CALIFORNIA COMMISSION ON TEACHER CREDENTIALING

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OFFICE OF THE EXECUTIVE DIRECTOR

99-9916

DATE: July 12, 1999

TO: All Persons Interested in the Activities of the California Commission on
            Teacher Credentialing

FROM: Sam W. Swofford, Ed.D.
            Executive Director

SUBJECT: New Technology Standards, including a Plan for the Implementation of
            Programs to Meet the New Technology Standards

In December of 1998, the California Commission on Teacher Credentialing adopted new technology standards for credential candidates. This correspondence describes those new standards and provides a timeline for their implementation.

The newly adopted standards are the result of legislation, AB 1023, Mazzoni (Chapter 404, Statutes of 1997), and the recommendations of a Commission appointed Computer Education Advisory Panel, after nearly a year of review, deliberation and field input.

The new technology standard requires Multiple and/or Single Subject Teaching Credential Candidates to 1) demonstrate their effective use of technology at a "basic" level (Level I) prior to issuance of a preliminary credential; and 2) demonstrate their effective use of technology at an "advanced" level (Level II) prior to issuance of a professional clear credential. A plan from each institution to implement this new technology standard is required by December 15, 1999 (see page 14). This new technology standard is specified beginning on page 5.

In addition, all credential programs (except designated subjects) will be required to meet new technology related Common Standards (Common Standards 2, 5, and 7) for all accreditation visits beginning with the 2001-2002 academic year. These new technology related Common Standards are specified, beginning on page 11.

Questions concerning the implementation of the new technology standards may be directed to Sanford L. Huddy, Consultant, Professional Services Division, (916) 322-2304.

The following working definitions apply to this correspondence:

"Existing technology requirement" means the *current* (*or existing*) computer education requirement for the professional clear Multiple and/or Single Subject Teaching Credential, as described in the California Code of Regulations, Title 5, Section 80422.

"New technology standard" means the newly adopted technology standard (Standard 20.5). Please see page 5.

"New technology related Common Standards" means the newly amended Common Standards containing "Questions to Consider" related to technology. These standards apply to all credential programs (except designated subject). Please see page 11.

The timeline for implementation, important dates and events are described below:

Colleges and Universities

Colleges and Universities with Commission-Accredited Programs		
Important Dates	**Event**	
	Colleges and universities with Commission-accredited **Multiple and/or Single Subject Teaching Credential Programs**	**All colleges and universities with Commission-accredited programs (except designated subjects)**
December 15, 1999, or earlier	Must submit a plan to the Commission describing how the new technology standard will be implemented.	
June 30, 2000, or earlier	Must submit a revised program document (or addendum) to the Commission for approval that addresses the new technology standard.	
Between June 30, 2000 and January 1, 2001	Submitted documents will be reviewed by the Commission.	
March 15, 2001, or earlier	Commission approval of revised program document that meets the new technology standard.	
2001-2002 academic year, or earlier	Colleges and universities with Commission-accredited program begin to offer the revised program that includes the new technology standard.	
Beginning 2001-2002 academic year	Submit an Institutional Self Study Report which addresses the amended technology related Common Standards (Common Standards 2, 5, and 7) for all accreditation visits.	Submit an Institutional Self Study Report which addresses the amended technology related Common Standards (Common Standards 2, 5, and 7) for all accreditation visits.

<u>Multiple and Single Subject Teaching Credential Programs</u>
   Colleges and universities with Commission-accredited Multiple and Single Subject Teaching Credential Programs must:
   1. submit a <u>plan</u> to implement the new technology standard (standard 20.5) to the Commission for approval by **December 15, 1999**;
   2. submit a <u>revised program document</u> (or addendum) to the Commission for approval which addresses the new technology standard **by June 30, 2000**;
   3. offer the <u>revised program</u> which includes the new technology standard during the **2001-2002 academic year,** or earlier, if approved.

   The Commission will:
   1. review the revised program documents that address the new technology standard **between June 30, 2000 and January 1, 2001**;
   2. approve revised programs that meet the new technology standard by **March 15, 2001**.

<u>All Credential Programs</u>
   All colleges and universities with any Commission-accredited program (except designated subjects) must:
   submit an Institutional Self Study Report which addresses the amended technology related Common Standards (Common Standards 2, 5, and 7) for all accreditation visits beginning with the **2001-2002 academic year**.

<u>Credential Candidates</u>

Multiple and/or Single Subject Teaching Credential Candidates		
	Event	
Important Dates	**Candidates Recommended for the Preliminary Credential**	**Candidates Recommended for the Professional Clear Credential**
Prior to July 1, 2002	**Are not required to complete** the new technology requirement prior to issuance of the credential, but may do so. (They must complete either the existing technology requirement or the Level I requirement of the new technology standard to obtain the Professional Clear Credential).	May complete **either** the existing technology requirement or the Level I new technology standard requirement.
After June 30, 2002	Will be required to complete the Level I requirement of the new technology standard for the Preliminary Credential.	Will be required to complete **both** Level I and Level II requirements of the new technology standard.

Multiple and/or Single Subject Teaching Credential Candidates who are recommended for the <u>Preliminary</u>:
1.   **prior to July 1, 2002**, **are not required to complete** the new technology standard prior to issuance of the credential, but may do so. (**They must complete** either the existing technology requirement or the Level I requirement of the new technology standard to obtain the Professional Clear Credential).
2.   **after June 30, 2002**, will be required to complete the Level I requirement of the new technology standard for the Preliminary Credential.

Multiple and/or Single Subject Teaching Credential Candidates who are recommended for the <u>Professional Clear</u>:
1.   **prior to July 1, 2002**, may complete <u>either</u> the existing technology requirement or the Level I new technology standard.
2.   **after June 30, 2002**, will be required to complete <u>both</u> Level I and Level II requirements of the new technology standard.

Credential Holders

Multiple and/or Single Subject Teaching Credential Holders		
Important Date	Event	
	Holders who are Issued a Professional Clear Credential	**Holders who are Issued a Preliminary Credential**
Prior to July 1, 2002	Are not affected by the new technology standard	
		Must complete either the existing technology requirement or the Level I new technology standard requirement for the Professional Clear Credential.

Multiple and/or Single Subject Teaching Credential Holders who:
1.   were issued a Preliminary Credential prior to July 1, 2002, must complete either the existing technology requirement or the Level I new technology standard for the Professional Clear Credential.
2.   hold a Professional Clear Teaching Credential that was issued prior to July 1, 2002 are not affected by the new technology standard.

The following definitions will assist you in your interpretation of the new technology standards:

"Acceptable Use Policy" (AUP) refers to a formal agreement between an institution and the user requiring the user to abide by standards and rules of conduct when using computer-based resources.

"Appropriate technology" refers to using technological tools which can add depth, quality and reinforcement to the learning process that is not as readily obtained by other means; conversely, inappropriate use of technology detracts from the learning process. Appropriate use of technology requires an understanding of when, where, and how to use computer-based technology to enhance instruction.

"Common Standards" deal with aspects of program quality that are the same for all credential programs. The institution responds to each Common Standard by providing pertinent information, including information about individual programs. For each Common Standard, questions are included which will assist team members during training and continuing accreditation reviews. The questions can also be used by institutions as they reflect upon the quality of their programs and for assistance in the preparation proposals for initial accreditation of programs and self-study reports for continuing accreditation.

"Computer-based technology" refers to computer hardware, peripherals, network infrastructure, and software.

"Daily teaching responsibilities" refers to the extended period of time during student teaching when a candidate assumes primary responsibility for teaching one or more classes of students on consecutive school days. "Full-time teaching responsibilities," means that a student teacher assumes the range of academic responsibilities that the candidate's supervising teachers normally assume on a given day.

"Digital Information" refers to information coded in a binary format that is interpreted and processed by a computer.

"Factors to Consider" will guide evaluation teams in determining the quality of a program's response to each standard. Within the scope of a standard, each factor defines a dimension along which programs vary in quality. To enable an evaluation team to understand a program fully, a college or university may identify additional quality factors, and may show how the program fulfills these added indicators of quality. In determining whether a program fulfills a given standard, the Commission expects the team to consider, in conjunction with each other, all of the quality factors related to that standard. In considering the several quality factors for a standard, excellence on one factor compensates for less attention to another indicator by the institution.

"Multimedia" refers to combining text, graphics, audio, video, animation or other media.

"Network" refers to computers linked together for the purpose of moving information from one place to another.

"Online" refers to a computer that is connected to the Internet, an intranet, or other type of network for the purpose of data retrieval, messaging, applications access, and interactive uses.

"Questions to Consider" are designed to assist accreditation team members during training and continuing accreditation reviews. They may also assist institutions in preparing proposals for initial accreditation of programs and self-study reports for continuing accreditation.

A "Standard" is a statement of program quality that must be fulfilled for initial approval or continued approval of a professional preparation program by the Commission. The Commission determines whether a program satisfies a standard on the basis of a consideration by an evaluation team of all available information related to the standard.

Standard 20.5 (New - for the Multiple and/or Single Subject Teaching Credential)

Use of Computer-Based Technology in the Classroom

Candidates are able to use appropriate computer-based technology to facilitate the teaching and learning process.

Rationale

The widespread reliance of contemporary society upon computer-based technologies reflects the increasing importance of electronic information management and communication tools. Technology, in its many forms, has become a powerful tool to enhance curriculum and instruction. Productivity, communication, research, and learning are dramatically enhanced through the appropriate use of technology thereby allowing educators to accomplish tasks that were not previously possible.

The true power and potential of computer-based technologies lies not in the machine itself but in the prudent and appropriate use of software applications to gather, process, and communicate information. Teachers' integration of these tools into the educational experience of students, including those with special needs, is crucial to preparing them for lives of personal, academic, and professional growth and achievement.

Teachers must become fluent, critical users of technology to provide a relevant education and to prepare students to be life-long learners in an information-based, interactive society. The appropriate and efficient use of software applications and related media to access and evaluate information, analyze and solve problems, and communicate ideas is essential to maximizing the instructional process. Such use of technology supports teaching and learning regardless of individual learning style, socio-economic background, culture, ethnicity, or geographic location.

Factors to Consider

When an evaluation team judges whether or not a program meets this standard, the Commission expects the team to consider the extent to which:

Prior to issuance of the Preliminary Credential (Level I)

General Knowledge and Skills
- Each candidate demonstrates knowledge of current basic computer hardware and software terminology.

- Each candidate demonstrates competency in the operation and care of computer related hardware (e.g. cleaning input devices, avoiding proximity to magnets, proper startup and shut down sequences, scanning for viruses, and formatting storage media).

- Each candidate 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.

- Each candidate demonstrates knowledge and understanding of the legal and ethical issues concerned with the use of computer-based technology.

- Each candidate demonstrates knowledge and understanding of the appropriate use of computer-based technology in teaching and learning.

Specific Knowledge and Skills
- Each candidate uses computer applications to manage records (e.g. gradebook, attendance, and assessment records).

- Each candidate uses computers to communicate through printed media (e.g. newsletters incorporating graphics and charts, course descriptions, and student reports).

- Each candidate interacts with others using e-mail.

- Each candidate is familiar with a variety of computer-based collaborative tools (e.g. threaded discussion groups, newsgroups, list servers, online chat, and audio/video conferences).

- Each candidate examines a variety of current educational digital media and uses established selection criteria to evaluate materials, for example, multimedia, Internet resources, telecommunications, computer-assisted instruction, and productivity and presentation tools. (See California State guidelines and evaluations).

- Each candidate chooses software for its relevance, effectiveness, alignment with content standards, and value added to student learning.

- Each candidate demonstrates competence in the use of electronic research tools (e.g. access the Internet to search for and retrieve information).

- Each candidate demonstrates the ability to assess the authenticity, reliability, and bias of the data gathered.

- Each candidate identifies student learning styles and determines appropriate technological resources to improve learning.

- Each candidate considers the content to be taught and selects the best technological resources to support, manage, and enhance learning.

- Each candidate demonstrates an ability to create and maintain effective learning environments using computer-based technology.

- Each candidate analyzes best practices and research findings on the use of technology and designs lessons accordingly.

- Each candidate demonstrates knowledge of copyright issues (e.g. distribution of copyrighted materials and proper citing of sources).

- Each candidate demonstrates knowledge of privacy, security, and safety issues (e.g. appropriate use of chatrooms, confidentiality of records including graded student work, publishing names and pictures of minors, and Acceptable Use Policies).

- The program meets other factors related to this standard of quality brought to the attention of the team by the program.

Prior to issuance of the Professional Credential (Level II)
- Each candidate uses a computer application to manipulate and analyze data (e.g. create, use, and report from a database; and create charts and reports from a spreadsheet).

- Each candidate communicates through a variety of electronic media (e.g. presentations incorporating images and sound, web pages, and portfolios).

- Each candidate interacts and collaborates with others using computer-based collaborative tools (e.g. threaded discussion groups, newsgroups, electronic list management applications, online chat, and audio/video conferences).

- Each candidate demonstrates competence in evaluating the authenticity, reliability; bias of the data gathered; determines outcomes and evaluates the success or effectiveness of the process used.

- Each candidate optimizes lessons based upon the technological resources available in the classroom, school library media centers, computer labs, district and county facilities, and other locations.

- Each candidate designs, adapts, and uses lessons which address the students' needs to develop information literacy and problem solving skills as tools for lifelong learning.

- Each candidate creates or makes 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.

- Each candidate uses technology in lessons to increase each student's ability to plan, locate, evaluate, select, and use information to solve problems and draw conclusions.

- Each candidate uses technology as a tool for assessing student learning and for providing feedback to students and their parents.

- Each candidate frequently monitors and reflects upon the results of using technology in instruction and adapts lessons accordingly.

- Each candidate collaborates 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.

- Each candidate contributes to site-based planning or local decision making regarding the use of technology and acquisition of technological resources.

- The program meets other factors related to this standard of quality brought to the attention of the team by the program.

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Common Standard 2 (Amended)

Resources

Sufficient resources are consistently allocated for the effective operation of each credential preparation program, to enable it to be effective in coordination, admission, advising, curriculum, instruction, and field experiences. Library and media resources, computer facilities, and support personnel, among others, are adequate.

Questions to Consider

The following questions are designed to assist accreditation team members during training and continuing accreditation reviews. They may also assist institutions in preparing proposals for initial accreditation of programs and self-study reports for continuing accreditation.

- How adequate are personnel resources (including sufficient numbers of full and part-time positions for instructional faculty, field supervisors and support personnel) to staff each credential program and maintain its effectiveness?

- How well does the institution provide a critical mass of faculty resources to provide breadth and depth of expertise to support an effective program of instruction and supervised field experience in each credential area? Do credential candidates have sufficient opportunity for contact with faculty members?

- To what extent do faculty, staff and candidates have access to appropriate buildings, classrooms, offices, study areas, furniture, equipment, library services, computers, media, and instructional materials? Are those resources sufficient and adequate?

- To what extent do faculty, staff, and candidates have equitable and appropriate access to computer-based technology, information and network resources for teaching and learning?

- To what extent do faculty, staff, and candidates have adequate technical support services for maintenance and training to support instructional goals?

Admission

In each professional preparation program, candidates are admitted on the basis of well-defined admission criteria and procedures (including all Commission-adopted admission requirements) that utilize multiple measures. The admission of students from a diverse population is encouraged. The institution determines that candidates meet high academic standards, as evidenced by appropriate measures of academic achievement, and demonstrate strong potential for professional success in schools, as evidenced by appropriate measures of personal characteristics and prior experience.

Questions to Consider

The following questions are designed to assist accreditation team members during training and continuing accreditation reviews. They may also assist institutions in preparing proposals for initial accreditation of programs and self-study reports for continuing accreditation.

- To what extent are the admission criteria and procedures clearly described and available to prospective candidates for credentials?

- What are the multiple measures used by the institution to define the academic achievement and professional potential of credential candidates?

- For the basic teaching credential programs; does the institution define an appropriate comparison group? Does each admitted candidate have an undergraduate GPA that is above the median GPA for the comparison group?

- For advanced credential programs; does each admitted candidate meet the institutional standards for graduate study?

- How does the institution determine and evaluate each applicant's personal qualities and preprofessional qualifications (including entry level computer skills), for example, personal interviews with candidates, written evaluation of candidates' prior experiences with children and youth, and prior leadership activities?

- What alternative criteria and procedures are used to encourage admission of candidates from underrepresented groups?

- To what extent do the institution's recruitment and admissions policies and practices reflect a commitment to achieve a balanced representation of the population by gender, race, ethnicity and disability?

- How do the admissions criteria consider the candidates' sensitivity to (and interest in) the needs of children and youth, with special consideration for sensitivity to those from diverse ethnic, cultural and socio-economic backgrounds?

School Collaboration

For each credential preparation program, the institution collaborates with local school personnel in selecting suitable school sites and effective clinical personnel for guiding candidates through a planned sequence of fieldwork/clinical experiences that is based on a well developed rationale.

Questions to Consider

The following questions are designed to assist accreditation team members during training and continuing accreditation reviews. They may also assist institutions in preparing proposals for initial accreditation of programs and self-study reports for continuing accreditation.

- For each credential preparation program, to what extent does an effective and ongoing system of communication and collaboration exist between the institution and local districts and school sites where candidates are placed for their field experiences?

- To what extent does the institution, in consultation with local administrators and teachers, have clear, explicit criteria for the selection of schools and district field experience supervisors? How effectively does the institution seek to place candidates in self-renewing schools in which the curriculum and the staff develop continually?

- To what extent is there a description of the fieldwork/clinical experience options that are available and how those options correspond to the organizational structure and academic requirements of each credential program?

- <u>To what extent does the institution provide opportunities for candidates to be placed in schools where computer-based technology is used to support teaching and learning?</u>

- How does the institution ensure that each credential candidate's field/clinical experiences are planned collaboratively, involving the candidate, school district personnel and institutional personnel?

- How thoroughly does the institution periodically review the suitability and quality of all field placement sites?

- To what extent does the institution review each candidate's fieldwork/clinical placement to ensure that candidates are assigned to appropriate site supervisors?

- How well developed is the institution's plan and rationale for the sequence of field experiences in each credential program?

Implementation Plan:

The implementation plan referred to in this correspondence must be submitted by **no later than December 15, 1999** to the

> Professional Services Division
> Commission on Teacher Credentialing
> 1900 Capitol Avenue
> Sacramento, CA 95814-4213
> Attention: Technology Implementation Plan

The implementation plan must be **signed by the dean or director of teacher education**, and must include the following information:

1. Date
2. Name of the institution
3. Name, mailing address, telephone number, email address, and FAX number of the contact person at the institution
4. Name of the program(s) (i.e., Multiple Subject, Single Subject, Multiple Subject with CLAD emphasis, etc.)
5. A brief description of how the new technology standard will be implemented [e.g., completion of a program of teacher preparation and subject matter in which the effective classroom use of computer-based technology is infused throughout the program; specific course(s) of study; other (specify); combination (specify)]
6. An indication of the stage of development of implementation (e.g., not yet started; will complete revised program document ahead of the June 30, 2000 deadline, will meet the June 30, 2000 deadline)
7. Certification, by the dean or director of teacher education, that the revised program document will be submitted to the Commission on Teacher Credentialing by the June 30, 2000 deadline
8. Dean or Director of teacher education signature