for homebound learners via distance education technologies.

Every business, agency, institution, and school is concerned with performance—that is, an individual’s ability to contribute to the mission of the organization. Education and training are potent forces to enhance performance because they help assure that people have the skills, abilities, and attitudes they need to do their jobs well. Educational Technologists use systematic processes to meet educational and training needs. Practically speaking, they help people perform more effectively in rapidly changing technical and social environments.

What career opportunities exist for Educational Technologists?

Educational Technologists offer tangible solutions to a variety of pressing instructional and performance problems. They work in many settings including health centers, K-12 schools, consulting firms, private industry, universities, multimedia development companies, adult learning centers, publishing houses, and social service agencies.

Virtually any setting holds opportunities for Educational Technologists. As jobs change and technologies are introduced, every work environment needs specialists to design, develop, deliver, and evaluate effective education and training. To give you an idea of the range of possibilities, the following is a partial list of career titles that attract Educational Technologists:

• Applications designer
• Curriculum developer/coordinator
• Online Learning specialist
• Instructional designer
• Educator
• Educational development director
• Evaluation specialist
• Learning resources manager
• Multimedia developer/producer
• Media specialist
• Organizational developer
• Performance technology specialist
• Project manager
• Staff/human resources developer
• Technology coordinator
• Technical writer
• Trainer
• Usability specialist

For a sample of the job opportunities available today, visit the EDTEC Department's Online Jobs Database.

Educational Technology Programs
We are offering three certificates and a master degree through SDSU's Department of Educational Technology.

**Certificate Programs**
Three certificate programs are offered to individuals who want to learn how to design, implement and evaluate instructional projects, courses, and systems, but do not want to pursue a master's degree in Educational Technology.

**Certificate in Instructional Technology**
This 15-unit undergraduate certificate covers systemic and systematic methods for addressing a wide variety of performance opportunities—and is particularly well-suited for students wanting to develop their instructional design, educational computing or media production skills. Students also have opportunities to connect with professionals in the field and build their overall workforce marketability.

Participants may enroll in the program through regular admission (requires a formal admission to both university and department) or through Extended Studies (both online or open university (campus); If taking classes through Extended Studies, formal application to the University and Department is not required.

The certificate features three required courses (EDTEC 540, 541, and 544 -- nine units) and two electives (six units) from any of the following: EDTEC 561, 570, 572, or 596. Only EDTEC 540, 541 and 544 will transfer to the Master's degree and must be earned prior to matriculation.

**Certificate in Advanced Instructional Design**
This 18-unit graduate certificate targets learning professionals who want to hone their instructional design, facilitation, consultation, or project management skills. Students who complete this program take the lead in conceptualizing and producing a wide variety of learning interventions—-from self-paced "overview" tutorials to complex electronic performance systems to podcasts and vodcasts. Students tend to have high-level roles in the learning enterprise, no matter the setting in which they happen to work (K-12, higher education, business, nonprofit, military, government).

The prerequisites for the Instructional Design certificate are as follows:

- Bachelor's degree from an accredited institution—with a grade point average of at least 2.85 in the last 60 semester (90 quarter) units attempted,
- Satisfactory score sections of the GRE General Test. We expect a total score of 297 or above: 155 on the verbal reasoning and 144 on the quantitative reasoning portions. We also anticipate a score of 4.5 on the analytical portion of the test.

Students interested in this certificate must apply both to the University and the Department. The 18 units of coursework are detailed below:

**Required: 9 units**

- EDTEC 540, Educational Technology
- EDTEC 541, Educational Web Multimedia Development
- EDTEC 544, Instructional Design
Electives: 9 units (600- and 700-level courses only), as approved by the program director or department chair. Note: The Instructional Design certificate classes do not count towards the MA degree if the certificate is received.

**Certificate in Distance Education**

This 12-unit graduate certificate program focuses on the skills and knowledge required of service managers, instructors, instructional designers, evaluators, local site coordinators, and other professionals who work in distance education systems and programs in higher education, K-12, business, and government (including law enforcement and the military). Students must maintain a 3.0 GPA (with no less than a C in any course). At least 3 years of experience in distance, open or extended education, training, human resources development or a related field. Classes required for this certificate include 640, 650, and 684 plus one elective (3 units) from the following: EDTEC 544, 670, 671 or 685. Students interested in this certificate must apply both to the University and the Department. Department Chair approval is required before applying to the program.

The prerequisites for the Certificate in Distance Education are as follows:

- Bachelor’s degree from an accredited institution with a GPA of at least 2.85 in the last 60 semester units (or 90 quarter units) attempted; and
- Satisfactory score sections of the GRE General Test. We expect a total score of 297 or above: 155 on the verbal reasoning and 144 on the quantitative reasoning portions. We also anticipate a score of 4.5 on the analytical portion of the test.

Note: The Distance Education certificate classes do not count towards the MA degree if the certificate is received.

**Master’s Program**

The Master’s program is designed for individuals interested in mastering concepts, principles, and practical applications of Educational Technology. Faculty focus on both soft and hard technologies. Soft technologies are those used to identify instructional problems and solve them in ways that incorporate what we know about how people learn. Hard technologies include cutting-edge hardware and software to prepare students to design, develop and implement products and processes that meet instructional and performance needs.

The Master’s program consists of 30 units. Of the 30 program units, 18 are required: EDTEC 540, EDTEC 541, EDTEC 544, ED 690, and either ED 795A followed by ED 795B, or ED 799. The remaining 12 units are elective; nine must be at the 600-700 level.

To qualify for the Master’s degree, students must maintain a 3.0 (B) average, and complete a capstone project (as part of ED 795A and 795B) or a thesis (ED 799 A, B). Students who opt for the 795 sequence also complete a comprehensive reflection that they present in their final semester (comprehensive exam).

Note: the maximum transferable course credit is nine units, including courses taken through SDSU’s College of Extended Studies. All transfer credit must be approved by the Department chair and graduate dean.

The prerequisites for the Master’s program are as follows:
• Bachelor’s degree from an accredited institution, with a GPA of at least 2.85 in the last 60 semester units (or 90 quarter units) attempted; and
• Satisfactory score sections of the GRE General Test. We expect a total score of 297 or above: 155 on the verbal reasoning and 144 on the quantitative reasoning portions. We also anticipate a score of 4.5 on the analytical portion of the test.

Applicants need to submit both University and Department applications.

The certificate programs and the Master’s degree in Educational Technology are offered both on campus and fully online.

Educational Technology Courses
The following is a detailed list of courses that the Department of Educational Technology offers. Course offerings are dependent upon enrollment funding and faculty availability. We recommend that students access the SDSU web site at the beginning of each semester to confirm which classes are on the schedule.

Required Courses for all EDTEC programs:

EDTEC 540 Educational Technology
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 Multimedia Development
Systems, graphic design, and usability principles applied to design and development of web-based educational multimedia. Planning and prototyping digital media. Not open to students with credit in Educational Technology 532.

EDTEC 544 – Instructional Design
Prerequisites: EDTEC 540 and 541 (B+ or better).

For the Master’s program only, ED 690 is required, plus either:

ED 795 A and ED 795 B; or ED 799 A and B

ED 690 - Methods of Inquiry
Procedures for gathering, analyzing, and synthesizing information; reviewing the literature; designing studies.

ED 795A – Seminar in Education
Prerequisite: ED 690 and Advancement to Candidacy.
Official Program of Study must also be filed prior to enrollment. Based on one intense practice of instructional and/or informational design. Work with a client in the community to solve a narrow yet significant problem.

ED 795B - Seminar in Education - Practicum
Prerequisite: ED 795A and Advancement to Candidacy.
Based on one intense practice of instructional and/or informational design. Work with a client in the community to solve a narrow yet significant problem.
ED 799 A, B - Master's Thesis
Research or product-oriented project investigating phenomena in educational technology or related fields. Employ research methodology to empirically study and add to an existing body of knowledge. Culminates in a written thesis and oral defense.

Elective Courses

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

EDTEC 570 - Advanced Teaching with Technologies
Prerequisite: EDTEC 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
Prerequisites: EDTEC 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 596 - Topics in Educational Technology
Selected problems in educational technology. 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. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

EDTEC 640 - Psychology of Technology-based Learning:
Prerequisite: EDTEC 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 & Development
Prerequisites: EDTEC 561. Recommended: EDTEC 572. Theories and models of online learning at home, work and school. Use of systems dynamics in design, development, and evaluation of elearning 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
Prerequisites: EDTEC 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
Prerequisites: EDTEC 544 and 561
Design and development of individualized instruction delivered through e-learning; learning management systems; informal learning for corporate and museum education.

EDTEC 684 - Management of Educational Technology
Prerequisites: EDTEC 540 Recommended: 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
Prerequisites: EDTEC 540 and EDTEC 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
Selected areas, topics in educational technology. May be repeated with new content. See class schedule for specific content. Maximum six units of credit applicable to master's degree.

EDTEC 775 - Directed Internship in Educational Technology
Prerequisite: 12 units earned toward the Master's degree
Supervised internship in an educational or training setting. Application to take this course must be made during the preceding semester.

EDTEC 798 - Special Study
Individual study. May involve fieldwork. Maximum six units of credit applicable to Master's degree. Prerequisite: Consent of staff; to be arranged with Department chair and instructor.

Important Notice: No graduate student shall be permitted to enroll in EDTEC 600/700-level courses unless he or she has been accepted by SDSU as a classified graduate student.

Frequently Asked Questions

How long does it take to get a master's degree?

The Master’s degree coursework is demanding, and involves lab and field projects requiring a significant investment of time. Students who hold full-time jobs are cautioned to take no more than six units per semester. At this pace, it takes 2 to 3 years to complete the 30 units required for the degree. Student who attend full-time can finish the program in about two years. However, you can be certain that the time invested yields tangible rewards. While the projects required for most classes take time and effort, they tend to yield professional portfolio pieces and opportunities to work on authentic programs. We believe that you just cannot learn to plan, produce, and evaluate instruction without doing it. The feedback about our graduates from employers, associates, and the marketplace suggests that the time is well spent.

Why SDSU? Aren’t there quicker ways to do this?

Yes, there are definitely quicker and easier ways to obtain a specialized degree. We contend, however, that they aren’t as good. We invite you to check out the advantages of the SDSU EDTEC program for yourself. Ask our current and former students--or to one or more of our nine full-time faculty. Talk to people who hire in San Diego and across the nation. Take a look at our courses and visit the
Department website. We also encourage you to sit in on one of our prerequisite courses (EDTEC 540 or 541) to get a taste of what we are doing. The department boasts three fully-equipped computer labs; state-of-the-art hardware for multimedia, audio, and video production; video and teleconferencing—and much more. No other university in Southern California has allocated such substantial resources to our field.

**Do I have to own a computer or other electronics?**

Ready access to a computer is central to the program; the Creative Media Studio (CMS) in NE 275 should not (and really cannot) be your only resource, in part because time is capped at two hours when demand is high. However, cameras and other peripherals (needed to complete course assignments/projects) are available for 24-hour checkout. Reservations are a must (for both computer time and equipment).

**Should I learn to use a computer before I enter the program?**

Basic computer knowledge and skills are essential to complete most of the coursework. Our students are familiar with both Macintosh and Windows systems—and the Creative Media Studio (CMS) in NE 275 has both available for use. If you're not a 'regular' computer user, definitely consider taking an introductory class (or completing online tutorials to which our enrolled students have access). For a small investment of time and money, you'll learn enough to feel comfortable with the computer-oriented requirements of any EDTEC class. You might also consider teaching yourself by using the self-paced tutorials available within many applications installed on the CMS computers.

**How to Thrive in the Master's Program**

The following is a checklist of milestones of which students in the Master’s program must be aware to successfully complete the program:

**Step 1: Apply to San Diego State University**

Prospective students are to apply electronically, and may submit the University application and application fee (currently, $55) through [www.csumentor.edu](http://www.csumentor.edu). Graduate Admissions will notify you that the application has been received and is being processed. If you neglect to include the application fee, your application won't move forward.

**Step 2: Submit Transcripts and Test Scores to Enrollment Services:**

Applicants must mail the following to:

Graduate Admissions  
Enrollment Services  
San Diego State University  
5500 Campanile Drive  
San Diego, CA  92182-7416

One Set of Official Transcripts:

One set of official transcripts (in sealed envelopes as received from the issuing institution) from all postsecondary colleges and universities attended are to be sent directly to Enrollment Services. International students must provide transcripts and proof of degree in the original language as well as a certified English translation, unless the institution only issues the transcripts in English. There are a few countries where it is next to impossible for a student to have a copy of his or her transcript
sent. In these cases the student may bring his or her original transcript and proof of degree to Graduate Admissions, where their authenticity will be verified and copies generated for our records.

All transcripts will be imaged for University records, and the originals will be forwarded to the department once the applicant's file is complete and evaluated.

GRE/TOEFL Test Score

Applicants must submit GRE and Test of English as a Foreign Language (TOEFL) test scores, as applicable, to Enrollment Services (Institution Code 4682). Educational Testing Service submits the scores electronically, and they are immediately available in the WebPortal and SIMS/R.

The GRE is required for admission to the University. Typically, we expect prospective students to earn a total score of 297 or above on the recently-revised (and renormed) general test: 155 on the verbal reasoning and 144 on the quantitative reasoning portions. We also anticipate a score of 4.5 on the analytical portion of the test. For information about the GRE, visit the GRE website.

Students who hold advanced degrees from institutions that are members of the Council of Graduate Schools are exempt from the GRE requirement. Individuals applying for admission to certain graduate programs may petition to waive the GRE requirement if the applicant holds a professional doctoral degree from an institution whose professional program is accredited by an association that is recognized by the U.S. Department of Education.

You do not have to submit SDSU transcripts for either past or current course work.

**Step 3: Apply to the EDTEC Department**

Prospective EDTEC students apply electronically, at: [https://app.applyyourself.com/?id=sdsu-grad](https://app.applyyourself.com/?id=sdsu-grad). Among the documents you'll upload are a Coursework Form (template provided), a Resume (template provided), and a Personal Statement. Be sure to save your work as you complete each part or section. You'll also want to print a full copy of the online application for your records before you click Submit. You'll see that your recommenders are notified electronically; their responses are appended to your submitted application once uploaded. Three recommendations are required for admissions. EDTEC faculty cannot be one of the recommenders.

**Step 4: Progress with your graduate study**

Think about what classes you'll take to fulfill the Master's program requirements. Thirty units are required to obtain the degree. As you enroll in and complete courses, pay attention to the following:

- Determine your graduate standing.
  
  Do you have conditional standing? If so, you must remove those conditions before you can be accepted to the Master's degree program as a classified graduate student.

- File your official Program of Study with your faculty advisor.
  
  You may file your official Program of Study only after you become a classified graduate student and have completed 12 units towards the MA. When you make an appointment with your advisor, tell him or her that it's for the purpose of filing an Official Program of Study. Filing this document means identifying the courses you plan to take to complete the 30-unit requirement;
you won't be asked to explain the order in which you'll actually complete the classes listed. Once you have filed your Program of Study, you can only change it by submitting a Petition of Adjustment of Academic Requirements form to the Department chair.

- Prepare your learning portfolio and your comprehensive reflection to present it to faculty for review and approval.

- Apply for graduation.

Apply for graduation no later than the 15th day of the semester in which you plan to graduate. The University strictly adheres to this deadline, which is published in the Academic Calendar. You apply for graduation via your web portal account.

**Step 5: Receive your Master’s degree!**

Remember to check the accuracy of your graduate status periodically with SDSU's Graduate Office, the EDTEC Department office, and the SDSU WebPortal. Common mistakes and pitfalls include:

- failure to remove conditions in order to achieve classified graduate standing.
- failure to complete and present your comprehensive reflection
- neglecting to file an official Program of Study.
- failure to complete classes listed on the official Program of Study.
- failure to apply for graduation before the posted deadline.