

Technology *continued* – Traditional Programs

Program name	Provide a description of how your program prepares teachers to integrate technology effectively into curricula and instruction, and to use technology effectively to collect, manage, and analyze data in order to improve teaching and learning for the purpose of increasing student academic achievement. Include a description of how your program prepares teachers to use the principles of universal design for learning, as applicable. Include planning activities and a timeline if any of the four elements listed above are not currently in place.
Alliant International University	<p>Each teacher credential candidate is required to demonstrate proficiency in the integration of technology into the classroom prior to recommendation for an initial teaching credential. The university's course on Technology in the Curriculum has been designed to work in tandem with other courses in the Teacher Education program, with assignments that reinforce concepts covered in class and providing adequate practice of those concepts. Candidates are trained to be proficient in the software, multimedia tools and programs for classroom administration so that they can effectively integrate these components into student learning and effective management of the classroom.</p> <p>To assure understanding and the ability to successfully integrate technology, candidates are required to create a Technology Integration website that includes a multimedia project, personal website and student assignments directly related to the candidate's teaching situation. Assignments in seminar courses also require that candidates explicitly show how to embed technology into the curriculum to support learning and achievement.</p>
Antioch University Los Angeles	<p>Candidates develop skills and knowledge to enable them to use technology as a teaching and learning tool in the K-8 classroom. Candidates learn to integrate educational technology into the curriculum for the purpose of supporting student achievement of standards-based goals. Technology is used to create access for all students throughout all lessons, making the learning goals achievable by individuals with wide differences in their abilities to see, hear, speak, move, read, write, understand English, attend, organize, engage and remember.</p>
Antioch University Santa Barbara	<p>A 3-unit course, "Education Technology for Universal Design" is offered and required during the winter quarter. Antioch maintains both "Gmail" and "Sakai". Both these support off-site learning and research. Sakai is supported by a staff position. Library and reference librarian services are available to support students' research and resource needs. Students are required during their PACT (performance evaluation) activities to collect, manage, and analyze data to improve their instruction.</p>
Argosy University	<p>All of Argosy's teacher preparation courses are heavily infused with the most current approaches to enhancing student learning through the use of technology. Through the use of Class Live Pro, all students become proficient at utilizing real time technology to download course content, upload presentation materials, and collaborate with their colleagues state-wide. Such an approach allows the candidates to take those skills and apply them to their own teaching experience over time. Syllabi requires candidates to integrate technology into their lesson plans, especially with respect to the learning needs of second language learners and special needs students. As such, they become proficient Power Point presentation development, utilizing the web for instructional purposes, and teaching critical analysis of Internet content to include various data affecting education.</p>
Azusa Pacific University	<p>Every class we offer has I.S.T.E. technology standards and technology elements fully integrated with signature assignments that address the California technology standards. Every syllabus reflects the technology signature assignments. All technology signature assignments are submitted online to TaskStream, and assessors are trained to score them. Additionally instructors are encouraged to fully incorporate and model best practices and professional development is provided regularly to support this expectation.</p> <p>Teacher candidates are expected to use all fields of technology as well as a variety of hardware and software. Special Education programs expect candidates to use the internet as a resource, online library, include video clips and power point presentations for assignments. Instructors utilize every source of technology for instructional presentations including digital projectors, iPads, iPods, digital learning (eCompanion and eCourse), video clips, power point presentations and pod casts. Guest speakers introduce candidates to assistive technologies available to students with special needs. The Special Education staff and leadership team collaborate bi-monthly as well as ongoing through Skype, email, small group conferences to remain on the cutting edge and current innovative educational practices.</p>
Biola University	<p>Teacher candidates are expected to use the Internet as an interactive resource, include video clips, and/or a PowerPoint when teaching field placement lessons, and become proficient in technology such as Smart Boards and document digital projectors. Teacher candidates prepare a thematic unit that includes PowerPoint, desktop publishing and web hosting. Guest speakers introduce teacher candidates to the assistive technologies available to special needs students or physically handicapped students; additional information is presented via relevant video recordings. Teacher candidates are</p>

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	introduced to assistive technologies available for special needs students, mentally challenged students, or physically handicapped students and have the opportunity for hands-on experience with these technologies. Teacher candidates are introduced to online grading systems used by school districts in the surrounding area and the skills necessary for analyzing student assessment data. Teacher candidates gather information from state and district web sites to discover trends in standardized test results, SES, language abilities, community demographics and educational background of parents. This data provides the basis for candidates to make recommendations to improve teaching and learning. Teacher candidates practice various ways of adapting curricula such as using digital recorders, PowerPoint presentations, and video clips in order to provide greater access to the curriculum for English language learners. Teacher candidates practice the use of technology as it applies to engaging students in specific content areas and thus providing a connection to real life situations.
Brandman University	Candidates in the credential programs take EDUU 551-Educational Applications of Computers. In this course candidates learn how to use technology to utilize interactive tools such as wikis, blogs, and threaded discussions. Candidates also learn how to integrate technology into lesson planning, develop multimedia presentations, and use databases and spreadsheets to gather and analyze data on student performance. In EDUU 511-Collaboration for Inclusive Schooling candidates learn about assistive technologies appropriate for students with special needs. Candidates examine and use WebQuests in EDUU 512- The Art and Craft of Teaching. Technology is also integrated into each of the core content courses of the credential programs. In the special education program candidates use computer based programs such as DIBELS and Chart Dog and learn how to use various software programs for analyzing the results from standardized assessments such as the Woodcock-Johnson assessment battery. Additionally, each course in the credential program, other than student teaching, is currently taught in a blended format. Fifty percent of the class is taught face to face, and fifty percent of the class is taught online. Blended courses provide candidates with an opportunity to use a variety of technology tools including threaded discussions, wikis, blogs, voice boards, videoconferencing and online tutorials.
California Baptist University	<p>Integrating Technology</p> <p>Candidates are prepared to integrate the following technologies into curricula and instruction:</p> <ul style="list-style-type: none"> - Cameras (e.g., digital, video, and document) - Operating system software (i.e., Windows, Mac OS, Linux) - Applications software (i.e., word processing, spreadsheets, database management, presentation software) - Computer managed instructional software (e.g., grade keeping, database queries, productivity software, etc.) - Computer assisted instructional software (e.g., assistive technology, electronic portfolios, etc.) - Types of educational software (i.e., drill and practice, tutorials, problem-solving software, simulations, microcomputer-based laboratories, multimedia applications, educational games) - Ethical issues (Privacy Invasion, Computing Inequities, Information Overload, Security: Hacking and Cracking, Computer Viruses, Student Internet Safety Issues, Netiquette Issues, Plagiarism & Copyright Issues) - Internet research skills (application of search engines, subject directories, meta search engines and Boolean logic) - Various technology tools (Web 2.0 applications, assistive technology, smart classrooms, collaboration tools) <p>Collecting, Managing, & Analyzing Data</p> <p>Candidates are instructed in the use of computer applications such as spreadsheets and databases for the following tasks:</p> <ul style="list-style-type: none"> - Designing format for data entry - Inputting data - Developing formulas and functions (spreadsheets)

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	<ul style="list-style-type: none"> - Performing queries to filter comparison data (databases) - Creating summative reports for feedback purposes and to inform/modify instruction <p>Universal Design</p> <p>Candidates are introduced to the concept of universal design through the following activities:</p> <ul style="list-style-type: none"> - Multimedia-based assistive technology projects - Discussion of ergonomics, classroom/lab configurations ensuring equal access
California Lutheran University	<p>The use of technology as a teaching and as a management tool is integrated throughout the multiple and single subject coursework. Within the past few years, the majority of our candidates come to the program equipped with knowledge and ability to word process and use productivity tools such as Word, Excel, and PowerPoint.</p> <p>Candidates upload their course assignments on an electronic course management system (BlackBoard and TaskStream), which requires a working knowledge of word-processing, cutting /pasting, uploading, and linking skills.</p> <p>The Graduate School of Education uses TaskStream, an electronic depository for signature assignments, Teacher Performance Assessments (TPAs), and field evaluations. This permits the department to collect meaningful data which can be aggregated and analyzed to support decision-making.</p> <p>During the orientation to methods coursework, Multiple and Single Subject candidates receive information as to the uploading of their assignments to TaskStream. In order to do so, all candidates must be at the basic level of computer literacy and know how to:</p> <ul style="list-style-type: none"> • Operate a computer • Find and use software applications such as Word • Access the Internet • Utilize email <p>In the Special Education programs, all faculty and teacher candidates use Blackboard as their course management system.</p> <p>In the (elementary) English language skills and reading development course, Multiple Subject candidates research various Internet sites as possible resources for technology-related materials, such as those available on the site established by the American Library Association displaying literary award winners.</p> <p>In that same course, Multiple Subject candidates are required to include methods of evaluation as well as adaptations for Universal Access and intervention strategies, and a description of computer technology applications that are aligned with Reading/Language Arts standards that add value to student learning.</p> <p>In another course, elementary teacher candidates develop a lesson plan to integrate technology into the content area. The lesson plan must include learning goals for both content area and technology and must include an activity for the K-12 student to produce a digital artifact.</p> <p>In the secondary course covering the planning and methods for content standards, secondary teacher candidates learn basic methods of planning and instruction. Candidates are required to plan lessons for their student teaching with an emphasis on increased academic achievement in the secondary school that includes technology enhanced methods and strategies necessary to develop achievement in all learners.</p> <p>Teacher candidates in the (secondary) literacy and language course use technology to teach reading comprehension strategies and skills during fieldwork placement. Technology resources are used to assist students in the 7-12th grade access grade-level content material in order to activate background knowledge, make connections within and across disciplines, synthesize information, build fluency, and evaluate content area documents. They incorporate into the lessons a variety of informational texts that include reference works, such as magazines, newspapers, and online information; instructional manuals; consumer, workplace, and public documents; signs; and selections listed in Recommended Literature, Pre-Kindergarten</p>

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	<p>Through Grade Twelve.</p> <p>In the study of leadership theories, classroom management, discipline and lesson planning, Single Subject candidates explore classroom management strategies and legal decisions through Internet searches as well as identifying and developing a deeper understanding of universal access strategies. The candidates are required to create a database for resources as part of their teacher preparation and becoming a classroom teacher of record.</p>
<p>California Polytechnic State University, San Luis Obispo</p>	<p>Special Education candidates use technology in coursework and fieldwork. In Fall quarter, candidates use the SEIS software program in field sites to create individualized educational programs for K-12 students. In Winter quarter, candidates create graphs to depict the data they are collecting during their inquiry projects and learn about assistive technology that helps K-12 students access the curriculum. In Spring quarter, candidates use PowerPoint technology to present information from their inquiry projects. Candidates learn to design instruction that is accessible for all students, especially those with mild/moderate disabilities. In coursework and fieldwork assignments, candidates learn how to design instruction for all students as well as how to adapt instruction so that students with a wide range of abilities can access the curriculum.</p> <p>In all courses, Multiple Subject (MS), Single Subject (SS), and Agriculture Specialist (AGED) candidates are introduced to and apply instructional technology through presentations and projects. University courses include online quizzes, discussion boards, and electronic data collection. School-site programs make use of computer software programs, presentation programs, and SMART board technologies. Technology is also embedded in the specialty areas in two forms: a formal class (EDUC 480) and/or threaded throughout the curriculum (EDUC 400 series). During student teaching, candidates address the use of technology in their teaching through the Individual Growth Plan (MS) or the Teaching Performance Expectations Formative/Summative Assessments (SS & AGED), which are reflective assignments that require candidates to address their strengths and weaknesses, identify resources, and create a plan for improvement. The MS assignment was designed to mirror the current yearly growth plan required of local school teachers with an emphasis on technology. In addition, Multiple Subject and Agriculture Specialist candidates complete a Portfolio, which is designed to allow candidates to present examples of their work, including an in-depth unit of instruction (with rationale, goals and objectives, differentiation of instruction, lesson planning, use of technology, assessment, and accommodation of diverse learners). In summative evaluations, candidates are expected to reflect on the planning, implementation, and assessment of the unit of instruction and to synthesize what they have learned. For the PACT Teaching Event, MS and SS candidates use a web-based system (Tk20) to collect, manage, and analyze data to inform teaching practice and to evaluate learning.</p>
<p>California State Polytechnic University, Pomona</p>	<p>A prerequisite course in education technology prepares candidates with a common set of knowledge and skills to integrate the use of technology into teaching and learning. The course is designed to meet the ISTE standards in education technology with additional experiences in common tools used in the program. The experiences include collecting and analyzing student data, becoming familiar with data collection systems in the region, and using the technology draw generalization and specific recommendations for improving instruction.</p> <p>Additional course tools include the use of Task Stream, the candidate and program assessment software, SMART boards, videoconferencing tools including Skype, internet-based resources, as well as other teaching-specific tools found in our local school districts. All professional program courses have the appropriate use of technology embedded into the teaching of core concepts. Teacher candidates are expected to use technology as teaching and learning tool in their lesson planning and delivery.</p> <p>Technology is also used to manage instruction with teacher candidates and to provide experiences within courses on effective teaching and learning in online environments. Blackboard course management software is commonly used in local school districts as well as being the platform of choice in the university. The key to its use is both learning to use the tool--- and using the tool to learn.</p> <p>Credential programs are exploring better ways to use Educational Results Partnership (www.edresults.org) , a meta database that contains demographic and achievement data from local schools presented in a variety of ways from the classroom level to the school, district, and county levels. Candidates</p>

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	look at aggregated student learning data, comparing low performing schools in the region, and map school profiles as methods to learn about improving school and student performance.
California State University, Bakersfield	Students and instructor use LiveText as a tool to improve teaching and learning through ongoing assessment. This tool allows assignment submission, comments from instructors for revisions, and data management. Instructors and programs use the data on student learning outcomes collected through the tool for reviewing and assessing teaching and learning. Additionally, technology is integrated throughout the programs. Students use online discussions, research databases, video cameras for lesson recording and analysis, podcasts and vcasts, presentation software, and more. Their assignments often require the incorporation of technologies ranging from WebQuests to podcasting.
California State University, Channel Islands	Faculty members model teaching with technology through the use of Blackboard (a course management system that requires students to post discussions and papers electronically), electronic whiteboards, and laptops on a cart. Each program has set goals for improving the technological competence of candidates. In a collaboration with Google, CI faculty have received funding and support to expand the integration of technology in their instruction using Google tools and a variety of applications from other providers. Many of these strategies are easily adapted for use by our candidates, despite the varying levels of technology that might be available from their employer. Universal design is being utilized as a key component of instructional planning and Google has funded a faculty project to help facilitate an expansion of its use. Teaching and learning with technology is incorporated throughout each program, however, the opportunities to practice in local schools varies greatly across the school districts with many low tech and some high tech. Our candidates complete a teacher performance assessment through which candidates must collect data, manage and analyze data about their teaching and use the data reflect on the improvements that are needed to improve their teaching and the learning of the students in the class. The teacher performance lesson plans, videotape of lessons, data analysis, and reflections are all deposited electronically. We also rely on our school partners to prepare teachers to manage data (classroom data) via the specific data management systems that they have in place. Universal design is implemented in the lesson planning process and all programs incorporate the principles of universal design in lesson planning and instruction. We examine the effectiveness of teaching with technology across all programs by assessing candidates at the end of program annually on the California standards for integrating technology into teaching.
California State University, Chico	<ul style="list-style-type: none"> •Faculty model effective use of technology in their own teaching, including the use of WebCT, Wimba, Smart Boards, clickers, Wikis, blogs, streaming video, podcasts, Skype, Second Life and Camtasia. •Special education faculty received grants to make assistive software programs available to candidates in campus labs and in their school site classrooms. •Course assignments require candidates to explore resources and instructional plans available on the Internet, to integrate technology into lessons at their clinical sites, to create websites, and to use spreadsheets and/or grading programs for grading. •Candidates engage in learning activities related to the analysis of standardized test data from sites such as EduSoft. •Candidates complete a teaching performance assessment in which they analyze data from teacher made assessments and use the results to inform ongoing instruction. <p>Concurrent/Education Specialist Program</p> <p>Candidates develop their understanding of and abilities to apply technology and supplementary aids in instructional design for individuals with disabilities. Principles and practices of the use of technology in the classroom including distance communication; selecting appropriate hardware and software for assessment and data collection purposes; instructional strategies; the enhancement of critical thinking and problem solving skills; and assistive technology to meet the needs of students with disabilities. Technology for professional development is also emphasized.</p>

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	<p>Universal Design for Learning (UDL) incorporates collaboration, technology, and dissemination of content and process. Our candidates are prepared to apply the principles of UDL that includes accessibility-related issues that interfere with student success. New and more accessible technologies and accommodations are presented in course content to assist all types of learning styles. Many university course websites are now developed with universal design elements embedded into the syllabus and course content</p>
<p>California State University, Dominguez Hills</p>	<p>Candidates are required to meet basic requirements for technology proficiency through coursework including TED 420 Computer Literacy for Teachers, TED 411 Classroom Management, and TED 400 Introduction to Classroom Teaching (Level I competencies). In their methods coursework, they learn how to infuse technology into their lessons. In addition, they learn where to find data on state, district, and school-level performance on standardized tests. They practice using assessments in Reading/Language Arts, and use results to plan lessons. Candidates examine samples of district and school-level achievement data and incorporate these into signature assignments. In student teaching, they demonstrate their ability to integrate technology into their planning and instruction.</p> <p>Candidates are also using complex technology as they complete their coursework. Throughout the program, faculty and students use Blackboard as a method for communicating with candidates, posting and receiving assignments, and engaging students in dialogue. The program has also adopted TaskStream, an online system that allows candidates to create and submit assignments as part of the Performance Assessment for CA Teachers (PACT).</p> <p>Regarding Universal Design for Learning, all methods courses in each program follow similar templates for lesson planning, and these include prompts to plan for students with special needs and for those who are English learners. Candidates learn to apply multiple strategies to address the learning needs of all children in the classroom, including the use of realia and manipulatives, graphic organizers or representations, and small-group guided learning activities.</p> <p>A recently-awarded TTT grant will fund development of an online teacher preparation program, and we expect this to spur faculty engagement and candidate skill and capacity in new areas of technology.</p>
<p>California State University, East Bay</p>	<p>All candidates are required to complete a course in the use of technology in the classroom. Additionally, there is a state-mandated teaching performance assessment (TPA) which is integrated throughout the candidate's curricular program to assess the level that a candidate meets specific California teaching standards. The TPAs are submitted and monitored through the use of an online web portal for which all teaching credential candidates must hold a current subscription. All training and applicable materials are provided through the department.</p>
<p>California State University, Fresno</p>	<p>Teachers are prepared to integrate technology through required coursework as well as through modeling the effective use of technology by faculty and supervising teachers. The required coursework in technology includes outcomes related to collecting, managing, and analyzing data to improve teaching and learning and to ultimately increase student achievement. Principles of universal design for learning are incorporated in both the required technology coursework as well as the required coursework in teaching students with special needs.</p> <p>As part of the CSU's Center for Teacher Quality, data is annually gathered by surveying graduates and their employers one year after completion. The data gathered from these surveys include analyses of technology knowledge and skills and are reviewed by faculty and used to make continual improvements in coursework and programs.</p>
<p>California State University, Fullerton</p>	<p>All programs integrate at least the following: (a) Powerpoint for instructor and student presentations; (b) Word for instructor and student documents; (c) LMS for all electronic communication and collaboration between the instructor and students; (d) Internet search and retrieval for research; (e) electronic citation machines; (f) electronic gradebook for assessment and assignments management; and (g) web-based student handbooks and lesson plan.</p>

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	<p>Department of Special Education: The use of technology is incorporated throughout the education specialist credential program in all three program areas. The following are examples of specific assignments embedded within credential coursework:</p> <ul style="list-style-type: none"> • SPED 433: Language Arts/Reading Instruction in Public Schools - students evaluate reading software • SPED 432: Mathematics and Science Curriculum and Instruction in Elementary Schools - students evaluate a piece of educational software and complete a website/software assignment where they examine modifications for English Learners and students with all types of disabilities • SPED 436: Literacy for Early Childhood Special Education - use a variety of interactive books and assistive technologies to teach emergent literacy to young children • SPED 482A and B: Curriculum and Methods for Individuals with Mild/Moderate and Moderate/Severe Disabilities - use of specific websites for IEP development and writing objectives • SPED 520: Assessment in Special Education - use of computer assisted scoring for standardized tests • SPED 504: Advanced Proficiency in Educational Technologies – use of a variety of assistive technologies to support students with disabilities <p>Department of Secondary Education: Candidates participate in online chat and discussion in EDSC 440S (General Pedagogy of Secondary School Teaching); utilize Word Processing and PowerPoint skills in the development of portfolio materials; develop technology-embedded instructional and assessment materials in EDSC 442 (Teaching in the Secondary School) and EDSC 449S (Seminar in Secondary Teaching); and utilize these skills and knowledge in their student teaching experience. Candidates are shown how to select and implement appropriate technological resources for specific concepts. Emphasis is placed on sequencing activities according to students’ prior experiences, level of academic achievement, and developmental stage. Principles of Universal Design are emphasized in EDSC 440S and 442 by exposing students to strategies and technologies they should use to ensure learning is accessible to all students. All candidates who complete EDSC 304 (Personal Proficiency in Educational Technology for Secondary Teachers) to meet their computer technology requirements participate in the Intel Teach to the Future program. This exceptional program addresses content standards and national technology standards in every activity. Intel Teach to the Future is part of the Intel® Innovation in Education initiative, a global, multi-million dollar effort to help realize the possibilities of technology education. Participating teachers receive extensive training and resources to promote effective technology use in the classroom. As of July 2010, over 1,700 Cal State Fullerton Single Subject Credential Candidates who successfully completed EDSC 304 are part of that population. Note that candidates may also demonstrate fluency in the skills required by the CCTC (met by passage of EDSC 304) through successful passage of the appropriate CSETs.</p> <p>Department of Elementary and Bilingual Education: Beginning spring 2010, every EDEL credential candidate must participate in a technology boot camp. This opportunity provides our candidates with an overview of the various pieces of technology that they will be expected to utilize throughout the program. We want our candidates to be open, excited and interested in technology. This boot camp allows them to learn how to use technology without the pressure of learning the pedagogy with the technology. They are taught to use Smartboards, projectors, flip cameras, digital camera, ELMOs and Taping technology. During the boot camp we plant the seed for how to use these items to help to engage and enhance student learning. All of our credential courses include at least one of these elements to further reinforce what is learned during boot camp.</p> <p>In addition, beginning in 2010-2011 academic year, every teacher candidate, faculty member, and master teacher had the opportunity to participate in</p>

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	<p>an art/technology Saturday series. Faculty, students and master teachers were invited to 8 workshops through the year to learn a variety of method to integrate art and technology in the classroom. These free workshops included concepts such as creating flip charts, digital storytelling and more. Courses require students to utilize Wikis, Google docs, on-line surveys and quizzes linked from Blackboard or Titanium. Both Google docs and Wikis can be created as spreadsheets to organize data so that students can reference and use as a resource. We discuss how these instructional tools engage students and ask them to work collaboratively on projects and construct their understanding while connecting to their field experience.</p> <p>In EDEL 435 (Mathematics Curriculum and Instruction in Elementary School Teaching), EDEL 436 (Science Curriculum and Instruction in Elementary School Teaching), and EDEL 437 (Social Studies Curriculum and Instruction in Elementary School Teaching), candidates collect information through the use of digital cameras, video cameras, proscopes and virtual investigations. Candidates then use this information to post data collection for analysis by classmates. Candidates learning has improved as our integration of such technologies has become more routine and accessible by faculty and students. Lesson planning is clearly one element required throughout the program. A requirement for a number of these lessons is to include technology. The teacher candidates must demonstrate, through documentation, that they have taken into consideration their students' prior learning experiences and knowledge. An example can be taken from EDEL 437 (SocialStudies) where candidates are asked to develop a unit that they will teach during a student teaching experience (EDEL 439: Student Teaching in the Elementary School). During this unit, candidates must include lessons that include technology components with which their students will be engaged. The types of technology components will vary. Most, however, include a Web-based element where Web sites are incorporated into lessons. An example is having students take "virtual field trips" on the Web by visiting museums and other geographic location Web sites to view images of these locations. The use of the Web can enhance and support student learning by bringing the world "alive" for students who do not have the opportunity to visit these locations in person. In addition, all candidates utilize TaskStream for the creation of lesson plans. TaskStream (www.taskstream.com) is a customizable assessment management and performance based instruction tool. There are several courses that include online sessions (EDEL 451: Community, School and Classroom Issues, 452: Health & Mainstreaming and 453: TPA support). This online requirement allows candidates to demonstrate competency in the use of computer hardware and the Internet. Candidates are introduced to varying computer-based methods to manage and communicate records in the credential program. These methods include Microsoft Excel, grade-book software, and Web-based grade-book sites. For example in EDEL 430 (Foundations of Elementary School Teaching), candidates are introduced to a variety of common grade-book software used by classroom teachers. Candidates are given the opportunity to try out and assess record-keeping software. Candidates are encouraged (and often required by master teachers) during their student teaching experiences to maintain classroom grades and records using digital grade-books. To further ensure that teacher candidates are able to utilize technology in their courses and the field, beginning fall 2011, all candidates have the opportunity to check out laptop computers for personal use as long as they are in the program. We strongly believe that all of these elements begin to address issues of equal access. In teaching our candidates a variety of techniques to engage students, our candidates will better meet the needs of all students. Candidates work with technology allows them to present work using a variety of methods which means they are more likely to address a variety of student needs. For our candidates, we are also concerned about accessibility. First and foremost the use of Blackboard and Titanium in all of our courses allows our work to be more accessible for all candidates. Posting assignments, PowerPoint lectures and syllabi are our first steps to improving accessibility and ensure equality. In addition, over the past year faculty participated in two ATI (Accessible Technology Initiative) trainings and all syllabi are now ATI accessible. Over the next year we will move to making support items accessible. Faculty will continue to participate in online training to ensure this change.</p>
California State University,	Candidates in the Education Specialist program are prepared to effectively use technology. All students take an instructional technology course as a prerequisite. Additionally, several of our courses include the specific use of assistive technology for students with disabilities. In our assessment course as well as our methods course students are taught to use technology to collect, manage, and analyze data to improve teaching and learning. All

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Long Beach	<p>Education Specialist assessment and methods courses address the importance of Universal Design for Learning.</p> <p>.In the Multiple Subject program, through three prerequisite courses candidates begin thinking about preparing students for a technological world. Applications and understanding of computer technology are integrated into all core courses through classroom learning activities, assignments and fieldwork experiences. In addition, candidates evaluate technology resources (e.g., websites, software, online resources) for their effectiveness in enhancing reading instruction and observe and reflect on teacher’s use of technology in reading and language arts instruction in the related pedagogy courses. During the fieldwork experiences, candidates observe mathematics instruction including the use of technology in an elementary/middle school classroom or computer lab at a time when mathematics is addressed. In many of the urban schools in our local area, computer equipment is not available to all children. The candidates, then, will have first-hand experience of the “digital divide” and will have opportunities to discuss this issue in class as well as reflect upon it in their written assignments. Student teaching also provides opportunities for students to demonstrate mastery of Excel software to create databases, charts, and graphs to record and analyze student data.</p> <p>In the Single Subject program candidates take a co-requisite educational technology course in which they study in-depth how to use technology as a teaching and administrative tool, and how to bring issues of 21st century technology into the secondary classroom. Applications and understanding of computer technology are integrated into all core courses through classroom learning activities, assignments and fieldwork experiences. In many of the urban schools in our local area, computer equipment is not available to all children. The candidates, then, will have first-hand experience of the “digital divide” and will have opportunities to discuss this issue in class as well as reflect upon it in their written assignments. Signature assignments in courses throughout the program and student teaching provides opportunities for students to demonstrate mastery of video cameras, smart boards, charts, data bases, graphs and the ability to use data to analyze student learning and teacher effectiveness.</p>
California State University, Los Angeles	<p>The Charter College of Education (CCOE) asks all candidates entering the elementary (multiple subject), secondary (single subject) and special education (education specialist) credential programs to verify a basic level of proficiency in technology. Once in the credential programs, candidates complete required coursework in the use of technology for educational purposes. Faculty model the use of technology for improving teaching and learning in their professional practices. In elementary and secondary education credential programs, all students are required to take and pass four (4) different performance assessments, California Teaching Performance Assessments (TPAs) that measure the application of their knowledge, skills and disposition. Passage rates of the California TPAs are reviewed and analyzed for purposes of program improvement. Task Stream is used by students and faculty to upload student work samples and to track student progress. Faculty also model the effective use of technology in online and hybrid course offerings, including the use of Skype, blogs, podcasts, online threaded discussions and chats, and other related technologies. The California State University (CSU) Center for Teacher Quality (CTQ) assists each CSU campus, including CSULA to collect data from credential program completers and their principals about how well prepared they are once they have been teaching for a year. These data are reviewed by the campus administration and the faculty for purposes of ongoing program improvement.</p>
California State University, Monterey Bay	<p>Candidates are required to complete a course in technology for all programs, at the preliminary level of the credentialing process.</p>
California State University, Northridge	<p>Faculty model the use of technology in every day instruction by using Moodle to post assignments, support structured on-line discussions, show videos, have live conferences through Elluminate and a variety of other applications. The university and the Michael D. Eisner College of Education continue to support faculty and students in developing their technology skills. Several teacher education faculty provide professional development in technology to the university such as online professional development for all faculty and staff and university-wide workshops on Elluminate. The</p>

Technology *continued* – Traditional Programs

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	Secondary Education department offers a masters in Educational Technology. The college continues to increase the number of hybrid and on-line courses. The preliminary and professional administrative services credential programs are offered on line as well as "stateside". Technology is also used in assessing all teacher preparation candidates through PACT (Performance Assessment for California Teachers) in which Task Stream is used for the submission of Teaching Events. The entire candidate assessment system in the college is electronically based, including entrance interviews, disposition assessments, student teaching evaluations, cooperating teacher and candidate evaluations of the student teaching experience, and follow-up studies.
California State University, Sacramento	All of the Sacramento State, College of Education credential candidates are required by state standards to learn how to effectively integrate technology in curriculum and instruction and to utilize it for purposes of data collection, management and analysis focused on improving teaching and learning. This is accomplished in our programs through a required technology course and infusion of the knowledge and skills required throughout methodology courses and student teaching. Our electronic portfolio tool, Taskstream, meets Universal Design guidelines, and UDL principles are taught and supported in other courses. Our belief is that technology should assist educators in “redesigning” their curriculum to meet student learning needs.
California State University, San Bernardino	All candidates must complete a Technology proficiency pre-requisite. Technology is infused throughout all curriculum and coursework.
California State University, San Marcos	All candidates complete a prerequisite course in technology and technology applications for public schools and classrooms. The integration of technology is infused throughout the program and is a focus of observations in clinical practice. In addition to the California Teacher Performance Expectations standards, our programs include a standard for Technology in Teaching and Learning. We have begun a systematic effort to provide significant professional development to all faculty in the area of technology instructional tools so that course instructors regularly model effective instruction through appropriate use of technology tools.
California State University, Stanislaus	The program introduces candidates to current technology applications that address student learning. Candidates demonstrate understanding via projects and lessons on which technology promotes understanding of concepts. Various web-based and other technologies such as student response systems are used to collect data regarding teaching and learning. Principles of universal design are required in all lessons planned by our credential candidates. Candidates use Taskstream to manage data and progress, modeling how similar technology can be used in the K-12 environment.
CalState TEACH	<p>Technology Best Practice</p> <p>The online component of the CalStateTEACH curriculum develops the technological proficiency of candidates through a combination of face-to-face instruction, print and electronic instructional materials, practical applications, and extensive engagement with an online learning environment. Use of a wide variety of computer hardware and software is integral to the program and required for success.</p> <p>Interaction using email and collaborative tools including threaded discussions is fundamental within the CalStateTEACH program. Candidates are provided face-to-face training in these skills during a one-day orientation conducted prior to beginning the program. Proficiency is developed through the continued use of email for communication and collaboration with peers and faculty, and through electronic submission of assignments. Academic feedback is also provided electronically. In addition to email communication, candidates participate in structured and unstructured threaded-discussions throughout the course of the program. In total, candidates are required to participate actively in a minimum of 15 curriculum related discussions. In addition, the structure of the program requires that candidates become proficient with a variety of online tools to create lesson plans and instructional units, develop electronic portfolios, and compile and distribute shared curriculum resource collections.</p>

Technology *continued* – Traditional Programs

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	<p>Each of the subject-specific all day seminars (language acquisition, reading, science, mathematics, visual and performing arts, and physical education) models the use of a variety of technologies for teaching and learning. Presenters address the use of technology in subject-specific pedagogy, and candidates leave the seminars with technology resources for application in the classroom.</p> <p>Candidates are required to develop lesson plans in all content areas and include resources for integrating technology. For example, in Technology and Mathematics, candidates view Internet-based resources to develop instructional strategies to incorporate appropriate use of technology into mathematics instruction. Later in Using Technology to Increase Caregiver Communication, candidates prepare a plan for effective communication with caregivers using technology to enhance classroom management. They develop a virtual field trip for their students. This activity requires that candidates find one or more resources their students can “visit” virtually and that they structure the field trip in a way that is engaging and instructive for the students, along with being aligned to the standards of one or more disciplines.</p> <p>Candidates must also learn to apply their technology skills and knowledge to manage teaching and learning in the multiple subject classroom setting. The instructional resources on the course website include an “Assessment Toolbox” which provides students with tools and experience in practicing electronic assessment. Candidates are expected to maintain an electronic gradebook during supervised clinical experience.</p> <p>The program uses flip cameras to conduct e-Supervision of clinical practice. The video artifact of the teaching episode enables the supervisor and the candidate to return to the lesson multiple times in the subsequent reflective dialogue about teaching and learning. The program is in the process of developing procedures to annotate the video lesson to archive exemplary practices and to take the reflective probes deeper.</p> <p>The final requirement of the program—the development of an electronic portfolio for the purpose of communicating one’s professional competencies to an external audience—is the culminating example of the pervasiveness of electronic communication and the consequent development of such skills in the CalStateTEACH program.</p> <p>Candidates explore access to technology and the digital divide through the lens of gender, race and ethnicity, socioeconomics and disabilities. Candidates access the International Society for Technology in Education to evaluate the national standards. Candidates read Lewis and Doorlag (Teaching Special Education Students in a General Education Classroom), access Internet resources (IRIS modules) and use research studies to learn how to use technology to support special needs and gifted and talented students.</p> <p>Throughout the program, candidates are expected to find appropriate resources to support their instruction, discover resources that their students can use directly, and learn web and school-based management tools, especially as they pertain to assessment and the resulting instructional refinement.</p>
Chapman University	<p>The educational application of technology is a theme integrated throughout credential courses. There is also a specially designed course that provides an overview of the range of educational application of technology including computer literacy, adaptive technology, computer-assisted instruction, telecommunications, electronic grade books, problem solving, teacher utilities, networked learning environments, simulations, word processing, computer managed instruction, test construction, computer maintenance, the electronic scholar, lesson authoring, and schools of the future. Emphasis is on making significant changes in teaching and learning through technology by providing a match between instructional strategies and relevant technologies.</p>
Claremont Graduate University	<p>Our candidates are prepared to integrate technology into their curricula and instruction in a variety of ways. All are introduced to the notion of utilizing technology in their lesson planning during the first phase of the program (i.e., the Pre-Internship Phase). For example, for the multiple subject and education specialist candidates in EDUC 343 the candidates are introduced to core technology tools such as document cameras, smart boards, and multimedia presentation tools such as LCD projectors and are asked to create standards-based curricular units that utilize these tools. All candidates are also working under the tutelage of their Master Teachers in a Pre-Internship Teaching Experience and in this intimate context being trained in the</p>

Technology *continued* – Traditional Programs

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	<p>effective use of technology.</p> <p>During the Fall, candidates work with their Faculty Advisers (their field supervisors who also teach their classes at CGU) to look at school-specific applications for grade recording and address the use of technology in their specific classrooms. In the Spring [in EDUC 330: Innovative Technology for the Elementary Classroom, EDUC 331: Innovative Technology for the Secondary Classroom, and EDUC 332: Innovative Technology for the Special Education Classroom] technology takes center stage. These classes address California’s Level I technology standards in a time-efficient manner so that Level II standards can be explored.</p> <p>In these classes, all candidates complete three core assignments-in-common: 1) Technology 101. This assignment/ assessment involves having the candidates demonstrate in a time-efficient manner their understanding of basic software and hardware operation. 2) The Inventory Project. This assignment has the candidates research their respective district’s policies, and practices regarding technology. They locate and make sense of their sites’ technology plan and answer the questions related to procedures, students, teach-teachers, and assistive technology. 3) Technology infused lesson plan that includes a multimedia instructional project (not PowerPoint) and a web quest. For this assignment, candidates design a multimedia project that integrates content standards; utilizes technology to facilitate instruction and student learning; considers the students’ various ELD and SPED issues (and provides appropriate modifications); considers the students’ various reading levels; promotes collaborative learning; and has a rubric-based assignment. To showcase the technology skills learned in EDUC 330/331/332, the candidates create multimedia presentations related to a core text, <i>Con Respeto</i>, in another spring course (EDUC 305/606/305-SP).</p> <p>TEIP Faculty and Staff also model the use of technology in the teaching of our classes. For example, we utilize a content management system called SAKAI (which allows all stakeholders to archive/retrieve articles, participate in asynchronous and live discussions, track events, send out messages, etc.), and our teachers utilize a variety of technology in their own teaching (including but not limited to multimedia presentations, video, web-based programs).</p> <p>The university has an “audio-visual department” that allows teacher candidates to borrow (free of charge) a variety of hardware (i.e., cameras, videos, projectors, etc). Additionally, there is a well-equipped computer lab that our candidates have access to from 8:30am - 11:30pm, 7 days a week.</p> <p>To instruct our candidates on using data on student learning to inform instruction, a core section of our ethnographic narrative project described earlier requires all candidates to utilize academic and personal information gathered on 5 students to design individualized education plans. Student progress is tracked and candidates reflect upon how their use of this data impacted their teaching and their students' learning.</p>
Concordia University	<p>Students complete an online course ("Technology Literacy for Teachers") during the first semester of their formal education courses. They are required to demonstrate the ability to collect, manage, and analyze data with the goal of improving their teaching practice and student achievement.</p> <p>Principles of Universal Design for learning are embedded throughout our formal core education courses. Universal Design elements are introduced during the course entitled "Planning and Assessment for Inclusive Classrooms" and is also embedded during the advanced methods courses taken in the second semester of coursework.</p>
Dominican University of California	<p>All four elements are in place. Technology is integrated into all of the Education classes, specifically with the Multiple and Single Subject credential programs. Students must take and pass a specific Technology course. That course requires learning and practice with specific programs that are used in K-12 Schools. Additionally, all of the Professional Education courses utilize technology and this is described in each course syllabus. Students must use databases for research, the electronic blackboard to communicate with instructors and classmates and students present their work electronically in classes. When candidates are formally assessed with the California Teaching Performance Assessment (TPA) they access and respond to that assessment on-line. The data from those Assessments is analyzed and used for program revision and improvement.</p>
Fresno Pacific	<p>The program prepares teachers to integrate technology effectively into curricula and instruction by requiring candidates to take EDUC 644, Teaching</p>

Technology *continued* – Traditional Programs

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University	with Technology. In this course candidates learn the basics of using technology; using technology to support instruction; integrating new technology into classroom practice. The program prepares teachers to meet the principles of universal design for learning by teaching candidates to provide flexibility in the ways information is presented to students, in the ways students respond or demonstrate their knowledge and skills, and in the ways students are engaged in instruction and learning. In addition, Universal Design helps candidates reduce barriers in their instruction, provide appropriate accommodations, supports, and challenges, and maintain high achievement expectations for all students, including students with disabilities and students who are English learners.
Hebrew Union College	Both through coursework and in the field work portions of the program candidates are trained to integrate technology into their teaching and assessment practices. Additionally, the credential coordinators and education director utilize data to inform decisions about teaching and learning, such as when designing new courses, updating the portfolio requirement, and assessing candidates' teaching competence.
Holy Names University	<p>In all coursework, instructors model the use of technology in curriculum and instruction. A variety of assignments are completed throughout the programs. Some examples are: In Curriculum and Instruction courses, such as EDUC 331 candidates learn to use spreadsheets as tools for teaching mathematical concepts such as probability and descriptive statistics. In EDUC 333, candidates learn how to use spreadsheets to record and analyze data from experiments, and help their students to do the same. Candidates integrate computer technology in lesson plan design in EDUC 334. Computer-based strategies which enhance the writing process for students are introduced in EDUC 336.</p> <p>Productivity and presentation tools are used throughout the program. Internet resources are used to help develop and complete a project describing a culture other than the candidate's own culture in EDUC 103. In EDUC 332, candidates use appropriate web sites. In EDUC 102A, students research for information for parents and educators who are involved with students with special needs.</p> <p>In relevant courses in the Programs, candidates access and evaluate software that promotes effective content acquisition by students. For example, in EDUC 332, candidates evaluate the content of web sites for use in their integrated thematic instruction unit, for their appropriateness, accuracy, and anti-bias perspective. Together, in class, candidates assess and evaluate the quality of the site, compared to those presented by others. In EDUC 334, candidates review web sites that introduce, promote, and advocate for a variety of perspectives on reading. In EDUC 320A and EDUC 330A, candidates identify and explore web sites for their particular subject content area and use the California Department of Education web site to stay up to date on content standards and curriculum frameworks; this is particularly important for multiple subject candidates, who must stay up to date on the development of standards and frameworks in each of the subject areas.</p>
Hope International University	All candidates are required to take EDU6625 Technology for Teachers. The course is designed to help California Teacher Credential Program Standard 9: Using Technology in the Classroom. In addition to this course, assignments in various courses throughout the program are designed to prepare teachers to integrate technology effectively into curricula and instruction, and to use technology to effectively collect, manage and analyze data for instructional improvement.
Humboldt State University	<p>Candidates in the credential program are assessed for entry level technology skills. Candidates are required to verify entry level skills by either passing a technology competency test or completing a technology course (Education 285, Technology Skills for Educators).</p> <p>The program entry level skills include the following: Each candidate demonstrates knowledge of current basic computer hardware and software terminology; demonstrates competency in the operation and care of computer related hardware (e.g. cleaning input devices, avoiding proximity to magnets, proper startup and shutdown sequences, scanning for viruses, and formatting storage media); implements basic troubleshooting techniques for computer systems and related peripheral devices (e.g. checking the connections, isolating the problem components, distinguishing between software and hardware problems) before accessing the appropriate avenue of technical support; demonstrates knowledge and understanding of the legal and ethical issues concerned with the use of computer-based technology; and uses computers to communicate through printed media (e.g.</p>

Technology *continued* – Traditional Programs

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	<p>newsletters incorporating graphics and charts, course descriptions, and student reports).</p> <p>Humboldt State University collaborates with local school personnel in selecting suitable school sites for prospective teacher candidates where they can observe effective uses of technology. In collaboration with Humboldt County Office of Education school sites are identified that have District Technology Plans.</p> <p>In the credential programs candidates use computer applications to manage records (e.g. gradebook, attendance, and assessment records); are familiar with a variety of computer-based collaborative tools (e.g. threaded discussion groups, newsgroups, list servers, online chat, and audio/video conferences); choose software for its relevance, effectiveness, alignment with content standards, and value added to student learning; demonstrate competence in the use of electronic research tools (e.g. access the Internet to search for and retrieve information); demonstrate the ability to assess the authenticity, reliability, and bias of the data gathered; identify student learning styles and determine appropriate technological resources to improve learning; consider the content to be taught and select the best technological resource to support, manage, and enhance learning; demonstrate the ability to create and maintain effective learning environments using computer-based technology; analyze best practices and research findings on the use of technology and design lessons accordingly; and demonstrate knowledge of copyright issues (e.g. distribution of copyrighted materials and proper citing of sources).</p> <p>As part of the student teaching experience candidates use computer applications to manipulate and analyze data (e.g. create, use and report from a database; and to create charts and reports from a spreadsheet); interact and collaborate with others using computer-based collaborative tools (e.g. threaded discussion groups, newsgroups, electronic list management applications, online chat, and audio/video conferences); optimize lessons based upon the technological resources available in the classroom, school library media centers, computer labs, district and county facilities, and other locations; design, adapt and use lessons which address the students' needs to develop information literacy and problem solving skills as tools for lifelong learning; create or make use of learning environments inside the classroom, as well as in library media centers or computer labs that promote effective use of technology aligned with the curriculum; use technology in lessons to increase students' ability to plan, locate, evaluate, select, and use information to solve problems and draw conclusions; use technology as a tool for assessing student learning and for providing feedback to students and their parents; frequently monitor and reflect upon the results of using technology in instruction and adapt lessons accordingly; collaborate with other teachers, mentors, librarians, resource specialists, and other experts, to support technology-enhanced curriculum (for example, they may collaborate on interdisciplinary lessons or cross grade level projects); and contribute to site-based planning or local decision making regarding the use of technology and acquisition of technological resources.</p>
La Sierra University	<p>In teacher education methods classes candidates are required to demonstrate dynamic use of technology as a tool for instructional delivery and assessment. Textbooks for methods coursework are preferred choices when they include methodologies that incorporate technology. Additionally, during the candidates' field placements and formal student teaching, candidates engage K-12 students in interactive learning experiences. Candidates must show ability to effectively use technology when responding to the Teaching Performance Assessment. Several teacher education courses require candidates to use an online program for designing lessons. This model is recognized for its alignment with brain-friendly cognitive processing and with learning theory.</p>
Loyola Marymount University	<p>Program technology components are designed to engage the candidate in utilizing the internet for immediate support in their teaching, via the use of on-line web based materials (e.g., Blackboard.com, iTunes U, SlideShare). Candidates are supported in the development of technology integrated lesson plans which encompass the “start simple, start small” ideology for creating technology proficient teachers. In addition to communicating through technological means, candidates in the programs are expected to create, engage in, and manage digital lessons using freeware (e.g., Prezi,</p>

Technology *continued* – Traditional Programs

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	<p>VoiceThread, etc) and purchased software (e.g., PowerPoint, Keynote, iMovie, Garage Band). Portfolios are submitted electronically via LiveText and are digital in nature.</p> <p>Candidates learn how to interpret data from standardized tests and how to design and use rubrics. By using database software (e.g., Excel), candidates are taught to analyze assessment data in order to track individual student performance as well as course wide attainment of academic learning goals. With the belief that effective teachers use assessment as a tool for guiding and improving instruction, candidates are taught how to use various assessments throughout the program. For example, in Methods of ELD/SDAIE, candidates learn how to use the English language development standards as a guide for determining the level of English proficiency of their students. In this class, candidates learn how to use the California English Language Development Test (CELDT) so that candidates understand how standardized tests can be used to modify instruction. Candidates also use the learning record and portfolios.</p> <p>They learn how to collect evidence from their students and how to interpret the evidence. Candidates in the Multiple Subject Program learn how to use running records, reading inventories, and rubrics in Literacy. Single Subject candidates learn how to write effective test questions in Literacy. In Elementary Methods and Curriculum and Secondary Methods, candidates learn how to collect and analyze evidence of student learning.</p> <p>Professional development continues to be provided to all teacher education faculty related to Response to Intervention (RTI) and monitoring of student achievement utilizing Aimsweb(a benchmark and progress monitoring system based on direct, frequent and continuous student assessment). The results are reported to students, parents, teachers, and administrators via a web-based data management and reporting system to determine response to intervention. We will pilot a new lesson plan based on Universal Design for Learning which will be used for all candidates.</p>
Mills College	<p>We recognize the need for candidates to become competent and discriminate users of computer-based technology in teaching and related facets of their profession. To this end, we assess the competencies of potential candidates, teach them appropriate skills, and provide them with relevant contexts in which to practice and demonstrate the required competencies. As with all other aspects of the program, the content, curriculum, and overall organization of courses and fieldwork is done in agreement with the program’s six principles.</p>
Mount St. Mary’s College	<p>Our programs prepare candidates to integrate technology effectively into their curriculum through modeling, practice, and exploration. Instructors in most courses utilize a computer-based classroom management system (Angel) that allows students to log in from campus or beyond to view syllabi, course assignments, and grades. In addition, instructors model the use of this system to candidates. Candidates are given opportunities for practice through multiple course assignments that integrate multi-media technology into the learning process. Candidates have occasions to view and create PowerPoint presentations, participate in online discussions, and use large data bases to learn about school demographics and test scores. Candidates are also given opportunities to explore additional technology uses in their school placements.</p>
National Hispanic University	<p>Students develop a lesson plan integrating the use of technology.</p> <p>Students complete 60 hours of required coursework in technology where they generally learn how to analyze data. Most credential courses discuss data & analysis but do not specifically address how to analyze data beyond generalities.</p> <p>Methods classes look at assessment, data collection, data analysis and implementation strategies. For example, the 6 unit reading course requires students to assess a student using multiple assessments, analyze the results, and prepare an instructional plan based on the data collected.</p>
National University	<p>Programs for prospective teachers include preparation to use technology effectively for a variety of purposes per state standards. We offer a technology course that is a program prerequisite in order to ensure that candidates have a foundational ability to use technology for teaching and learning. In addition, each program has an identified learning outcome addressing technology and its use in improving teaching and learning. All university courses are taught with the support of an e-companion. Candidates have seen the ways that faculty integrate technology and use it to improve teaching and learning. They are encouraged to use these ideas in their clinical practice based upon the technology available to them in their</p>

Technology *continued* – Traditional Programs

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	schools/districts. One of the Teaching Performance Tasks (Task 3) focuses on the use of assessments in order to improve teaching and learning. Candidates are encouraged to use technology to complete this task. Their ability to do so is based upon the technology available at the school/district. Candidates are placed in schools districts that have a variety of technology. Faculty are currently preparing candidates for the use of SmartBoard technology in their student teaching placement. This can be done on-ground at many of the centers and cameras make it possible to capture instruction as video for use in on-line courses.
Notre Dame de Namur University	Technology course now includes school site visits that have new technology in use. TaskStream training incorporated into PACT data collection, and will be incorporated into special education program.
Occidental College	For this reporting year, students examine the use of online data bases for both "content areas" and "school/student data" to improve instruction. Further, all credential courses integrate technology to research content area materials for lesson plans and use technology to analyze and present data. Finally, candidates are taught how to have students use these technologies for these multi-purposes Credential courses use state and federal data bases to examine content standards and frameworks. Of particular interest is the California State Department of Education website that provides students' test, demographic, and enrollment data. Candidates also explore the various content area websites (e.g., NASA) to inform lesson planning and instruction. Students also explore the uses of data management software such as excel to store, analyze and present data such as test scores, attendance and course enrollments. Students also use the state and federal data bases to analyze student test scores, demographics, course taking trends and other school resource variables and examine their impact on or relation to student learning and school effectiveness.
Pacific Oaks College	Although our programs prepare teachers to collect data as part of improving their teaching practice, the program does not specifically facilitate the use of technology as a means of data collection. The data is both qualitative and quantitative, and is usually "reported" through assignments qualitatively, through narrative. A new course has been developed and will be implemented in our credentialing programs in Summer 2012 which will address the use and integration of technology.
Pacific Union College	All teacher candidates take the core technology class, EDUC 238/L: Computer Technology for Teachers/Lab. This is the only undergraduate course specifically designed to address many methods of integrating computer technology in curricula and instruction. The topics in the course are: copyright & fair use issues; portfolio of useful Internet sites for specific topics; presentation software, from traditional and constructivist perspectives; project based learning through the construction and use of WebQuests; management of student scores through use of computer grade books; assessing reliability and safety of websites; student safety on the Internet; Acceptable Use Policies; wikis; newsletters. In each of these topics, candidates receive direction instruction in how to create and/or use the strategy, and what value it holds for the teacher and student. Candidates create products in this course which demonstrate their ability to integrate principles of universal design into their teaching. Presentation software, for instance, can be used in many varied settings, yet can be misused in school if learner needs are not taken into consideration. Students in this class learn how to create engaging, interactive slideshows which will involve their own students in active learning, not merely passive listening. Such presentations are often especially helpful in accomodating the needs of diverse learners. EDUC 238 is one of several courses in which teacher candidate encounter project-based learning, both as learners and as future teachers. A major component of this course in the creation of a WebQuest by each candidate in the content area and grade level that he or she is most interested in teaching. Basing the WebQuest on California state teaching standards and writing instructional objectives to guide their work, candidates design and build WebQuests while learning how to use Microsoft Publisher. This results in a profound respect for the value of project-based learning and the degree of planning required to produce a quality product as well as a high level of proficiency in the use of the program. Emphasis is given to the

Technology *continued* – Traditional Programs

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	<p>importance of providing multiple ways for learners to demonstrate their knowledge, so each candidate incorporates several varied student products into the WebQuest.</p> <p>Candidates in EDUC 238 encounter data collection, management, and analysis in several ways. First, they learn how to organize a growing collection of useful Internet websites in a Word document, then make it available to themselves and others by posting it in Google Docs. They also learn to utilize one of the websites designed for just such a purpose, which they then make available to their students. Candidates also create simple gradebooks using Microsoft Excel and learn how to use one of the commercially available grading programs. Here they input student names and scores, determine category weights, and create printouts for students or parents. A class wiki is established to which members contribute, and they learn how to create and manage their own wikis. Finally, each candidate designs and produces a newsletter and learns the importance of sharing information with community members.</p> <p>Since our state does not require this, we have not specifically addressed this issue - "data to improve teaching and learning" - in course content, and we will be looking over the next year for ways to not only implement this but to better understand what it means.</p>
Patten University	Admission pre-requisite requirement includes Basic level computer competence. State CTC Level I certification, required for Pre-liminary Credential, is embedded into the Credential Program coursework, as part of the California SB 2042 program requirements. Level II competence is later required by the CTC for the Professional Clear Credential during the Induction program phase. Coursework assignments include use of Computer and multimedia resources.
Pepperdine University	The curriculum in the teacher preparation program ensures candidates use educational technology throughout their coursework, including online classroom support, presentation software, word processing software, spreadsheet software, and Internet research. All teacher education candidates purchase a subscription to TaskStream, and data regarding teaching and learning are collected, managed, and analyzed via TaskStream. Candidates learn to differentiate instruction for the full range of students in literacy and all content areas. Specifically, they learn how to differentiate instruction for students with learning disabilities or delays, English learners, and students learning at an advanced level. Their instructional planning and implementation is evaluated in part by their ability to differentiate instruction.
Point Loma Nazarene University	Throughout credentialing coursework, candidates are required to use technology as a tool for instruction. In the assessment course (EDU 603), candidates use technology to collect data and analyze results to improve instruction. All candidates examine grading and course management software in the subject specific methods courses. During clinical practice, candidates are required to use presentation software to deliver instruction. Finally, all candidates experience course management software as students themselves throughout the program.
San Diego Christian College	<p>During the course of the professional program, candidates have a number of opportunities to make appropriate decisions regarding the use of technology to support, manage and enhance student learning.</p> <p>ED 300, Introduction to Education: In this introductory course, candidates read about and discuss the place of technology in current classroom practice. They also complete an assignment in which they access a website connected with the course text. In this exercise, they browse various virtual sites under ?Virtual Field Trips? and choose one to apply to a subject area that they will teach.</p> <p>ED 503, Educational Psychology: In this course, candidates read about the use of technology for learning. They view several videos dealing with specific technological applications and discuss the pros and cons of effects on student learning.</p> <p>ED 505, Curriculum and Instruction (Elementary): In the writing of lesson and unit plans, candidates explore and discuss various technologies that may support student learning. Websites that give direction in the use of rubrics, graphic organizers, and content ideas are explored and discussed.</p> <p>ED 506, Curriculum and Instruction (Secondary): in the construction of unit plans, candidates use professional journals as well as websites for ideas in instructional planning. They must include a technology piece in the plan, considering how the website/software correlates to the content standard(s)</p>

Technology *continued* – Traditional Programs

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	under discussion. They discuss how the technology would enhance, remediate or enrich the content.
San Diego State University	All teaching credential candidates are required to take an Educational Technology course. This course introduces teachers to the possibilities and potentials of computer technology for education. The goal of this course is for pre-service teachers to begin to use a wide variety of computer-based technology for both professional and instructional use. Technology is also integrated in many courses throughout the programs.
San Francisco State University	<p>Integration of Technology</p> <ol style="list-style-type: none"> 1. Instruction in uses of educational technology to support student learning and assessment and to manage data to improve teaching and learning is infused throughout the methods courses in all credential areas. In addition, credential candidates must complete a one-unit stand alone course, ITEC 601, to meet the state-mandated Level One technology requirement for earning a preliminary teaching credential. 2. Faculty and credential candidates in all courses use iLearn (https://ilearn.sfsu.edu), a Learning Management System (LMS) that SF State has adopted to enhance online student learning and collaboration. Whether an instructor uses iLearn to merely supplement a course or teach an entire class online, instructors may customize their use of iLearn features by mixing and matching technology that best fits the course objectives and student needs. Using this LMS becomes a model for candidates to use in K-12 schools. Instructors may use iLearn to enhance teaching and learning in the following ways: <ul style="list-style-type: none"> - Sharing resources and posting all course documents online. - Facilitating student interactivity and collaboration through assignments to participate in online Forums. - Assessing student performance online - Gathering student feedback online. 3. Secondary and Elementary Education Departments use the digital TaskStream System to upload candidate responses (which include student-teaching videos) to the Performance Assessment for California Teachers (PACT). This assessment is a culminating experience required by the State of California. All candidates in are required to purchase a TaskStream account during their first semester in the program. This on-line resource is used for the culminating assessment during the candidates’ enrollment in their final student teaching seminar. Other resources available to candidates using TaskStream are outlined below: <ul style="list-style-type: none"> - Accountability Management System (AMS) is used at the national, state, provincial, county or district level to articulate the mission and goals of secondary education programs; identify criteria and measurements of successful achievement of defined outcomes; establish quality review processes; record assessment data and analysis versus articulated goals; and provide robust continuous improvement capabilities for identifying findings and tracking the disposition of follow-up action items. - Learning Achievement Tools (LAT) by TaskStream is used at the national, state, provincial, county, district or school level to efficiently organize and demonstrate individual and programmatic achievement of articulated standards, skills or competencies. Examples of these programs include graduation portfolio projects, articulation programs for educational advancement, Career Clusters, P-20, and 21st Century skills initiatives, writing programs, among others. 4. Technology is used to manage and deliver instruction to candidates through LCD Projectors to present course content; the appropriate use of PowerPoint software is addressed and applications is, word processing software used in all credential courses. Other courses use excel and other specialized software programs. 5. Universal design for Learning is covered in student teaching support seminars and in the adolescent development course required for all single subject credential candidates.
San Jose State	Students in the Credential program must fulfill basic technology requirements either through coursework or our technology exam. These requirements

Technology *continued* – Traditional Programs

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University	<p>verify each candidates proficiency in the use and trouble shooting of technologies, tools and resources commonly found in educational settings. These technologies, tools and resources include, but are not limited to, computers, LCD projectors, email, Internet websites, and common software (word processing and spread sheets).</p> <p>Once they have begun the credential program, they get additional instruction and assessment embedded in their methods course, foundations courses, and field experience. In the more applied setting, candidates learn to use technology, tools and resources meaningfully in classroom settings. They learn to:</p> <ul style="list-style-type: none"> •use new video technologies and editing software for course projects •search for, critique and integrate into their lessons online resources like online video demonstrations, digital archives, lesson plans, and educational websites •develop lessons around technologies and software like podcasts, video, projectors, smart boards and presentation software •use standard software for recording, managing and reporting grades and/or prepare reports •use common communications programs like listservs, groups, and social networking sites <p>Education Specialist credential candidates are required to complete a course that is a systematic review of results of research studies in techniques of designing; selecting, producing, using, and evaluating the use of curriculum materials and instructional media in teaching; research studies in mass communication media;procedures applicable to setting up small-scale evaluative studies of curriculum materials and media programs within schools. This course reflects a balance of behavioral/precision teaching, low to high tech support intervention exploration, with models of integration/inclusion into the mainstreaming education and society through a variety of technological interventions. Activities in this course will include application, research, development and management of information and data.</p> <p>This course is for educational leaders, teachers and planners to prepare them for future changes in education technology. This course is based in research, theory, and current trends in technology, education, and training. It relates cycles of change to paradigm shifts in order to interpret current trends and project future developments. Additionally, Universal Design for Learning (UDL) and Assistive Technologies (AT) are infused throughout the course.</p>
Santa Clara University	<p>Our teacher education programs emphasize three different ways in which teachers integrate technology into their practices: by teaching academic content to students using technology as an instructional tool; by creating activities and experiences in which students use appropriate technologies in meaningful ways to reach standards-based curriculum goals; and by using technology to document student learning, to collect, manage, and analyze student achievement data, and to represent student achievement in ways that facilitate the use of data to improve instruction. All teacher education course instructors strive to model the effective use of a variety of familiar technologies (such as digital cameras, smart phones, iPads/tablets, cell phones or mp3 players with voice recording capabilities, text messaging, and social networking) and basic software commonly found in K-12 classrooms (such as Excel, PowerPoint, and Microsoft Word) in our own teaching. We also give our teacher candidates a range of opportunities to have hands-on learning experiences with hardware, such as graphing calculators, and software, such as Geometer’s Sketchpad, commonly found in classrooms.</p>
Simpson University	<p>Definition Universal Design for Learning Scientifically valid framework for guiding educational practice that provides flexibility in the ways information is presented, in the ways students respond or demonstrate knowledge and skills, and in the ways students are engaged; and reduces barriers in instruction, provides appropriate accommodations, supports, and challenges and maintains high achievement expectations for all students, including students with disabilities and</p>

Technology *continued* – Traditional Programs

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	<p>students who are limited English proficient.</p> <p>The teacher credentialing program at Simpson University prepares teachers to integrate technology effectively into curricula and instruction by aligning specific technology assignments to projects in other teacher credentialing courses. The alignment provides an effective scaffolding of technology skill development so that when students are expected to accomplish learning outcome tasks in other core course they will have already had relevant skill practice to successfully complete the assignments using technology. For example, teacher credentialing students learn to use intermediate and advanced word processing skills to create both unit plan and lesson plan templates prior to when they will be expected to develop them with actual content in their other teacher credentialing courses.</p> <p>The teacher credentialing program at Simpson University prepares teachers to use technology effectively to collect, manage, and analyze data in order to improve teaching and learning for the purpose of increasing student academic achievement through the use of technology assignments specifically designed to achieve this outcome. Teacher credentialing students learn intermediate and advanced components of databases and spreadsheets to gather and arrange numeric data for efficient analysis, interpretation, and management of student assessment data. The data is aggregated and disaggregated in a variety of ways for individual and group comparison using charts and graphs that are imbedded into student profiles using a presentation program. Teacher credentialing students practice the development of properly crafted summary statements of student achievement designed for communicating the data with students, their parents, colleagues, and the administration. Teacher credentialing students learn to use data effectively for the purposes of merging it into student progress reports, newsletters, etc., that help develop the requisite skills and the understanding of the importance for clear, consistent, and timely information/feedback to students, their parents, and the administration. Teacher credentialing students are provided information in a variety of forms including tangible written form, verbally, visually through projected images, and as online resources. The course textbook has been designed to support students who start the course with beginning, intermediate, and advanced technology skills, which reduces barriers in instruction, provides appropriate accommodations, supports, and challenges and maintains high achievement expectations for all students. The textbook utilizes an abundance of screen shots, images, notes, and carefully crafted language designed to enhance its use for all students including students with disabilities and students who are limited English proficient.</p>
Sonoma State University	<p>Elementary/Multiple Subjects: Technology is integrated into courses where appropriate for instruction. The use of web-based, video clips, software, and graphic organizer tools are a few of the teaching strategies taught and modeled in the program. For mid and final semester evaluations of candidates, web survey tools are used to help collect and aggregate data. The platform LiveText is used for portfolio assessment of candidates at the mid and final point in the program, which includes candidates' submissions of coursework and rationales for instruction. The mandated PACT (Teaching Event) is also submitted and assessed by all final-semester candidates via LiveText. These LiveText submissions and the related evaluations become the source for department analysis for program improvement. Secondary/Single Subject: Faculty in the program model the use of technology via the use of Moodle and in Phase 1 courses. This will significantly enhance faculty's ability to use technology in their instruction. Using the Performance Assessment for California teachers (PACT), we ask students to use online and digital technologies to development and submit their PACT teaching event. All PACT and program assessment data is managed using various technology-aided strategies. Student teaching evaluations are completed online as well as all program-critical assessments and are analyzed. Feedback loops exist for examining all data via PACT and the critical assessments to help improve student learning. These data are discussed in monthly department meetings. Education Specialist: In response to recent state-wide changes in the preparation of Education Specialist (ES) candidates, SSU now provides all candidates with multiple experiences that help them integrate technology into their teaching. To this end, we offer EDSP 421C - a class that specifically addresses the effective use of technology in our educational environments. Additional ES courses extend this knowledgebase as candidates learn to apply the effective use of educational and assistive technology. As well, our ES candidates are well versed on the principles of Universal Design for Learning. Targeted lessons and related</p>

Technology *continued* – Traditional Programs

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	experiences in EDSP 400 and EDSP 425 offer our candidates the knowledge and skills that enable them to understand and apply the principles of UDL directly into their teaching environments.
St. Mary's College of California	<p>Candidates in the Single Subject and Multiple Subject Credential Programs use the PACT TPA which incorporates all of the descriptions above in addition to specific coursework required in the program. http://www.pacttpa.org/_main/hub.php?pageName=Home</p> <p>Candidates in the Education Specialist Credential Program are required to take as part of their coursework an Information Literacy and Technology course and an Instructional Strategies course which gives opportunities for effective practice. Both pieces are integrated to writing effective and relevant IEP goals and objectives.</p> <p>Candidates in the Multiple Subject Credential Program take the course MSTE 223 Technology in the Classroom, which was designed specifically to include all four elements listed above. In addition, the use of technology is integrated into all other courses; for example, candidates create a class Wiki for children's literature in MSTE 253 Reading and Language Arts I; candidates create a multimedia project for MSTE 345 Curriculum & Instruction: Social Studies and Humanities; and candidates create tables summarizing student performance on a mathematics test in MSTE 350 Curriculum & Instruction: Mathematics; these data are then used to write plans for improving the learning of the entire class as well as two children with specific learning needs.</p>
Stanford University	<p>STEP candidates have numerous opportunities to explore, develop and report on their use of appropriate technological resources to support student learning. Candidates develop their ability to utilize technology to support student learning in a variety of contexts: content-specific methods courses, which address technology as a teaching tool; and clinical placements, where candidates explore the use of technology and develop multimedia representations of their teaching practice. STEP candidates learn about, analyze, and evaluate various subject-specific and generic applications of technology, use computer-based technologies to design engaging materials that incorporate multiple representations of content, and develop tasks to assess student learning. In addition, in their clinical placements candidates routinely use digital video to document and learn from their own practice and the work of their students.</p> <p>Candidates examine a variety of current educational technologies as part of their lesson and curriculum unit planning and in response to the technology requirements of the PACT Teaching Event. Candidates learn about educational technologies throughout the year and learn how to adapt productivity and presentation tools, as well as other instructional technology, for teaching and learning within their individual content areas. Based on the data collected from the Tech Pre-assessment Survey and Tech Field Placement Survey, workshops are designed to meet the needs of candidates who need more preparation in learning to select and use a variety of educational technologies.</p> <p>Candidates have opportunities to examine, evaluate, and utilize educational technology in their curriculum and instruction courses. For example, in ED263A-C: Curriculum and Instruction in Mathematics, candidates examine three different learning technologies (probeware, dynamic software, and graphing calculators). Prior to the session on probeware, candidates read research about the effectiveness of hand-held devices and learn about the affordances and constraints of this technology. After engaging in activities using probeware, candidates reflect on its usefulness and limitations as a teaching tool. Candidates in mathematics are later introduced to Fathom, SimCalc and Geometer's Sketchpad. A local classroom teacher serves as a resource by sharing examples of her students' work using Geometer's Sketchpad, sharing instructional ideas, and hosting the candidates for a visit to her classroom. Candidates are able to interview her students about their use of the software, and candidates later debrief their observations to identify strategies for using this instructional tool. For the final session on graphing calculators, Texas Instruments (TI) provides an extended session specifically designed for pre-service math teachers at the secondary level. Candidates study the uses and features of graphing calculators in this hands-on session and explore the appropriateness of this tool for particular topics in math. As a culminating activity, candidates prepare presentations that</p>

Technology *continued* – Traditional Programs

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	<p>consider how a particular technology tool might support students’ mathematical understanding of a specific topic from the state or national standards.</p> <p>In ED268A-C: Curriculum and Instruction in History-Social Science, candidates examine a variety of strategies for evaluating internet resources. Drawing on a list of questions designed to identify the authority, accuracy, and currency of a website, candidates learn to identify the biases, goals, missions and legitimacy of web-based resources. Candidates apply these criteria in an internet resources fair for which they create a list of useful, credible internet resources on a particular theme or topic in history/social science. They write a 50-minute lesson in which they address how the internet resources will be used and provide a rationale to explain how reading the selected resources will help students build understanding of the historical topic and support the teaching of a targeted reading skill. In ED262A-C: Curriculum and Instruction in English, candidates explore innovative uses of productivity tools to support language instruction and literature analysis. They use multimedia to help their students gain access to the content of the language arts curriculum, and they also collect and evaluate internet resources for the language arts classroom. In ED264A-C: Curriculum and Instruction in World Languages, candidates explore the benefits of increased language comprehension from viewing video and watch web-based videos of language lessons. They use music software to create digital drumbeats and other music files to make language chants and songs more engaging. They also design lessons that use PowerPoint and visual images for comprehensible input. Candidates in ED267A-C: Curriculum and Instruction in Science examine the use of both probeware and a genetics simulation software (GenScope) to analyze how these tools might be useful in supporting student learning. They discuss issues related to implementing this software in their classrooms, including equipment availability and reliability, curriculum sequencing, scaffolding, language, assessment, diversity of prior knowledge, and technical assistance.</p> <p>Multiple subject candidates also have many opportunities to learn about the instructional uses of technology. For example, they explore the uses of calculators in elementary classrooms. Candidates review the National Council of Teachers of Mathematics (NCTM) standards with respect to calculators and then discuss the controversy about when to introduce calculators and for what purposes. They examine the affordances and constraints of calculators and other types of classroom technology. Candidates review selection criteria for web-based games and resources and then apply these criteria to one of several mathematical games websites. They evaluate the sites based on educational value, content, design and navigation, ease of use, and suitability. Multiple Subject candidates also explore the use of probeware in instructional activities that support K-8 students in learning to ask important questions and conduct careful investigations. Using probeware to do real-time graphing of temperature data, candidates engage in computation, graphing, and number skills to support inquiry activities in science. Candidates also discuss the question of whether probeware activities can be used as summative assessments.</p> <p>All candidates complete many activities and assignments using digital video throughout the year. During the first week of the STEP year, candidates learn how to use digital video cameras and receive basic instruction in simple video editing software on both the Mac and the PC. Candidates then work in small groups and utilize these skills to produce a short video introducing themselves and demonstrating their creativity to the STEP community (see Orientation Schedule). This activity orients candidates to the resources available in STEP (software, hardware and technical assistance) and introduces them to the tools and skills they will use to document and learn from their teaching and the work of their students in school placements.</p> <p>Other assignments that involve video include at least one videotaped supervisory observation per quarter, short segments for analysis in curriculum and instruction assignments, and the video requirements for the PACT Teaching Event. Candidates review videotaped observations with their supervisors to reflect on their teaching. Supervisory groups form informal “video clubs” to engage in peer review and to consider the outcomes of their lessons. Videos documenting candidates’ performance in their clinical placements are also analyzed in their subject-specific curriculum and instruction courses.</p>

Technology *continued* – Traditional Programs

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	Resources provided for video assignments include instruction during orientation activities, 50 miniDV camera kits and tripods, workshops for candidates and supervisors on using video to document classroom practice, a media lab with miniDV decks for reviewing and capturing video to a digital format, computers, and appropriate documentation tools for editing.
The Master's College	Teacher credentialing candidates at The Master's College are taught current trends in technology and education that will affect them as a teacher in today's classroom. They are given practical applications they can use in a classroom such as using the computer to teach a lesson, communicating with parents, managing student's information and using the Internet as a resource.
Touro University	<p>Touro University-California's College of Education provides opportunities for candidates to learn and use appropriate computer-based technology. Candidates enter the program with a wide range of technology skills, and they develop those skills throughout the program. The use of technology is one aspect of instructional design embedded in every course and every school-based learning experience. Each course includes an online Blackboard component, and candidates post all Key Assignments on TaskStream for instructor comments and assessment. Each candidate shows competency in the thirteen TPEs through an online Teaching Portfolio, collected on TaskStream. Each candidate who is recommended for a preliminary teaching credential has a basic understanding of technological proficiency and an understanding that continuation of skill development in this area is fundamental to professional development.</p> <p>TEACHING & LEARNING WITH TECHNOLOGY</p> <p>Candidates use appropriate technology to facilitate the teaching and learning process. Each candidate learns to use appropriate technology and, in turn, how to use the same technology in the teaching and learning process. In literacy and curriculum and instruction courses, as candidates become familiar with writing units and lessons, accessing the California State Curriculum Standards, and developing appropriate rubrics on TaskStream, they learn how to use the same technology when teaching their students. After learning to conduct electronic database searches in class, candidates are encouraged to use the same research skills when teaching their K-12 students.</p> <p>Candidates demonstrate knowledge and understanding of the appropriate use of computer-based technology for information collection, analysis, and management in the instructional setting. Beginning in iLearn orientation, candidates become familiar with the electronic education resources in the Touro University library, how to access the databases, and how to retrieve peer-reviewed journal articles. Many courses include a summary of a journal article. The curriculum and instruction courses include methods of student data collection and grading systems appropriate to K-12 classrooms. Candidates analyze best practices and research on the use of technology to deliver lessons that enhance student learning. Candidates research interactive online websites that support teaching units in the literacy courses. Candidates use free internet sites that support curricular areas. In the advanced curriculum and instruction courses, candidates create their own webpage with appropriate web 2.0 resources for parents and students. Candidates demonstrate competence in the use of electronic research tools and the ability to assess the authenticity, reliability, and bias of the data gathered. The Touro University librarian who is the liaison to the College of Education conducts frequent workshops for our classes in how to access reliable peer-reviewed journal articles and research reports on relevant topics. All candidates received multiple opportunities to demonstrate competence in the use of electronic research tools.</p> <p>EQUITABLE ACCESS TO TECHNOLOGY</p> <p>Candidates integrate technology-related tools into the educational experience and provide equitable access to available resources to all students. All students K-12 have access to free web 2.0 technology and resources, so candidates are encouraged to become familiar with these resources for use with their students. Candidates participate in free webinars made available from WestEd's Schools Moving Up, create their own web pages of online resources appropriate for K-12 students and their parents. Candidates understand that equitable access to available resources to all students is</p>

Technology *continued* – Traditional Programs

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	<p>important in closing the digital divide.</p> <p>Candidates encourage the use of technology with students in their research, learning activities, and presentations. As candidates learn how to use technology, they are encouraged to use the same technology with their students. Candidates create rubrics online in TaskStream when writing lesson plans, effective online research skills, appropriate web 2.0 online resources, and PowerPoint presentations, among many other resources. As candidates become familiar with these new technologies, they incorporate them into their own lessons and teach their students to use similar resources.</p> <p>EVALUATING & SELECTING EFFECTIVE TECHNOLOGIES</p> <p>Candidates develop the ability to evaluate and select a wide array of technologies for relevance, effectiveness, and alignment with state-adopted academic content standards, and the value they add to student learning. In the advanced curriculum and instruction courses, candidates explore a wide variety of online resources specific to their curricular area. Candidates evaluate those resources in terms of state-adopted content standards and the value they add to student learning. The most effective online resources are included in their own webpage design.</p> <p>LEGAL & ETHICAL ISSUES RELATED TO TECHNOLOGY USE</p> <p>Candidates demonstrate knowledge and understanding of the legal and ethical issues related to the use of technology, including copyright issues and issues of privacy, security, safety, and acceptable use. Beginning in iLearn, candidates learn about their own legal and ethical issues related to the use of technology before signing an Appropriate Use Policy for Touro University. In each lesson plan, candidates state sources of information, a bibliography of sources cited. In the orientation to TaskStream, candidates are made aware of privacy issues related to posting student work, photos, and names outside the secure server. In the final seminar: EDU 781: Student Teaching & Seminar, candidates review the legal and ethical issues related to the use of technology in K-12 classrooms.</p> <p>USING TECHNOLOGY TO ACCESS STUDENT LEARNING</p> <p>Candidates use computer applications to manipulate and analyze data as a tool for assessing student learning, informing instruction, managing records, and providing feedback to students and their parents. The literacy courses and curriculum and instruction courses include methods of student data collection, data analysis, and grading systems appropriate to K-12 classrooms.</p> <p>USING TECHNOLOGY FOR COLLABORATION & COMMUNICATION</p> <p>Candidates learn to use a variety of technologies to collaborate and communicate with students, colleagues, school support personnel, and families to provide the full range of learners with equitable access to all school and community resources. As stated above, candidates are encouraged to use web 2.0 resources that are available to all learners with access to the internet. Candidates become adept at using email, webinars, digital discussions, online resources to supplement content learning, and electronic research materials, among other resources. Candidates submit course assignments electronically, prepare their Teaching Portfolio electronically, post Teaching Performance Assessments (TPAs) electronically during EDU 780 and EDU 781, and communicate with their instructors and classmates electronically in all courses. Candidates are proficient in technological understanding by the end of the credential program.</p>
United States University	Technology and information literacy is threaded through the curriculum and the program. Assignments must be researched, via electronic sources and all assignments must be completed electronically. Students learn and utilize a variety of technological tools in classes. They also learn how to incorporate that technology into their teaching strategies and lesson plans.
University of California, Berkeley	In keeping with State and CCTC standards and requirements, we teach courses on technology that prepare students to communicate through a variety of electronic media; to design, adapt, and use lessons to promote information literacy; to optimize lessons based on technology available in the classroom or school setting, etc. Students are taught the use of electronic research tools and the ability to assess the authenticity, reliability, and bias of the data gathered. Students also learn to analyze best practices and research on the use of technology to deliver lessons that enhance student learning.

Technology *continued* – Traditional Programs

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	Our program faculty use data, such as the PACT assessment, to evaluate the effectiveness of our teacher training programs, and to identify areas that may need improvement. The School conducts surveys of our graduates during their first year of teaching to find out, from employers, how well they are doing.
University of California, Davis	<p>The UC Davis credential program prepares teachers to integrate technology effectively into curriculum and instruction and to use technology to collect, manage, and analyze data to improve teaching and learning, and student achievement. Effective use of technology is modeled in credential methods courses including a required class on using technology for teaching and learning. In addition credential candidates are expected to use technology in their student teaching placement.</p> <p>Through all credential courses, candidates are introduced to a range of discipline-specific web-based learning resources including: webinars; primary source material; and visual representations of scientific phenomena. In addition instructors use the campus course management and collaboration system for student communication, thereby modeling receiving students work and giving feedback, and implementing collaborative learning through chat-rooms and dedicated online workspace. The technology course includes the use of digital video, instructional multimedia, web page authoring, electronic communications, data analysis tools and resource review for effective teaching and learning. Credential candidates are required to design and implement each of these technologies in their student teaching curriculum.</p>
University of California, Irvine	<p>MS Candidates</p> <p>Instruction and practice in technology is integrated across coursework and field experiences. Course work in each of the MS methods courses includes instruction and practice in using technology in each of the core subjects: language arts/reading, mathematics, social science and science. Candidates learn how to use technology in the classroom for instruction, class management, assessment and reflection on practice with the ultimate goal of increasing student achievement. In addition, candidates learn principles of universal design in each methods course and learn to apply these principles in two courses that are linked to their observation/participation experience and their student teaching experiences: ED301 Directed Elementary Field Experiences in Diverse Schools and ED304 Student Teaching in Elementary Schools. Applications are also discussed in courses such as ED328 Theory and Methods of Instruction of Special Populations in the General Education Classroom; ED329 Theories and Methods of English Language Development Applied to Elementary Students; ED345 Child Development and Educational Equity and ED332 Creating a Supportive and Healthy Environment for Student Learning in the Elementary Classroom. BCLAD candidates also learn additional skills in teaching English language learners through their supervised student teaching assignments in dual immersion classrooms and through support seminars and other resources provided by our BCLAD Coordinator.</p> <p>SS Candidates</p> <p>Instruction and practice in technology is integrated across coursework and field experiences. All SS Candidates take ED334 Literacy and Technology in the Secondary Classroom that is designed to "teach strategies for incorporating, tools for evaluating and selecting, learning theories for understanding" how technology can be utilized in secondary classrooms. Course work in each of the SS methods courses includes instruction and practice in using technology in the core subject: English, mathematics, music, science, social science and world languages. Candidates learn how to use technology in the classroom for instruction, class management, assessment and reflection on practice with the ultimate goal of increasing student achievement. In addition, candidates learn principles of universal design in a foundational course that is linked to field-based experiences: ED305/315 Learning to Learn from Teaching in Secondary schools. In addition, candidates learn to apply these principles in two courses that are linked to their observation/participation experience and their student/intern teaching experiences: ED302/319 Directed Secondary Experiences and ED307 Student Teaching in Secondary Schools. Applications are also discussed in courses such as ED348 Theory and Methods of Instruction of Special Populations</p>

Technology *continued* – Traditional Programs

Program name	Provide a description of how your program prepares teachers to integrate technology effectively into curricula and instruction, and to use technology effectively to collect, manage, and analyze data in order to improve teaching and learning for the purpose of increasing student academic achievement. Include a description of how your program prepares teachers to use the principles of universal design for learning, as applicable. Include planning activities and a timeline if any of the four elements listed above are not currently in place.
	in the General Education Classroom; ED349 Theories and Methods of English Language Development Applied to Secondary Students; ED347A/B Foundations of Equity and Diversity for Secondary School Teachers; and ED352 Creating a Supportive and Healthy Environment for Student Learning in the Secondary Classroom.
University of California, Los Angeles	<ul style="list-style-type: none"> •All credential candidates included, are required to take ED301, Introduction to Information and Presentation Tools: Teaching With and About Media & Technology. This graduate level course is an introduction for K-12 educators to explore their relationships with media and technology by critically questioning and creating various types of texts and information communication technology. Ed301 is an introduction to new media and technology tools that can be used to teach with, as well as an introduction to ways of teaching about these tools. Based on a Critical Media Literacy framework that combines theoretical concepts of cultural studies and multiliteracies, ED301 combines theory with practical classroom applications of digital media and new information communication technologies. This course explores media representations of race, class, gender, sexuality and other identity markers. Educators critically question media and technology as well as explore new alternatives for creating multimedia messages in their own classrooms. All students are required to analyze as well as create media projects related to their teaching. •One of the primary goals of ED301 is to find multiple pathways for making subject matter comprehensible to students by engaging with different types of media and technology. This course helps new teachers better understand how to teach their subject matter in the standards as they plan and demonstrate teaching to the standards through incorporating different information communication technologies. Critical media literacy aims to expand the understanding of reading and writing to be inclusive of all types of literacy and all the different ways humans communicate. This expanded notion of literacy leads to increasing student engagement and making content more accessible to more students through teaching with various instructional strategies, activities and resources. Student engagement also increases through democratic pedagogy and the use of Web2.0 tools that provide opportunities for active and equitable participation. The critical pedagogy embedded throughout this course ensures that the uses of media and technology are developmentally appropriate and extend student thinking. Incorporating visual media, audio technology and multimedia into all subject area instruction are strategies that can greatly benefit English Language Learners. •ED301 helps teaching candidates evaluate and use appropriate technology and media to effectively facilitate teaching and learning that align with California State Standards. Through various assignments such as creating Wanted Posters, Alternative Book Reports, Word Clouds, Voicethread Through Other Eyes, Photographs to Illustrate Vocabulary, Digital Stories, etc. the candidates demonstrate their competence to evaluate and incorporate digital media and electronic technology for literacy development. The assignments are structured to integrate technology-related tools into the educational experience through a critical pedagogical framework that encourages candidates to assess the authenticity, reliability and bias of the messages as well as the different medium. This course prepares teacher candidates to analyze and use various information communication technologies as pedagogical tools for teaching any content from literacy development to mathematics and in any language.
University of California, Riverside	<p>Each candidate is required to incorporate technology into the curriculum by using multimedia tools such as PowerPoint and Windows Movie maker to design lesson plans. Lesson plans are developed, along with copies of instructional and assessment materials, and video clips that will be reviewed in the California license requirement known as the teaching performance assessment (TPA).</p> <p>As part of this assessment, candidates are required to analyze student performances and identify patterns of student performance across the whole class and within subgroups. This analysis is used to develop specific strategies in instruction that address the needs of individual students, subgroups of students, and whole class patterns.</p> <p>The principles of universal design are utilized in that candidates are required to demonstrate instructional strategies in multiple ways, such as the use of written and oral presentation, manipulatives, physical models, visual and performing arts, diagrams, non-verbal communication, and computer technology.</p>

Technology *continued* – Traditional Programs

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University of California, San Diego	<p>The EDS program is cohort-based. The MS cohort includes approximately 44 candidates annually in a combined credential-M.Ed program as well as 6 candidates in a two-year MA program. These MA students receive both MS and Special Education credentials (Education Specialist: Deaf/Hard of Hearing). The SS cohort includes approximately 40 candidates annually across three SS areas: Math, Science and English/Language arts. All MS/SS candidates take a required course at the beginning of their program entitled “Technology, Teaching and Learning” (EDS 203). In this course, they learn to integrate technology effectively into curricula and instruction. This course reviews current literature on effective applications of technology in the classroom. Students become fluent in the use of productivity tools, presentation software, and Web development for teaching and learning; critique software relevant to their area of teaching; and develop an educational activity based on their review of the literature that harnesses the power of technology.</p> <p>All SS candidates plus MS pursuing the M.Ed degree take a required course called “Technology and Professional Assessment” (EDS 204). Advanced techniques for using network-based resources for teaching and learning are introduced. Students review relevant research on advanced technologies related to assessment of professional performance and student achievement. Students present a Web-based professional Teaching Performance Assessment Portfolio that reflects teaching performance during their student teaching or internship field experience.</p> <p>The combined MA-MA/EdSpec program emphasizes the use of technology as part of an approach to visual learning strategies. Candidates learn to use advanced applications for instruction as well as to collect, manage and analyze student data to improve teaching and learning as part of their year-long methods sequence, ASL-English Bilingual Practices (EDS 342ABC) and their MA seminar in the second year (EDS 240A – Research in ASL-English Bilingual Education).</p> <p>Use of technology to collect, manage and analyze data is further embedded for all MS/SS candidates in their methods courses and student teaching/internship seminar courses (EDS 361ABC; EDS 369AB; EDS 373/374/375; EDS 379ABC). Candidates design and analyze assessment data as part of their student teaching or internship practice and present highlights in the culminating professional portfolio. Each candidate demonstrates the ability to design assessment, analyze results and monitor K-12 student progress as part of the PACT teaching performance assessment required for licensure.</p>
University of California, Santa Barbara	<p>Integrate technology effectively into curricula and instruction:</p> <p>Within the technology courses (ED 103 & ED 324/325), candidates learn to use all pervasive forms of communication and presentation software (databases, PowerPoint, word processor, spreadsheets) as well as web-based tools. They learn to create web sites and to evaluate and use Electronic Learning Resources (ELRs). They have a significant assignment on how to create and use Web quests in their classrooms. When planning their K-12 teaching, they use all of the above tools to develop presentations of content, create assignments, and develop web-based inquiry projects. They also learn principals to evaluate the accuracy, educative aspects, and appropriateness of ELRs for their students and curriculum.</p> <p>In addition to two courses on technology, within all methods courses in each of the content areas, candidates learn to integrate technology into specific content. For example, they learn about simulations, laboratory aids and other specific uses of technology to enhance learning in science (in ED S 320 Science methods and procedures: Elementary, and ED S 321 Secondary Science Methods). All candidates are facile with presentation software as a result of ED 103, and supervisors and cooperating teachers help candidates use presentation software in appropriate ways that consider the age of the students and the topic. Other uses of media—such as online video—are taught in both the elementary and secondary History/Social Science methods courses (ED HSS 320 (MST) and ED HSS 321 & ED HSS 371 (SST)). Video brings history alive and candidates receive resources and learn activities for use of video (see syllabi for above courses).</p> <p>Candidates use technology throughout their student teaching experience. It is an everyday occurrence in their teaching, and supervisors provide feedback as part of the observation process. Most of the student teaching classrooms have at least one computer in them, which candidates are</p>

Technology *continued* – Traditional Programs

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	<p>encouraged to help their students use to research questions and sources for assignments. Certainly at the secondary level candidates’ students, like themselves, use online resources for research, for presentations (many candidates require multi-media assignments), and for learning (e.g, viewing video material). Use of technology is an important element in all of our partnership schools and candidates are prepared to both promote their students’ learning and extend their own through application of their university learning.</p> <p>Candidates also receive an account for the “portal” that the Santa Barbara County Education office creates for use with area schools. They are trained on the use of the portal and learn how to access and use the many educational resources on the site. Their k-12 students also learn how to use the portal, and the candidates are often integral to extending student learning and exploration on the portal site.</p> <p>Preparation to use principals of Universal Design for learning</p> <p>Throughout the program, candidates in both SST and MST programs are taught to use a wide variety of special instructional materials, technologies and teaching methods to differentiate classroom experiences for students with a wide variety of special needs including English learners, gifted learners, and students on individual education plans.</p> <p>They also learn the importance of digital literacy and opportunities for multimedia in learning. In their technology courses they learn how use technology to scaffold learning experiences for all learners in their classrooms. Throughout the program, candidates learn principals of multi-modal presentation of content for students and for multi-model opportunities for students to show what they know, i.e., for assessing students. Candidates learn principals of project based learning, and how to scaffold learning in project based environments to allow all students both access to the content as well as pathways for creative and innovative problem solving.</p> <p>In the MST and SST special education courses (ED 222A and ED 363), candidates learn about existing and emerging assistive technologies to support inclusion of students with disabilities in general education activities.</p> <p>Collect, manage, analyze and communicate data for purposes of improving student achievement:</p> <p>One objective for ED 325 and ED 324 is: “Given a classroom-based, school-based or district-based data management system, and given multiple sets of student data related to such things as assignment and test grades, classroom performance, attendance and special needs) to properly enter the data into the system, to modify the data as appropriate to increase accuracy, and to extract reports based on the data that describe student performance.”</p> <p>As an assignment in ED 325 or ED 324 candidates are required to learn and use the electronic grade book program that is being used in the classroom/school in which they are student teaching. Because they are in the k-12 classroom for the entire academic year, they must learn and become proficient at the grading and data management systems in their schools. Secondary candidates use the systems for their second semester where they take over the course entirely.</p> <p>In all methods courses, candidates learn how to assess students and use data for improving instruction and ultimately student achievement. They learn multiple techniques to analyze student work according to specific objectives, and for how to design next steps based on these analyses. Candidates are ultimately assessed on their proficiency of analysis with the Performance Assessment for California Teachers—the state mandate teaching performance assessment used for licensure.</p> <p>With respect to communicating learning and achievement, ED 103 provides the candidate with substantial training in the use of an advanced word processor for purposes of desktop publishing. The competencies learned here enable the candidate to create a variety of printed communications, all characterized by high professional quality, including tests and worksheets, letters to parents, classroom newsletters, signs and bulletin board components.</p>

Technology *continued* – Traditional Programs

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University of California, Santa Cruz	<p>Our program offers Introduction to Technology of Schools ,which satisfies SB2042 Standard 11, through an online course in collaboration with UCSC Extension.</p> <p>In this course students learn to effectively integrate technology into curriculum and instruction. The overarching goals of the course include:</p> <ul style="list-style-type: none"> •Demonstrate proficiency in building and delivering technology enhanced curriculum that is content and grade-level specific. •Demonstrate the ability to design instructional materials using various technologies, tools, and resources. •Demonstrate knowledge of common technology resources for teaching and understanding of principles for selecting and using appropriate technology in classroom activities. <p>In addition, candidates learn how to use technology to collect, manage and analyze data in order to improve teaching and learning. They learn to use spreadsheets from the basics to trend analysis. They must create a sample rubric that can be useful for students and for teachers and must include samples of student work. Finally, candidates describe how use of the rubric can impact student learning.</p> <p>As a tool for supporting universal design for learning, technology is used to engage students and to provide visual and auditory support in learning, especially for the benefit of students with disabilities and limited English proficient students.</p> <p>In Education 203, Multiple Subject Methods of English Language Development, and Education 204, Single Subject Methods of English Language Development, Education 211, Teaching Special Populations, and within subject area methods courses, instructors model and support candidate use of Internet resources for class research as well as Power Point and multi media presentations to provide all students access to information.</p> <p>Teacher candidates also learn how to support their students in using technology to demonstrate knowledge and skills by providing lessons in how to conduct research and present reports using word processors and multi-media.</p> <p>Finally, as part of the Performance Assessment for California Teachers (PACT) Teaching Event (and Content Area Tasks for Multiple Subject candidates) all candidates must demonstrate how to collect, manage and analyze data related to student assessments. They receive practice in this through both methods coursework and student teaching seminar</p>
University of LaVerne	<p>The teacher education program integrates technology into teaching practice through communication and learning activities that serve curriculum objectives and educational goals to enhance learning for the target students. These goals are to facilitate more effective teaching strategies in ways that interest, excite, and challenge students to contemplate and evaluate effective teaching practices and understand technologies that can benefit content delivery. Areas of training include the use of interactive whiteboards, student response systems, and mobile learning environments. Students are required to design computer-enhanced instruction that motivates and engages students from diverse backgrounds in the active construction and/or evaluation of new knowledge and foster the building of habits and attitudes that support lifelong learning. Candidates are also expected to analyze, discuss, and implement current theory and research related to education technology and to develop lesson plans which effectively integrate technology to facilitate instruction and enhance learning.</p> <p>Technology is infused into courses and program to prepare candidates for the advanced technological requirements of learning environments ranging from technology-assisted on-ground classrooms to fully-online learning platforms. Credential candidates must effectively demonstrate all criteria for Level I technology skills measured by a university rubric created specifically for this purpose. Students are also required to generate and collect evidence toward a CSTP-based electronic teaching portfolio throughout the program.</p>
University of Phoenix	<p>The use of technology is integrated throughout our curricula and instruction in University of Phoenix teacher education programs. Some of the resources that are located on the online course materials page include the College of Education Web Links, an electronic-portfolio system (TaskStream), and the Virtual School Portal. Through the College of Education Web Links, students are introduced to a variety of online resources and Web 2.0 tools that can be used for course assignments and for instruction in their own classrooms. Students use the TaskStream e-portfolio to upload</p>

Technology *continued* – Traditional Programs

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	completed benchmark assignments. Faculty members score the posted assignments using assignment rubrics and provide feedback to the students in order to improve their academic work. The Virtual School Portal is a virtual school environment that provides a look at possible situations that may be encountered in schools. The Virtual School is incorporated into course work and assignments. For example, one resource it contains is continually changing test score data that can be used to practice analyzing student learning and planning for academic success. In addition to these online resources, students are exposed to a variety of technology tools that are modeled by their instructors throughout the course of the program and they are given opportunities to incorporate the use of the tools in their assignments and reflect on how they would use them in their own classroom to increase student achievement.
University of Redlands	Technology is integrated in all courses. Current use of Taskstream for all lesson design planning includes principles of universal design for learning.
University of San Diego	<p>In Fall of 2011, USD was awarded a private grant to establish the Mobile Learning Technology Center (MLTC) to establish the university research environment of the future, while concurrently fueling innovation in K-12 education. Faculty research projects focus on the applications of mobile learning devices to learning and tests new solutions in real-world contexts—schools. The MTLC involves interdisciplinary collaborations with local PK-12 districts to test research findings and provide future teachers with unique teaching and research opportunities.</p> <p>A key initial offering of the MTLC will be the MTLC Certificate Program, aimed at teachers, teacher leaders, principals, superintendents, board members, and central and district office professionals. The goal of the Certificate Program is to increase capacity to effectively use and support the use of mobile technology to create high quality teach and learning experiences for students. Participants in the MTLC Certificate Program will leave with content knowledge, teaching and assessment strategies, and an awareness of legal issues, with a focus of the program will be web literacy, social networking, student production and design, and blended learning.</p> <p>For pre-service teacher candidates, MTLC will have an indirect impact on our candidates as faculty conduct research and innovation projects and bring that knowledge into their courses.</p> <p>For in-service teachers, MTLC is currently creating a certificate program that will focus on the role that mobile devices can play in enhancing, extending, and transforming teaching and learning in K-12 classrooms. We anticipate starting this certificate program in Fall 2012.</p> <p>In selecting adjunct faculty for our programs, both credential and master's, a key consideration is their understanding of and use of technology in K-12 settings. At present we have adjunct faculty who are tech resource teachers, Google certified teachers, and award winning teachers in their use of technology.</p> <p>In selecting sites for student teaching and practicum placements, technology is a strong consideration. Tech rich sites with a strong USD presence currently include -- Pride Academy, iMiddle, High Tech High schools, and Digital Media and Design.</p> <p>All courses in teacher credential programs have deliberately increased the use of technology for teaching in their courses. Special Education places particular emphasis on assistive technologies.</p> <p>Teacher candidates use case studies in their core courses to understand the appropriate use of instructional technology and determine when it would be most effective for students.</p>
University of San Francisco	In their first semester, teacher candidates at USF are required to enroll in an electronic portal (TaskStream) which houses lesson plans, rubrics, portfolios, and their California Teaching Performance Assessment (CalTPA/PACT) tasks. During their initial technology course, teacher candidates are trained to create lesson plans that incorporate technology standards. Throughout their credential program, courses incorporate modes of technology to train candidates to be able to identify and supplement their planning to support various ways that students learn using appropriate technology. As candidates are exposed to the various ways that technology can be used to bridge the digital divide, assess student progress, and collect

Technology *continued* – Traditional Programs

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	<p>and analyze data related to student academic achievement, they continue to build adaptations for all students to ensure academic achievement. This technology encompasses, but is not limited to the use of smart boards, clickers, and web sites designed for formative assessment. One web site candidates are introduced to and encouraged to access is the Teacher to Teacher web site funded by the U.S. Department of Education. This research-based web site introduces teacher candidates to methods of using data to increase student achievement in their schools.</p> <p>In their student teaching placements, candidates are exposed to online grading systems housed in school web sites. These sites allow candidates to analyze the progress of their students. Candidates participate in grade level and whole school faculty meetings where school-wide data is reviewed and analyzed.</p> <p>In the Teaching Performance Assessment (CalTPA/PACT) candidates analyze student assessments and a video of their own teaching practices to evaluate effectiveness of their instruction.</p>
University of Southern California	<p>Year 2010-11 Technology is woven through every course in the MAT Program. Varying assignments ask candidates to use video for assessment and reflection, spread sheets to analyze student assessment data, computer programs for reflection and teaching analysis, and the Internet for research and best practices ideas.</p> <p>Ethnography is used to analyze student growth and potential, as well as to plan instruction. Video of excellent teaching is observed in some course learning experiences, as well as film and documentary.</p> <p>The USC MAT Program offers identical curricula on-campus and on-line. This the first time this has been offered from a tier-one research university. The on-line program is technologically interactive, rather than static and is held to the same standards as the on-campus program. It includes video-chat, use of on-line forum, video and learning with a virtual and online community.</p>
University of the Pacific	<p>Candidates teach a micro lesson, include special topics in an educational technology presentation, and develop a "webquest." The lesson and webquest must be developed by using California content standards. Candidates understand English language development strategies and talk about using them to teach technology in a discussion board. Candidates also include uses of technology to assist students with exceptional needs. Candidates use EXCEL to teach a lesson.</p> <p>During student teaching, candidates use information technology systems in one or more public schools for managing and analyzing data such as STAR testing, benchmark assessments, and content specific data management systems.</p>
Vanguard University	<p>Within each course module, various technological proficiencies are addressed. For example, in EDUG 514, Curriculum Unit Design, and additional modules, candidates are expected to integrate technological resources, especially web resources, into their curriculum units. To this end, candidates are provided key websites which serve as resources for the core academic areas, with special attention given to the SCORE sites aligned with the California Frameworks and California Content Standards. In EDUG 520 Classroom Management, candidates are expected to examine technological tools which might support their classroom management plan. In EDUG 543/544 Language Acquisition for the Elementary and Secondary Student, candidates examine technological resources that support language acquisition.</p> <p>Candidates use Moodle technology to experience and complete on-line learning assignments including tutorials in PowerPoint and Excel, carry out discussions, and explore web links.</p> <p>Professors use Smart Board technology in the classrooms, as a model for classroom use. It is also expected that candidates utilize the Smart Board to teach at least one classroom lesson, either in the BST setting or the university cohort setting. Ipad applications (aps) are introduced to provide resources for the new Common Core Standards.</p> <p>The candidates also visit a local public school that is at a high level of implementing technology in a standards based curriculum, and/or view video clips of teachers and candidates using technology to improve teaching and learning.</p>

Technology *continued* – Traditional Programs

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Western Governors University - CA	<p>WGU candidates complete their degree requirements in an online environment. Thus, out of necessity they develop high levels of proficiency in a variety of computer applications and become increasingly confident technology users. Technological competence, however, is not only essential for success as a WGU candidate, but is an integral component of what it means to be a well-prepared teacher candidate.</p> <p>Integrating technology effectively into teaching practice requires that teacher candidates know each piece of the puzzle, and how together they complete the whole. The “whole” represents the integrated knowledge and performance of collecting, managing, and analyzing data to improve teaching and learning. This process at WGU includes four major areas: the initial learning about technology and how to use it in general application (e.g., create a spreadsheet); learning where and when to use technology to plan instruction (e.g., select and evaluate the appropriate technology to accomplish a learning objective); applying the knowledge and skills in a classroom setting by integrating technology effectively into curricula and instruction (e.g., plan a lesson using technology); and applying all of the acquired knowledge and skills to teaching in a classroom (i.e., can prepare, teach, and assess students use and ability with technology).</p> <p>The initial learning about technology takes place primarily within the Foundations of Teaching domain, particularly within the Schools & Society subdomain. Within this subdomain, candidates learn knowledge and skills related to various forms of technology, as well as begin to apply learning in a school-related context. They also learn about restrictions and appropriate legal usage of technology, which could include the applicability of copyrights to Internet-researched information. Correlated assessments measure competency by means of objective exams and performance tasks.</p> <p>The use of technology in education primarily takes place during the Effective Teaching Practices domain. Here candidates learn the usages of technology in education, and are tested and complete performance tasks related to instructional planning and design, instructional strategies and approaches, and instructional presentation and follow-up. Then, additional objectives found within the Subject-Specific Teaching Methods subdomains take this general pedagogy and place it into the context of multiple and single subject (elementary and secondary) teaching methods at the elementary and secondary level.</p> <p>Using technology for student achievement takes place during the field-based experience. During this experience, teacher candidates begin to apply technology to promote student learning. The ability to plan lessons on technology and lessons integrating the use of technology is critically assessed during the pre-clinical field experience, which is a part of the Effective Teaching Practices domain. Prior to the pre-clinical experiences, candidates develop their lesson-planning skills by completing lesson planning performance tasks and refining their skills based on expert feedback. The Pre-Clinical Experience Performance Checklist is completed by a mentor teacher, and is used to assess the developmental progress of each candidate. Finally, an evaluation of a candidate’s ability to integrate technology within an instructional practice is concurrent with Demonstration Teaching (which may be traditional student teaching or intern teaching). Candidates are observed during student teaching by a WGU Clinical Supervisor and a Cooperating or Host Teacher (or during intern teaching by a WGU Clinical Supervisor and a District Mentor). Observers use the WGU Performance Observation Instruments to observe and document the candidate’s performance. Candidates must complete all requirements of the Demonstration Teaching domain, including the Cohort Seminar and online Professional Portfolio.</p> <p>WGU has always made addressing technology in education a priority, and recognizes that proficiency is not enough. Candidates must develop positive views of technology and understand its role in student learning. WGU goes beyond modeling the use of technology in our institutional context and ensures that technology practices are a component of the field experience. Technology competency is a cross-cutting theme throughout the curriculum of the Teachers College. WGU is committed to preparing candidates who are able to prepare students for success in the digital age.</p>
Westmont College	<p>The Westmont Department of Education prepares all candidates to use technology effectively and to integrate it into curriculum and instruction. The Site Visit Team from California’s Commission on Teacher Credentialing determined that the Westmont program met or exceeded all state standards for technology and its use in teacher preparation. All candidates must take a specific course in the use and integration of technology for teachers,</p>

Technology *continued* – Traditional Programs

Program name	Provide a description of how your program prepares teachers to integrate technology effectively into curricula and instruction, and to use technology effectively to collect, manage, and analyze data in order to improve teaching and learning for the purpose of increasing student academic achievement. Include a description of how your program prepares teachers to use the principles of universal design for learning, as applicable. Include planning activities and a timeline if any of the four elements listed above are not currently in place.
	<p>taught by an experienced local practitioner, published author, holder or a relevant graduate degree, and specialist in the field of educational technology. In this course, candidates complete their own electronic portfolios demonstrating their ability to use a variety of relevant technologies they have been exposed to in the course. Among other competences demonstrated are the creation and publication of blogs, the use of skyping, podcasting, document cameras, and the creation of PowerPoint for in-class presentations. Candidates demonstrate the use of these and other technologies both in student teaching and in their required peer lessons in the subject-area methods classes. Candidates learn to collect and manage data relevant to student learning through the use of various software programs. Secondary candidates are required to use district-adopted software programs for the collection of grades in the three courses they teach, semester-long, and to make this data available to supervisors, students, and parents. In this same required course, candidates are exposed to programs and principles for analyzing data. However most of the analysis of student data for purposes of improving student achievement is taught in other courses. In the Foundations course, students are introduced to terminology relevant to student assessment and are exposed to sample student results from the state’s adopted standardized testing program (STAR). In the reading and math methods courses, elementary candidates collect and learn to analyze data with a specific student to determine what clusters of skills need particular attention. All candidates learn about techniques of item-analysis at the class level, whether this is done through technological or more traditional means.</p>
Whittier College	<p>The Whittier College Teacher Education Program prepares teachers to integrate technology effectively into curriculum and instruction by:</p> <ol style="list-style-type: none"> (1) Requiring reading “best practices” for instructional technology use and reading on research on evaluation of technology use in courses throughout the program. (2) Including assignments that requires students to review and evaluate various software packages and Net resources in both foundations courses and curriculum and methods courses; (3) Requiring students to include uses of technology in the teaching plans that they design for assignments in foundations and for curriculum and methods courses, and by providing and providing feedback on the instructional and curricular uses of technology in their plans. (4) Modeling the effective integration of technology into curriculum and instruction throughout courses in the teacher education program. For example, students work with course management systems in nearly every course; they student and learn course content using diverse software packages, Webquests, an interactive online resources; they routinely participate in online discussion groups and make presentations online or using multimedia software. <p>The program prepares teachers to collect, manage, and analyze data for instructional improvement in the two courses. One is a technology course which most students take, which teaches students how to manage and analyze data with software such as Excel and SPSS. The second is a course called Educational Inquiry, which requires students to collect, manage, and analyze data for instructional improvement in an individual inquiry project.</p>
William Jessup University	<p>We provide coursework, "Technology for Teachers" this course is a comprehensive overview of the use of computer-based technology in the instructional environment and integration of computer-based applications into instruction in the classroom. We utilize TurnItIn to prevent plagiarism, Moodle as our communication tool between students and instructors, and we have begun implementation of Taskstream for record keeping, rubrics, storage and planning.</p>

Technology *continued* – Traditional Programs