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Information/Action

Educator Preparation Committee

Plan to Improve Options for Meeting the Subject Matter Requirements for Teaching Credentials

Executive Summary: This agenda item presents a workplan for clarifying options for candidates to meet the Subject Matter Requirements for teaching credentials, updating the current Subject Matter Requirements, and creating additional resources to support programs with verifying that candidates have met the Subject Matter Requirements.

Recommended Action: That the Commission review, provide feedback, and, if appropriate, approve the proposed plan to expand options for and revise the Subject Matter Requirements.

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Strategic Plan Goal

Continuous Improvement

- **Goal 7.** The Commission's work is grounded in research, informed by the voices of practitioners and communities of interests, and supports continuous improvement in educator preparation and licensure.
 - Q. Use data to inform Commission and staff decision-making and continuous improvement

Plan to Improve Options for Meeting the Subject Matter Requirements for Teaching Credentials

Introduction

Assembly Bill 130, signed into law in 2021, created new options for preliminary teaching credential candidates to demonstrate their credential-appropriate subject matter competence. Prior to AB 130, candidates could only meet the Subject Matter Requirement (SMR) through successful completion of the credential and subject-specific California Subject Examination for Teachers (CSET) or through completion a Commission-approved subject matter program.

AB 130 created new options for candidates to meet the SMR, as detailed in Education Code section 44259(b)(5)(A), which can be found in [Appendix A](#). Candidates may now meet SMR with an undergraduate degree in a major that aligns with the credential they are seeking, by completing coursework that aligns with the credential-specific content domain descriptions, through completion of an undergraduate degree in a Commission-approved undergraduate preparation program, by successfully passing the credential-appropriate CSET, or through a combination of the options listed. While these options have certainly created new opportunities for candidates to enter the teaching profession, they have also led to significant confusion both among preparation programs, charged with evaluating transcripts to determine if candidates have met the SMR through coursework, and among candidates, trying to determine what their options are and whether they have already satisfied requirements.

Background

In August, staff presented to the Commission five recommendations for expanding the SMR ([Agenda Item 3G](#)) in order to create a system of interoperable options for candidates. These options included expanding the degree majors that satisfy SMR for each credential area, revising the existing domain descriptions to better facilitate transcript evaluation, developing new SMR domains and descriptions that will be valid for both CSET development and transcript review, exploring the use of tools to support transcript review, and exploring the creation of undergraduate micro-certifications to meet clusters of SMR domains. The Commission directed staff to develop a plan to conduct this work.

This item presents a brief overview of each option, followed by a more detailed discussion of each option, its anticipated scope within current resources, and plans for future development.

Overview of Proposed Actions to Expand SMR Options

Section 1 provides a brief overview of each of the proposed actions to expand the current options to meet SMR.

Action 1: Expand Degree Majors

Before AB 130, candidates could meet the Subject Matter Requirement by taking and passing the CSET or completing an undergraduate degree including a Commission approved subject matter program aligned with the SMRs. AB 130 expanded that option to allow candidates to qualify through a degree in a field that directly matches the credential sought. While this

opened new routes, the current list of acceptable majors is still narrow and leaves out many related degrees. Action 1 would broaden that list to include closely aligned fields, an adjustment that could meaningfully expand access for candidates whose degrees already cover the core content expectations for teaching. This action would require the Commission to seek changes in statute and/or regulation.

Action 2: Streamline SMR for Transcript Review

AB 130 also expanded options for candidates to demonstrate subject matter competence through coursework, but the existing SMR domains were written as testing blueprints, not tools for transcript review. Because each domain was developed separately, their length, structure, and level of detail vary widely. Action 2 will focus on clarifying and standardizing the language of the current domains so that programs can apply them more consistently when evaluating coursework. By making the SMRs clearer and more consistent, Action 2 will help candidates more easily determine whether their existing coursework satisfies subject matter requirements. This work is an urgent stopgap measure needed to improve the usability of the SMRs for transcript review as soon as possible while the comprehensive redesign outlined in Action 3 is completed.

Action 3: Revise SMR Structures for Future Exams and Transcript Review

Action 3 will evaluate the current SMRs for both standards alignment and structural consistency. Rather than starting from the ground up, this work will build on the existing SMRs to update and reorganize them so that each reflects California's adopted PK–12 standards and can support both transcript review and future examination development. The revisions will prioritize high-need credentials first, in collaboration with educators and content experts aligned with credential area and subjects. By strengthening and aligning the current SMRs, Action 3 will give candidates clearer and more consistent options to demonstrate subject matter competence through coursework or examination. This is required work for the Commission and foundational to operationalizing candidate SMR options in Education Code section 44259(b)(5). Staff will work with the administration to determine and secure the staff resources needed to complete this portion of the work.

While Actions 1 through 3 represent the core work needed to strengthen and align the current SMR system, Actions 4 and 5 explore potential innovations that could significantly expand both access and usability of the SMR framework.

Action 4: Explore Feasibility of Transcript Analysis Tool

Evaluating transcripts to determine whether a candidate has met the SMR currently requires programs to manually review course titles and catalog descriptions against each domain, a process that can take more than an hour per candidate and varies widely in consistency. Action 4 would explore the feasibility of using artificial intelligence to automate and streamline this work, allowing programs to process evaluations more efficiently and apply uniform criteria statewide. For candidates, this innovation would provide faster, clearer, and more reliable determinations of how their prior coursework meets subject matter requirements, reducing delays and helping them transition into preparation programs more quickly. While staff can conduct initial inquiry into this option, implementation is not feasible within current budget or capacity and would depend on new funding and/or external partnerships.

Action 5: Explore Possibility of Micro-Certifications

Currently, there is no streamlined way for candidates to combine coursework and examination options to demonstrate subject matter competence, as authorized under Education Code section 44259(b)(5)(A)(v). Action 5 would explore partnering with representatives from the California Community Colleges, California State University, University of California, and independent or private colleges to develop micro-certifications, defined for this use as sets of credit-bearing courses that would satisfy one or more subject matter domains for specific credential areas. By clearly identifying groups of courses that meet defined subject matter domains, micro-certifications would allow candidates to complete only the coursework they need, reduce duplication and confusion, and create more affordable, transparent routes to demonstrate subject matter competence. This work would proceed only upon identification of dedicated funding and sufficient staff capacity.

Detailed Plans of Actions to Expand SMR Options

Action 1: Expand Degree Majors

As articulated in Education Code section 44259(b)(5)(A)(iv), candidates may meet SMR if they have a degree in an undergraduate major from a regionally accredited university in a designated area that corresponds to the credential they are seeking. For Multiple Subject candidates, the degree must include required coursework in the areas outlined by subdivision (b) of section 44282 (language studies, literature, mathematics, science, social studies, history, the arts, physical education, and human development). Per Title 5, CCR § 80096 ([Appendix B](#)), the list of qualifying degrees includes Liberal Studies, Liberal Arts, and Elementary Education. For Single Subject candidates, the degree must be in an area that includes the name of the credential area the candidate is seeking, i.e. a candidate for a Single Subject English credential must have a degree in a major that includes English. Education Specialist candidates may have a degree in any area that satisfies the SMR for a Multiple Subject or Single Subject credential.

The current specificity of the degrees that satisfy each credential area's SMR pose significant challenges for candidates who have degrees in areas closely related to the credential area but that are not on the list of approved majors. For example, while a candidate with an undergraduate degree in English will meet the SMR for a Single Subject credential in English, a candidate with an undergraduate degree in Comparative Literature or Composition will not meet the SMR. Similarly, a Multiple Subject candidate with an undergraduate degree in Liberal Studies or Elementary Education will meet the SMR, but a candidate with an undergraduate degree in Child Development or Early Childhood Education will not. The current list of degree options may not provide sufficient flexibilities for candidates who have appropriate knowledge to meet the SMR.

Changing the current statute to allow for greater flexibility in the areas in which candidates may hold a degree will require a Focused Policy Review (FPR) with input and feedback from representatives of teacher education programs housed at institutions of higher education and local education agencies and from current California PK-12 teachers.

The goals of this FPR would be to (a) review the current policy, including the currently allowable degree majors, (b) consider what majors might be appropriate but not currently included, and, (c) if appropriate, make recommendations of changes for expanding the acceptable degree

options, in order to provide greater flexibility for candidates to demonstrate their subject matter competence. The review could be completed with existing Commission staff capacity.

The recommendations from the FPR with input and feedback from practitioners would be brought to the Commission for review and approval. Upon approval, the Commission would seek legislation, if necessary, or promulgate regulations.

Table 1: Action 1 Timeline (Expand Degree Majors)

Year	Qtr.	Short Description
2026	1	Conduct current policy analysis and input gathering with practitioners
2026	2	Develop recommendations and gather feedback from practitioners
2026	3	Bring recommendations to the Commission for feedback and/or action

Action 2: Streamline Current SMR Domains for Transcript Review

Education Code section 44259 (b)(5)(A)(iii) states that candidates may meet SMR through “Successful completion of coursework at one or more regionally accredited institutions of higher education that addresses each of the domains of the subject matter requirements adopted by the Commission in the content area of the credential pursuant to Section 44282, as verified by a Commission-approved program of professional preparation.” The currently adopted domains, developed by credential-specific subject matter advisory panels at different points over the past 20 years, identify the content each panel believed to be necessary for a beginning teacher in that credential area to develop students’ knowledge of the content articulated in the corresponding framework or standards. This information was then used to develop the CSETs for each credential area.

As stated above, the current SMR domains were developed over time as credentials have been added, and PK-12 standards have been updated and revised. Because the purpose of the domains was to provide specifications for the development of CSETs and not as guidance for transcript review, they are inconsistent in both the scope and specificity of identified content. They are also unique in how they are structured.

For example, the Multiple Subject credential includes 23 SMR domains, organized into seven areas: Reading, Language, and Literature; History and Social Science; Mathematics; Science; Visual and Performing Arts; Physical Education; and Human Development. Each domain contains multiple sub-domains. Human Development, Domain 2: Social and Physical Development from Birth Through Adolescence, includes two sub-domains:

- 2.1 Social Development: Candidates for Multiple Subject Teaching Credentials define concepts related to the development of personality and temperament (e.g., attachment, self-concept, autonomy, identity). They describe the social development of children and young adolescents, including persons with special needs. They identify characteristics of play and their impact on social development, and they describe influences on the development of prosocial behavior.
- 2.2 Physical Development: Candidates describe the scope of physical development at different ages. They identify individual differences in physical development, including the development of persons with special needs.

In contrast, the SMRs for each of the Single Subject science credential areas, while also broken into domains, simply list key content areas associated with the domain with which candidates must have an understanding. For example, the SMRs for Science: Biology include both four General Science domains that each include a list of key content areas and four Biology-specific domains: (1) From Molecules to Organisms: Structures and Processes; (2) Ecosystems: Interactions, Energy, and Dynamics; (3) Heredity: Inheritance and Variation of Traits; and (4) Biological Evolution: Unity and Diversity. The biology-specific domains each include three-to-four key concepts aligned with that domain. For Domain 1: From Molecules to Organisms: Structures and Processes, these include:

- Understand the structure and function of cells
- Understand hierarchical organization/functioning of systems in multicellular organisms
- Understand growth and development of organisms
- Understand matter and energy flow in organisms

Both the complexity of SMR domain descriptions, as seen in the Multiple Subject examples, and the lack of alignment in how domains are constructed across credential areas, creates confusion for programs attempting to review transcripts to determine whether a candidate has demonstrated subject matter competence.

To support programs as they evaluate candidates' transcripts to determine whether the candidate has met the SMR, Commission staff will revise the existing SMR domains for consistency in format and specificity of content. This work will include reviewing existing domains and sub-domains, determining the key content identified, and creating clear and concise statements to articulate the key content, as demonstrated in the example provided in [Appendix D](#). Once a credential area's domains have been revised, they will be shared with program faculty and staff for feedback. Staff will use the feedback to guide revisions. The finalized revised SMR domains will be presented to the Commission for review and potential approval. The review could be completed within existing Commission staff capacity.

Table 2: Action 2 Timeline (Streamline SMR for Transcript Review)

Year	Qtr.	Short Description
2026	1	Complete revision of current SMR domains
2026	2	Share revised SMR domains with programs; collect feedback; revise
2026	3	Present revised SMR domains to Commission for review and approval

Action 3: Revise SMR Structures for Future Exams and Transcript Review

As described above, the current SMRs were originally developed as test specifications for the CSET at a time when passing an examination was the primary way to demonstrate subject matter competence. Each credential area includes multiple domains and subdomains written to guide test design, not to serve as practical tools for reviewing coursework. With the passage of AB 130 in 2021 and the expansion of options for candidates to meet the SMR through coursework, programs are now using these test-oriented frameworks to evaluate transcripts. This has created confusion for both candidates and programs and has significantly increased the time and complexity involved in transcript review.

Action 3 addresses these challenges by evaluating the current SMRs for alignment with California’s adopted PK–12 standards and for consistency across credential areas, as required by Education Code section 44259(b)(5)(B)(i). This work will build on the existing SMRs rather than start from the ground up, updating and reorganizing them so they reflect current SBE adopted standards and can be used effectively for both transcript review and future examination development. The initial phase will focus on high-need credential areas identified through Commission data on CSET usage and candidate demand, specifically those subject areas with the greatest number of examination attempts as shown in [Appendix C](#). Prioritizing these areas will ensure that revisions address the credential fields where updated SMRs can most immediately reduce candidate barriers and program workload.

Once updated, the revised SMRs will serve as the foundation for both transcript evaluations and modernized subject matter examinations. This work would require a modest increase in staffing to manage coordination with educators, content experts, and advisory groups. With additional capacity in 2026-27, staff could initiate the revision process and sustain the ongoing review and engagement needed to complete all credential areas. Ensuring that the SMRs remain fully aligned with SBE adopted standards is both a statutory obligation and a critical step toward making the pathways established under Education Code section 44259(b)(5) clear, coherent, and consistently applied statewide.

To provide more clarity for both preparation programs and candidates about what coursework meets the SMRs in a specific credential area and to reinforce alignment with the PK–12 frameworks and standards currently adopted by the State Board of Education, the SMRs will be revised for the dual purposes of serving as (a) tools to guide transcript review and (b) specifications for subject matter examinations that reflect a modernized, modular structure.

This work will emphasize updating and refining existing SMRs rather than creating entirely new sets. The revisions will streamline structure, reduce redundancy, and ensure that the content reflects current student learning standards while remaining practical for educator preparation programs and examination development organizations. The scope of revisions will vary by credential area depending on how closely current SMRs align with adopted PK–12 standards.

The initial phase will focus on high-need credential areas, such as Multiple Subject, Social Science, English Language Arts, Mathematics, Physical Education, and Science. Staff will engage practicing educators, teacher educators, and content experts through targeted consultations and structured review sessions to gather input on the clarity, structure, and relevance of each SMR. Small work groups and existing professional networks, such as the California Subject Matter Projects and the National Board Certified Teachers, may be used to ensure the revised SMRs reflect current classroom realities and expectations for beginning teachers.

Using this feedback, staff will draft and refine revised SMRs for each high-need area and bring them to the Commission for review and potential approval. Following adoption, staff will issue updated guidance to educator preparation programs outlining how the revised SMRs should inform transcript review and verification of subject matter competence.

Once the initial set of SMRs has been approved, staff will issue a Request for Information (RFI) to identify potential approaches for subject matter examinations that align with the revised

SMRs. The RFI will invite vendors to propose adoption, adaptation, or development options that align with California’s educator preparation standards.

After completion of the initial cycle, staff will continue the process for remaining credential areas in an ongoing manner—revising SMRs, presenting them to the Commission for approval, issuing updated guidance, and exploring examination alignment options through subsequent RFIs as needed. Staff will work with the administration to determine and secure the staff resources needed to complete Action 3.

Table 3: Action 3 Timeline (Revise SMR Structures for Exams and Transcript Review)

Year	Qtr.	Short Description
2026	3	Begin educator and expert engagement to inform SMR revisions.
2026	4	Draft and refine revised SMRs for high-need credential areas.
2026	1	Present revised SMRs to the Commission for approval.
2026	1	Issue examinations RFI and updated guidance for transcript review.
2027	Q2-4	Adopt, modify, or develop SMR examinations for high-need areas.
2028-30	ongoing	Continue revisions for remaining credential areas; present to Commission; issue guidance and additional RFIs.

Action 4: Explore Feasibility of Transcript Analysis Tool

Education Code section 44259(b)(5)(A)(iii) allows candidates to demonstrate subject matter competence through successful completion of coursework, including coursework completed at an accredited California Community College, that aligns with the subject matter domains and subdomains associated with the credential they are seeking. When a candidate chooses this option, their transcripts must be evaluated by a preparation program. Programs must then review each course, determine possible alignment to the SMR domains, locate and assess course descriptions, and decide whether the coursework meets the requirement. This process is time intensive, varies in consistency across programs, and places a significant administrative burden on staff.

To address these challenges, staff will explore ways to simplify and modernize transcript review for subject matter alignment. Many programs have already developed local tools or processes to make this work more efficient, and some may be experimenting with the use of artificial intelligence to support evaluation. Staff will build on these local efforts to identify promising practices and potential strategies that could be scaled more broadly.

Staff will begin by surveying educator preparation programs to understand existing tools, systems, and procedures, as well as the common challenges they face. When effective or innovative approaches are identified, staff will follow up to learn more about how they operate and what conditions make them successful.

The findings will be synthesized into a report summarizing current practices, gaps, and potential opportunities to streamline transcript evaluation. The report will include recommendations for Commission consideration, including possible next steps or partnerships to explore scalable solutions that reduce administrative workload and improve consistency in verifying subject

matter competence through coursework. Staff can conduct the initial survey and prepare recommendations within existing capacity but would need additional support—or perhaps a partnership with an outside organization—to develop and deploy any proposed options.

Table 4: Action 4 Timeline (Transcript Analysis Tool Feasibility)

Year	Qtr.	Short Description
2025	4	Develop survey to send to programs
2026	1	Administer survey; collect responses; follow up with programs
2026	2	Analyze survey responses; develop recommendations
2026	2	Present recommended actions to Commission

Action 5: Explore Possibility of Micro-Certifications

Education Code section 44259(b)(5)(A)(v) authorizes candidates to meet the Subject Matter Requirements (SMR) through coursework, examinations, or a combination of both. This flexibility allows candidates to supplement approved coursework with portions of an SMR examination, or conversely, to complete specific coursework to satisfy portions of the examination requirement. While this option exists in statute, it has not been widely implemented or accessible for candidates to navigate.

For individuals pursuing coursework options, there is limited information about which courses align with SMR domains, and transcript reviews are not consistently available. Increasing the clarity and accessibility of coursework options would make this statutory flexibility meaningful in practice, reduce unnecessary testing costs, and enable individuals already serving in classrooms to advance toward credential eligibility while continuing to teach.

Focused courses of study would verify mastery of a defined body of knowledge and, when offered for academic credit through accredited institutions of higher education including the California Community Colleges, would give candidates a clear and transparent path to complete SMR-aligned coursework. Credit-bearing micro-certifications would integrate focused subject matter preparation with college-level credit, allowing candidates to demonstrate competence in specific content areas while earning academic credit.

Establishing this option would require collaboration between the Commission and institutions of higher education, with institutions ensuring academic rigor and credit value, and the Commission confirming alignment with SMR domains. The current system does not clearly identify which courses individuals may take to meet the SMR for the credential they wish to pursue, nor when one course might satisfy multiple domains or subdomains.

At this time, there is no fiscal or staff capacity to launch the development of micro-certification options. All proposed activities, deliverables, and benchmarks are contingent upon the identification of dedicated funding to support staff time and partner engagement.

If funding was provided, the work would focus on innovation and cross-sector collaboration. Representatives from the California Community Colleges, California State University, University of California, and independent or private institutions, along with PK–12 practitioners, would be

convened to co-design potential models for SMR-aligned micro-certifications. The initial focus would be on high-need credential areas such as Multiple Subject, English Language Arts, Mathematics, Physical Education, and Science.

This design phase would examine options for awarding academic credit, aligning coursework to SMR domains, and identifying strategies to scale successful models, including partnerships with higher education systems and philanthropic organizations to fund and evaluate pilot implementations.

After options are developed, recommendations would be presented to the Commission for discussion and direction on next steps.

Table 5: Action 5 Timeline (Micro-certifications, Contingent on Funding)

Year	Qtr.	Short Description
2027	1	Convene higher education and PK-12 practitioners for design discussions
2027	2	Develop and refine draft micro-certification models with partners
2027	3	Identify pilot institutions and potential funders
2027	4	Present models and recommendations to the Commission for feedback

Conclusion

This plan advances the intent of AB 130 by improving how candidates and programs navigate the Subject Matter Requirement and ensuring that all pathways remain rigorous, transparent, and aligned with California’s PK–12 standards. Actions 1 through 3 represent the core work needed to strengthen the current system: expanding flexibility in degree-major options, improving the clarity and consistency of SMR domains for coursework review, and revising the SMR structure to align with State Board–adopted standards while supporting future examination development. Actions 4 and 5 outline potential innovations—such as automation and micro-certifications—that could further expand access and efficiency if supported through new funding or partnerships.

Together, these actions establish a coherent roadmap for modernizing how subject matter competence is defined, evaluated, and verified. They position the Commission to meet its statutory obligations under Education Code section 44259(b)(5), reduce unnecessary barriers for candidates, and ensure that every route to demonstrating subject matter competence upholds the high standards expected of California’s educators.

Staff Recommendation

Staff recommend that the Commission:

1. Authorize a focused policy review for Action 1 and direct staff to return with recommended statutory or regulatory changes.
2. Approve the workplan and direct staff to proceed with Actions 2 and 3 (funding contingent)
3. Endorse exploratory scoping for Actions 4 and 5, with implementation contingent on identified funding and partnerships.

4. Direct staff to report back with cost estimates, timelines, and any proposed legislative or regulatory language to operationalize approved actions.

Next Steps

Action 1: Expand Degree Majors

- Q1 2026: Conduct FPR and gather practitioner input.
- Q2 2026: Develop recommendations and solicit field feedback.
- Q3 2026: Bring recommendations to the Commission for feedback and possible action.

Action 2: Streamline Current SMR Domains for Transcript Review

- Q1 2026: Complete first draft of clarified domains.
- Q2 2026: Share with programs, collect feedback, and revise.
- Q3 2026: Present revised domains to the Commission for review and approval.

Action 3: Revise SMR Structures for Future Exams and Transcript Review (contingent on funding)

- Q3 2026: Begin educator and content expert engagement in high need areas.
- Q4 2026: Draft and refine revised SMRs; present initial set for approval; issue guidance to programs; release an RFI on examination options.
- 2027: Adopt, modify, or develop examinations aligned to approved SMRs.
- 2028–2030 (ongoing): Continue revisions for remaining credential areas; issue updated guidance and additional RFIs; bring subsequent SMRs for approval.

Action 4: Explore AI Transcript Analysis Tool (contingent on funding and partnerships)

- Q4 2025: Develop and finalize field survey.
- Q1 2026: Administer survey, collect responses, and conduct follow ups.
- Q2 2026: Analyze results and present a feasibility framework and options to the Commission.

Action 5: Explore Credit Bearing Micro Certifications (contingent on funding and partnerships)

- Q1 2027: Convene higher education and PK-12 partners to design models.
- Q2 2027: Develop and refine draft models.
- Q3 2027: Identify pilot institutions and potential funders.
- Q4 2027: Present models and recommendations to the Commission for feedback.

Appendix A

Education Code Section 44259(b)(5) – Subject Matter Competence

(5) (A) Verification of subject matter competence, demonstrated through one of the following methods:

(i) Completion of a subject matter program approved by the commission on the basis of standards of program quality and effectiveness pursuant to Article 6 (commencing with Section 44310).

(ii) Passage of a subject matter examination pursuant to Article 5 (commencing with Section 44280).

(iii) Successful completion of coursework at one or more regionally accredited institutions of higher education that addresses each of the domains of the subject matter requirements adopted by the commission in the content area of the credential pursuant to Section 44282, as verified by a commission-approved program of professional preparation. Coursework completed at a community or junior college that is regionally accredited by an accrediting agency listed in subparagraph (A) of paragraph (1) of subdivision (g) of Section 44203 or by the Accrediting Commission for Community and Junior Colleges of the Western Association of Schools and Colleges may count for purposes of this clause.

(iv) Successful completion of a baccalaureate or higher degree from a regionally accredited institution of higher education with the following, as applicable:

(I) For single subject credentials, a major in one of the subject areas in which the commission credentials candidates.

(II) For multiple subject credentials, a liberal studies major or other degree that includes coursework in the content areas pursuant to subdivision (b) of Section 44282.

(III) For education specialist credentials, either a major in one of the subject areas in which the commission credentials candidates or a liberal studies or other major that includes coursework in the content areas pursuant to subdivision (b) of Section 44282.

(v) Demonstration that the candidate, through a combination of the methods described in clauses (i), (ii), and (iii) in whole or in part, has met or exceeded each of the domains of the subject matter requirements adopted by the commission in the content area of the credential pursuant to Section 44282 for multiple and single subject credentials, or pursuant to Section 44265 for education specialist credentials.

(B) (i) The commission shall ensure that subject matter standards and examinations are aligned with the academic content and performance standards for pupils adopted by the state board.

(ii) The commission shall maintain the subject matter domains that include both broad content areas to support coursework review pursuant to clause (iii) of

subparagraph (A) and specific content elements to delineate subject matter examination specifications pursuant to clause (ii) of subparagraph (A) and Article 5 (commencing with Section 44280).

(6) Demonstration of a knowledge of the principles and provisions of the Constitution of the United States pursuant to Section 44335.

(7) Demonstration, in accordance with the commission's standards of program quality and effectiveness, of basic competency in the use of computers in the classroom as determined by one of the following:

(A) Successful completion of a commission-approved program or course.

(B) Successful passage of an assessment that is developed, approved, and administered by the commission.

(c) The minimum requirements for the clear multiple or single subject teaching credential shall include all of the following requirements:

(1) Possession of a valid preliminary teaching credential, as prescribed in subdivision (b), possession of a valid equivalent credential or certificate, or completion of equivalent requirements as determined by the commission.

(2) Except as provided in paragraph (3), completion of a program of beginning teacher induction, including either of the following:

(A) A program of beginning teacher induction that is provided by one or more local educational agencies and has been approved by the commission on the basis of initial review and periodic evaluations of the program in relation to appropriate standards of credential program quality and effectiveness that have been adopted by the commission pursuant to this subdivision. The program standards shall encourage innovation and experimentation in the continuous preparation and induction of beginning teachers.

(B) A program of beginning teacher induction that is sponsored by a regionally accredited institution of higher education in cooperation with one or more local school districts, that addresses the individual professional needs of beginning teachers and meets the commission's standards of induction. The commission shall ensure that preparation and induction programs that qualify candidates for professional credentials extend and refine each beginning teacher's professional skills in relation to the California Standards for the Teaching Profession and the academic content and performance standards for pupils adopted by the state board.

(3) (A) If a candidate satisfies the requirements of subdivision (b) through completion of an accredited internship program of professional preparation, and if that internship program fulfills induction standards and is approved as set forth in this subdivision, the commission shall determine that the candidate has fulfilled the requirements of paragraph (2).

(B) If an approved induction program is verified as unavailable to a beginning teacher, the commission shall accept completion of an approved clear credential program after

completion of a baccalaureate degree at a regionally accredited institution of higher education as fulfilling the requirements of paragraph (2). The commission shall adopt regulations to implement this subparagraph.

Appendix B

CCR, Title 5, Section 80096: Determination of Subject Matter Competence

(a) When reviewing official transcripts for subject matter competency under sections 44259(b)(5)(A)(iii) and (v) of the Education Code, acceptable coursework shall meet all of the following:

- (1) Coursework earned with a grade of "C" or higher. Courses earned with "Pass," "Credit," or another designation deemed by the institution of higher education to be equivalent to a grade "C" or higher are also acceptable.
- (2) Coursework that is degree-applicable to an Associate or higher degree and credit bearing. Remedial coursework is not acceptable.
- (3) Coursework that was completed at a regionally accredited institution of higher education.

(b) When reviewing official transcripts for subject matter competency for a Single Subject Credential under section 44259(b)(5)(A)(iv)(I) of the Education Code, a major in one of the subject areas in which the commission credentials candidates shall mean that the name of the credential is in the name of the major or degree or the following:

- (1) For the single subject area World Language: English Language Development, a major in Teaching English to Speakers of Other Languages (TESOL) or Teaching English as a Foreign Language (TEFL).
- (2) For the single subject area of Home Economics, a major in family and consumer science.
- (3) For the single subject area of Mathematics, a major in statistics.
- (4) For the single subject area of Science: Biological Science, a major in biology, biological engineering, or biochemistry.
- (5) For the single subject area of Science: Chemistry, a major in chemical engineering or biochemistry.
- (6) For the single subject area of Science: Geoscience, a major in geology or earth science.
- (7) For the single subject area of Science: Physics, a major in mechanical or structural engineering.
- (8) For the single subject area of Science: Foundational-Level Science, a major in any type of engineering or any major offered by a college or university science department.

(c) When reviewing official transcripts for subject matter competency for a Multiple Subject Credential under section 44259(b)(5)(A)(iv)(II) of the Education Code, a liberal studies major shall mean any of the following majors:

- (1) Liberal Studies.
- (2) Liberal Arts.
- (3) Elementary Education.

(d) When reviewing official transcripts for subject matter competency for a Multiple Subject Credential under section 44259(b)(5)(A)(iv)(II) of the Education Code for any other degree that includes coursework in the content areas pursuant to section 44282 (b) of the Education Code, such coursework must meet the criteria set forth in subsections (a)(1), (a)(2), and (a)(3) above.

Appendix C

2023-2024 Total number of attempts by CSET Examination

CSET Examination	Attempts
Multiple Subjects (2022)	5,554
Social Science	958
English	823
Physical Education	777
Foundational Math	440
Science: Life Sciences	364
Mathematics	330
Foundational Science	322
Art (2022)	278
Writing Skills	251
Health Science	243
WL: Spanish	204
Science: Chemistry	195
Science: Physics	115
Science: Earth and Space	109
Music (2022)	68
Theatre	63
Dance	60
WL: Mandarin	55
Home Economics	44
Industrial Technology Education	42
WL: Korean	28

CSET Examination	Attempts
English Language Development	21
Business	20
WL: French	14
Agriculture	13
WL: Japanese	9
WL: American Sign Language	8
WL: Filipino	7
WL: Portuguese	7
WL: Vietnamese	6
WL: Hindi	5
WL: Armenian	4
WL: Hebrew	4
WL: Hmong	4
WL: Turkish	4
WL: Arabic	3
WL: German	3
WL: Russian	3
WL: Farsi	2
WL: Italian	1
WL: Cantonese	0
WL: Khmer	0
WL: Punjabi	0

Appendix D

Example of Revised Multiple Subject Credential Subject Matter Domains for Reading, Language, and Literature

Domain 1: Language and Linguistics		
	Current Description	Revised Description
1.1 Language Structure and Linguistics	Candidates for Multiple Subject Teaching Credentials are able to identify and demonstrate an understanding of the fundamental components of human language, including phonology, morphology, syntax, and semantics, as well as the role of pragmatics in using language to communicate. In the context of these components, they reflect on both the potential for differences among languages and the universality of linguistic structures. Candidates can demonstrate knowledge of phonemic awareness (e.g., the processes of rhyming, segmenting, and blending). They apply knowledge of similarities and differences among groups of phonemes (e.g., consonants and vowels) that vary in their placement and manner of articulation. Candidates know the differences between phoneme awareness and phonics. They know the predictable patterns of sound-symbol and symbol-sound relationships in English (the Alphabetic Principle). Candidates identify examples of parts of speech, and their functions, as well as the morphology contributing to their classification. They recognize and use syntactic components (such as phrases and clauses, including verbals) to understand and develop a variety of sentence types (e.g., simple, compound, and complex sentences).	Covers foundational elements of language (phonology, morphology, syntax, semantics, pragmatics), language development and acquisition (including first and second language learning), literacy processes (decoding, comprehension, vocabulary, fluency), and assessment practices related to language and literacy.
1.2 Language Development and Acquisition	Candidates for Multiple Subject Teaching Credentials apply knowledge of both the development of a first language and the acquisition of subsequent ones. They can describe the principal observable milestones in each domain, and identify the major theories that attempt to explain the processes of development and acquisition.	

	Candidates demonstrate that they understand the range of issues related to the interaction of first languages and other languages. They are able to recognize special features that may identify a pupil's language development as exceptional, distinguishing such features from interlanguage effects.	
1.3 Literacy	Candidates for Multiple Subject Teaching Credentials understand and use the major descriptions of developing literacy. Across the continuum of English language acquisition, candidates can identify the progressive development of phonemic awareness, decoding, comprehension, word recognition, and spelling (including its complexities related to the interaction of phonology, the alphabetic principle, morphology, and etymology). Candidates understand how these processes interact with the development of concepts, of vocabulary (including relationships among etymologies and both denotative and connotative word meanings), and of contextual analysis. Candidates can identify indicators of reading fluency (i.e., accuracy, rate, and prosody). They understand interrelationships between decoding, fluency, vocabulary knowledge, and reading comprehension, and they can identify factors that affect comprehension.	
1.4 Assessment	In assessing developing literacy, candidates for Multiple Subject Teaching Credentials apply knowledge of the implications that language development and differences have for the processes of learning to read and reading to learn. They know and apply a range of assessment methods and instruments to the respective and interrelated developing abilities in listening (for aural/oral languages), speaking, reading (decoding and comprehension), writing, vocabulary, and spelling conventions.	

Domain 2: Non-Written and Written Communication		
	Current Description	Revised Description
2.1 Conventions of Language	Applying their knowledge of linguistic structure, candidates for Multiple Subject Teaching Credentials identify and use the conventions associated with standard English. They recognize, understand, and use a range of conventions in both spoken and written English, including varieties of sentence structure, preferred usage, and conventions of spelling, capitalization, and punctuation.	Focuses on English language conventions, writing processes and applications (e.g., narrative, informational, argumentative), oral communication skills, and research skills, including use of media and source citation.
2.2 Writing Strategies	Candidates for Multiple Subject Teaching Credentials demonstrate knowledge of the stages of the writing process. They understand the purpose and technique of various prewriting strategies for organizing and giving focus to their writing (e.g., outlining, using graphic organizers, note taking). Candidates develop and strengthen writing as needed by revising, editing, rewriting, or trying a new approach. They draw upon their understanding of principles of organization, transitions, point of-view, word choice, and conventions to produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. Candidates demonstrate the ability to use technology, including the Internet, to produce and publish individual or shared writing products.	
2.3 Writing Applications	Candidates for Multiple Subject Teaching Credentials demonstrate knowledge of principles of composition such as appropriate structure, logical development of ideas, appropriate vocabulary, and context. Candidates compose and/or analyze writing in different genres, including arguments, informative/explanatory texts, and narratives, as well as summaries, letters, and research reports. Candidates demonstrate the ability to write arguments to support claims using valid reasoning and relevant and sufficient evidence. Candidates demonstrate the ability to write informative/explanatory texts,	

	including career development documents (e.g., business letters, job applications), and to examine and convey ideas, concepts, and information through the effective selection, organization, and analysis of content. When writing an argument or informative/explanatory text, candidates draw evidence from literary and/or informational texts to support research, analysis, and reflection. Candidates demonstrate the ability to write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.	
2.4 Non-Written Communication	Candidates for Multiple Subject Teaching Credentials demonstrate knowledge of non-written genres and traditions, and their characteristics (e.g., organization), including narratives, persuasive pieces, research presentations, poetry recitations, and responses to literature. They apply understandings of language development stages, from pre-production (beginning) to intermediate fluency, to children's developing abilities in such areas. Candidates analyze speech in terms of presentation components (e.g., volume, pace), pronunciation fluency, and identify the integration of nonverbal components (e.g., gesture) with verbal elements (e.g., volume). Candidates demonstrate knowledge of dialects, idiolects, and changes in what is considered standard oral English usage and their effects on perceptions of speaker performance, with attention to the dangers of stereotyping and bias. They also demonstrate an understanding of the potential impact on non-written presentations of images, sound, and other features from electronic media.	
2.5 Research Strategies	Candidates for Multiple Subject Teaching Credentials demonstrate their ability to use a variety of research sources, both print and electronic. They interpret such research, putting to use their findings and interpretations to construct their own reports and narratives.	

	Candidates also understand the importance of citing research sources, using recognizable and accepted conventions for doing so.	
Domain 3: Reading Comprehension and Analysis		
	Current Description	Revised Description
3.1 Reading Literature	Candidates for Multiple Subject Teaching Credentials analyze works from different literary genres (e.g., novels, short stories, folktales and fairy tales, poems) as they are represented in diverse cultures, with special attention to children's literature, for both literary elements and structural features. They cite thorough textual evidence to support analysis of the explicit and implicit meaning of literary texts. When reading literary texts, they determine themes or central ideas, including those derived from cultural patterns and symbols found in rituals, mythologies, and traditions. Candidates analyze how dialogue and incidents in a work of fiction or drama move the action forward and/or reveal aspects of character. Candidates identify and evaluate literary devices in prose and poetry (e.g., rhyme, metaphor, alliteration). Candidates determine the meaning of words and phrases as they are used in literary texts, including figurative and connotative meanings. They analyze the impact of specific word choices on meaning and tone. They examine how an author's choices concerning structure contribute to a literary text's meaning and style. Candidates analyze how differences in the points of view of characters and the audience or reader create such effects as suspense or humor.	Includes literary and informational text analysis, comprehension strategies, text features, evaluation of bias, and considerations of text complexity across genres and formats.
3.2 Reading Informational Text	Candidates for Multiple Subject Teaching Credentials analyze the structure, organization, and purpose of informational texts. Candidates use thorough textual evidence to support analysis of the explicit and implicit meanings of texts. They demonstrate the ability to determine the central idea of an informational text and to analyze its development over the course of a text, including its relationship to	

	supporting ideas. Candidates demonstrate the ability to provide an objective summary of an informational text, using academic language as appropriate. They determine the meaning of words and phrases as they are used in informational texts, including figurative, connotative, and technical meanings. They analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts. Candidates demonstrate an understanding of how the structure of informational texts, including popular print and digital media, is used to develop and refine key concepts. They analyze the use of text features (e.g., graphics, headers, captions) in consumer materials. Candidates determine an author's point(s) of view and purpose(s) and analyze how the author acknowledges and responds to conflicting evidence or viewpoints. Candidates integrate and evaluate multiple sources of information presented in different media or formats, as well as in words. They evaluate the structure and purpose of visual text features such as graphics, illustrations, data, and maps. Candidates recognize and analyze instances of bias and stereotyping in informational texts.	
3.2 Text Complexity	Candidates for Multiple Subject Teaching Credentials evaluate text complexity using quantitative tools and measures, as well as knowledge of qualitative dimensions such as levels of meaning, structure, language conventionality and clarity, and background knowledge demands. Candidates apply knowledge of text complexity to select appropriate texts for supporting student learning goals. When matching readers to a text and task, candidates apply knowledge of reader variables (e.g., language, culture, motivation, background knowledge, skill levels, and experiences), and of task variables such as purpose and complexity.	