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Action

Professional Services Committee

Proposed Standards for Single Subject Matter Programs in Agriculture, Business, Health, Home Economics, Industrial and Technology Education, and Languages Other Than English: American Sign Language

Executive Summary: This report presents the final phase of single subject matter program standards for agriculture, business, health, home economics, industrial and technology education, and languages other than English: American Sign Language and an implementation plan for the transition for Phase III single subject matter programs

Recommended Action: That the Commission adopt the Phase III single subject matter standards.

Presenters: Helen Hawley, Consultant;
Teri Clark, Administrator, Professional Services Division

Strategic Plan Goal(s):

Goal 1: Promote educational excellence through the preparation and certification of professional educators.

- ◆ Sustain high quality standards for the preparation of professional educators.
- ◆ Sustain high quality standards for the performance of credential candidates.

Proposed Standards for Single Subject Matter Programs in Agriculture, Business, Health, Home Economics, Industrial and Technology Education, and Languages Other Than English: American Sign Language

Introduction

Teacher candidates in California are required to demonstrate competence in the subject matter that they will be authorized to teach. Single Subject candidates have two options available for satisfying this requirement. They can either complete a Commission-approved subject matter preparation program, or they can pass the appropriate Commission-approved subject matter examination. Because both options satisfy the same requirement, these two options should be as aligned and congruent as possible.

The Commission contracted in March 2002 with National Evaluation Systems (NES) to develop new subject matter requirements, examinations and program standards for all 13 single subject matter areas for which the Commission issues credentials. The development work was divided into three phases, of which eight areas have been completed in the first two phases. In the first phase the Commission approved subject matter requirements in June 2002, and standards were approved in January 2003 for the subjects of English, mathematics, science and social science. The subject matter requirements for the second phase were approved by the Commission in January 2004. The standards were approved for the second phase in May 2004.

The subject matter requirements for the third phase in agriculture, business, health, home economics, industrial and technology education, and languages other than English (LOTE): American Sign Language (ASL) were approved in February 2005. This agenda item presents the new proposed program standards for the third phase in agriculture, business, health, home economics, and industrial and technology education which are based upon the approved subject matter requirements. Although the SMRs were approved by the Commission in February 2005, the proposed standards were not brought to the Commission in 2005 because the California State Board of Education was preparing to adopt the new Career Path Standards. Once these K-12 standards were adopted, an additional congruence study was completed in each applicable subject during the summer of 2005.

In addition, American Sign Language (ASL) standards are recommended for approval as a new language for programs of LOTE. ASL is deemed as meeting the foreign language requirement for entering both the University of California and the California State University systems. It is the eighth most commonly taught language (not including English) in California public schools. Also an extensive review of the research has shown that it has a rich linguistic and cultural tradition that meets all of the requirements for the study of a language other than English. For these reasons the Commission directed staff to develop subject matter requirements and aligned examinations and standards.

Background

One of the important responsibilities of the Commission is to set standards for teaching credentials (Education Code 44225). In the early 1990's the Commission developed and adopted (a) standards for subject matter preparation programs and, at the same time, (b) specifications for the subject matter examinations. This work was based on the advice of subject matter advisory panels and data from validity studies, resulting in program standards and examination specifications (defining the subject matter competence requirements) that were valid and closely aligned with each other. Those standards and specifications have been in use since that time in over 300 approved single subject matter programs across California. The substance and relevance of the single subject matter programs and the validity of examination specifications (subject matter requirements) is not permanent however.

The periodic reconsideration of subject matter program standards and the need for validity studies are directly related to providing assurance that teaching credentials issued by the Commission are awarded to individuals who have the knowledge, skills, and abilities needed to succeed in California public school teaching. Good professional practice related to the standards and the legal defensibility of the examination specifications require that the Commission's subject matter standards and examinations be periodically reviewed as job requirements and expectations change over time. The State Board of Education began adopting K-12 student academic content standards in single subject areas in the late 1990's. The only one of the subjects addressed in this agenda item for which a framework was developed is health. These new standards and frameworks have obvious impacts for the subject matter requirements for prospective teachers. The Commission is required to ensure that subject matter program standards and examinations are aligned with the K-12 student academic content standards adopted by the State Board of Education (Education Code 44259).

Subject Matter Advisory Panels

When developing examinations and standards, the Commission is required to work with education experts for professional advising (Education Code 44225, 44288). The Executive Director of the Commission appointed subject matter panels in agriculture, business, health, home economics, industrial and technology education, and American Sign Language to advise Commission consultants and NES on the development of new subject matter requirements, program standards, and examinations for these subject areas in spring 2004. Panel members were selected to ensure diverse representation of race, gender, region, and educational entities. (Attachment A includes a list of panel members.) The panels consisted of:

- Classroom teachers of the subject area,
- Subject area specialists from school districts, county offices of education, and post-secondary institutions,
- Professors in the subject area teaching in subject matter preparation programs,
- Teacher educators,
- Members of relevant professional organizations, and
- Members of other relevant committees and advisory panels.

Under the guidance of Commission consultants and NES, the panels began their work in May 2004. At the initial meeting, Commission consultants provided and discussed (a) a written "charge" to the panels describing their responsibilities, (b) the existing single subject program

standards, and (c) characteristics of the “subject matter requirements” (SMRs) that the panels were to help develop. The SMRs are the subject-specific knowledge, skills and abilities needed by beginning teachers. The SMRs specify the content that is to be taught in Commission-approved subject matter programs and tested on the subject matter examinations. After undergoing field review and panel revisions, the SMRs for the Phase III subjects were approved by the Commission at its February 2005 meeting. The complete agenda item on the SMRs can be found at <http://www.ctc.ca.gov/commission/agendas/2005-01/2005-01-7B.pdf> .

Subject Matter Examinations Development

Commission consultants and NES developed the Phase III CSET examinations based upon the SMRs through spring 2005. Initial administrations of the new examinations were conducted in fall 2005. NES conducted standard setting studies for these CSET examinations after each initial test administration. Results of these studies were presented to the Commission with recommended passing standards and approved by the Commission in December 2005 and in January/February 2006 for LOTE: ASL. The complete agenda item on the passing scores for these examinations can be found at <http://www.ctc.ca.gov/commission/agendas/2005-11/2005-11-7B.pdf>. and <http://www.ctc.ca.gov/commission/agendas/2006-01/2006-01-7A.pdf>.

Standards Common to All

The Phase III proposed single subject matter standards will also include the same ten “Standards Common to All” that were adopted as part of the Phase I and II standards. The “Standards Common to All” address program structures, policies and governance, such as coordination, diversity and equity, and assessment. Those ten standards apply subject-specifically. For example, the technology standard addresses how technology is used appropriately in the program to study the subject matter content. The “Standards Common to All” are included as an attachment to this agenda item to provide context for the proposed subject matter standards (Attachment D).

Essential Documents for Panel Use

The panels began their work by studying a set of primary resources. Though SB 2042 requires that subject matter standards for preparing teachers be aligned with K-12 standards, standards for four of the proposed subjects (agriculture, business, home economics, and industrial and technology education) had not yet been adopted by the State Board of Education. In the absence of standards for all of the subjects, the panels used the curriculum documents recommended by the California Department of Education (CDE) to which to align the new subject matter standards in the following way:

1. For subjects in which the State Board of Education had formally adopted K-12 student content standards, those standards were used to align the new subject matter requirements for teachers.
2. For subjects in which the State Board had not formally adopted K-12 student content standards, but in which the state has previously established student curriculum frameworks or guidelines, the most recently adopted state documents for the subject area are used to align the new subject matter requirements for teachers.

3. For subjects in which the State Board of Education had not formally adopted K-12 student content standards, guidelines, or curriculum frameworks, but in which the State Board was engaged in drafting new standards, the draft standards were used to align the new SMRs for teachers.

The documents listed below were used by the panels in developing the draft program standards that are appended for adoption by the Commission.

- The K-12 Student Academic Content Standards and Frameworks that have been approved by the California State Board of Education (1998-2005).
- The Commission-approved (1995-1998) Standards of Quality and Effectiveness for Subject Matter Programs in agriculture, business, health, home economics, industrial and technology education, and languages other than English.
- The Standards of Program Quality and Effectiveness for the Subject Matter Requirements for the Multiple Subject Teaching Credential (September 2001).
- The Standards for Quality and Effectiveness for Professional Teacher Preparation Programs (September 2001).
- Other state and national publications and research articles from the professional literature in a particular subject area (See Attachment B for the complete list of documents).

Development of the Program Standards

The advisory panels met almost monthly over the year after their establishment in spring 2004. After completing the subject matter requirements, the panels focused their work on the charge to develop new subject matter examinations and program standards, based upon the SMRs, which are aligned with the K-12 student standards and frameworks. Each panel included subject matter liaisons from the CDE in its dialogues to insure alignment with K-12 curriculum. The panels drafted standards by consensus through democratic dialogue.

The panels compared all of the resource documents for alignment and congruence. These activities provided the panels with a consistent set of content domains, which became the outline for the SMRs. Although the panels found much of the K-12 curriculum to be consistent with the 1998 Single Subject Standards, they identified important changes that needed to be made to the standards. Standards for national professional organizations in the subject matter areas were also reviewed to identify subject matter areas that were not in the Commission's earlier standards. In all resource documents, California-approved content for grades six through twelve was particularly noted by the panels, taking into consideration middle school as well as high school curriculum.

The draft single subject matter standards were formatted and aligned consistent with other standards adopted pursuant to SB 2042. The standard is stated, followed by the identification of required elements of the standard. In the new 2042 standards, all elements are required of approved programs. The draft standards are provided in Attachment E.

Field Review Survey Process

In November 2004 a survey containing the Draft Single Subject Matter Standards was mailed to all deans of education, directors of teacher education and single subject coordinators at all

regionally accredited four-year colleges and universities in California. The draft standards surveys were also sent to state-funded subject matter projects, teacher organizations, school districts, and county offices of education. The standards surveys were also placed on the Commission’s web site, along with a bulletin on the Commission’s E-News. The format for the survey and scoring rubric is as follows:

Standard Title	Question—How important are these program characteristics for preparing effective teachers in this subject?			
	Essential	Important	Somewhat Important	Not Important
Standard				
Required Element				
Required Element				

Responders were asked to rate each element as “Essential,” “Important,” “Somewhat Important,” or “Not Important.” At the end of each standard the question was asked: Are there any critical characteristics of program quality missing from the above standard that are important in a program that will prepare effective teachers? Answer “yes” or “no”. If yes, what would you add?

Consultant staff tallied all responses and listed comments on a master survey form for each subject matter area for panels to consider for revisions. Instructions given to the panels for revising the draft standards were:

- If 1/4 or more of the ratings were either “somewhat important” or “not important” for a standard or element, the panels must consider revision and provide a rationale for their decision.
- The panels must document and provide a rationale for their response to all comments.

Commission staff received 57 total responses for the six subject matter areas. All standards were found to be either essential or important by at least 80% of the responders. Less than one third of responders found any single element to be only “Somewhat Important” or “Not Important.” Elements remained unchanged when they were consistent with K-12 curriculum. Revisions by the panels as a result of this process included clarifications, examples, and reorganization.

In May 2005, the California State Board of Education adopted the new draft Career Path Standards with only minor revisions that did not affect content. Supplemental alignment and congruence studies were conducted during the summer of 2005 for the new adopted Career Path Standards and these draft subject matter standards. CDE consultants, Commission staff and subject matter panel members worked independently and then compared their findings. The process that was used was to find a match for each of the K-12 standards in the draft subject matter standards. The findings submitted to Commission staff consisted of any significant content areas missing from the subject matter standards for considered revisions to the standards. The studies found no substantive changes were necessary to either the subject matter requirements or the subject matter standards. This is most likely due to the coordination by panel consultants in the development of both K-12 and subject matter standards.

Preconditions for Approved Subject Matter Programs

Preconditions are program requirements based upon California laws or Commission policies. Unlike standards, preconditions specify requirements for program compliance, not program quality. In 1982, the requirements that defined the length and content of subject matter programs were adopted by the Commission and placed in the California Code of Regulations, Title 5. The preconditions for subject matter program approval at that time were based upon the Title 5 regulations. When the Commission adopted the “first generation” of subject matter standards beginning in 1992, the 1982 regulations were still used. In the intervening years, some inconsistencies developed between the 1982 regulations and the curriculum of California public schools. The new subject standards posed even more inconsistencies with the 1982 regulations for several reasons:

- The particular subjects defined for subject matter assignments were out of date.
- The need to update requirements for some subjects has become necessary as alignment with K-12 curriculum areas was mandated.
- Some academic disciplines have changed significantly enough to require a revised expression of program content.
- Current terminology for subjects of study now differs from terminology used in the 1980’s.

Because of the inconsistencies of the old preconditions and the timely review of its obsolete regulations, the Commission voted to repeal the 1982 Title 5 Regulations in June 2003. Preconditions can now be adopted as a part of the Commission’s adoption of standards.

The subject matter panels reviewed the draft standards and analyzed changes that should be made in the preconditions. The panels are recommending appropriate changes to the preconditions. Some subjects will have a redistributed number of units for core and extended studies, and some subjects will have redefined core areas of study. This agenda item presents the recommended preconditions for all Phase III subject matter standards (Attachment C).

Implementation of Program Quality Standards for Single Subject Matter Preparation for Agriculture, American Sign Language, Business, Health, Home Economics, and Industrial and Technology Education

The 2006 Program Quality Standards for Single Subject Matter Preparation for Phase III are part of a broad shift in the policies of the Commission on Teacher Credentialing related to the preparation of professional teachers and other educators in California colleges and universities resulting from the mandate of Senate Bill 2042. The Commission initiated this policy change to insure high quality in educator preparation and to combine flexibility with accountability for institutions that offer programs for prospective teachers. The success of this reform effort depends on the effective implementation of program quality standards for each credential. Staff proposes the following implementation plan which is consistent with the first two phases of new single subject matter standards.

Review and Improvement of Single Subject Matter Standards

The Commission will adhere to its cycle of review and reconsideration of the *Standards of Quality and Effectiveness for Subject Matter Programs* in all other subjects. The standards will be reviewed and reconsidered in relation to changes in academic disciplines, school curricula, and the backgrounds and needs of California students (K-12). Reviews of program standards

will be based on the expertise of single subject matter teachers, professors and curriculum specialists. Prior to each review, the Commission will invite interested individuals and organizations to participate in the review process.

Adoption and Implementation of Standards by the Commission

Program sponsors have two years to transition from current to new standards of quality and effectiveness for Single Subject Matter Programs. All single subject matter preparation programs for the Single Subject Credentials must be submitted for review by a state review team. All program documents will be reviewed by statewide teams of expert reviewers selected from among qualified K–12 and IHE professional educators. No new programs written to the old standards will be reviewed after the adoption of the new standards in September 2006.

Information about transition timelines for candidates, sunset dates for currently approved programs, and preconditions will be provided to colleges and universities by the Commission through Coded Correspondence and additional program transition documents as they become available. Program sponsors will be able to access these on the Commission website (www.ctc.ca.gov).

Technical Assistance Meetings for Colleges and Universities

Because these subject matter programs are of relatively low frequency, Commission staff will provide technical assistance upon request by the program sponsor either through telephone or email. One technical assistance meeting will be scheduled this fall at the Commission for those who wish to attend. Program sponsors may also make appointments to visit the Commission for an individual meeting with staff to receive technical assistance. Technical assistance will include:

- Explanation of the implementation plan adopted by the Commission.
- Requirements for the document format.
- Description of the steps in program review and approval.
- Review of program standards, preconditions, concerns and examples that have been useful in other program reviews.
- Subject-specific questions.

Implementation Timeline: Impact on Candidates for Credentials

Based on the Commission's implementation plan, candidates for Single Subject Credentials who do not plan to pass the subject matter examinations adopted by the Commission should enroll in subject matter programs that fulfill the “new” standards either once a new program commences at their institution. After a new program begins at an institution, no students should enroll for the first time in an “old” program (i.e. one approved under “old” standards). Regardless of the date when new programs are approved, no students should enter old programs after July 1, 2008. If students do enter old programs after this date, they should be informed in writing that the program will expire on June 30, 2012.

Candidates who enrolled in programs approved on the basis of 1996 standards (“old” programs) may complete those programs provided that (1) they entered the old programs either before new programs were available at their institutions, or before July 1, 2008, and (2) they complete the old programs before July 1, 2012. Candidates who do not comply with these timelines may qualify for Single Subject Teaching Credentials by passing the subject matter examinations that have been adopted for that purpose by the Commission.

Implementation Plan Adopted by the Commission

- (1) By July 1, 2008, existing (“old”) programs based on current guidelines should be superseded by new programs with full approval.
 - (a) Once a new program receives full approval, all students not previously enrolled in the old program (i.e., all “new” students) should enroll in the new program.
 - (b) After July 1, 2008, no “new” students should enroll in an “old” program, even if a new program in the subject is not available at that institution.
 - (c) Students who enrolled in an old program prior to July 1, 2008, may continue to complete the old program until July 1, 2012.

Timeline for Implementing the Phase III Standards

- September 2006** The Commission on Teacher Credentialing adopts the Standards of Program Quality and Effectiveness that are in this handbook. The Commission adopts the implementation plan outlined in this handbook. No new subject matter programs will be reviewed in relation to the Commission's "old" standards.
- September 2006** The Commission selects, orients and trains Program Review Panels. Qualified subject matter experts are prepared to review programs in relation to the new standards beginning in 2007.
- October 2006** Review and approval of programs under the new standards may begin.
- 2006-2008** Institutions may submit programs for review on or after October 1, 2006, after requesting and being assigned a submission date by Commission staff. Once a "new" program is approved, all students who were not previously enrolled in the "old" program (i.e., all new students) should enroll in the new program. Students may complete an old program if they enrolled in it either (1) prior to the commencement of the new program at their campus, or (2) prior to July 1, 2008, whichever occurs first.
- July 1, 2008** "Old" programs that are based on 1996 standards should be superseded by new programs with full approval. After July 1, 2008, no new students should enroll in an old program, even if a new program is not yet available at the institution.
- 2008-2012** The Commission will continue to approve program proposals based on the standards and preconditions.
- July 1, 2012** The final date for candidates to complete subject matter preparation programs approved under the 1996 standards. To qualify for a credential based on an "old" program, students must have completed that program prior to either (1) the implementation of a new program with full or interim approval at their institution, or (2) July 1 2012, whichever occurs first.

Implementation Timeline Diagram

September 2006

Adoption of the Phase III standards and preconditions, including the implementation plan.

September 2006 to August 2007

Disseminate the standards, timeline and implementation plan throughout the Commission's web site. Provide technical assistance to offer information, answer questions, and assist colleges and universities in developing new programs.

October 2006

Colleges and universities may begin to present program documents for review by the Commission's staff and program review teams.

July 1, 2008

"Old" subject matter programs should be replaced by new approved programs.

July 1, 2012

Final date for candidates to qualify for Phase III Single Subject Credentials on the basis of "old" programs of subject matter preparation.

Review and Approval of Phase III Single Subject Matter Programs

A regionally accredited institution of post-secondary education that would like to offer (or continue to offer) a program of subject matter preparation for the Single Subject Credential in agriculture, American Sign Language, business, health, home economics, or industrial and technology education may present a program proposal that responds to the new standards and preconditions. The submission of programs for review and approval is voluntary for colleges and universities.

If an institution would like to offer two or more distinct programs of subject matter preparation in a single subject, a separate proposal may be forwarded to the Commission for each program. For example, one program in industrial and technology education might emphasize studies of engineering, while a second program at the same institution could have an emphasis in information and communication systems. However, the Commission encourages institutions to coordinate its single subject programs that are within the same subject matter discipline.

The Commission is prepared to review subject matter program proposals beginning on October 1, 2006. Prior to that date, the Commission's professional staff is available to consult with institutional program sponsors on meeting the new standards and preparing program documents.

Selection, Composition and Training of Program Review Panels

Review panel members are selected because of their expertise in the subject matter and their experience with curriculum and instruction. Reviewers are selected from institutions of higher education, school districts, and county offices of education, professional organizations of subject matter experts, and statewide education organization. Because the process is a professional review, the Commission strongly encourages institutions seeking program approval to designate a subject matter faculty member to serve as a reviewer as every program must be reviewed by at least two experts. Members are selected according to the Commission's adopted policies that govern the selection of panels. Members of the Commission's former Single Subject Waiver Panels and Subject Matter Advisory Panels are also invited to serve on Program Review Panels.

The Commission staff conducts a training and calibration session that all reviewers must attend. Training includes:

- The purpose and function of subject matter preparation programs.
- The Commission's legal responsibilities in program review and approval.
- The role of the review panel in making program determinations.
- The role of the Commission's professional staff in assisting the panel.
- A thorough analysis and discussion of the standards.
- Alternative ways in which the standard could be met.
- An overview of review team procedures.
- Guided practice and calibration in reviewing programs.
- Constructive feedback for program revision.

Steps in the Review of Programs

The Commission is committed to conducting a program review process that is objective, authoritative and comprehensive. The agency also seeks to be as helpful as possible to colleges and universities throughout the review process. Commission staff is available to consult during program document development.

Review of Preconditions. An institution's response to the preconditions is reviewed by the Commission's professional staff because the preconditions are based on Commission policies and do not involve issues of program quality. Preconditions are reviewed upon the institution's formal submission of a document.

Review of Program Quality Standards. Unlike the preconditions, the standards address issues of program quality and effectiveness, so each institution's response to the standards is reviewed by a team of subject matter experts. Once the review team determines that a proposed program meets all of the standards, the Commission's staff recommends the program for approval by the Commission at the first opportunity after the team's decision.

If the review team determines that the program does not meet the standards, the document will be returned to the institution with an explanation of the team's findings. Specific reasons for the team's decisions are communicated in a report to the institution. Representatives of the institution can obtain additional information about the report and assistance for the program revisions and resubmission from the Commission's staff. After changes have been made in the program, the proposal may be re-submitted to the Commission's staff for reconsideration by the panel.

Representatives of an institution can consult directly with the Commission's professional staff regarding programs that are in preparation or under review. The staff will respond to all inquiries expeditiously and knowledgeably, acting as liaison between the review teams and the program sponsors. Representatives of colleges and universities are restricted from direct association with the review teams for their programs.

If the review team determines that minor or technical changes should be made in a program, the responsibility for reviewing the resubmitted document rests with the Commission's professional staff, who presents the *revised* program to the Commission for approval without further review by the panel.

Attachment A

Panel Members

Agriculture

Business

Health

Home Economics

Industrial and Technology Education

Languages other than English (LOTE): American Sign Language (ASL)

Agriculture Panel Members

Michael	Albiani	Elk Grove High School
Glen	Casey	California Polytechnic University, San Luis Obispo
Larry	Crabtree	Sutter Union High School
Ann	De Lay	California State University, Fresno
Robert	Flores	California Polytechnic University, San Luis Obispo
Richard	Herrera	Hale Middle School, Woodland Hills
Lisa	Leonardo	University of California, Davis
Margaret	Martindale	University of California, Davis
Hugh	Mooney	Galt High School
Michael	Spieß	California State University, Chico
Cary	Trexler	University of California, Davis

Business Panel Members

Kathie	Bennett	Azusa High School
Marcia	Bush	Mission Valley Regional Occupational Program
Mary Kay	Davidson	Alta Loma High School
Charles	Davis	California State University, Sacramento
Mary	EllenDavis	San Francisco Unified School District
Donald	De Santis	University of Phoenix - Retired
Stephen	Eggert	Fountain Valley High School
Kathleen	Harcharik	California Polytechnic University, Pomona
Marilyn	Johnson	Colton High School
Richard	Lacy	Sid Craig School of Business
Robert	Land	Porterville High School
Kay	Orrell	Business Education Resource Consortium
Suzanne	Potter-Zmudosky	RCOE Regional Occupational Program
Devery	Rodgers	South Gate High School
Rebecca	Seher	Los Angeles County Office of Education
James	Spellicy	Lowell High School
Ellen	Welt	Santa Clara County Office of Education
Gary	Wiessner	Chatsworth High School

Health Panel Members

Stephen	Adewole	San Bernardino High School
Doris	Chu	Los Angeles Unified School District
Kim	Clark	California Dept. of Health Science and Human Ecology
Dale	Evans	California State University, Long Beach
Janet	Gower	Ygnacio Valley High School
Mary	Hazzard	National University
Holly	Orozco	California State University, Los Angeles
John	Orta	California State University, Los Angeles
Ardeen	Russell-Quinn	James Logan School
Leslie	Sargent	Inderkum High School
Melinda	Seid	California State University, Sacramento
Linda	Shearer	Porterville High School
Patty	Woodward	California State University, Sacramento

Home Economics Panel Members

Carol	Bertotto	Eisenhower High School
Tanya	Durham	Pitman High School
Patricia	El Sharei	Cathedral City High School
Carla	Escola	Sierra High School
Marilynn	Filbeck	California State University, Northridge
Elizabeth	Knopf	University of Phoenix
Margaret	Lichty	California State University, Long Beach
Sharon	McKenzie	San Diego County Office of Education
Judith	Moon	Mount Diablo High School
Bonnie	Rader	California State University, Long Beach
April	Rosendahl	Chino High School
Joan	Schlesinger	Wm. S. Hart High School
Martha	Siekmann	Fortuna Union High School
Paula	Tripp	California State University, Sacramento

Industrial and Technology Education Panel members

Chris	Almeida	California Department of Education
Darnell	Austin	California State University, Long Beach
Wally	Fuller	Upper Lake Middle School
George	Gridley	American River Community College
Don	Maurizio	California State University, Los Angeles
Tijuana	Middleton	University of California Los Angeles Extension
Michael	Mitsch	Quartz Hill High School
Matt	Saldana	Long Beach Unified School District
Lisa	Salmonson	Florin High School
Joseph	Scarcella	California State University, San Bernardino
Randolph	Siercks	Birmingham High School
Robert	Verdugo	Spring View Middle School
Warren	Wagner	Order Processing and Requisition Accelerator, Inc.

American Sign Language Panel

Margo	Cienik	South Hills High School
Lawrence	Fleischer	California State University, Northridge
Tom	Humphries	University of California, San Diego
Susannah	Kirchner	Burbank High School (retired)
Mala	Kleinfeld	University of California, San Diego (Interpreter)
Sandra Lee	Klopping	Ohlone Community College
Marlon	Kuntze	San Jose State University
Christine	Lanphere	Natomas High School
Patty	Lessard	Interpreter
Cindy	Shields	Huntington Beach High School
Colleen	Smith	San Diego State University
Janet	Maxwell	Interpreter

Attachment B

Essential Documents for Panel Use

Agriculture

Business

Health

Home Economics

Industrial and Technology Education

Languages other than English (LOTE): American Sign Language (ASL)

Source Documents Used by the Phase III Panels

Agriculture

Single Subject Matter Standards Common to All (2003)

Agriculture Teacher Preparation in California: Standards of Quality and Effectiveness for Subject Matter Programs (1999)

Career Preparation Standards: Draft Interim Content and Performance Standards, Agricultural Education (1995)

Agriculture Content Standards Grades 9-12 (1999, 2004)

Applied Learning Standards: Draft Interim Content and Performance Standards (1995)

Business

Single Subject Matter Standards Common to All (2003)

Business Teacher Preparation in California: Standards of Quality and Effectiveness for Subject Matter Programs (1999)

Challenge Standards for Student Success: Career Preparation-Business Education (2000)
National Standards for Business Education (2001)

Applied Learning Standards: Draft Interim Content and Performance Standards (1995)

Health Science

Single Subject Matter Standards Common to All (2003)

Health Science Teacher Preparation in California: Standards of Quality and Effectiveness for Subject Matter Programs (1999)

Health Framework for California Public Schools, Kindergarten through Grade Twelve (2003)

Challenge Standards for Student Success: Health Education (1998)

Guidelines for AAHE/NCATE Review of Initial Level Programs for Health Education Teacher Preparation (2001)

Applied Learning Standards: Draft Interim Content and Performance Standards (1995)

Accountability Criteria for National Health Care Cluster Foundation Standards, National Consortium on Health Science and Technology Education (2002)

Biotechnology Research and Development (R & D) Pathway Standards and Accountability Criteria, National Consortium on Health Science and Technology Education (2002)

Essential Documents for Panel Use (Continued)

Diagnostic Services Pathway Standards and Accountability Criteria, National Consortium on Health Science and Technology Education (2002)

Health Informatics Pathway Standards and Accountability Criteria, National Consortium on Health Science and Technology Education (2002)

Support Services Pathway Standards and Accountability Criteria, National Consortium on Health Science and Technology Education (2002)

Therapeutic Services Pathway Standards and Accountability Criteria, National Consortium on Health Science and Technology Education (2002)

Home Economics

Single Subject Matter Standards Common to All (2003)

Home Economics Teacher Preparation in California: Standards of Quality and Effectiveness for Subject Matter Programs (1999)

Challenge Standards for Student Success: Home Economics Careers and Technology, Grades Nine through Twelve (2000)

National Standards for Family and Consumer Sciences Education (1998)

Applied Learning Standards: Draft Interim Content and Performance Standards (1995)

Industrial and Technology Education

Single Subject Matter Standards Common to All (2003)

Industrial and Technology Education Teacher Preparation in California: Standards of Quality and Effectiveness for Subject Matter Programs (1999)

Challenge Standards for Student Success, Industrial and Technology Education (2001)

Career Preparation Standards: Draft Interim Content and Performance Standards, Industrial and Technology Education (1995)

Applied Learning Standards: Draft Interim Content and Performance Standards (1995)

Standards for Technological Literacy, International Technology Education Association (2000)

Industrial and Technology Education: Career Path Guides and Model Curriculum Standards (1996)

Essential Documents for Panel Use (Continued)

American Sign Language

Single Subject Matter Standards Common to All (2003)

Teacher Preparation in Languages Other than English: Quality and Effectiveness Standards for Subject Matter Programs in California (1994)

Foreign Language Framework for California Public Schools, Kindergarten through Grade Twelve (2003)

Foreign Language Standards: Draft Interim Content and Performance Standards, Superintendent's Challenge Initiative, California Department of Education (1995)

ACTFL Program Standards for the Preparation of Foreign Language Teachers (2002)

Standards for Foreign Language Learning: Preparing for the 21st Century, National Standards in Foreign Language Education Project (1996)

Attachment C

Preconditions

Agriculture

Business

Health

Home Economics

Industrial and Technology Education

Languages other than English (LOTE): American Sign Language (ASL)

Preconditions for the Approval of Subject Matter Preparation Programs in Agriculture

To be approved by the Commission, a Subject Matter Program in Agriculture must comply with the following preconditions.

1. Each program of subject matter preparation for the Single Subject Teaching Credential in agriculture shall include (a) a minimum of 32 to 36 semester units (or 48 to 54 quarter units) of core coursework in industrial and technology education and related subjects that are commonly taught in departmentalized classes in California public schools, and (b) a minimum of 9 to 12 semester units (or 14 to 20 quarter units) of coursework that provides extended study of the subject. These two requirements are elaborated in Preconditions 2 and 3.
2. The core (breadth) of the program shall include coursework in (or directly related to) subjects that are commonly taught in departmentalized classes of agriculture: plant and soil science, ornamental horticulture, agricultural business and economics, environmental science and natural resource management, and agricultural systems technology which will fulfill Standards 11 through 16.
3. Extended studies in the program (breadth, depth, perspective, concentrations) shall be designed to supplement the core of the program with specialization as described in Standard 17.

In addition to describing how a program meets each standard of program quality in this handbook, the program document by an institution shall include the course titles, unit designations, catalog descriptions and syllabi of all courses in the program that are used to meet the standards. Program documents must include a matrix chart that identifies which courses meet which standards.

Institutions may determine whether the standards and required elements are addressed through one or more courses for each commonly taught subject or courses offering integrated study of these subjects. Institutions may also define the program in terms of required or elective coursework. However, elective options must be equivalent in meeting the standards. Coursework offered by any appropriate department(s) of a regionally accredited institution may satisfy the preconditions and standards in this handbook. Programs may use general education courses in meeting the standards.

Preconditions for the Approval of Subject Matter Programs in Business

To be approved by the Commission, a Subject Matter Program in business must comply with the following preconditions.

- (1) Each Program of Subject Matter Preparation for the Single Subject Teaching Credential in business shall include (a) a minimum of 30 semester units (or 45 quarter units) of core coursework in business and related subjects that are commonly taught in departmentalized classes in California public schools, and (b) a minimum of 15 semester units (or 22 quarter units) of coursework that provides extended study of the subject. These two requirements are elaborated in Preconditions 2 and 3.
- (2) The core (breadth) of the program shall include coursework in (or directly related to) subjects that are commonly taught in departmentalized classes of business and related subjects in the California public schools, including accounting and finance, business communications, business law, business management, computer applications and information technology, economics, entrepreneurship, and marketing.
- (3) Extended studies in the program (breadth, depth, perspective, concentrations) shall be designed to supplement the essential core of the program.

In addition to describing how a program meets each standard of program quality in this handbook, the program document by an institution shall include the course titles, unit designations, catalog descriptions and syllabi of all courses in the program that are used to meet the standards. Program documents must include a matrix chart that identifies which courses meet which standards.

Institutions may determine whether the standards and required elements are addressed through one or more courses for each commonly taught subject or courses offering integrated study of these subjects. Institutions may also define the program in terms of required or elective coursework. However, elective options must be equivalent in meeting the standards. Coursework offered by any appropriate department(s) of a regionally accredited institution may satisfy the preconditions and standards in this handbook. Programs may use general education courses in meeting the standards.

Preconditions for the Approval of Subject Matter Programs in Health

To be approved by the Commission, a Subject Matter Program in health must comply with the following preconditions.

- (1) Each Program of Subject Matter Preparation for the Single Subject Teaching Credential in Health Science shall include (a) a minimum of 30 semester units (or 45 quarter units) of core coursework in health science and related subjects that are commonly taught in departmentalized classes in California public schools, and (b) a minimum of 18 semester units (or 27 quarter units) of coursework that provides extended study of the subject. These two requirements are elaborated in Preconditions 2 and 3.
- (2) The core (breadth) of the program shall include coursework in (or directly related to) the following subjects that are commonly taught in departmentalized classes of health science and related subjects in the public schools: health, Coordinated School Health, drug abuse (including alcohol and tobacco), violence prevention, family life, sexually transmitted disease (including HIV and AIDS), fitness and nutrition, disease prevention, health promotion and legislative mandates.
- (3) Extended studies in the program (breadth, depth, perspective, concentrations) designed to supplement the core of the program in the areas of scientific and behavioral foundations including human biology (anatomy/physiology, microbiology, chemistry), psychology/sociology (including adolescence), and personal health.

In addition to describing how a program meets each standard of program quality in this handbook, the program document by an institution shall include the course titles, unit designations, catalog descriptions and syllabi of all courses in the program that are used to meet the standards. Program documents must include a matrix chart that identifies which courses meet which standards.

Institutions may determine whether the standards and required elements are addressed through one or more courses for each commonly taught subject or courses offering integrated study of these subjects. Institutions may also define the program in terms of required or elective coursework. However, elective options must be equivalent in meeting the standards. Coursework offered by any appropriate department(s) of a regionally accredited institution may satisfy the preconditions and standards in this handbook. Programs may use general education courses in meeting the standards.

Preconditions for the Approval of Subject Matter Programs in Home Economics

To be approved by the Commission, a Subject Matter Program in Home Economics must comply with the following preconditions.

- (1) Each Program of Subject Matter Preparation for the Single Subject Teaching Credential in Home Economics shall include (a) a minimum of 36 semester units (or 54 quarter units) of core coursework in English and related subjects that are commonly taught in departmentalized classes in California public schools, and (b) a minimum of 12 semester units (or 18 quarter units) of coursework that provides extended study of the subject. These two requirements are elaborated in Preconditions 2 and 3.
- (2) The core (breadth) of the program shall include coursework in (or directly related to) the following subjects that are commonly taught in departmentalized classes of health science and related subjects in the public schools: personal, family and child development; nutrition, foods and hospitality; fashion and textiles; housing and interior design; consumer education; or other related subjects commonly taught in California public schools
- (3) Extended studies in the program (breadth, depth, perspective, concentrations) designed to supplement the core of the program may be offered in any or all of the following patterns:
 - A combination of related content areas within or across domains
 - A concentration in one domain
 - A concentration in any content area within a domain

In addition to describing how a program meets each standard of program quality in this handbook, the program document by an institution shall include the course titles, unit designations, catalog descriptions and syllabi of all courses in the program that are used to meet the standards. Program documents must include a matrix chart that identifies which courses meet which standards.

Institutions may determine whether the standards and required elements are addressed through one or more courses for each commonly taught subject or courses offering integrated study of these subjects. Institutions may also define the program in terms of required or elective coursework. However, elective options must be equivalent in meeting the standards. Coursework offered by any appropriate department(s) of a regionally accredited institution may satisfy the preconditions and standards in this handbook. Programs may use general education courses in meeting the standards.

Preconditions for the Approval of Single Subject Matter Programs in Industrial and Technology Education

To be approved by the Commission, a Subject Matter Program in industrial and technology education must comply with the following preconditions.

- (1) Each Program of Subject Matter Preparation for the Single Subject Teaching Credential in industrial and technology education shall include (a) a minimum of 36 semester units (or 54 quarter units) of core coursework in industrial and technology education and related subjects that are commonly taught in departmentalized classes in California public schools, and (b) a minimum of 9 semester units (or 15 quarter units) of coursework that provides extended study of the subject. These two requirements are elaborated in Preconditions 2 and 3.
- (2) The core (breadth) of the program shall include coursework in (or directly related to) subjects that are commonly taught in departmentalized classes of industrial and technology education and related subjects in the California public schools, including foundations of the nature of technology and introductions to power and energy, information and communication, and project and product development. These subjects should be understood to also include building and construction, manufacturing, engineering and transportation as appropriate.
- (3) Extended studies in the program (breadth, depth, perspective, concentrations) shall be designed to supplement the core of the program as described in Standard 12.

In addition to describing how a program meets each standard of program quality in this handbook, the program document by an institution shall include the course titles, unit designations, catalog descriptions and syllabi of all courses in the program that are used to meet the standards. Program documents must include a matrix chart that identifies which courses meet which standards.

Institutions may determine whether the standards and required elements are addressed through one or more courses for each commonly taught subject or courses offering integrated study of these subjects. Institutions may also define the program in terms of required or elective coursework. However, elective options must be equivalent in meeting the standards. Coursework offered by any appropriate department(s) of a regionally accredited institution may satisfy the preconditions and standards in this handbook. Programs may use general education courses in meeting the standards.

Preconditions for the Approval of Single Subject Matter Programs in Languages Other Than English: American Sign Language

To be approved by the Commission, a Subject Matter Program in Languages Other Than English: American Sign Language must comply with the following preconditions.

- (1) Each Program of Subject Matter Preparation for the Single Subject Teaching Credential in Languages Other Than English: American Sign Language (ASL) shall prepare prospective teachers in ASL and include at least a minimum of 33 semester units (or 50 quarter units) of advanced (non-introductory) coursework in ASL and related subjects commonly taught in California public schools. This requirement is elaborated in Precondition 2.

- (2) The program coursework in (or directly related to) ASL shall include language, culture, linguistics, literature, and other related subjects commonly taught in California public schools. All courses used to meet the standards in the program shall be taught in the target language.

In addition to describing how a program meets each standard of program quality in this handbook, the program document by an institution shall include the course titles, unit designations, catalog descriptions and syllabi of all courses in the program that are used to meet the standards. Program documents must include a matrix chart that identifies which courses meet which standards.

Institutions may determine whether the standards and required elements are addressed through one or more courses for each commonly taught subject or courses offering integrated study of these subjects. Institutions may also define the program in terms of required or elective coursework. However, elective options must be equivalent in meeting the standards. Coursework offered by any appropriate department(s) of a regionally accredited institution may satisfy the preconditions and standards in this handbook. Programs may use general education courses in meeting the standards.

Attachment D

Standards Common to All Standards of Quality and Effectiveness for Single Subject Matter Programs

Category I: Standards Common to All Single Subject Matter

Preparation Programs

Standard 1: Program Philosophy and Purpose

The subject matter preparation program is based on an explicit statement of program philosophy that expresses its purpose, design, and desired outcomes in relation to the Standards of Quality and Effectiveness for Single Subject Teaching Credential Programs. The program provides the coursework and field experiences necessary to teach the specified subject to all of California's diverse public school population. Subject matter preparation in the program for prospective teachers is academically rigorous and intellectually stimulating. The program curriculum reflects and builds on the State-adopted *Content Standards for California Public Schools K-12* and curriculum frameworks for California public schools. The program is designed to establish a strong foundation in and understanding of subject matter knowledge for prospective teachers that provides a basis for continued development during each teacher's professional career. The sponsoring institution assigns high priority to and appropriately supports the program as an essential part of its mission.

Required Elements

- 1.1 The program philosophy, design, and intended outcomes are consistent with the content of the State-adopted academic content standards for K-12 students and curriculum frameworks for California public schools.
- 1.2 The statement of program philosophy shows a clear understanding of the preparation that prospective teachers need in order to be effective in delivering academic content to all students in California schools.
- 1.3 The program provides prospective teachers with the opportunity to learn and apply significant ideas, structures, methods and core concepts in the specified subject discipline(s) that underlies the 6-12 curriculum.
- 1.4 The program prepares prospective single-subject teachers to analyze complex discipline-based issues; synthesize information from multiple sources and perspectives; communicate skillfully in oral and written forms; and use appropriate technologies.
- 1.5 Program outcomes are defined clearly and assessments of prospective teachers and program reviews are appropriately aligned.
- 1.6 The institution conducts periodic review of the program philosophy, goals, design, and outcomes consistent with the following: campus program assessment timelines, procedures, and policies; ongoing research and thinking in the discipline; nationally accepted content standards and recommendations; and the changing needs of public schools in California.

Category I: Standards Common to All Single Subject Matter (Continued)

Standard 2: Diversity and Equity

The subject matter program provides equitable opportunities to learn for all prospective teachers by utilizing instructional, advisement and curricular practices that insure equal access to program academic content and knowledge of career options. Included in the program are the essential understandings, knowledge and appreciation of the perspectives and contributions by and about diverse groups in the discipline.

Required Elements:

- 2.1 In accordance with the Education Code Chapter 587, Statutes of 1999, (See Appendix A), human differences and similarities to be examined in the program include, but are not limited to those of sex, race, ethnicity, socio-economic status, religion, sexual orientation, and exceptionality. The program may also include study of other human similarities and differences.
- 2.2 The institution recruits and provides information and advice to men and women prospective teachers from diverse backgrounds on requirements for admission to and completion of subject matter programs.
- 2.3 The curriculum in the Subject Matter Program reflects the perspectives and contributions of diverse groups from a variety of cultures to the disciplines of study.
- 2.4 In the subject matter program, classroom practices and instructional materials are designed to provide equitable access to the academic content of the program to prospective teachers from all backgrounds.
- 2.5 The subject matter program incorporates a wide variety of pedagogical and instructional approaches to academic learning suitable to a diverse population of prospective teachers. Instructional practices and materials used in the program support equitable access for all prospective teachers and take into account current knowledge of cognition and human learning theory.

Standard 3: Technology

The study and application of current and emerging technologies, with a focus on those used in K-12 schools, for gathering, analyzing, managing, processing, and presenting information is an integral component of each prospective teacher's program study. Prospective teachers are introduced to legal, ethical, and social issues related to technology. The program prepares prospective teachers to meet the current technology requirements for admission to an approved California professional teacher preparation program.

Required Elements:

- 3.1 The institution provides prospective teachers in the subject matter program access to a wide array of current technology resources. The program faculty selects these

Category I: Standards Common to All Single Subject Matter (Continued)

technologies on the basis of their effective and appropriate uses in the disciplines of the subject matter program.

- 3.2 Prospective teachers demonstrate information processing competency, including but not limited to the use of appropriate technologies and tools for research, problem solving, data acquisition and analysis, communications, and presentation.
- 3.3 In the program, prospective teachers use current and emerging technologies relevant to the disciplines of study to enhance their subject matter knowledge and understanding.

Standard 4: Literacy

The program of subject matter preparation for prospective Single Subject teachers develops skills in literacy and academic discourse in the academic disciplines of study. Coursework and field experiences in the program include reflective and analytic instructional activities that specifically address the use of language, content and discourse to extend meaning and knowledge about ideas and experiences in the fields or discipline of the subject matter.

Required Elements:

- 4.1 The program develops prospective teachers' abilities to use academic language, content, and disciplinary thinking in purposeful ways to analyze, synthesize and evaluate experiences and enhance understanding in the discipline.
- 4.2 The program prepares prospective teachers to understand and use appropriately academic and technical terminology and the research conventions of the disciplines of the subject matter.
- 4.3 The program provides prospective teachers with opportunities to learn and demonstrate competence in reading, writing, listening, speaking, communicating and reasoning in their fields or discipline of the subject matter.

Standard 5: Varied Teaching Strategies

In the program, prospective Single Subject teachers participate in a variety of learning experiences that model effective curriculum practices, instructional strategies and assessments that prospective teachers will be expected to use in their own classrooms.

Required Elements:

- 5.1 Program faculty include in their instruction a variety of curriculum design, classroom organizational strategies, activities, materials and field experiences incorporating observing, recording, analyzing and interpreting content as appropriate to the discipline.
- 5.2 Program faculty employ a variety of interactive, engaging teaching styles that develop and reinforce skills and concepts through open-ended activities such as direct instruction,

Category I: Standards Common to All Single Subject Matter (Continued)

discourse, demonstrations, individual and cooperative learning explorations, peer instruction and student-centered discussion.

- 5.3 Faculty development programs provide tangible support for subject matter faculty to explore and use exemplary and innovative curriculum practices.
- 5.4 Program faculty use varied and innovative teaching strategies, which provide opportunities for prospective teachers to learn how content is conceived and organized for instruction in a way that fosters conceptual understanding as well as procedural knowledge.
- 5.5 Program coursework and fieldwork include the examination and use of various kinds of technology that are appropriate to the subject matter discipline.

Standard 6: Early Field Experiences

The program provides prospective Single Subject teachers with planned, structured field experiences in departmentalized classrooms beginning as early as possible in the subject matter program. These classroom experiences are linked to program coursework and give a breadth of experiences across grade levels and with diverse populations. The early field experience program is planned collaboratively by subject matter faculty, teacher education faculty and representatives from school districts. The institution cooperates with school districts in selecting schools and classrooms for introductory classroom experiences. The program includes a clear process for documenting each prospective teacher's observations and experiences.

Required Elements:

- 6.1 Introductory experiences shall include one or more of the following activities: planned observations, instruction or tutoring experiences and other school based observations or activities that are appropriate for undergraduate students in a subject matter preparation program.
- 6.2 Prospective teachers' early field experiences are substantively linked to the content of coursework in the program.
- 6.3 Fieldwork experiences for all prospective teachers include significant interactions with K-12 students from diverse populations represented in California public schools and cooperation with at least one carefully selected teacher certificated in the discipline of study.
- 6.4 Prospective teachers will have opportunities to reflect on and analyze their early field experiences in relation to course content. These opportunities may include field experience journals, portfolios, and discussions in the subject matter courses, among others.
- 6.5 Each prospective teacher is primarily responsible for documenting early field experiences. Documentation is reviewed as part of the program requirements.

Category I: Standards Common to All Single Subject Matter (Continued)

Standard 7: Assessment of Subject Matter Competence

The program uses formative and summative multiple measures to assess the subject matter competence of each candidate. The scope and content of each candidate's assessment is consistent with the content of the subject matter requirements of the program and with institutional standards for program completion.

Required Elements:

- 7.1 Assessment within the program includes multiple measures such as student performances, presentations, research projects, portfolios, field experience journals, observations, and interviews as well as oral and written examinations based on criteria established by the institution.
- 7.2 The scope and content of each assessment is congruent with the specifications for the subject matter knowledge and competence as indicated in the content domains of the Commission-adopted subject matter requirement.
- 7.3 End-of-program summative assessment of subject matter competence includes a defined process that incorporates multiple measures for evaluation of performance.
- 7.4 Assessment scope, process, and criteria are clearly delineated and made available to students when they begin the program.
- 7.5 Program faculty regularly evaluate the quality, fairness, and effectiveness of the assessment process, including its consistency with program requirements.
- 7.6 The institution that sponsors the program determines, establishes and implements a standard of minimum scholarship (such as overall GPA, minimum course grade or other assessments) of program completion for prospective single subject teachers.

Standard 8: Advisement and Support

The subject matter program includes a system for identifying, advising and retaining prospective Single Subject teachers. This system will comprehensively address the distinct needs and interests of a range of prospective teachers, including resident prospective students, early deciders entering blended programs, groups underrepresented among current teachers, prospective teachers who transfer to the institution, and prospective teachers in career transition.

Required Elements:

- 8.1 The institution will develop and implement processes for identifying prospective Single Subject teachers and advising them about all program requirements and career options.

Category I: Standards Common to All Single Subject Matter (Continued)

- 8.2 Advisement services will provide prospective teachers with information about their academic progress, including transfer agreements and alternative paths to a teaching credential, and describe the specific qualifications needed for each type of credential, including the teaching assignments it authorizes.
- 8.3 The subject matter program facilitates the transfer of prospective teachers between post-secondary institutions, including community colleges, through effective outreach and advising and the articulation of courses and requirements. The program sponsor works cooperatively with community colleges to ensure that subject matter coursework at feeder campuses is aligned with the relevant portions of the state-adopted academic *Content Standards for California Public Schools K-12*.
- 8.4 The institution establishes clear and reasonable criteria and allocates sufficient time and personnel resources to enable qualified personnel to evaluate prospective teachers' previous coursework and/or fieldwork for meeting subject matter requirements.

Standard 9: Program Review and Evaluation

The institution implements a comprehensive, ongoing system for periodic review of and improvement to the subject matter program. The ongoing system of review and improvement involves university faculty, community college faculty, student candidates and appropriate public schools personnel involved in beginning teacher preparation and induction. Periodic reviews shall be conducted at intervals not exceeding 5 years.

Required Elements:

- 9.1 Each periodic review includes an examination of program goals, design, curriculum, requirements, and student success, technology uses, advising services, assessment procedures and program outcomes for prospective teachers.
- 9.2 Each program review examines the quality and effectiveness of collaborative partnerships with secondary schools and community colleges.
- 9.3 The program uses appropriate methods to collect data to assess the subject matter program's strengths, weaknesses and areas that need improvement. Participants in the review include faculty members, current students, recent graduates, education faculty, employers, and appropriate community college and public school personnel.
- 9.4 Program improvements are based on the results of periodic reviews, the inclusion and implications of new knowledge about the subject(s) of study, the identified needs of program students and school districts in the region, and curriculum policies of the State of California.

Standard 10: Coordination

Category I: Standards Common to All Single Subject Matter (Continued)

One or more faculty responsible for program planning, implementation and review coordinate the Single Subject Matter Preparation Program. The program sponsor allocates resources to support effective coordination and implementation of all aspects of the program. The coordinator(s) fosters and facilitates ongoing collaboration among academic program faculty, local school personnel, local community colleges and the professional education faculty.

Required Elements:

- 10.1 A program coordinator will be designated from among the academic program faculty.
- 10.2 The program coordinator provides opportunities for collaboration by faculty, students, and appropriate public school personnel in the design and development of and revisions to the program, and communicates program goals to the campus community, other academic partners, school districts and the public.
- 10.3 The institution allocates sufficient time and resources for faculty coordination and staff support for development, implementation and revision of all aspects of the program.
- 10.4 The program provides opportunities for collaboration on curriculum development among program faculty.
- 10.5 University and program faculty cooperate with community colleges to coordinate courses and articulate course requirements for prospective teachers to facilitate transfer to a baccalaureate degree-granting institution.

Attachment E

Proposed Program Standards

Agriculture

Business

Health

Home Economics

Industrial and Technology Education

Languages other than English (LOTE): American Sign Language (ASL)

Standards of Quality and Effectiveness for Single Subject Matter Programs in Agriculture

Category II: Single Subject Matter Program Standards

Standard 11: Plant and Soil Science

The program requires basic preparation that develops knowledge, skill and the ability to integrate and apply concepts in the areas of plant and soil science.

Required Elements:

The program provides appropriate instruction in:

- 11.1 The characteristics, components and properties of soil, including calculating soil type using the soil texture triangle and identifying the components of the soil profile.
- 11.2 Plant nutrition and soil treatments, including the importance of macro and micro-nutrients and methods of amendment application.
- 11.3 Plant classification, including identification of plants using binomial nomenclature, and understanding of plant anatomy and physiology.
- 11.4 Plant genetics, reproduction and propagation, including demonstration of sexual and asexual propagation techniques.
- 11.5 Crop management and production, including practical application in crop selection, land preparation, planting, pest management, irrigation, and harvesting.
- 11.6 Emerging technologies in plant production, including the genetic engineering of plants and its risks and benefits.
- 11.7 Career opportunities in plant and soil science.

Standard 12: Ornamental Horticulture

The program requires basic preparation that develops knowledge, skill and the ability to integrate and apply concepts in the area of ornamental horticulture.

Required Elements:

The program provides appropriate instruction in:

- 12.1 Greenhouse and nursery management and production, including the ability to demonstrate propagation, crop selection, planting and environmental management techniques.

***Standards of Quality and Effectiveness for Single Subject Matter Programs in Agriculture
(Continued)***

- 12.2 Principles of landscape design, planning, construction and maintenance, including the installation of soft- and hardscape elements from a landscape plan.
- 12.3 The basic elements and principles of floral design, including the construction of floral arrangements and use of designs.
- 12.4 Career opportunities in ornamental horticulture.

Standard 13: Animal Science

The program requires basic preparation in animal science that develops knowledge, skill, and the ability to integrate and apply concepts in the areas of animal science and production.

Required Elements:

The program provides appropriate instruction in:

- 13.1 The anatomy and physiology of livestock, including identification of internal structures and external parts of common livestock species.
- 13.2 Management and veterinary practices in animal production, including the prevention, diagnosis and treatment of common ailments and nutrient deficiencies.
- 13.3 Nutritional requirements of livestock, including an understanding of the appropriate use of concentrates, roughages, additives, and supplements used in feeding livestock.
- 13.4 Animal genetics and reproduction, including an understanding of breeding techniques and animal selection.
- 13.5 Environmental and facilities management in animal production systems, including an understanding of sanitation practices and evaluation of facilities appropriate to the species.
- 13.6 Ethical livestock management practices, including the ability to restrain and handle livestock in accordance with industry quality assurance guidelines.
- 13.7 Career opportunities in the area of animal science.

Standard 14: Environmental Science and Natural Resource Management

The program requires basic preparation in environmental science and natural resource management that develops knowledge, skill, and the ability to integrate and apply concepts in the areas of environmental science and natural resource management.

Required Elements:

***Standards of Quality and Effectiveness for Single Subject Matter Programs in Agriculture
(Continued)***

The program provides appropriate instruction in:

- 14.1 Basic ecological principles and natural resources, including an understanding of the interaction of fire, erosion, water quality and the human impact.
- 14.2 Relationships among agriculture, the environment and society, including the responsibility of agriculturists as stewards of the land.
- 14.3 Ecosystem and resource management, including an understanding of water and soil conservation, air quality and sources of pollution.
- 14.4 Forest management, including an understanding of the issues and challenges of the forest industry.
- 14.5 Career opportunities in the area of environmental science and natural resource management

Standard 15: Agricultural Business and Economics

The program requires basic preparation that develops knowledge, skill and the ability to integrate and apply concepts in the areas of agricultural business and economics.

Required Elements:

The program provides appropriate instruction in:

- 15.1 Agricultural economics, including an understanding of public and private economic impacts on agricultural business.
- 15.2 Agricultural marketing and trade, including an understanding of marketing strategies, processing and risk management for agricultural producers.
- 15.3 Agricultural entrepreneurship and leadership, including an understanding of business plans, ethics and leadership styles relevant to agricultural business.
- 15.4 Agricultural business management, record keeping and accounting, including developing business agreements, budgets, accurate business records, and financial statements.
- 15.5 Careers in agricultural business and agricultural economics.

Standard 16: Agriculture Systems Technology

The program requires basic preparation that develops knowledge, skill and the ability to integrate and apply concepts in the area of agricultural systems technology.

*Standards of Quality and Effectiveness for Single Subject Matter Programs in Agriculture
(Continued)*

Required Elements:

The program provides appropriate instruction in:

- 16.1 Safety principles and practices, including the ability to develop and administer safety tests and establish safe shop procedures.
- 16.2 Shop fabrication, including the ability to design, layout and construct a wood and/or metal project.
- 16.3 Construction of agricultural structures, including the ability to perform concrete, masonry, carpentry, welding, plumbing, and electrical skills.
- 16.4 Maintenance and operation of power equipment, including identification and selection of the appropriate tool for the job, troubleshooting, and safe operation.
- 16.5 Land measurement and irrigation systems, including an understanding of surveying instruments and techniques, and irrigation types and components.
- 16.6 Careers in agricultural systems technology.

Standard 17: Specialization in Agriculture

The program requires basic preparation in animal science, plant/soil science, ornamental horticulture, agricultural business management, environmental science and natural resource management, or agricultural systems technology that more deeply develops knowledge, skill, and the ability to integrate and apply concepts in the area selected.

Required Elements:

The program provides appropriate instruction in:

- 17.1 Depth of study in at least one domain that is significantly beyond that which is required in the core.
- 17.2 The skills required by entry-level employees in the field of study.
- 17.3 The skills needed to convey the applications of the specialization.

*Standards of Quality and Effectiveness for Single Subject Matter Programs in Agriculture
(Continued)*

Standard 18: Agriculture Education as a Profession

The program requires basic preparation and instruction in the philosophy and history of agricultural education, the status of agriculture in contemporary society, and the role of the educator in the school, community and industry.

Required Elements:

The program provides appropriate instruction in:

- 18.1 Current educational philosophies applied to the agriculture curriculum.
- 18.2 The current programs and practices within a historical perspective.
- 18.3 The ethics, values, and scope of responsibilities of the professional agriculture educator.
- 18.4 The current issues and advancements affecting agriculture and education.
- 18.3 The benefits and responsibilities of being an active member in professional activities and organizations.

Standard 19: Integration of Concepts

The program requires basic preparation that develops knowledge of integration of standards and concepts of the program areas within agriculture and the interrelationships that exist between agriculture and other subject areas.

Required Elements:

The program provides appropriate instruction in:

- 19.1 Relationships between agriculture and other disciplines commonly taught in the public schools.
- 19.2 The integration of the major themes and concepts of the program areas within agriculture.
- 19.3 Methodologies to achieve the integration of standards and concepts between and among agriculture and other subjects commonly taught in public schools
- 19.4 The use of the state adopted curriculum standards for Agriculture and the Academic Content Standards for K-12 students (i.e., CA Science and Fine Arts Standards) in Agriculture courses receiving subject matter equivalence for graduation or college entrance requirements (i.e., A-G requirements)

*Standards of Quality and Effectiveness for Single Subject Matter Programs in Agriculture
(Continued)*

Standard 20: Early Field Experiences in Agriculture

The program requires early field experiences in agriculture education venues.

Required Elements:

The program requires students to:

- 20.1 Observe agriculture classrooms and experience integral activities associated with agriculture education programs.
- 20.2 Discuss and compare their field experiences with those of other students in the program.

Standard 21: Safety

The program requires basic preparation that develops knowledge of proper safety procedures prior to laboratory field experiences and includes instruction in emergency procedures; proper use, storage, handling, and disposal of hazardous materials and equipment; and safe and secure handling of food products.

Required Elements:

The program provides appropriate instruction in:

- 21.1 Safety procedures in laboratory activities.
- 21.2 The proper and safe use of agricultural equipment, tools, and facilities.
- 21.3 Emergency procedures for handling and disposing of hazardous materials.
- 21.4 Liability and risk management issues.
- 21.5 Bio-security and biohazards in school agriculture facilities.

Standards of Quality and Effectiveness for Single Subject Matter Programs in Business

Category II: Single Subject Matter Program Standards

Standard: 11: Business Management

The program requires preparation in the study of business management functions; organizational theory and development; leadership; and motivational concepts. The program addresses the legal and ethical principles as well as the U.S. legal system pertaining to business. Candidates use principles and methods of decision making and mathematical operations leading to quantitative and qualitative analysis. Candidates study the principles of production and operations management in the program. Program course work includes the principles of human resource management and are able to effectively employ personnel policies, practices, and resources.

Required Elements:

- 11.1 The program includes the study of management functions and decision making.
- 11.2 Course work includes instruction in organizational behavior and theory.
- 11.3 The program conveys clearly ethical and social responsibility as it pertains to business operational situations.
- 11.4 Course work incorporates the study of laws and regulations as well as differentiates between ethical and legal issues related to social responsibility and business management.
- 11.5 The program includes instruction in production and operations management relevant to business operations and social dynamics in the workplace.
- 11.6 Candidates are required to know human resource management skills and how those skills contribute to the growth and development of the workforce.

Standard 12: Accounting and Finance

The program includes knowledge and application of accounting concepts, principles, procedures, and financial analysis. The program requires study of the basic principles of finance to analyze and manage business and personal situations.

Required Elements:

- 12.1 The program requires candidates to use the procedures for processing accounting data (e.g., analysis of source documents, procedures for journalizing, and posting transactions to ledgers, creating financial statements, performing adjusting and closing entries).

***Standards of Quality and Effectiveness for Single Subject Matter Programs in Business
(Continued)***

- 12.2 Candidates are required to prepare, analyze, interpret, and communicate financial information including statements, budgets, records, and ratios.
- 12.3 Program studies include cash management concepts.
- 12.4 Course work includes the utilization of computerized accounting packages and other financial software applications.

Standard 13: Marketing

The program prepares candidates to apply key marketing principles and concepts including, but not limited to, customer service, selling, promotion, and distribution in both domestic and international markets.

Required Elements:

- 13.1 Program studies include the principles and procedures for developing a marketing plan and applying marketing strategies and concepts to a variety of business situations.
- 13.2 The program provides instruction in the principles of market segmentation, target marketing, and positioning are used in conducting market research and related business decisions.
- 13.3 The course of study incorporates principles of the five P's (product, price, promotion, place/distribution, and people) to make marketing decisions, including the influence of emerging technologies.
- 13.4 The program addresses the differences in marketing concepts in a variety of industries.
- 13.5 Program studies include cultural differences in language, values, social behavior, and business protocol can affect market strategies and concepts, customer service, sales, and promotion.
- 13.6 Course work includes appropriate mathematical procedures to analyze and solve business problems related to marketing (e.g., purchasing, sales, and promotion).
- 13.7 Candidates are required to study the nature, importance, strategies, and steps of the selling process including customer-buying motives and behaviors.
- 13.8 Program studies require the analysis of factors affecting customer satisfaction and service options that are appropriate for selected types of businesses and their target markets.
- 13.9 Program studies require the analysis of factors that affect global marketing.

Standard 14: Information Technology (Computer/Information Systems)

***Standards of Quality and Effectiveness for Single Subject Matter Programs in Business
(Continued)***

The program requires knowledge of terminology, principles and procedures related to the ethical use of information technology. Candidates are prepared to apply principles and procedures related to applications, networking systems, and basic concepts of programming and systems development in business situations.

Required Elements:

- 14.1 The program provides instruction and application of concepts and resources to configure computer components in order to operate systems and associated utilities to benefit a business organization.
- 14.2 The course work includes principles and procedures of managing information and media systems.
- 14.3 The program addresses ethical procedures related to information technology including analysis and application of basic security plans and procedures for managing privacy issues.
- 14.4 The program provides instruction in networking concepts, systems, and business models necessary to apply principles and procedures related to voice and data transmission media types and emerging technology trends.
- 14.5 Candidates are required to compare and contrast programming languages.
- 14.6 Candidates in the program use and customize software in business applications.

Standard 15: Economics

The program instructs candidates in the basic economic principles as they apply to microeconomic and macroeconomic theories and principles in domestic and international economies.

Required Elements:

- 15.1 Program courses instruct candidates in the basic terminology, concepts, theories, and chart/graph interpretation related to market, product, and domestic and international economics.
- 15.2 The program studies include the principles of supply and demand, price, profits, equilibrium and incentives in product markets and varying business situations.
- 15.3 Course work includes the study of characteristics of different microeconomic structures, and requires candidates to apply factors and concepts as related to a business organization.
- 15.4 Candidates receive instruction on the four input factors of production and their costs.

***Standards of Quality and Effectiveness for Single Subject Matter Programs in Business
(Continued)***

- 15.5 Candidates are required to compare and contrast different economic systems and philosophies and recognize how differences in culture, language, values and social behavior affect the ethical conduct of business across domestic and international borders.
- 15.6 The course work includes instruction and application of a variety of macroeconomic indicators.
- 15.7 Program studies incorporate the principles associated with money and banking.
- 15.8 Candidates are required to study and evaluate the effects of fiscal and monetary policy on the U.S. economy and international trade.
- 15.9 The program provides instruction on aggregate supply and demand.
- 15.10 Course work includes analysis of the influence of government on business decisions.
- 15.11 Candidates receive instruction on international currency markets including foreign exchange and monetary exchange rates.

Standard 16: Business Environment and Communication

The program requires study of the global business environment and an understanding of the importance of business communication. The program promotes an understanding of the principles and procedures of business ownership and the unique contributions of entrepreneurs. The program addresses principles of the career development and develops employment skills in candidates.

Required Elements:

- 16.1 The course of study includes the effects of cultural, organizational, technological, and behavioral characteristics on the selection of communication strategies and methods.
- 16.2 Candidates are required to select and use current and emerging technologies to produce documents and presentations that meet professional business standards.
- 16.3 The program promotes in candidates the effective verbal and nonverbal communication skills.
- 16.4 Candidates are required to develop a business plan including location analysis, financial planning, products and/or services, operations management, human resource management, and marketing.
- 16.5 Program studies include identifying the characteristics of successful entrepreneurs and evaluating the advantages and disadvantages of various types of business ownership.

***Standards of Quality and Effectiveness for Single Subject Matter Programs in Business
(Continued)***

16.6 The program provides candidates with knowledge on career opportunities and employment skills needed to be productive in the workforce.

Standards of Quality and Effectiveness for Single Subject Matter Programs in Health Science

Category II: Single Subject Matter Program Standards

Standard: 11: Foundations of Health Science

The basis of an effective health science subject matter program is coordination by one or more qualified faculty with expertise in school health. Candidates within the subject matter program must demonstrate a fundamental understanding of professional, legal, scientific, behavioral and philosophical principles of health education and the role of the school health educator within a Coordinated School Health Program (CSHP).

Required Elements:

- 11.1. The program must be coordinated by one or more individuals with expertise in school health, K-12 teacher preparation, and knowledge of the California Commission on Teacher Credentialing and California Department of Education program standards with professional experience and currency.
- 11.2. The program identifies resources (e.g. Centers for Disease Control and Prevention (CDC), Healthy People 2010, California Healthy Kids Survey) and their significance for keeping informed about current knowledge in health science (e.g., Internet, professional journals, local health agencies, and professional organizations).
- 11.3. The program provides instruction on the laws relating to student health and safety, including confidentiality and reporting suspected abuse or neglect.
- 11.4. The program provides information on how laws, regulations, and local board policies affect the content of school health education.
- 11.5. The program addresses professional health educator code of ethics.
- 11.6. The program includes knowledge of human anatomy and physiology, emphasizing body systems.
- 11.7. The program requires candidates to compare and contrast influences on health behavior (e.g., social learning theory, stages of change) relevant to instruction.
- 11.8. The program includes knowledge of the components and purpose of a Coordinated School Health Program (CSHP) and the role of the health education professional in communicating, promoting, and advocating for a healthy school environment.
- 11.9. The program addresses current trends and their impact on health education (e.g., resiliency, asset development, skills-based instruction, and research-based programs).
- 11.10. The program includes current ethical issues and philosophies to health science curriculum.

*Standards of Quality and Effectiveness for Single Subject Matter Programs in Health Science
(Continued)*

Standard 12: Human Growth and Development

The program includes fundamentals of human growth patterns and characteristics associated with psychosocial growth and development.

Required Elements:

- 12.1. The course work includes knowledge of the physical patterns of change and development that occur over the life cycle (e.g., infancy, childhood, adolescence, and adulthood).
- 12.2. The course work includes knowledge of psychosocial characteristics over the life cycle (e.g. emotional maturity, self-identity, and self-actualization).
- 12.3. The course work includes basic knowledge of individual hygiene practices as related to psychosocial growth and development.
- 12.4. The course work incorporates factors influencing psychosocial growth and development (e.g., genetics, race, gender, age, ethnicity, culture, and special needs) related to health, disease, and health behaviors.
- 12.5. The course work includes cognitive, emotional, and social changes that occur over the life cycle (e.g., body image, self-esteem, and interpersonal relationships).

Standard 13: Chronic and Communicable Diseases

The program is designed to develop fundamental understanding of the historical impact, risk factors, characteristics, and prevention of chronic and communicable diseases.

Required Elements:

- 13.1. The program includes knowledge of the historical and modern-day impact of common chronic diseases on human populations.
- 13.2. The program includes knowledge of risk factors for and characteristics of common chronic diseases (e.g., heart disease, asthma, diabetes, and cancer), including demographic distributions.
- 13.3. The program requires candidates to identify primary, secondary, and tertiary approaches for preventing common chronic diseases.
- 13.4. The program includes knowledge of the historical and modern-day impact of communicable diseases (e.g., plague, polio, tuberculosis, smallpox, and HIV/AIDS) on human populations.
- 13.5. The course work includes risk factors for and characteristics of common communicable diseases (e.g., HIV/AIDS, sexually transmitted diseases [STDs], hepatitis, and tuberculosis), including their means of transmission and demographic distributions.
- 13.6. The course work identifies the primary, secondary, and tertiary approaches for preventing common communicable diseases (e.g., immunizations, risk-reduction strategies, and antibiotics).

*Standards of Quality and Effectiveness for Single Subject Matter Programs in Health Science
(Continued)*

Standard 14: Nutrition and Fitness

The program course of study includes nutrition and fitness and their relationship with lifelong well being.

Required Elements:

- 14.1. The course work includes knowledge of essential nutrients (i.e., carbohydrates, fats, proteins, vitamins, minerals, and water), consequences of deficiency or excess, and can interpret nutritional information on food labels.
- 14.2. The course work includes knowledge of dietary guidelines for different populations (e.g., based on age, culture, and medical conditions).
- 14.3. The program incorporates the principles of weight management and its importance to overall health and wellness.
- 14.4. The program addresses the risk factors and consequences associated with obesity.
- 14.5. The course work includes knowledge of eating disorders and their relationship to individual health and body image.
- 14.6. The program includes food safety principles.
- 14.7. The course work includes knowledge of the components and methods of self-assessment for physical fitness (e.g., endurance, strength, and flexibility).
- 14.8. The course work includes knowledge of personal health behaviors (e.g., sleep, exercise, and stress management) that have a positive impact on lifelong health.
- 14.9. The course work requires candidates to develop an appropriate personal nutrition and fitness plan, including strategies for self-assessment, goal setting, and maintenance.

Standard 15: Mental and Emotional Health

Candidates in the program study the role of mental and emotional health in maintaining lifelong well being, factors that affect learning and functioning, and how to adapt positively to change.

***Standards of Quality and Effectiveness for Single Subject Matter Programs in Health Science
(Continued)***

Required Elements:

- 15.1. Candidates study the basic components of mental and emotional health (e.g., self-confidence, goal setting, coping skills, and effective communication skills), the relationship to physical health, and appropriate referral to school and community resources.
- 15.2. The course work includes the potential contributions of spirituality (e.g., purpose and meaning, connectedness, service to others, positive self-concept) to mental, emotional, and/or physical health.
- 15.3. The course work incorporates knowledge of positive youth development, asset development, and resiliency, and their relationship to lifelong well being.
- 15.4. Course work identifies strategies for dealing with anger, grief, loss, and bereavement in a variety of situations (e.g., individual, family, and group).
- 15.5. The course work includes knowledge of the causes, symptoms, and consequences of stress from various sources (e.g., peers, family, school, and work) and of stress management techniques.
- 15.6. Candidates in program study the nature of depression and its causes, symptoms, and treatment options.
- 15.7. The course work identifies risk factors for suicide and strategies for intervention.

Standard 16: Alcohol, Tobacco, and Other Drugs

The program is designed to develop in candidates a fundamental understanding of drugs, their physical and psychosocial effects, prevention, intervention, and treatment of drug abuse.

Required Elements:

- 16.1. The course work includes knowledge of alcohol, tobacco, and other drugs.
- 16.2. Candidates study the differences between responsible and irresponsible drug use.
- 16.3. The course work instructs candidates in the signs of drug misuse and abuse and the physiological process and stages of drug addiction.
- 16.4. Course work includes analysis of factors contributing to the misuse and abuse of drugs (e.g., impact of the media, peer pressure) and the impact on relationships and family dynamics.
- 16.5. Course work includes resources that identify local, regional and state drug use trends.

***Standards of Quality and Effectiveness for Single Subject Matter Programs in Health Science
(Continued)***

- 16.6. The course work identifies substance abuse prevention strategies (e.g., decision-making, finding healthy alternatives, and avoiding risky situations).
- 16.7. Candidates are instructed on intervention and referral options (e.g., student assistance programs) and treatment options (e.g., inpatient, outpatient) for dealing with drug abuse.

Standard 17: Family Life and Interpersonal Relationships

The program course of study addresses family structures, family life education, interpersonal relationships, and human sexuality and reproductive health.

Required Elements:

- 17.1. Course work in the program includes knowledge and understanding of diverse family structures.
- 17.2. The course work includes analysis of potential sources of stress (e.g., divorce, blended families, homelessness, and finances) within families, and behaviors and strategies that reduce conflict and promote healthy family relationships.
- 17.3. Candidates study how interpersonal, cultural, and social dynamics (e.g., intimacy, intergenerational relationships, and parenting) may affect a family.
- 17.4. The course work provides effective techniques for communicating and building healthy relationships (e.g., assertiveness, active listening, and "I" messages), and demonstrate knowledge of the causes of conflict and techniques for conflict resolution.
- 17.5. The course work prepares candidates to be able to recognize varying levels of intimacy and commitment across relationships (e.g., friendship, dating, and marriage), and identify characteristics of healthy and unhealthy relationships.
- 17.6. The program courses provide knowledge of developmental changes and the characteristics of puberty and menarche.
- 17.7. The course work includes analysis of factors that influence decisions about sexual activity (e.g., individual, family, and cultural values; peer and media influences; myths and misinformation).
- 17.8. The course work provides knowledge of family planning and methods of delaying or avoiding pregnancy (e.g., abstinence, contraception), and identify factors that affect pregnancy, fetal development, and birth.
- 17.9. The program course work identifies STDs and methods for their prevention or risk reduction.

Standard 18: Risk Reduction and Safe Health Practices

***Standards of Quality and Effectiveness for Single Subject Matter Programs in Health Science
(Continued)***

The program prepares candidates in ways to promote and maintain positive and safe health practices and reduce the risk of injury and violence within the home, school, and community.

Required Elements:

- 18.1. The program courses identify risk reduction strategies to promote a safe and healthy environment (e.g. seat-belt and helmet use; emergency preparedness and disaster plans).
- 18.2. The course work includes knowledge of intentional injuries (e.g., bullying, assault, child abuse, and hate crimes) and risk reduction strategies.
- 18.3. Course work includes hazards (e.g., fire, poison, and traffic) and risk reduction strategies.
- 18.4. Candidates are instructed on emergency care and universal precautions.

Standard 19: Consumer and Community Health

The program provides candidates with knowledge of the fundamentals of community and consumer health, including the impact of policy, culture, media, technology and other factors.

Required Elements:

- 19.1. The course work identifies health professionals and sources of health services appropriate for a variety of health-related needs.
- 19.2. Candidates are instructed different types of health insurance structures and organizations (e.g., health maintenance organizations, preferred provider organizations, and Medi-Cal).
- 19.3. The course work provides knowledge of a variety of public, private, community-based organizations, and government agencies that promote community health and consumer health protection.
- 19.4. Course work includes health issues affecting special populations (e.g., migrant, homeless, and uninsured).
- 19.5. Course work requires candidates to distinguish between reliable and unreliable sources of health-related information from a variety of media.
- 19.6. Candidates interpret and analyze advertising techniques and their influence on consumer behavior, and evaluate claims made for health products and services.
- 19.7. Course work provides instruction in how cultural beliefs and practices may affect individual and community health behaviors (e.g., immunization and accessing health services).

*Standards of Quality and Effectiveness for Single Subject Matter Programs in Health Science
(Continued)*

Standard 20: Environmental Health

The program develops in candidates a fundamental understanding of factors in natural and human environments that impact health and ways to conserve natural resources and protect the environment.

Required Elements:

- 20.1. The course work identifies types of pollution, hazardous wastes, biohazards, and naturally occurring environmental hazards and their effects on health.
- 20.2. The course work addresses ways to prevent or minimize the effects of pollution and other ecological hazards.
- 20.3. Candidates are instructed in the steps that can be taken to conserve natural resources and protect the environment.
- 20.4. Course work identifies a variety of public and private organizations concerned with environmental health.

Standards of Quality and Effectiveness for Single Subject Matter Programs in Home Economics

Category II: Single Subject Matter Program Standards

Standard 11: Personal, Interpersonal and Family Relationships

The program provides candidates with instruction in personal, interpersonal, and family relationships over the lifespan. Included is an understanding of the foundations, characteristics, and factors affecting those relationships.

Required Elements:

- 11.1 The program provides students with an understanding of the characteristics of relationships, as well as the factors that can affect relationships
- 11.2 Coursework will enable students to describe the skills, behavior and techniques that help individuals promote and obtain positive relationships.
- 11.3 Course work includes study of the family in society, including family structures, roles and responsibilities.
- 11.4 Candidates are required to analyze the family life cycle and its effect on the well-being of individuals and families and to identify appropriate support resources.

Standard 12: Parenting

The program provides candidates with an overview of the roles and responsibilities of parents. Coursework includes the theories, skills, and approaches to parenting and child guidance.

Required Elements:

- 12.1 Candidates are prepared to analyze various factors that affect decisions to become a parent, including family planning and the responsibilities of parenthood.
- 12.2 Coursework includes the stages and characteristics of pregnancy and the factors that affect prenatal development and postnatal health.
- 12.3 Coursework requires candidates to recognize parenting theories and techniques, methods, and strategies to guide a child's development and behavior.
- 12.4 The coursework encompasses studies in the common childhood illnesses and healthcare needs, including potential safety hazards and planning for emergencies.

*Standards of Quality and Effectiveness for Single Subject Matter Programs Home Economics
(Continued)*

12.5 The program provides knowledge of child abuse and neglect issues, including legal responsibilities related to ensuring a child's safety and well-being.

Standard 13: Child Development and Education

The program incorporates the major theories in human development and the methods, strategies, and approaches that can be used to foster physical, cognitive, emotional, and social development. It also provides knowledge of development, guidance, and education of children in family and career settings.

Required Elements:

- 13.1 Program studies address the stages and characteristics of child development, including hereditary and environmental factors.
- 13.2 Course work includes major child developmental theories, research methods, and observation and assessment techniques.
- 13.3 The program instructs candidates in developmentally appropriate activities for children that promote cognitive, physical, emotional, and social development.
- 13.4 The program provides candidates with knowledge of industry career paths, transferable knowledge and skills, aptitudes, and responsibilities related to careers in child development.

Standard 14: Food and Nutrition Science

The program provides course work in food and nutrition science, including physiological and biochemical processes. The program prepares candidates to apply these processes in the preparation and use of food and nutrients.

Required Elements:

- 14.1 The program prepares candidates to understand and apply dietary guidelines, disorders of the diet, and food related issues that affect health and well-being.
- 14.2 The program prepares candidates to apply terminology used in food and nutrition science and apply the knowledge of current research and new technologies in nutrition and food safety.
- 14.3 Candidates in the program analyze cultural, environmental, and socioeconomic factors that affect diet, nutrition, and health throughout the life cycle.
- 14.4 The program provides knowledge of career paths, transferable knowledge and skills, aptitudes, and responsibilities related to careers in nutrition and food science.

*Standards of Quality and Effectiveness for Single Subject Matter Programs Home Economics
(Continued)*

Standard 15: Food Preparation, Service and Hospitality

The program provides course work in the procedures and techniques related to food preparation, meal management, equipment, and facilities.

Required Elements:

- 15.1 The program prepares prospective candidates to know and apply the principles of food safety and sanitation, including the causes and prevention of food-borne illnesses.
- 15.2 Course work includes instruction in the selection, use, storage, and care of food preparation equipment.
- 15.3 Candidates in the program are required to study meal management needed to effectively plan, prepare, present, and serve meals in home and commercial settings.
- 15.4 Program studies incorporate the principles, techniques, and terminology of food preparation in the food service and hospitality industries.
- 15.5 Candidates are prepared to identify and describes public and private agencies and their role in relation to the food service and hospitality industries.
- 15.6 The program prepares candidates to recognize the differences in styles of food preparation and meal service throughout a variety of cultures.
- 15.7 The program prepares candidates to transfer and apply the knowledge, skills, and aptitudes to careers in the industries related to food service and hospitality.

Standard 16: Fashion, Textiles, and Apparel

The program provides instruction in fashion, textiles, apparel design, and construction.

Required Elements:

- 16.1 Candidates are instructed the fashion industry and the history of fashion.
- 16.2 Course work includes elements and principles of design as related to fashion, textiles, and apparel.
- 16.3 Candidates are required to study wardrobe planning, selection, and care of clothing and textile items.
- 16.4 Course work includes properties and applications of natural and manufactured fibers, fabrics and finishes.
- 16.5 Candidates are instructed in the selection, use, and care of apparel construction equipment and materials.

***Standards of Quality and Effectiveness for Single Subject Matter Programs Home Economics
(Continued)***

- 16.6 Course work requires candidates to apply apparel construction techniques and to evaluate apparel quality.
- 16.7 Courses include analysis of cost, time, and energy factors involved in use and reuse of textile items.
- 16.8 The program develops in candidate's transferable knowledge and skills, aptitudes, and responsibilities related to careers in the fashion and textile industries.

Standard 17: Housing and Interior Design

The program provides candidates with instruction housing and interior environments.

Required Elements:

- 17.1 The program prepares candidates in basic factors in selecting housing and design to create living environments.
- 17.2 The program provides instruction on housing and furnishings.
- 17.3 Course work includes the laws, regulations, and programs related to housing issues.
- 17.4 Course work includes the elements and principles of design in planning, selecting, and evaluating furnishings for interior environments.
- 17.5 The program addresses life cycle concerns related to living environments.
- 17.6 The program promotes in candidates transferable knowledge and skills, aptitudes, and responsibilities related to careers in housing and interior design.

Standard 18: Consumer Education

Program provide instruction on the management of personal and family resources, consumer rights and responsibilities, and economic systems.

***Standards of Quality and Effectiveness for Single Subject Matter Programs Home Economics
(Continued)***

Required Elements:

- 18.1 Coursework includes personal and financial management and analysis of the factors that influence consumer decision-making.
- 18.2 Program studies address consumer fraud issues and how to identify resources available to consumers.
- 18.3 Coursework includes managing resources to balance home, work, and life.
- 18.4 Coursework instructs candidates on local, state, and federal laws and agencies that protect consumers.
- 18.5 Coursework provides instruction on factors that affect and are affected by local, state, national, and international economies.
- 18.6 Candidates are required to develop and use communication skills in negotiating and problem solving difficulties related to purchasing goods and services.
- 18.7 The program promotes in candidates transferable knowledge and skills, aptitudes, and responsibilities related to careers in consumer services.

Standard 19: Leadership

Programs prepares candidates in leadership, organizational, and communication knowledge and skills to support and promote professionalism.

Required Elements:

- 19.1 Coursework prepares candidates to be able to analyze the interrelationships and contributions of professional and student organizations.
- 19.2 Coursework prepares candidates to be advocates for the profession.

Standard 20: Field Experience

The program requires field experience in one of the subject matter areas of Home Economics Careers and Technology. The candidate will use the field experience to identify career options, transferable knowledge and skills, aptitudes, and responsibilities related to careers in the field experience area.

Required Elements:

- 20.1 The program provides the opportunity for candidates to have field experience related to one area of specialization.
- 20.2 The program requires the candidate to document the field experience.

Standards of Quality and Effectiveness for Subject Matter Programs in Industrial and Technology Education

Category II: Single Subject Matter Program Standards

Standard 11: Core Studies (Breadth)

Core studies in the program will include the nature of technology and develop technological literacy including: problem solving, engineering, design, technological models and systems, workplace competencies, and their interaction. The program also provides foundations in power and energy, information and communication, and project and product development. The program course work emphasizes the appropriate integration of academics, requiring higher order thinking skills to solve problems in practical situations. The program addresses issues of safety, environmental concerns and societal impact. The program includes career and employability skills in industry and education that promote appropriate attitudes for occupational success (i.e., legal and ethical responsibility, accountability and adaptability, leadership and teamwork).

Required Elements:

- 11.1 The program introduces candidates to the structures of K-12 career pathways (building trades and construction, energy and utilities, engineering, manufacturing and product development, transportation) in industrial and technology education.
- 11.2 The program will provide a broad overview of career clusters, training options, work place dynamics, and employability skills (Secretary's Commission on Achieving Necessary Skills: SCANS).
- 11.3 The program provides candidates with varied experiences in using the engineering design process and knowledge of the product life cycle and new and emerging technologies to arrive at solutions.
- 11.4 The program will provide candidates with multiple and varied experiences in project and product development that focus on demonstration of innovation and design skills.
- 11.5 Through project development the candidate will demonstrate their understanding of factor that influences design form and function.
- 11.6 The program requires candidates to identify and apply correct health and safety procedures and regulations to insure safe and proper selection, uses, maintenance and repair of tools, equipment and systems.
- 11.7 The program demonstrates how to assess safe and proper use of equipment in the laboratory environment.

Standards of Quality and Effectiveness for Single Subject Matter Programs in Industrial and Technology Education (Continued)

- 11.8 The program will provide experiences in planning, design, and management of safe laboratory facilities, including environmental concerns.
- 11.9 Programs will require candidates to develop an understanding of the evolution of technology and the influence of industry and technology on history.
- 11.10 Candidates will be required to identify and analyze the resources and controls needed to develop and understand how systems interact.
- 11.11 Through project-based experiences, a candidate will demonstrate an understanding of project and product management.
- 11.12 The course work in the program integrates other appropriate academic disciplines (e.g., mathematics, science, humanities) with Industrial and Technology Education and draws substantive connections for students.

Standard 12: Extended Studies

The program includes coursework to supplement the program core and further prepare prospective teachers in the range of subjects included in the state-adopted K-12 curriculum. Prospective teachers build upon foundational knowledge acquired in the program core by further work within or across the content domains. The program's design for extended studies provides prospective teachers with options, including both specialized and comprehensive preparation based on coherent patterns of coursework.

Required Elements:

- 12.1 The program offers extended studies that ensure that prospective teachers deepen their knowledge within or across content domains.
- 12.2 Extended study may be offered in any or all of the following patterns:
 - a. A combination of related content areas across one or more of these three domains: power and energy, information and communication, and project and product development.
 - b. Concentrations in one or more domains
 - c. Concentration in any content area within a domain (e.g., transportation, aeronautics, automotive repair)
- 12.3 The program provides advising for prospective teachers to select or develop a coherent pattern of extended study based on a well-defined goal (i.e., to meet requirements of the major; to complement or supplement studies in the program core; to pursue special professional interests, e.g., engineering technology, manufacturing, multi-media).

Standard 13: Power and Energy

Standards of Quality and Effectiveness for Single Subject Matter Programs in Industrial and Technology Education (Continued)

The program of study will include the fundamental scientific concepts specific to power and energy with applications to mechanical, fluid, thermal, and electrical systems. The program incorporates relevant K-12 state curriculum standards into coursework and lab experiences. The program requires candidates to design, maintain and analyze a variety of power, energy, and transportation systems.

Required Elements:

- 13.1 Coursework will teach candidates to utilize scientific principles of physics, chemistry and mathematics to solve problems and apply technological solutions to situations involving work, power, energy, and efficiency.
- 13.2 The program will provide experiences in power generation, storage processes, systems management, and alternative sources.
- 13.3 The program will provide instruction and experiences in power and energy safety, control, transmission, loads, and conversion systems.
- 13.4 The program will deliver instruction in the design, development, and maintenance of transportation systems and infrastructures.
- 13.5 The program will teach the appropriate selection and use of a variety of materials and renewable and non-renewable resources used in power and energy systems that consider environmental and consumer issues.
- 13.6 Candidates will develop hands-on skills with a variety of current power and energy tools and equipment.

Standard 14: Information and Communication

The program will provide advanced course work in the fields related to information and communication technology. Course work will include information, design processes, systems, and resources. The program incorporates relevant K-12 state curriculum standards. Candidates demonstrate an understanding of the knowledge and skills needed to design, analyze, use, and maintain a variety of communication systems. Course work will provide technological content in conjunction with societal, ethical, moral and economic considerations.

Required Elements:

- 14.1. The course work will enable the candidate to conceptualize, design, document, prototype and refine the design of products, projects and systems.
- 14.2. The course work will enable the candidate to analyze, understand and apply knowledge of various ways of communicating (e.g., imaging technologies, graphics, telecommunications, broadcast, information and multimedia systems).
- 14.3 Candidates will appropriately select and effectively use materials, tools, equipment in

Standards of Quality and Effectiveness for Single Subject Matter Programs in Industrial and Technology Education (Continued)

information and communication systems and subsystems.

- 14.4 Candidates will be able to apply principles of security procedures to define physical and electronic security plans.

Standard 15: Project and Product Development

The program will prepare candidates to use project and product design processes appropriate to industrial and technology education. Candidates will incorporate engineering principles, manufacturing and construction processes, resources, statistical data, and quality assurances as they relate to the universal system model (input, processes, output, feedback). The program incorporates the relevant K-12 state curriculum standards. Candidates analyze ethical, moral, and environmental issues in project and product design.

Required Elements:

- 15.1 The candidate is required to use engineering principles through project development, using a variety of academic concepts and technical procedures in a lab environment, to manufacture a product safely.
- 15.2 Candidates will understand manual and automated manufacturing and construction processes by learning how to construct and/or maintain projects or products using plans and following regulatory codes and industry guidelines.
- 15.3 Candidates will demonstrate an understanding of cost, estimation, supply chain and demand dynamics.
- 15.4 Candidates will understand research and development concepts as they relate to operation management, including cost estimation, design prototyping, material selection, and timeline.
- 15.5 Candidates will demonstrate knowledge and capabilities for safe and proper use of tools, equipment, and materials.
- 15.6 Candidates will understand principles and procedures of product testing and design, customer feedback, industry standards (e.g., ANSI, ISO), total quality management (TQM), and change management (e.g., change orders, version control).

Standards of Quality and Effectiveness for Single Subject Matter Programs in Languages Other Than English (LOTE) Standards: American Sign Language

Category II: Single Subject Matter Program Standards

Standard 11: Program Philosophy and Purpose

The program is based on an explicit statement of program philosophy that expresses its purpose, design, and desired outcomes and defines the institution's concept of a well-prepared teacher of language.

Required Elements:

- 11.1 The program faculty and administration, both collectively and collaboratively with K-12 and appropriate other representatives of the broader educational community, develop the program philosophy, design and intended outcomes. The development process reflects participants' awareness of recent paradigms and research in language, literature, culture and linguistics.
- 11.2 The program philosophy and intended outcomes are consistent with the major themes and emphasis of the Foreign Language Framework for California Public Schools K-12, other state curriculum documents, and nationally adopted guidelines for teaching languages.
- 11.3 The program philosophy recognizes that all students are capable of learning languages in addition to their primary language and should have access to a variety of language learning opportunities.
- 11.4 The program philosophy values candidates' diverse language and cultural backgrounds and acknowledges the need to respond to the strengths and needs of prospective candidates.
- 11.5 The program philosophy supports both formative and summative assessment of candidate competencies.
- 11.6 The program philosophy recognizes that prospective teachers need to understand and value the role of culture in language acquisition and are able to function in multiple cultural contexts.

Standard 12: Nature of Language

The program provides coursework and experiences necessary for candidates to acquire and demonstrate an understanding of the nature of language, language use, and applied linguistics.

Required Elements:

Standards of Quality and Effectiveness for Single Subject Matter Programs in Languages Other Than English (LOTE) Standards: American Sign Language (Continued)

- 12.1 The program develops candidates' abilities to demonstrate an understanding of the nature, purposes and uses of language, including the basic elements of language structure, language in signed and spoken modalities, as well as the universal characteristics of human language.
- 12.2 The program prepares candidates to analyze the processes by which languages change over time to understand how languages vary geographically, socially, and ethnographically and to describe the relationships among different languages.
- 12.3 The program prepares candidates to demonstrate an understanding of the communicative functions of language and how those functions vary depending upon the context and purpose of the communications.
- 12.4 The program prepares candidates to demonstrate an understanding of the language acquisition process; developmental patterns of language learning; the cognitive, affective, and social factors impacting language teaching and learning; and the interrelationship of language and culture.

Standard 13: Linguistics of the Target Language

The program ensures that candidates understand and can demonstrate a broad and deep knowledge of the linguistic features of ASL. The program requires candidates to demonstrate an understanding of pragmatic and sociolinguistic features of ASL discourse, including the origins and social implications of variations within ASL.

Required Elements

- 13.1 The program requires candidates to demonstrate an understanding of ASL phonology and morphology.
- 13.2 The program requires candidates to demonstrate an understanding of ASL syntax, including linguistic devices used to create connected and cohesive discourse in ASL.
- 13.3 The program requires candidates to demonstrate an understanding of ASL semantics.
- 13.4 The program requires candidates to demonstrate an understanding of the changes that have occurred in ASL over time.
- 13.5 The program requires candidates to identify, analyze, and correct grammatical and mechanical errors in ASL as well as to analyze and contrast linguistic structures of ASL and English.
- 13.6 The program requires candidates to demonstrate an understanding of the pragmatic and other sociolinguistic features of ASL discourse, including rhetorical and stylistic devices.
- 13.7 The program requires candidates to demonstrate a basic understanding of ASL transcription conventions.

Standards of Quality and Effectiveness for Single Subject Matter Programs in Languages Other Than English (LOTE) Standards: American Sign Language (Continued)

Standard 14: Literary and Cultural Texts and Traditions

The program requires candidates to demonstrate knowledge of literary and cultural texts and traditions. Candidates study major literary and intellectual movements, genres, writers, and works and use literary and cultural texts from a variety of media.

Required Elements:

- 14.1 The program requires candidates to analyze, interpret and reflect upon the major movements, genres, creators, and works in the literature of ASL.
- 14.2 The program requires candidates to analyze and interpret a wide range of ASL literary and cultural texts in a variety of forms and media.
- 14.3 The program requires candidates to analyze the elements of ASL literary and cultural works, and to interpret the use of rhetorical and literary techniques in ASL literary and cultural works.
- 14.4 The program requires candidates to demonstrate an understanding of the historical, social, and cultural influences on American Sign Language works.
- 14.5 The program requires candidates to demonstrate an understanding of the ways in which ASL literary and intellectual works and movements both reflected and shaped American Deaf culture over time.
- 14.6 The program requires candidates to analyze and interpret English-language literary and cultural texts written by Deaf people within American Deaf culture.

Standard 15: Cultural Analysis and Comparison

The program requires candidates of ASL to have a broad and deep knowledge and understanding of American Deaf culture. The program requires candidates to demonstrate an understanding of the nature of culture, cultural components and cultural processes. The program requires the candidate to understand ways that Deaf people interpret the world, formulate perspectives, and create products. As a result of their experiences in the program, candidates gain familiarity with daily living patterns, attitudes, priorities, traditions and variation in American Deaf culture. The program requires candidates to be able to compare and contrast American Deaf culture with other cultures.

Required Elements:

- 15.1 The program ensures that candidates develop an understanding of culture and cultural processes.
- 15.2 The program requires candidates to demonstrate an understanding of the processes of

Standards of Quality and Effectiveness for Single Subject Matter Programs in Languages Other Than English (LOTE) Standards: American Sign Language (Continued)

- cultural contact, the ways oppression works, and how relationships between groups are transformed, as each of these processes relate to American Deaf culture.
- 15.3 The program requires candidates to demonstrate familiarity with the development and evolution of American Deaf culture as well as with key eras, major historical events and developments (including legislative initiatives) within American Deaf culture.
 - 15.4 The program requires candidates to demonstrate an understanding of social relationships and practices, racial and ethnic diversity, communication interactions, and patterns of work and leisure activities within American Deaf culture.
 - 15.5 The program requires candidates to demonstrate an understanding of how Deaf cultural perspectives are represented in artifacts and products of American Deaf culture, including interactions with and attitudes toward technology.
 - 15.6 The program requires candidates to demonstrate an understanding of the similarities and differences between social, historical and artistic traditions in American Deaf culture and other cultures, including other Deaf cultures.

Standard 16: Language and Communications: Receptive Comprehension

The program requires candidates demonstrate proficiency in the comprehension of American Sign Language (ASL) discourse as described in the Foreign Language Framework for California Public Schools, Kindergarten through Grade Twelve (2003). The program requires candidates demonstrate an understanding of the main ideas and significant details of ASL discourse in a variety of authentic contexts both formal and informal. The program requires candidates to make deductive and inductive references based on information contained in ASL discourse, including interpreting the cultural context of a message or conversation. The program requires candidates to analyze and evaluate ASL discourse in relation to its purpose, context, and point of view, including evaluating the social and cultural appropriateness of the language used.

Required Elements:

- 16.1 The program requires candidates to demonstrate the ability to understand ASL discourse for various purposes in different contexts, including a variety of message types and levels of formality, and to accurately comprehend ideas and vocabulary across a range of content, including art, literature, politics, society, and current events, as well as everyday communications.
- 16.2 The program requires candidates to make deductive and inductive inferences based on information contained in ASL discourse, including interpreting the cultural context of a message or conversation.
- 16.3 The program requires candidates to demonstrate the ability to think critically about ASL discourse and to evaluate it in relation to stylistic variations and social relationships, as well as the signer's purposes, assumptions, and intended audience.

Standards of Quality and Effectiveness for Single Subject Matter Programs in Languages Other Than English (LOTE) Standards: American Sign Language (Continued)

Standard 17: Language and Communication: Expressive Production

The program requires candidates of ASL to demonstrate proficiency in the production of American Sign Language (ASL) discourse as described in the Foreign Language Framework for California Public Schools, Kindergarten through Grade Twelve (2003). Candidates demonstrate the ability to communicate in ASL for various purposes in different contexts, employing a variety of message types and communication strategies. Candidates communicate clearly and accurately, participate effectively in most formal and informal signed conversations on practical, social, professional, and abstract topics, and are able to narrate and describe in detail across multiple dimensions of time.

Required Elements:

- 17.1 The program requires candidates to accurately express ideas in culturally appropriate language across a range of content, including art, literature, politics, society, and current events, as well as everyday communications and interactions.
- 17.2 The program develops candidates' abilities to use ASL to communicate effectively in both formal and informal situations, demonstrating fluency and correct articulation, a wide range of vocabulary, and inflectional and linguistic structures.
- 17.3 The program prepares candidates to use ASL for different communicative purposes, including narrating, requesting, persuading, comparing and contrasting.

Standard 18: Connections to Other Disciplines and Language Communities

The program builds upon "Varied Teaching Strategies" (Standard 5), incorporating recent developments in language acquisition approaches. The program also implements a variety of contextualized authentic teaching and learning experiences, using media and various other means such as internet-based, community-based and other related strategies. The program provides activities that enable candidates to interact with the larger cultural communities associated with signed languages in order to broaden their perspectives and experience base for language learning and teaching. Candidates demonstrate the ability to relate ASL to other disciplines.

Standards of Quality and Effectiveness for Single Subject Matter Programs in Languages Other Than English (LOTE) Standards: American Sign Language (Continued)

Required Elements:

- 18.1 The program faculty implements a variety of technology-assisted teaching and learning experiences that assist students to identify and interact with the local, regional, and international language communities associated with signed languages.
- 18.2 The program integrates content from other disciplines to strengthen interdisciplinary competency in ASL.
- 18.3 The program requires candidates to analyze the role and importance of media and technology in communication within the Deaf community and in ASL.
- 18.4 The program provides candidates with information about career opportunities using the signed language(s), as well as about other professional opportunities related to language competency.
- 18.5 The program facilitates the interaction of candidates with local resources and community events that help to deepen and broaden candidates' language and cultural background for teaching and learning.