



CODED CORRESPONDENCE

DATE: October 29, 2014	NUMBER: 14-09
TO: All Individuals and Groups Interested in the Activities of the Commission on Teacher Credentialing	FROM: Mary Vixie Sandy Executive Director Commission on Teacher Credentialing
SUBJECT: Discontinuation of Specialized Science Content Area Authorizations for Initial Issuance on Single Subject Teaching Credentials	

Summary:

The Commission on Teacher Credentialing (Commission) took action at the August 2014 meeting to streamline the science content area authorization structure for California in order to align the preparation and authorizations for future science teachers with the Next Generation Science Standards (NGSS) for California as adopted by the State Board of Education in 2013. As a result of this action, the option to earn a specialized science content area on a Single Subject Teaching Credential will be discontinued as of August 1, 2020.

The Foundational-Level General Science content area and the four full content area authorizations in Biological Sciences, Chemistry, Geosciences and Physics will continue as available content area options for the Single Subject Teaching Credential. This correspondence provides available content area options for future science teachers and provides additional guidance for current teachers who hold a specialized science authorization.

Key Provisions:

There are currently nine different science content area authorizations available for issuance on the Single Subject Teaching Credential in California. For each of the four science disciplines (biological sciences, chemistry, geosciences, and physics) there is both a full content area authorization and a more narrow specialized authorization. The last date for candidates to verify subject matter knowledge in a specialized science area by examination or advanced degree/coursework is July 11, 2015. Candidates will retain the option of earning a full authorization in one of the four science disciplines (i.e., Science: Biological Sciences, Science: Chemistry, Science: Geosciences and Science: Physics) or the Foundational-Level General Science authorization.

As examination scores are valid for five years, the specialized science content areas will continue to be issued through August 1, 2020 for individuals who verify subject matter equivalency on or before July 11, 2015.

Table 1 provides information on the current alignment between the most common science course content offered in Kindergarten through grade twelve in California public schools and the Commission's current Single Subject science content area authorization structure. The table is formatted to address all discipline specific science courses in the first four columns, with introductory level courses in broader science categories addressed in the last four columns. The middle column provides information on those science content area credentials that authorize teaching integrated science courses at the grade levels indicated.

Table 1: Current Alignment between K-12 Course Content and Science Authorizations

Science Content Area Authorization	All Courses*				Integrated Science	Only Introductory		
	Biological Science	Chemistry	Physics	Earth/Geosciences		General Science	Life Science	Physical Science
Foundational-Level General Science					K-8	X	X	X
Science: Biological Sciences	X				K-12	X	X	X
Science: Chemistry		X			K-12	X	X	X
Science: Physics			X		K-12	X	X	X
Science: Geosciences				X	K-12	X	X	X
Biological Sciences (Specialized)	X							
Chemistry (Specialized)		X						
Physics (Specialized)			X					
Geosciences (Specialized)				X				

*grades preschool, K - 12, and adults

The four Specialized Science content area authorizations developed by the Commission in 2003 represent the smallest percentage of new science teachers (8% in 2012-13) and do not authorize teaching integrated science. In 2013, the State Board of Education adopted an integrated science model as the preferred model for science instruction in grades 6 through 8.

Teachers who already hold a Single Subject Teaching Credential in a specialized science content area may continue to serve within the scope of their authorization; however, holders of these more narrow content area authorizations may also elect to earn the full content area authorization in their science discipline in order to expand their authorization to include both integrated science and other introductory science content. They may also elect to add another science content area. Table 2 provides options for holders of Specialized Science content areas to earn a full science content area authorization. In most cases, individuals holding a specialized science content area authorization would need to pass Subtests I and II in General Sciences to earn the full science content area authorization in their corresponding science content area.

Table 2: Options for Holders of Specialized Science Content Areas to Earn a Full Science Content Area Authorization

Holder of a Single Subject in Biological Sciences (Specialized), Chemistry (Specialized), Geosciences (Specialized), or Physics (Specialized) Credential		
Credential Held*	To Qualify For	Examinations to Pass (by examination #/subtest) <i>The minimum passing scores for each subtest is 220</i>
Biological Sciences (Specialized)	Science: Biological Sciences	118 Subtest I (General Science) and 119 Subtest II (General Science)
	Science: Chemistry	118 Subtest I (General Science), 119 Subtest II (General Science), and 121 Subtest III (Concentration: Chemistry)
	Science: Geosciences	118 Subtest I (General Science), 119 Subtest II (General Science), and 122 Subtest III (Concentration: Earth and Planetary Science)
	Science: Physics	118 Subtest I (General Science), 119 Subtest II (General Science), and 123 Subtest III (Concentration: Physics)
Chemistry (Specialized)	Science: Biological Sciences	118 Subtest I (General Science), 119 Subtest II (General Science), and 120 Subtest III (Concentration: Biology)
	Science: Chemistry	118 Subtest I (General Science) and 119 Subtest II (General Science)
	Science: Geosciences	118 Subtest I (General Science), 119 Subtest II (General Science), and 122 Subtest III (Concentration: Earth and Planetary Science)
	Science: Physics	118 Subtest I (General Science), 119 Subtest II (General Science), and 123 Subtest III (Concentration: Physics)
Geosciences (Specialized)	Science: Biological Sciences	118 Subtest I (General Science), 119 Subtest II (General Science), and 120 Subtest III (Concentration: Biology)
	Science: Chemistry	118 Subtest I (General Science), 119 Subtest II (General Science), and 121 Subtest III (Concentration: Chemistry)
	Science: Geosciences	118 Subtest I (General Science) and 119 Subtest II (General Science)
	Science: Physics	118 Subtest I (General Science), 119 Subtest II (General Science), and 123 Subtest III (Concentration: Physics)
Physics (Specialized)	Science: Biological Sciences	118 Subtest I (General Science), 119 Subtest II (General Science), and 120 Subtest III (Concentration: Biology)
	Science: Chemistry	118 Subtest I (General Science), 119 Subtest II (General Science), and 121 Subtest III (Concentration: Chemistry)
	Science: Geosciences	118 Subtest I (General Science), 119 Subtest II (General Science), and 122 Subtest III (Concentration: Earth and Planetary Science)
	Science: Physics	118 Subtest I (General Science) and 119 Subtest II (General Science)

*Earned by examination or advanced degree/coursework

Important Dates:

Effective dates for discontinuing the initial issuance of specialized science content areas are provided in Table 3.

Table 3: Important Dates to Discontinue Issuance of Specialized Science Content Areas

Effective Date	Action	Notes
1/1/2015	Last date to submit an application for a Short-Term Staff Permit (STSP), Provisional Internship Permit (PIP) or General Education Limited Assignment Permit (GELAP) in a Specialized Science content area.	GELAPs may not be reissued after 1/1/2015.
7/11/2015	Last Administration of CSET examination subtests for Specialized Science content areas	Examinations remain valid for certification purposes for five years.
7/11/2015	Last date to submit a request for review for subject matter equivalency in a Specialized Science Content area by the Commission or review by a program sponsor of an advanced degree in a closely aligned area.	Details of subject matter equivalency review are specified in Coded Correspondence #03-0010.
8/1/2017	Last date for initial issuance of a Single Subject Intern in a Specialized Science	Intern must be recommended for a Preliminary Single Subject in Specialized Science no later than 8/1/2020
8/1/2020	Last issuance date for an added authorization in a Specialized Science. Subject matter must have been verified by examination or coursework no later than 7/11/15.	Applications submitted with a request to review for subject matter by staff after 07/11/15 will be returned.
8/1/2020	Last date for initial issuance of a Single Subject Preliminary credential in a Specialized Science (or clear for initial application). Subject matter must have been verified by examination or coursework no later than 7/11/15.	Applications submitted with a request to review for subject matter by staff after 07/11/15 will be returned .

Background:

In 1997, the Commission developed four Single Subject discipline-specific science content area authorizations: Biological Sciences, Chemistry, Geosciences, and Physics to align with statutory requirements. These four full science content area authorizations are issued on Single Subject teaching credentials and allow the holder to teach coordinated science, introductory science, integrated science, general science, and classes in the specific science content area in Kindergarten through grade twelve.

In 2003, the Commission developed Specialized Science content area authorizations for Single Subject teaching credentials for these same four science disciplines with the intent of increasing the state's supply of science teachers at the high school level by attracting second career professionals with advanced degrees, coursework and/or knowledge in a specific science discipline. Individuals issued a credential in one of the four specialized science content areas have an authorization limited to teaching content within that specific science discipline only.

Individuals with these specialized authorizations do not complete subject matter requirements related to general, introductory, or integrated science and are not authorized to teach an integrated

science pathway course at the middle or high school level without earning an additional broad science content area authorization on their Single Subject teaching credential.

In 2009, the Commission developed an additional science content area authorization for Single Subject teaching credentials: Foundational-Level General Science (FLGS). The FLGS authorization was developed with the intent of increasing the potential supply of science teachers at the middle school level. The holder of a Single Subject teaching credential in FLGS is authorized to teach integrated science in Kindergarten through grade 8. Holders of a Single Subject Teaching Credential in FLGS are also authorized to teach introductory and general science courses to students through grade 12.

The State Board of Education (SBE) adopted the *Next Generation Science Standards for California Public Schools, Kindergarten through Grade Twelve and Appendices A - M* on September 2, 2013. In November 2013, the SBE adopted an integrated middle school learning progression for grades 6 through 8 as the preferred model for California.

Information in Commission agenda items in April and August of 2014 addressed the current multiple and single subject science credential content and how the adoption of the NGSS will impact science education in California. The focus of the NGSS represents a shift in standards-based reform within education with rigorous expectations that K-12 students will be able to apply science concepts across curricular areas. This shift in focus will require candidates to be prepared to teach cross-cutting science concepts across science disciplines. As a result, the Commission took action at the August 2014 meeting to streamline the science content area authorization structure for California in order to align the preparation and authorizations for future science teachers with the NGSS for California adopted by the SBE.

Source:

Education Code sections 44257 and 44257.2

References:

Coded Correspondence 03-10: for Specialized Science (03-10):

<http://www.ctc.ca.gov/notices/coded/030010/030010.pdf>

Single Subject Teaching Credentials in Specialized Science and Alignment with the Next Generation Science Standards (NGSS) in California:

<http://www.ctc.ca.gov/commission/agendas/2014-08/2014-08-4C.pdf>

Contact Information:

Questions regarding credential requirements and application submission may be directed to the Commission's Information Services staff by email at credentials@ctc.ca.gov or by telephone at (916) 322-4974 Monday through Friday from 12:30 pm to 4:30 pm.

Questions from program sponsors related to the transition timeline provided in this correspondence may be directed to the Commission's Professional Services Division staff by email at PSDInfo@ctc.ca.gov.