

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

**A Handbook for
Teacher Educators
&
Program Reviewers**



**2006
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California Commission on Teacher Credentialing

Arnold Schwarzenegger, Governor
State of California

2006

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Foreword

One of the purposes of education is to enable students to learn the important subjects of the school curriculum so they can further their professional goals and function effectively in work, society and family life. Each year in California, hundreds of students enroll in Health Science classes with teachers who are certified by the Commission on Teacher Credentialing (CTC) to teach those classes in public schools. The extent to which students learn to engage in and utilize Health Science depends substantially on the preparation of their teachers in Health Science and the quality of the teaching of Health Science.

The Commission is the agency of California government that licenses teachers and other professionals who serve in the public schools. As the policymaking body that establishes and maintains standards for the education profession in the state, the Commission is concerned with the quality and effectiveness of the preparation of teachers and other school practitioners. On behalf of the education profession and the general public, the Commission has an important responsibility to establish and implement strong, effective standards of quality for the preparation and assessment of credential candidates.

California teacher candidates are required to demonstrate competence in the subject matter they will be authorized to teach. Candidates for the Single Subject Teaching Credential 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-adopted subject matter examination(s) (Education Code sections 44280 and 44310). Because they satisfy the same requirement, these two options are to be as aligned and congruent as possible.

However, the substance and relevance of the single subject matter program standards and the validity of examination specifications (i.e., subject matter requirements) is not permanent. The periodic reconsideration of subject matter program standards and the need for periodic examination validity studies are related directly to one of the Commission's fundamental missions: to provide a strong assurance that teaching credentials issued by the Commission are awarded to individuals who have the knowledge, skills, and abilities that are needed in order to succeed in public school teaching positions in California. Best professional practice related to the program standards and the legal defensibility of the examination specifications require that the standards and specifications be periodically reviewed and rewritten, as job requirements and expectations change over time (Education Code sections 44225i, j, 44257, and 44288).

In the mid-1990s, the Commission developed and adopted standards for single subject matter preparation programs and, at the same time, specifications for the single subject matter examinations. This work was based on the advice of subject matter advisory panels and data from validity studies, and resulted in program standards and examination specifications that were valid and closely aligned with each other. Those subject matter standards and specifications were adopted by the Commission in 1998 and are still in use today. They are now being replaced by the subject matter requirements and single subject matter standards adopted by the Commission in 2006, as presented in this handbook.

The Commission's responsibility for establishing high standards for teachers is based, in part, on three major pieces of legislation. In 1988, 1992 and 1998 the Legislature and the governor enacted legislation sponsored by the Commission that strengthened the professional role of the Commission and enhanced its authority to establish rigorous standards for the preparation and assessment of prospective teachers. These reform laws were Senate Bills 148 (Chapter 1355, Stats. 1988), 1422 (Chapter 1245, Stats. 1992) and 2042 (Chap. 548, Stats.1998). As a result, the Commission has taken on new responsibilities for establishing and maintaining rigorous levels of quality in teacher preparation and competency for beginning teachers. To implement these three statutes, the CTC has developed new standards, subject matter requirements and other policies collaboratively with representatives of postsecondary institutions, teachers and administrators in public schools, and statewide leaders involved in public education. This work was done in alignment with the State Board-adopted academic content standards and/or frameworks for K-12 students, and, as required by SB 2042 (Chap. 548, Stats.1998), the K-12 student academic content standards are reflected in the Commission's teacher preparation and subject matter preparation program standards.

The revision of Commission standards pursuant to SB 2042 (Chap. 548, Stats.1998) was undertaken in three phases. Single subject matter advisory panels were established to assist in this important work. The first two phases of single subject matter advisory panels addressed the content areas of English, mathematics, science, social science, art, music, languages other than English, and physical education. These panels completed their work over a two year period from 2001-2003. The third and final phase of single subject matter panels was accomplished in 2004, and addressed the subject areas of agriculture, business, health science, home economics, industrial and technology education, and languages other than English: American Sign Language. The new subject matter standards developed by all of the panels were grounded in and aligned with the academic content standards for California K-12 students.

Part 1: Introduction to Subject Matter Program Standards

A. The Commission's Responsibility for Program Standards

The Commission fulfills one of its responsibilities to the public and to the profession by developing, adopting and implementing standards of program quality and effectiveness. In the process of upholding high standards for the preparation of teachers, the Commission also respects the considered judgments of educational institutions and professional educators, and holds educators accountable for excellence. The premises and principles outlined below reflect the Commission's approach to fulfilling its responsibilities under the law. The Commission asked the single subject advisory panels to apply these general principles to the development of standards for single subject matter programs.

- 1) *The status of teacher preparation programs in colleges and universities should be determined on the basis of standards that relate to significant aspects of the quality of those programs.*
- 2) *There are many ways in which a teacher preparation program could be excellent.*
- 3) *The curriculum of teacher preparation plays a central role in a program's quality.*
- 4) *Teacher preparation programs should prepare candidates to teach the public school curriculum effectively.*
- 5) *In California's public schools, the student population is so diverse that the preparation of educators to teach culturally diverse students cannot be the exclusive responsibility of professional preparation programs in schools of education.*
- 6) *The curriculum of a teacher preparation program should be based on an explicit statement of purpose and philosophy. An excellent program also includes student services and policies such as advisement services and admission criteria.*
- 7) *The assessment of each student's attainments in a teacher preparation program is a significant responsibility of the institution that offers the program.*
- 8) *The Commission's standards of program quality allow quality to assume different forms in different environments.*
- 9) *The Commission's standards of program quality are roughly equivalent in breadth and importance.*
- 10) *Whether a particular program fulfills the Commission's standards is a judgment that is made by professionals who have been trained in interpreting the standards.*

1. Overview of Standards for Preliminary Teacher Preparation Programs

The standards reforms initiated by SB 2042 (Chap. 548, Stats. 1998) began with the simultaneous development of standards for preliminary teacher preparation programs and for teacher induction programs. The advisory panel appointed by the Commission that developed these two sets of standards was charged with developing the following three policy documents for review and consideration by the Commission:

- New standards of quality and effectiveness for preliminary teacher preparation programs;
- Teaching Performance Expectations that would serve as the basis for evaluating the competence of teacher candidates on teaching performance assessments embedded in preparation programs; and
- New standards of quality and effectiveness for professional teacher induction programs.

Following their adoption by the Commission in 2001, these three sets of standards initiated structural changes in the teacher credentialing system, as follows:

- alignment of all teacher preparation standards with the state-adopted academic content standards and performance levels for K-12 students, and with the *California Standards for the Teaching Profession (CSTP)*;
- inclusion of a teaching performance assessment in preliminary multiple and single subject teacher preparation programs; and
- a required induction period of support and formative assessment for all first and second year multiple and single subject teachers.

In addition to these structural and thematic shifts in the Commission's credentialing system and standards, SB 2042 (Chap. 548, Stats. 1998) replaced the Professional Clear Credential course requirements in health, mainstreaming and technology with a requirement that essential preparation in these three areas be addressed in both the preparation and the induction standards. Follow-up legislation in 1999, AB 1059 (Chap. 711, Stats. 1999) required that new standards for preparation and induction programs include preparation for all teachers to teach English learners in mainstream classrooms. The subject matter standards in this handbook have been designed to complement the SB 2042 standards for programs of pedagogical preparation.

2. Standards for Subject Matter Preparation Programs for Prospective Teachers

In California, subject matter preparation programs for prospective teachers are not the same as undergraduate degree programs. Postsecondary institutions govern academic programs that lead to the awarding of degrees, including baccalaureate degrees in Health Science, whereas the Commission sets standards for academic programs that lead to the issuance of credentials, including the Single Subject Teaching Credential in Health Science. An applicant for a teaching credential must have earned a Bachelor's degree from an accredited institution, but the degree may be in a subject other than the one to appear on the credential. Similarly, degree programs for undergraduate students in health science may or may not fulfill the Commission's standards for subject matter preparation. Single subject candidates who complete an approved subject matter program that satisfies the standards meet the subject matter requirement to qualify for the Single Subject Credential in Health Science.

3. The Standards Development Process

The Commission's process for standards development includes the establishment of advisory panels that develop and recommend program standards to the Commission. As this process was applied to the development of subject matter program standards, each panel consisted of:

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

During the third phase of standards development, twelve panel members were appointed to the Agriculture Panel; twelve members were appointed to the Languages Other than English: American Sign Language Panel; eighteen members were appointed to the Business Panel; thirteen members were appointed to the Health Science Panel; fourteen members were appointed to the Home Economics Panel; and fourteen members were appointed to the Industrial and Technology Education Panel. These panels began their work in 2004 with a written charge that described their responsibilities for identifying the subject-specific knowledge, skills, and abilities (SMRs) which form the basis of the content required in Commission-approved subject matter preparation programs for teacher candidates. The SMRs for each of these content areas were approved by the Commission at its January 2005 meeting.

a. Essential Reference Documents for Subject Matter Panels

The subject matter panels used a number of documents as primary resource references for their work. The documents listed below were essential for the phase three panels' use in developing the draft program standards that were subsequently adopted by the Commission.

- The draft academic content standards for K-12 students and/or frameworks approved by the California State Board of Education (2005)
- The Commission-approved (1996) *Standards of Quality and Effectiveness for Subject Matter Programs in Agriculture, Languages Other Than English, Business, Health Science, Home Economics, and Industrial and Technology Education and Handbooks for Teacher Educators and Program Reviewers* in each of the academic areas (1999)
- The *Standards of Program Quality and Effectiveness for the Subject Matter Requirements for the Multiple Subject Teaching Credential* (Sept. 2001)
- The *Standards of Quality and Effectiveness for Preliminary Teacher Preparation Programs* (Sept. 2001, revised 2003)
- The national subject matter standards for agriculture, languages other than English: American Sign Language, business, health science, home economics, and industrial and technology education
- Other important state and national studies and publications relevant to the subject areas.

The State Board-adopted K-12 student academic content standards and/or frameworks were the central documents used by the panels. In 2002, the first phase of subject matter advisory panels had identified six standards contained within the 1992 standards documents that were common to all of the subject matter standards, and had added several additional standards based on the SB 2042 reform (Chap. 578, Stats. 1998). This process resulted in the development and approval by the Commission of ten standards “common to all” programs that were incorporated within the specific program standards for each of the single subject area standards developed in phase three. In 2010 the ten Standards Common to All were revised and replaced with two Standards Common to All.

The *Subject Matter Requirements for the Multiple Subject Teaching Credential* was also an important document used by the panels. In some cases the multiple subject standards language and the organization of the standards were incorporated by the panels. The standards of the national professional organizations also served as a guide and provided a comprehensive perspective for panel members.

b. Field Review of Draft Standards

The single subject matter standards developed by the phase three advisory panels and subsequently adopted by the Commission were formatted to align with the SB 2042 teacher preparation. In this new format the broad conceptual standard is presented, followed by Program Guidance for the standard which further articulates the concepts contained within the standard.

Early in 2004 the Commission conducted a field review of the draft single subject matter standards. The draft standards were mailed to all deans of education, directors of teacher education programs, and single subject coordinators at all Commission-accredited four-year institutions in California; to learned societies and professional organizations; and to funded subject matter projects, teacher organizations, school districts, and county offices of education. The draft standards were sent as well to over one hundred selected K-12 public school teachers and college/university professors. The standards were also placed on the Commission's web site with instructions on how to download the standards, complete the field review survey, and return survey responses to the Commission.

Standards review surveys were returned to the Commission by February 2004. Commission staff tallied all responses and listed all comments on a master survey form for each subject matter area. Revisions made by the panels as a result of the field review included providing clarifications and examples, and reorganizing content. Elements that were consistent with the state's K-12 student academic content standards remained unchanged.

c. Adoption of Standards by the Commission

The revised subject matter standards for all of the phase three subject areas were adopted by the Commission at its meeting of September 2006.

B. Alignment of Subject Matter Program Standards and Subject Matter Assessments

The Teacher Preparation and Licensing Act of 1970 (Ryan Act) established the requirement that candidates for teaching credentials verify their knowledge of the subjects they intend to teach. Candidates for single subject teaching credentials may satisfy this subject matter requirement by completing approved single subject matter programs or by passing subject matter examinations that have been adopted by the Commission. Senate Bill 2042 (Chap. 548, Stats.1998) required that subject matter programs and examinations for prospective teachers be aligned with K-12 student standards and frameworks.

To achieve this alignment and congruence, the Commission asked the subject matter advisory panels to develop subject matter requirements (SMRs) that would be consistent in scope and content with the K-12 standards and frameworks. At the time the Commission adopted the phase three subject matter program standards in 2006, it also adopted the subject matter requirements appended to the standards document. College and university faculty and administrators are urged

to examine these SMRs as a source of information about essential content that should be included in subject matter preparation programs, as these represent the scope of content on which both the program standards and the subject matter examinations are based and to which the program standards and the examinations are aligned.

Early in 2004, the Commission began the process of developing assessments that were aligned with the K-12 requirements. These assessments are known as the “California Subject Examinations for Teachers (CSET),” and are administered by an external contractor under the Commission’s direction. In the six subject areas, multiple-choice and constructed-response test items were drafted, based on the subject matter requirements. The test items were reviewed by both the Bias Review Committee and the appropriate subject matter advisory panel and revised as necessary. The CSET examinations for the phase three subject areas of agriculture, business, health science, home economics, industrial and technology education, and languages other than English: American Sign Language were first administered in fall 2005, and these assessments replaced the SSAT and Praxis II examinations in these content areas.

C. Single Subject Teaching Credentials

The Single Subject Teaching Credential authorizes an individual to teach classes in that content area in departmentalized settings. The holders of these credentials may teach at any grade level, but the great majority of the classes in these subjects occurs in grades seven through twelve. The Commission asked the subject matter advisory panels to recommend new policies to ensure that future teachers are prepared to instruct in the subject areas most commonly taught in secondary public schools.

D. Contacting the Commission

The Commission periodically reviews and updates its policies, in part on the basis of responses from colleges, universities, school districts, county offices, professional organizations and individual professionals. The Commission welcomes all comments and questions about the standards and other policies in this handbook. For further information, please contact the Commission at the following address:

Commission on Teacher Credentialing
Professional Services Division
1900 Capitol Avenue
Sacramento, California 95814-4213

Part 2: Standards of Quality and Effectiveness for the Subject Matter Program in Health Science

A. Overview and Introduction to the Handbook

This section of the handbook is organized into three parts. Part 1 of the handbook provides the background and context for the health science program standards. Part 2 of the handbook presents the twenty program standards as well as the subject matter requirements for health science. Part 3 of the handbook provides information about implementation of the health science program standards in California colleges and universities.

1. Contributions of the Health Science Subject Matter Advisory Panel

The Commission on Teacher Credentialing is indebted to the Health Science Subject Matter Advisory Panel for the development of the *Standards of Quality and Effectiveness for the Subject Matter Program in Health Science*. The Commission believes strongly that the standards in this handbook will improve the teaching and learning of Health Science in California's public schools.

2. Introduction by the Health Science Subject Matter Advisory Panel

In 1998, SB 2042 (Chap. 548, Stats. 1998) established updated criteria for the preparation of California teachers. This legislation required the Commission on Teacher Credentialing (CTC) to align subject matter program standards for university preparation programs as well as subject matter examinations in each discipline with the identified subject matter requirements for that discipline. The *Health Framework for California Public Schools: Kindergarten Through Grade Twelve (2003)* includes content from the previous state framework (1994) and updated information on curriculum development, health literacy, positive asset development among youths, research-based programs and special student populations. Essentially, this document provides the educational foundation that California school districts and individual teachers use in designing and implementing school health education programs.

In 2004, the CCTC began the process to update the subject matter requirements in health science by appointing a Health Science Subject Matter Panel. The panel, made up of thirteen members, included credentialed health science teachers and university faculty with extensive experience in Health Science teacher preparation. Two consultants from the California Department of Education provided valuable insights to the panel. Additionally, professional staff from the CTC and National Evaluation Systems (NES) met with the panel throughout the process.

In preparation for the development of health science subject matter requirements, committee members reviewed a number of important documents including: *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)*; various documents from the Centers for Disease Control and Prevention; and state and national standards and guidelines for school health.

The panel felt strongly that the primary document guiding the development of health science subject matter requirements should be the *Health Framework for California Schools:*

Kindergarten Through Grade Twelve (2003). Of particular interest to the panel was the health content identified as appropriate for each grade level and the overview of the Coordinated School Health System. The Coordinated School Health System includes eight components: Health Education, Physical Education, Health Services, Nutrition Services, Psychological and Counseling Services, Safe and Healthy School Environment, Health Promotion for the Staff, and Parent and Community Involvement. The panel focused on subject matter requirements appropriate for entry level teachers of middle/high school health, within the context of a Coordinated School Health System.

After the development of the subject matter requirements, a draft document was circulated to K-12 teachers and college faculty throughout California as part of a content validity study. The panel reviewed the responses and made minor revisions to the subject matter requirements. Finally, the Health Science Subject Matter Requirements were submitted to the CTC and approved in 2005.

As the panel examined contemporary health content appropriate for entry-level health science teachers, it was clear that health content was only one criterion desirable in an entry-level teacher. Entry-level health science teachers can contribute to the goals of general education through a focus on the development of health literacy. According to the *Health Framework for California Public Schools: Kindergarten Through Grade Twelve (2003)*, “...developing health literacy through a student-centered curriculum will enhance school-reform efforts and the understanding students have of health” (p. 3). Prospective health science teachers should demonstrate their ability to integrate higher-level thinking skills within the context of various health topics. Prospective teachers also should demonstrate exemplary communication skills effective in motivating California’s diverse youth to adopt a healthy lifestyle.

In addition to subject matter competency, it is important that entry-level health science teachers demonstrate effective teaching skills and practices. To that end, prospective teachers should observe exemplary health science teachers in middle schools, high schools, and university settings where faculty integrate a variety of instructional strategies within the health science discipline.

Approved university Health Science Subject Matter Programs must have designated faculty with extensive preparation and experience in school health and in teacher preparation. Program coordination, student advisement, and systematic evaluation are key components of each approved program. The successful Health Science Subject Matter Program seeks input and advice from its graduates, exemplary health science teachers, and other professionals in teacher education.

In summary, effective subject matter preparation in health science recognizes the *California Health Framework for Public Schools: Kindergarten Through Grade Twelve (2003)* as the defining document both for K-12 students and for the effective preparation of prospective California teachers. Further, each program focuses on a common goal to enhance the health of California’s children and youth through the preparation of quality health teachers.

3. Definitions of Key Terms

California state law authorizes the California Commission on Teacher Credentialing to set standards and requirements for preparation programs (Education Code sections 44225a, i, j; 44310; and 44311). The following key terms are used in this handbook.

Preconditions

A precondition is a requirement for initial and continued program approval. Unlike standards, preconditions specify requirements for program compliance, not program quality. Commission staff determines whether a program complies with the adopted preconditions on the basis of a program document provided by the college or university. In the program review sequence, a program that meets all preconditions then undergoes a more intensive review to determine if the program's quality meets the Commission's standards.

Standards

Standards are statements of program quality adopted by the Commission on Teacher Credentialing to describe acceptable levels of quality in programs of subject matter study offered by regionally-accredited colleges and universities that award baccalaureate degrees. Each standard is elaborated by Program Guidance for that standard. Programs must meet all of the applicable standards for both initial and continuing approval of a subject matter program by the Commission. The Commission determines whether a program satisfies a standard on the basis of an intensive review of all available information provided by the program sponsor related to the standard.

Program Guidance

Program guidance is provided for each standard to help institutions in developing programs that meet the standards, and are also used by program review panels in judging the quality of a program in relation to a given standard. Within the overall scope of a standard, Program Guidance identifies what the Commission believes are the important dimensions of program quality with respect to each standard. In determining whether a program fulfills a given standard, the review panel considers the information provided by the program in response to each statement of that standard. When the review panel finds that a program has met each standard, the program is then recommended to the Commission for approval.

B. The Health Science Standards

1. Preconditions for the Approval of Subject Matter Programs in Health Science

To be approved by the Commission, a Subject Matter Program in Health Science 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 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 that identifies which courses meet which standards.

Institutions may determine whether the standards 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 all meet 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.

2. Standards of Quality and Effectiveness for the Subject Matter Program in Health Science

a. Standards Common to All Single Subject Matter Preparation Programs

Standard 1: Program Design

Subject matter programs are based on an explicit statement expressing the purpose, design, and expected outcomes of the program. The program curriculum builds on the K-12 State-adopted academic content standards, with student outcomes and assessments aligned to the subject matter requirements. The program provides prospective teachers with conceptual knowledge of the subject matter, develops academic literacy and discipline-based fluency, addresses issues of equity and diversity, and exposes prospective teachers to a variety of learning experiences appropriate for the discipline.

Standard 2: Program Resources and Support

The program sponsor allocates resources to support effective program coordination, which includes advising students, facilitating collaboration among stakeholders, and overseeing program review. Ongoing review processes use assessments of the prospective teachers and a variety of data such as input from stakeholders and other appropriate measurements for review and evaluation of the subject matter program.

b. Health Science Program Standards

Standard: 3: 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).

The following statements no longer require a direct response but should be used for guidance in responding to the standards directly. Each statement of the standard should be responded to instead, by providing a brief description, a few examples and evidence citations for how the program meets the standard. Please limit the total response to the standard to 1-2 pages.

- 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.
- 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).
- The program provides instruction on the laws relating to student health and safety, including confidentiality and reporting suspected abuse or neglect.
- The program provides information on how laws, regulations, and local board policies affect the content of school health education.
- The program addresses professional health educator code of ethics.
- The program includes knowledge of human anatomy and physiology, emphasizing body systems.
- The program requires candidates to compare and contrast influences on health behavior (e.g., social learning theory, stages of change) relevant to instruction.
- 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.
- The program addresses current trends and their impact on health education (e.g., resiliency, asset development, skills-based instruction, and research-based programs).
- The program includes current ethical issues and philosophies to health science curriculum.

Standard 4: Human Growth and Development

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

The following statements no longer require a direct response but should be used for guidance in responding to the standards directly. Each statement of the standard should be responded to instead, by providing a brief description, a few examples and evidence citations for how the program meets the standard. Please limit the total response to the standard to 1-2 pages.

- 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).
- The course work includes knowledge of psychosocial characteristics over the life cycle (e.g. emotional maturity, self-identity, and self-actualization).
- The course work includes basic knowledge of individual hygiene practices as related to psychosocial growth and development.
- 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.
- 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 5: 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.

The following statements no longer require a direct response but should be used for guidance in responding to the standards directly. Each statement of the standard should be responded to instead, by providing a brief description, a few examples and evidence citations for how the program meets the standard. Please limit the total response to the standard to 1-2 pages.

- The program includes knowledge of the historical and modern-day impact of common chronic diseases on human populations.
- 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.
- The program requires candidates to identify primary, secondary, and tertiary approaches for preventing common chronic diseases.
- 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.
- 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.
- The course work identifies the primary, secondary, and tertiary approaches for preventing common communicable diseases (e.g., immunizations, risk-reduction strategies, and antibiotics).

Standard 6: Nutrition and Fitness

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

The following statements no longer require a direct response but should be used for guidance in responding to the standards directly. Each statement of the standard should be responded to instead, by providing a brief description, a few examples and evidence citations for how the program meets the standard. Please limit the total response to the standard to 1-2 pages.

- 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.
- The course work includes knowledge of dietary guidelines for different populations (e.g., based on age, culture, and medical conditions).
- The program incorporates the principles of weight management and its importance to overall health and wellness.
- The program addresses the risk factors and consequences associated with obesity.
- The course work includes knowledge of eating disorders and their relationship to individual health and body image.
- The program includes food safety principles.
- The course work includes knowledge of the components and methods of self-assessment for physical fitness (e.g., endurance, strength, and flexibility).
- The course work includes knowledge of personal health behaviors (e.g., sleep, exercise, and stress management) that have a positive impact on lifelong health.
- The course work requires candidates to develop an appropriate personal nutrition and fitness plan, including strategies for self-assessment, goal setting, and maintenance.

Standard 7: 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.

The following statements no longer require a direct response but should be used for guidance in responding to the standards directly. Each statement of the standard should be responded to instead, by providing a brief description, a few examples and evidence citations for how the program meets the standard. Please limit the total response to the standard to 1-2 pages.

- 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.
- 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.
- The course work incorporates knowledge of positive youth development, asset development, and resiliency, and their relationship to lifelong well being.
- The course work identifies strategies for dealing with anger, grief, loss, and bereavement in a variety of situations (e.g., individual, family, and group).
- 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.
- Candidates study the nature of depression and its causes, symptoms, and treatment options.
- The course work identifies risk factors for suicide and strategies for intervention.

Standard 8: 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.

The following statements no longer require a direct response but should be used for guidance in responding to the standards directly. Each statement of the standard should be responded to instead, by providing a brief description, a few examples and evidence citations for how the program meets the standard. Please limit the total response to the standard to 1-2 pages.

- The course work includes knowledge of alcohol, tobacco, and other drugs.
- Candidates study the differences between responsible and irresponsible drug use.
- The course work instructs candidates in the signs of drug misuse and abuse and the physiological process and stages of drug addiction.
- The 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.
- The course work includes resources that identify local, regional and state drug use trends.
- The course work identifies substance abuse prevention strategies (e.g., decision-making, finding healthy alternatives, and avoiding risky situations).
- 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 9: Family Life and Interpersonal Relationships

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

The following statements no longer require a direct response but should be used for guidance in responding to the standards directly. Each statement of the standard should be responded to instead, by providing a brief description, a few examples and evidence citations for how the program meets the standard. Please limit the total response to the standard to 1-2 pages.

- The course work in the program includes knowledge and understanding of diverse family structures.
- 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.
- Candidates study how interpersonal, cultural, and social dynamics (e.g., intimacy, intergenerational relationships, and parenting) may affect a family.
- 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.
- 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.
- The program courses provide knowledge of developmental changes and the characteristics of puberty and menarche.
- 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).
- 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.
- The program course work identifies STDs and methods for their prevention or risk reduction.

Standard 10: Risk Reduction and Safe Health Practices

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.

The following statements no longer require a direct response but should be used for guidance in responding to the standards directly. Each statement of the standard should be responded to instead, by providing a brief description, a few examples and evidence citations for how the program meets the standard. Please limit the total response to the standard to 1-2 pages.

- 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).
- The course work includes knowledge of intentional injuries (e.g., bullying, assault, child abuse, and hate crimes) and risk reduction strategies.
- The course work includes hazards (e.g., fire, poison, and traffic) and risk reduction strategies.
- Candidates are instructed on emergency care and universal precautions.

Standard 11: 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.

The following statements no longer require a direct response but should be used for guidance in responding to the standards directly. Each statement of the standard should be responded to instead, by providing a brief description, a few examples and evidence citations for how the program meets the standard. Please limit the total response to the standard to 1-2 pages.

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

Standard 12: 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.

The following statements no longer require a direct response but should be used for guidance in responding to the standards directly. Each statement of the standard should be responded to instead, by providing a brief description, a few examples and evidence citations for how the program meets the standard. Please limit the total response to the standard to 1-2 pages.

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

c. Subject Matter Requirements for Prospective Teachers of Health Science

(1.) Introduction

Subject matter requirements represent the body of knowledge, skills and abilities expected of teachers of health science in the public schools. The subject matter requirements form the basis for both program standards and examination specifications for health science.

(2.) Content Domains for Subject Matter Knowledge and Skills in Health Science

Domain 1. Foundations of Health Education

Candidates demonstrate an understanding of the professional, scientific, and behavioral foundations in alignment with the Health Framework for California Public Schools (2003). Candidates must demonstrate a fundamental understanding of the professional and legal responsibilities of health educators, of the scientific and behavioral principles that are the basis of health science, and of the philosophies of health education.

1.1 Professional Foundations

- a. Demonstrate knowledge of the components and purpose of a Coordinated School Health Program (CSHP)/System.
- b. Describe the importance and relevance of Healthy People 2010 for the health educator.
- c. Interpret health-related data from various sources (e.g., the California Healthy Kids Survey [CHKS], the Youth Risk Behavior Surveillance System [YRBSS], Centers for Disease Control and Prevention [CDC]).
- d. Identify resources for keeping informed about current knowledge in health science (e.g., Internet, professional journals, local health agencies, professional organizations).
- e. Understand the role of the health education professional in communicating, promoting, and advocating for a healthy school environment.

1.2 Scientific and Behavioral Foundations

- a. Demonstrate a basic knowledge of human anatomy and physiology, emphasizing body systems.
- b. Identify behavior change theories (e.g., social learning theory, stages of change) relevant to health instruction.
- c. Demonstrate knowledge of current trends in health education (e.g., resiliency, asset development, skills-based instruction, research-based programs).

1.3 Legal Responsibilities

- a. Demonstrate knowledge of laws relating to student health and safety, including confidentiality and reporting suspected abuse or neglect.
- b. Demonstrate awareness of how laws, regulations, and local board policies affect the content of school health education.

(Challenge Standards for Student Success: Health Education [1998]: Standards 2, 6, 9. Health Science Teacher Preparation in California: Standards of Quality and Effectiveness for Subject Matter Programs [1999]: Standards 2–6, 8–12.)

Domain 2. Human Growth and Development

Candidates demonstrate an understanding of physical and psychosocial growth and development in alignment with the Health Framework for California Public Schools (2003). Candidates must demonstrate a fundamental understanding of human growth patterns, characteristics of developmental stages over the life cycle, and factors that affect psychosocial growth and development.

2.1 Physical Growth and Development

- a. Demonstrate knowledge of the physical patterns of change and development that occur over the life cycle (e.g., infancy, childhood, adolescence, adulthood).
- b. Demonstrate basic knowledge of individual hygiene practices.

2.2 Psychosocial Growth and Development

- a. Demonstrate knowledge of factors influencing psychosocial growth and development (e.g., race, gender, age, ethnicity, culture, special needs) in relation to health, disease, and health behaviors.
- b. Identify cognitive, emotional, and social changes that occur over the life cycle (e.g., in body image, self-esteem, interpersonal relationships).

(Challenge Standards for Student Success: Health Education [1998]: Standards 5–8.
Health Science Teacher Preparation in California: Standards of Quality and Effectiveness
for Subject Matter Programs [1999]: Standards 2, 3, 6, 12.)

Domain 3. Chronic and Communicable Diseases

Candidates demonstrate an understanding of chronic and communicable diseases in alignment with the Health Framework for California Public Schools (2003). Candidates must demonstrate a fundamental understanding of the risk factors for, characteristics of, and prevention of chronic and communicable diseases.

3.1 Chronic Diseases

- a. Demonstrate knowledge of risk factors for and characteristics of common chronic diseases (e.g., heart disease, asthma, diabetes, cancer), including their demographic distributions.
- b. Identify primary, secondary, and tertiary approaches for preventing common chronic diseases.
- c. Identify the historical and modern-day impact of common chronic diseases on human populations.

3.2 Communicable Diseases

- a. Demonstrate knowledge of risk factors for and characteristics of common communicable diseases (e.g., HIV/AIDS, sexually transmitted diseases [STDs], hepatitis, tuberculosis), including their means of transmission and demographic distributions.
- b. Identify primary, secondary, and tertiary approaches for preventing common communicable diseases (e.g., immunizations, risk-reduction strategies, antibiotics).
- c. Identify the historical and modern-day impact of communicable diseases (e.g., plague,

polio, tuberculosis, smallpox, HIV/AIDS) on human populations.

(Challenge Standards for Student Success: Health Education [1998]: Standard 2. Health Science Teacher Preparation in California: Standards of Quality and Effectiveness for Subject Matter Programs [1999]: Standard 11.)

Domain 4. Nutrition and Fitness

Candidates demonstrate an understanding of nutrition and physical fitness in alignment with the Health Framework for California Public Schools (2003). Candidates must demonstrate a fundamental understanding of relationships among nutrition, physical activity, and lifelong well-being.

4.1 Nutritional Bases of Human Health

- a. Demonstrate knowledge of the categories of essential nutrients (i.e., carbohydrates, fats, proteins, vitamins, minerals, and water), their sources in the diet, and consequences of their deficiency or excess.
- b. Interpret information on food labels.
- c. Demonstrate knowledge of dietary guidelines for different populations (e.g., based on age, culture, medical conditions).
- d. Demonstrate knowledge of how to develop an appropriate personal nutrition plan.
- e. Understand the principles of weight management and the importance of weight management to overall health and wellness.
- f. Understand the risk factors for and health risks associated with obesity.
- g. Demonstrate knowledge of eating disorders and their relationship to individual health and body image.

4.2 Physical Fitness and Health

- a. Demonstrate knowledge of the components of health-related fitness (e.g., endurance, strength, flexibility) and methods of self-assessment.
- b. Demonstrate knowledge of the effects of exercise and personal health behaviors (e.g., sleep, rest, relaxation) that have a positive impact on body systems and on lifelong health.
- c. Demonstrate knowledge of how to develop an appropriate personal fitness plan, including strategies for self-assessment, goal-setting, and maintenance.

(Challenge Standards for Student Success: Health Education [1998]: Standards 1, 7. Health Science Teacher Preparation in California: Standards of Quality and Effectiveness for Subject Matter Programs [1999]: Standards 3, 4, 11.)

Domain 5. Mental and Emotional Health

Candidates demonstrate an understanding of the foundations of mental and emotional well-being in alignment with the Health Framework for California Public Schools (2003). Candidates must demonstrate a fundamental understanding of the role of mental and emotional health in maintaining lifelong well-being and of how to adapt positively to change.

5.1 Foundations of Mental and Emotional Health

- a. Identify the basic components of mental and emotional health (e.g., self-confidence, goal setting, coping skills, effective communication skills).
- b. Identify the relationships among mental, emotional, and physical health.
- c. Recognize the potential contributions of spirituality (e.g., purpose and meaning, connectedness, service to others, positive self-concept) to mental, emotional, and/or physical health.
- d. Demonstrate knowledge of positive youth development, asset development, and resiliency.
- e. Identify strategies for dealing with grief, loss, and bereavement in a variety of situations (e.g., individual, family, group).
- f. Identify strategies for dealing with anger in a variety of situations.

5.2 Stress, Depression, and Suicide

- a. Demonstrate knowledge of the causes, symptoms, and consequences of stress from various sources (e.g., peers, family, school, work) and of stress management techniques.
- b. Understand the nature of depression and its causes, symptoms, and treatment options.
- c. Identify risk factors for suicide and strategies for intervention.

(Challenge Standards for Student Success: Health Education [1998]: Standards 1, 6.
Health Science Teacher Preparation in California: Standards of Quality and Effectiveness for Subject Matter Programs [1999]: Standards 3, 7.)

Domain 6. Alcohol, Tobacco, and Other Drugs

Candidates demonstrate an understanding of drugs and of factors affecting their use, misuse, and abuse in alignment with the Health Framework for California Public Schools (2003). Candidates must demonstrate a fundamental understanding of drug classifications; the physical effects of drug use, misuse, and abuse; and the prevention, intervention, and treatment of drug abuse and addiction.

6.1 Drug Classifications and Effects on the Body

- a. Demonstrate knowledge of the categories of drugs (i.e., legal, illegal, over-the-counter, and prescription).
- b. Demonstrate knowledge of drug classifications (e.g., antibiotics, stimulants, depressants, hallucinogens) and the effects of each class of drug on the body.

6.2 Drug Use, Misuse, Abuse, and Addiction

- a. Distinguish between responsible and irresponsible use of over-the-counter and prescription drugs.
- b. Distinguish between responsible and irresponsible use of tobacco and alcohol.
- c. Identify signs of drug misuse, abuse, and addiction.
- d. Demonstrate knowledge of the physiological process and stages of drug addiction.
- e. Recognize the impact of drug abuse on relationships and family dynamics.
- f. Analyze factors contributing to the misuse and abuse of drugs (e.g., impact of the media, peer pressure).

6.3 Prevention, Intervention, and Treatment of Substance Abuse

- a. Identify and understand substance-abuse prevention strategies (e.g., decision making, finding healthy alternatives, avoiding risk situations).
- b. Demonstrate knowledge of intervention options (e.g., student assistance programs) and treatment options (e.g., inpatient, outpatient) for dealing with substance abuse.

(Challenge Standards for Student Success: Health Education [1998]: Standards 3, 4, 6, 7. Health Science Teacher Preparation in California: Standards of Quality and Effectiveness for Subject Matter Programs [1999]: Standards 3, 5, 6.)

Domain 7. Family Life and Interpersonal Relationships

Candidates demonstrate an understanding of family and interpersonal relationships and of reproductive health in alignment with the Health Framework for California Public Schools (2003). Candidates must demonstrate a fundamental understanding of family structures, family life education, interpersonal relationships, and human sexuality and reproductive health.

7.1 Family Structures and Family Life

- a. Demonstrate knowledge and understanding of diverse family structures.
- b. Recognize how interpersonal, cultural, and social dynamics (e.g., intimacy, intergenerational relationships, parenting) may affect a family.
- c. Identify and analyze potential sources of stress (e.g., divorce, blended families, homelessness, finances) within families.
- d. Recognize behaviors and strategies that reduce conflict and promote healthy family relationships.

7.2 Interpersonal Relationships

- a. Recognize varying levels of intimacy and commitment across relationships (e.g., friendship, dating, marriage).
- b. Identify characteristics of healthy and unhealthy relationships.
- c. Recognize effective techniques for communicating and building healthy relationships (e.g., assertiveness, active listening, "I" messages).
- d. Demonstrate knowledge of the causes of conflict and techniques for conflict resolution.
- e. Understand forms of internal and external peer pressure and identify possible responses.

7.3 Human Sexuality and Reproductive Health

- a. Demonstrate knowledge of developmental changes and the characteristics of puberty and menarche.
- b. Analyze factors that influence decisions about sexual activity (e.g., individual, family, and cultural values, peer and media influences).
- c. Demonstrate knowledge of family planning and methods of delaying or avoiding pregnancy (e.g., abstinence, contraception).
- d. Demonstrate knowledge of sexually transmitted diseases (STDs) and methods for their prevention or risk reduction.
- e. Identify factors (e.g., nutrition, drug use, heredity) that affect pregnancy, fetal development, and birth.

(Challenge Standards for Student Success: Health Education [1998]: Standards 2–6, 8.
Health Science Teacher Preparation in California: Standards of Quality and Effectiveness
for Subject Matter Programs [1999]: Standards 4, 6, 7.)

Domain 8. Consumer and Community Health

Candidates demonstrate an understanding of consumer and community health, intentional and unintentional injury, and emergency preparedness in alignment with the Health Framework for California Public Schools (2003). Candidates must demonstrate a fundamental understanding of the impact of culture, media, technology, and other factors on consumer health. They understand ways to promote and maintain positive and safe health practices and reduce the risk of injury and violence within the home, school, and community.

8.1 Consumer Health

- a. Identify appropriate health professionals and sources of health services for a variety of health-related needs.
- b. Identify health insurance options (e.g., health maintenance organizations, preferred provider organizations, Medi-Cal).
- c. Distinguish between reliable and unreliable sources of health-related information.
- d. Interpret and analyze advertising techniques and their influence on consumer behavior.
- e. Evaluate claims made for health products and services, and recognize quackery.
- f. Identify organizations and agencies concerned with consumer health protection.

8.2 Community Health

- a. Demonstrate knowledge of a variety of public and private community organizations and agencies that promote community health.
- b. Demonstrate knowledge of how cultural beliefs and practices may affect individual and community health behaviors (e.g., immunization, accessing health services).
- c. Demonstrate knowledge of health issues affecting special populations (e.g., migrant, homeless, uninsured).

8.3 Intentional and Unintentional Injury

- a. Demonstrate knowledge of sources of intentional injuries (e.g., bullying, assault, child abuse, hate crimes) and risk reduction strategies.
- b. Demonstrate knowledge of sources of unintentional injuries (e.g., fire, poison, traffic) and risk reduction strategies.
- c. Demonstrate knowledge of first aid and universal precautions.
- d. Demonstrate knowledge of the purpose and function of family, community, and school emergency preparedness plans.

(Challenge Standards for Student Success: Health Education [1998]: Standards 5, 7–9.
Health Science Teacher Preparation in California: Standards of Quality and Effectiveness
for Subject Matter Programs [1999]: Standards 7, 8, 10.)

Domain 9. Environmental Health

Candidates demonstrate an understanding of the relationships between humans and their environment in alignment with the Health Framework for California Public Schools (2003). Candidates must demonstrate a fundamental understanding of factors in natural and human environments that impact health and of ways to conserve natural resources and protect the environment.

9.1 People, Health, and the Environment

- a. Identify types of pollution, hazardous wastes, biohazards, and naturally occurring environmental hazards and their effects on health.
- b. Demonstrate knowledge of ways to prevent or minimize the effects of pollution and other environmental factors.
- c. Demonstrate knowledge of steps that can be taken to conserve natural resources and protect the environment.
- d. Demonstrate knowledge of organizations and agencies concerned with environmental health.

(Challenge Standards for Student Success: Health Education [1998]: Standards 5, 6. Health Science Teacher Preparation in California: Standards of Quality and Effectiveness for Subject Matter Programs [1999]: Standards 7, 11.)

(3.) Subject Matter Abilities Applicable to the Content Domains in Health Science

Candidates apply knowledge of behavioral and scientific principles to the content area of health science/health education and apply health-related skills across multiple health topics. They demonstrate problem-solving and critical-thinking skills that develop confidence in the decision making process and promote healthy behaviors.

Candidates recognize differences in individual growth and development and variation in culture and family life. They assess individual and community needs for health education by interpreting health related data about social and cultural environments. They differentiate between health education practices that are grounded on sound scientific research and those that are not research based. They identify opportunities for collaboration among health educators in all settings, including school and community health professions. They apply laws, regulations, and policies affecting school health education.

Candidates use their analytical skills to identify behaviors that enhance and/or compromise personal health and well-being and recognize the short-term and long-term effects of the lifestyle choices and habits of individuals. They apply a variety of risk assessment skills and prevention strategies to health related issues. They evaluate sources of health-related information and differentiate between reliable and unreliable sources.

Candidates demonstrate effective communication and advocacy skills as they relate to personal, family, and community health and health education needs. They understand the role of communication in interpersonal relationships and identify strategies that encourage appropriate expression. They emphasize the importance of the communication process, including listening, assertiveness, and refusal skills.

Part 3: Implementation of Standards of Quality and Effectiveness for Subject Matter Programs in Health Science

A. Standards Implementation Process

The 2006 *Standards of Quality and Effectiveness for Subject Matter Programs in Health Science* are part of a broad shift in Commission policies related to the preparation of professional teachers and other California educators resulting from the mandate of Senate Bill 2042 (Chap 548, Stats. 1998). This policy change insures high quality in educator preparation while at the same time providing for flexibility along 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.

1. Process for Cyclical Review and Improvement of Subject Matter Standards

The Commission will adhere to its established cycle of review and reconsideration of the *Standards of Quality and Effectiveness for Subject Matter Programs in Health Science* as well as in other subjects. The standards will be reviewed and reconsidered in relation to changes in academic disciplines, state-adopted K-12 student academic content standards, school curricula, and the backgrounds and needs of California K-12 students. Reviews of program standards will be based on the advice of subject matter teachers, college and university faculty, and curriculum specialists. All program documents will be reviewed by statewide teams of peer reviewers selected from among qualified K-12 and postsecondary professional educators. Prior to each review, the Commission will invite interested individuals and organizations to participate in the review process.

2. Process for Adoption and Implementation of Standards

Program sponsors have at least two years to transition from the current to the new subject matter program standards. Program documents should be submitted at the sponsor's earliest convenience to avoid a potential lapse in program approval status. Expiration dates of currently approved single subject matter programs are provided below. Each single subject matter program for single subject credentials must be submitted for review and approval in accordance with the new standards. No new programs written to the previous standards were allowed to be submitted to the Commission for approval following the September 2006 adoption of the new phase III standards.

Information about transition timelines for candidates, sunset and expiration dates for currently approved programs, and preconditions are provided by the Commission through Coded Correspondence to the field and by additional program transition documents as appropriate to the needs of the field. Program sponsors should check the Commission website (www.ctc.ca.gov) frequently for updates.

3. Transition and Implementation Timelines for Programs

a. Program Transition Timeline

By July 1, 2008, existing ("old") programs based on previous subject matter standards should be superseded by new Commission-approved programs that have met the new standards. Once a program based on the new standards receives Commission approval, all students not previously enrolled in the old program (i.e., all "new" students) should enroll in the new program. After

June 30, 2008, no “new” students should enroll in an “old” program, even if a new Commission-approved program in the subject is not available at that institution. Students who enrolled in an old program prior to July 1, 2008, may continue to complete the old program until July 1, 2012.

b. Program Implementation Timeline

- September 2006** Commission adoption of new subject matter program standards. No new subject matter programs in Health Science will be accepted for review in relation to the Commission's previous set of standards.
- January 2007** The Commission initiates ongoing technical assistance for developing new subject matter programs to meet the new standards.
- March 2007** The Commission initiates ongoing training for Program Reviewers. Qualified subject matter experts are prepared to review programs in relation to the standards.
- March 2007** Review and approval of programs under the new standards begin.
- 2007-09** Institutions submit programs for review on an ongoing basis. Once a “new” program is approved, all students who were not previously enrolled in the “old” program (i.e., all new students) must enroll in the new program. Students may complete an old program if they enrolled in that program 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 the previous 1998 standards must be superseded by new programs that have obtained Commission approval. After June 30, 2008, no new students may enroll in an old program, even if a new program is not yet available at the institution.
- 2007-12** The Commission continues to review program applications submitted in response to the standards and preconditions provided in this handbook. Programs submitting an application for review should provide the Commission with two qualified nominees who can serve as reviewers of other institutions’ program applications in order to expedite the review process.
- July 1, 2012** This is the final date for candidates to complete subject matter preparation programs approved under the previous 1998 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.

c. Implementation Timelines for Candidates

Based on the Commission's implementation plan, candidates for Single Subject Credentials in Health Science who do not plan to pass the subject matter examinations adopted by the Commission should enroll in subject matter programs that meet the Commission’s 2006

standards either (1) once a new program commences at their institution, or (2) before July 1, 2008, whichever occurs first. After a new program begins at an institution, no students may enroll for the first time in an “old” program (i.e. one approved under the previous set of standards). Regardless of the date when new programs are implemented, no students should enter old programs after June 30, 2008.

Candidates who enrolled in programs approved on the basis of prior 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.

4. Technical Assistance for Program Sponsors

Commission staff offers technical assistance for developing new programs and documents upon request by the sponsor of a preparation program. Program sponsors who are writing to new standards are advised to schedule a technical assistance meeting with staff at the earliest possible time. Topics of information at technical assistance meetings include:

- Explanation of the implementation plan adopted by the Commission
- Description of the steps in program review and approval
- Review of program standards and preconditions, as well as examples of implementing the standards
- Opportunities to discuss subject-specific questions
- Guidance on appropriate responses to the standards and the necessary level of supporting documentation and evidence to be provided within the responses
- Format and organization of the program document

5. Process for Review and Approval of Program Documents Submitted to the Commission

A regionally accredited institution of postsecondary education that would like to offer (or continue to offer) a subject matter preparation program for the Single Subject Credential in Health Science may present a program application that responds to the preconditions and the standards provided in this handbook. 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 Health Science with different emphases, a separate application may be forwarded to the Commission for each program. However, the Commission encourages institutions to coordinate its single subject programs that are within the same subject matter discipline in order to maximize resources.

Programs may be submitted after January 2007 on an ongoing basis. Review of subject matter program proposals began in March 2007 and continues on an ongoing basis.

a. Selection, Composition and Training of Program Document Review Panels

Review panel members are selected because of their subject matter expertise and their knowledge of curriculum and instruction in the public schools of California. Reviewers are

selected from institutions of higher education, school districts, county offices of education, organizations of subject matter experts, and statewide professional organizations. Because the review process consists of a professional peer review, the Commission needs those institutions seeking program review and approval to provide at least two qualified nominees to participate in the review process. Members of the Commission's former Single Subject Waiver Panels and Subject Matter Advisory Panels also may be selected to serve as program reviewers.

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

- the purpose and function of subject matter preparation programs
- the Commission's legal responsibilities in program review and approval
- the role of reviewers in making program determinations
- the role of the Commission's professional staff in assisting reviewers
- the analysis and discussion of each standard
- alternative ways in which a standard could be met
- the aspects of the review process
- how to provide responsive feedback for program revision

Reviewers are also provided with simulated practice and calibration exercises in preparation for their roles in reviewing programs.

b. Steps in the Review of Programs

The Commission is committed to conducting a program review process that is objective 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 with program sponsors during program document development.

The review process consists of two sequential steps, as outlined below. An institution responding to the Commission's standards will respond to the two sets of standards described earlier in this handbook, namely, the Preconditions and the Program Standards (including Common Standards and discipline-specific Program Standards).

Step One: Review of Preconditions. An institution's response to the preconditions is reviewed by the Commission's professional staff since the preconditions are based on Commission policies and do not involve issues of program quality. The Preconditions are reviewed upon receipt of the institution's formal document submission. Once the responses to the Preconditions are deemed to have met these standards, the program document's responses to the Program Standards are then referred to the expert reviewers.

Step Two: Review of Program Standards. Unlike the Preconditions, the Program Standards (i.e., Common Standards and discipline-specific Program Standards) address issues of program quality and effectiveness. The Commission's process, therefore, is to have each institution's response to the Program Standards reviewed by a small team of subject matter experts (i.e., peer review). Once the review team determines that a proposed program meets the Program Standards, Commission staff recommends the program for approval by the Commission at its next public meeting.

If an institution's response to either the Preconditions or the Program Standards is determined to not meet the standards, feedback is formally provided to the program sponsor with an explanation of the review findings that includes specific reasons for the determination that the program standards are not met. During this aspect of the review process, program sponsors can obtain further information and assistance from Commission staff.

The Commission intends the overall program review process to be as helpful as possible to colleges and universities. Because a large number of institutions prepare teachers in California, it is very helpful for program sponsors to first consult with the Commission's professional staff regarding program applications that are in preparation. During the Program Standards review process, however, program sponsors and/or their representatives should not contact members of a review team directly under any circumstances in order to preserve the objectivity and integrity of the review process. If during the review process a program sponsor needs additional information, the program sponsor or representative should inform the designated staff consultant. If the issue or question is not resolved in a timely manner, program sponsors may contact the Executive Director of the Commission. After considering the review feedback, the program sponsor may make appropriate changes to the program document and resubmit the program application to the designated Commission staff member for reconsideration by the review team.

If, however, feedback from the review process indicates that only minor or technical changes need to be made in a program application in order to meet the applicable standards, Commission staff rather than the peer review team will review the resubmitted document and, if the standards are determined to have been met, will submit the program application to the Commission for approval without further review by the peer review team.

Appeal of an Adverse Decision. An institution that would like to appeal a decision of the staff (regarding Preconditions) or the review team (regarding Program Standards) may do so by submitting the appeal to the Executive Director of the Commission. The institution should include the following information in the appeal:

- The original program document and the stated reasons of the Commission's staff or the review team for not recommending approval of the program.
- A specific response by the institution to the initial denial, including a copy of the resubmitted document (if it has been resubmitted).
- A rationale for the appeal by the institution.

The CTC Executive Director may deny the appeal, appoint an independent review panel, or present the appeal directly to the Commission for consideration.

B. Submission Guidelines for Single Subject Matter Program Documents

To facilitate the proposal review and approval process, Commission staff has developed the following instructions for program sponsors submitting documents for approval of Single Subject Matter Programs. It is essential that these instructions be followed accurately. Failure to comply with these procedures can result in a proposal being returned to the prospective program sponsor for reformatting and/or revision prior to being forwarded to program reviewers.

1. Transmittal Instructions

Sponsoring agencies are required to submit **one printed bound paper copy** of their proposal(s), to the following address:

California Commission on Teacher Credentialing
Professional Services Division: Single Subject Matter Programs
1900 Capitol Avenue
Sacramento, CA 95814

In addition, **one electronic copy of the proposal text** (including supporting evidence where possible) should be submitted in Microsoft Word, or a Microsoft Word compatible format. Some phases of the review process will involve secure web-based editing. To facilitate this process, please leave no spaces in the name of your document, and be sure that the name of the file ends in ".doc" (example: CTCdocument.doc).

2. Organization of Required Documents

Sponsoring agencies should include as the cover page of each copy of the program application the "Sponsoring Organization Transmittal Cover Sheet." A copy of the Transmittal Cover Sheet is located at the end of this section of the handbook for use by program sponsors. The proposal application documents should begin with Transmittal Cover Sheet that includes the original signatures of the program contacts and chief executive officer.

The program contact identified on the Transmittal Cover Sheet will be the individual who is informed electronically and by mail as changes occur, and to whom the review feedback will be sent. Program sponsors are strongly urged to consult the CTC web site, www.ctc.ca.gov, for updates relating to the implementation of new single subject matter standards and programs.

Each proposal must be organized in the following order:

- Transmittal Cover Sheet
- Table of Contents
- Responses to Preconditions, including course lists, units and catalog descriptions
- A matrix that identifies which courses meet which subject matter requirements
- One to two pages of narrative response to each Standard

The response to the standards must:

- include evidence (i.e., syllabi, course materials, program data, etc.) supporting the responses to the standards. The evidence sections should be tabbed and labeled in order to assist the reviewers in finding the appropriate supporting documentation (e.g., course numbers, document names, etc.) The supporting evidence should also be tabbed, labeled and cross-referenced or electronically linked within the response.
- provide numbering on each page, preferably in the footer

3. Developing Responses to the Standards

a. Responses to the Standards Common To All

The Commission adopted 10 standards that relate to program design and structure for programs in *all* single subject disciplines.

Standard 1	Program Design
Standard 2	Program Resources and Support

An institution's program application should include a subject-specific reply to each of these two Common Standards. Both of these standards require a measure of subject-specific program information in order to provide a complete picture to the reviewers.

b. Responses to the Program Standards

Program proposals should provide sufficient information about how the program intends to deliver content consistent with each standard so that a knowledgeable team of professionals can determine whether each standard has been met by the program. The goal in writing the response to any standard should be to describe the proposed program clearly enough for an outside reader to understand what a prospective teacher will experience, as he or she progresses through the program in terms of depth, breadth, and sequencing of instructional and field experiences, and what he or she will know and be able to do and demonstrate at the end of the program. Review teams will then be able to assess the responses for consistency with the standard, completeness of the response, and quality of the supporting evidence.

The written text should be organized in the same order as the standards. Responses should not merely reiterate the standard. They should describe how the standard will be met in the coursework content, requirements, and processes and by providing evidence from course syllabi or other course materials to support the explanation. ***Responses that do not completely address each standard will be considered incomplete and returned for revision.***

Lines of appropriate supporting evidence will vary with each standard. Some examples of supporting evidence helpful for review teams include:

- Charts and graphic organizers to illustrate program organization and design
- Course or module outlines or showing the sequence of course topics, classroom activities, materials and texts used, and out-of-class assignments

- Specific descriptions of assignments and other formative assessments that demonstrate how prospective teachers will reinforce and extend key concepts and/or demonstrate an ability or competence
- Documentation of materials to be used, including tables of contents of textbooks and identification of assignments from the texts, and citations for other reading assignments.
- Current catalog descriptions.

4. Packaging a Submission for Shipment to the Commission

Please **do not**:

- Use foam peanuts as packaging material
- Overstuff the binders. Use more binders if necessary. No binders larger than 3 inches will be accepted.
- Overstuff the boxes in which the binders are packed, as these may break open in shipment.

**Phase III Single Subject Matter Program Sponsor
Transmittal Cover Sheet
(Page 1 of 2)**

- **Date:** _____
- **Sponsoring Institution:** _____
- **Submission Type(s)** Place a check mark in the appropriate box.

Agriculture Subject Matter Program	<input type="checkbox"/>
American Sign Language Subject Matter Program	<input type="checkbox"/>
Business Subject Matter Program	<input type="checkbox"/>
Health Science Subject Matter Program	<input type="checkbox"/>
Home Economics Subject Matter Program	<input type="checkbox"/>
Industrial and Technology Education Subject Matter Program	<input type="checkbox"/>

- **Program Contacts:**

1. Name _____

Title _____

Address _____

Phone _____ Fax _____

E-mail _____

**Phase III Single Subject Matter Program Sponsor
Transmittal Cover Sheet
(Page 2 of 2)**

Name _____

Title _____

Address _____

Phone _____ Fax _____

E-mail _____

Chief Executive Officer (*President or Provost; Superintendent*):

Name _____

Address _____

Phone _____ Fax _____

E-mail _____

***I Hereby Signify My Approval to Transmit This Program Document to the California
Commission on Teacher Credentialing:***

CEO Signature _____

Title _____

Date _____