

# **Masters in Education (45 Units)**

## **Emphasis in *Teaching and Learning with Technology***

**Department of Education  
Santa Clara University**

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The goal for this emphasis is to prepare participants to become leaders in their place of work in the appropriate and creative applications of computer, telecommunications, and multimedia technologies for teaching and learning. By the end of the program graduates will:

- Have a firm grounding in education theory and research methods,
- Be thoroughly familiar with a wide variety of technologies used in education and learning settings,
- Understand the relative advantages and disadvantages of the use of technology for teaching and learning.
- Articulate the differences between instructionist and constructivist approaches to teaching and learning, and how they relate to technology use, and
- Be prepared to assume positions of leadership in their schools, districts, companies, or other settings.

### **PREREQUISITE COURSE / EXAM**

#### **Learning and Technology (3) [ED271, LBST 75, or similar course]**

Rationale, foundations, theories, careers, trends, and issues in Ed Tech. Application of computer and video technologies to practice of teaching. Implications for instruction and information in schools, government, & corporations. Meets Level I computer literacy requirement for clear teaching credential. May be waived at the discretion of the program director based on the candidate's demonstrated experience.

### **CORE EDUCATION COURSE WORK (15 Units)**

#### **ED250—Social Foundations of Education (3 Units)**

Sometimes offered as "Schools in Contemporary Society." Understand the role of school in the broader social context. Explore issues related to the future of education. Examination of the history of education, why we do the things we do (philosophy of education), the impact of decisions on society, the legal constraints, and the impact of these forces and politics on the changing instructional and curricular dimensions of education in a diverse society.

#### **ED393—Curriculum / Program Development (3 Units)**

This course will focus on the theoretical and practical elements of developing a curriculum or a program. It will include a discussion of the foundations of curriculum planning and design, the development of curriculum documents, research on the curriculum, and the implementation of the curriculum or program.

#### **ED392—Study of Teaching (3 Units)**

This is an in-depth look at the act of teaching. The course will review theories and research on teaching and will focus on how to gather data and provide feedback to teachers.

#### **ED490—Research Methods (3 Units) [formerly ED252]**

Fundamentals of research design and interpretation of research. The course is intended to help individuals be informed users of research. They will learn how to identify the strengths and weaknesses of different research paradigms, both qualitative and quantitative. Students will define a problem to be investigated and will conduct a review of relevant literature. Students who are completing a master's thesis or project will receive assistance in getting started on their project. This course should be among the last courses taken in the master's sequence.

**SELECT ONE OF THE FOLLOWING ADVANCED RESEARCH TOPICS COURSES:**

**ED254/ED369—Action Research (3 Units)**

Introduces the student to action-oriented research as an approach to inquiry, as an agent for contributing to knowledge about education, and as a vehicle for empowering teachers and learners. Includes an introduction to the many and diverse approaches to scholarly inquiry.

**ED491—Advanced Research Methods (3 Units)**

This course begins with the assumption that students have mastered the basics of research methods and are ready to plan their culminating project for the Master's program. Given guidance from the instructor and another faculty member, the student will develop a culminating project, based on a thorough review of existing research in the student's chosen area of interest. Successful completion of this course is required for enrolling in the subsequent ED499.

**REQUIRED MA-TLT COURSE WORK (21 Units)**

**ED450—Education and Technology (3 Units)**

This course provides an overview of the many challenges and opportunities facing education systems given the increasing presence of technology in society. Analysis of significant past developments and current trends shaping education policy in the U.S. and other countries, and discussions about the integration of technology at all levels, with an emphasis on K-12 systems.

**ED451—Teaching with Technology (3 Units)**

Review of education theory and best practices incorporating various technologies across the K-12 curriculum. Foundations of constructivist theory and research in education, analysis of classroom practices and management in technology-rich environments, and collaborative, inter-disciplinary, project-based learning. Analysis of teaching philosophies and practices and how they relate to the presence of technology. Review of literature and research on the evolution of teaching practice, support for student learning, and professional development..

**ED452—Multimedia and Learning (3 Units)**

Understand and become familiar with a variety of multimedia tools and resources, including the Internet, and how they can be used effectively in lessons and curriculum for any subject matter. Gain proficiency in the use of scanners, digital photo cameras, digital video cameras, sound recorders, multimedia authoring and editing software, and their applications in constructivist learning environments.

**ED453—Online/Distance/Distributed Learning (3 Units)**

Review the advances in computing and telecommunications technologies that are transforming education and creating new opportunities for learning. Understand the pedagogical and technical issues involved in creating and delivering courses online, particularly over the Internet. Review research and literature on design criteria and factors that influence successful experiences for instructors and students.

**ED454—Assessment, Evaluation, and Technology (3 Units)**

Study the impact of technology on student assessment practices. Review research and literature on measurement, testing, and learning theory. Understand the processes and procedures involved in evaluation research, particularly as they apply to the study of technology integration programs in education settings.

**ED499—Culminating Work (3-6 Units)**

This course is designed to support students through the work needed to complete a thesis or any of the other culminating options. For those choosing a thesis, the course provides assistance to individuals in preparing the thesis, which should focus on a recognized problem in the student's field of specialization, provide a comprehensive review of relevant literature, make a scholarly contribution to the extant body of knowledge in this area, and should follow a scholarly format. This course is taught either individually with a designated faculty or as a bi-weekly seminar under the direction of a faculty member. ED490 and ED491 are prerequisites for students choosing a thesis; ED490 and ED254/ED369 for all other options.

**ELECTIVE COURSES (9 Units):**  
**THREE [3] COURSES TO BE CHOSEN BY STUDENT WITH ADVISOR ASSISTANCE\***

**ED255—Special Topics Seminar: The Constructivist Educator & Researcher**

Through class dialog, readings, and reflection this course helps students explore issues in education and technology, and learn about the constructivist research and project design process.

**ED455—Practicum (3 Units)**

Practicum placement in K-12, post-secondary, or alternative educational settings.

**ED458—Multimedia in the Special Education Classroom (3 Units)**

Examines the use of instructional technology, including using the computer as teacher, student, partner (tool), and aide in the Special Education classroom.

**ED459—Technology to Enhance Leadership (3 Units)**

Leadership and collaboration in educational technology at interpersonal, team, and organizational levels. Educational systems with emphasis on implementing appropriate organizational and cultural change. Problems and principles in establishing and maintaining the use of instructional technologies in educational institutions.

**ED460—Project Development & Management (3 Units)**

Theories, frameworks, and strategies for designing educational products and technology-based learning systems. Development, assessment, and implementation of proposals and specifications for technology-based learning and performance improvement across diverse settings and learners.

**ED310—Independent Study (3-6 units)**

Under some circumstances, students may be allowed to enroll for 3 units in a quarter to pursue in-depth study in a topic area of their choice, subject to approval from their academic advisor and the program director. A maximum of 6 units of Independent Study are allowed to meet credit requirements.

**Other acceptable elective courses may be identified among regular offerings in other departments within the University, as approved by the program director.**

**\* A maximum of three elective units (one course) can be transferred from an accredited teacher preparation program.**