ADDING SCIENCE AUTHORIZATIONS TO EXISTING CREDENTIALS

~Adding a Single Subject Science credential to an existing Multiple Subject credential~

Questions? Contact the Credential Analyst, Sherri Nakashima at sherrin@csufresno.edu
Education Building, Room 100 (559) 278-0300

Valid Credential Held	Credential sought	Authorized Assignments	Requirements
Multiple Subject	Single Subject Science: A. Biological Science B. Chemistry C. Geoscience D. Physics	Grades 12 and below: • Specific subject area • Integrated sciences grades 7-9 • Introductory general science • Introductory life science • Introductory physical science	1) Subject matter competency by passing CSET exams: www.ctcexams.nesinc.com A. Life Science - subtests 215 and 217 B. Chemistry subtests -215 and 218 C. Earth and Space Sciences – subtests 215 and 219 D. Physics – subtests 215 and 220 or Completion of approved subject matter program coursework: contact Single Subject Science Academic Advisor 2) Three semester unit science methodology course
Multiple Subject	Single Subject Foundational-Level General Science	Grades 12 and below: • Introductory and general science • Introductory life science • Introductory physical science Integrated science grades 8 and below	1) Passage of CSET examination 215. 2) Three semester unit FL science methodology course

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~Adding a Single Subject Science credential to an existing Single Subject credential~

Valid Credential Held	Credential sought	Authorized Assignments	Requirements
Single Subject (non-science)	Single Subject Science: A. Biological Science B. Chemistry C. Geoscience D. Physics	Grades 12 and below: • Specific subject area • Integrated sciences grades 7-9 • Introductory general science • Introductory life science • Introductory physical science	1) Subject matter competency by passing CSET exams or approved subject matter coursework: www.ctcexams.nesinc.com 2) Three semester or four quarter unit science methodology course A. Life Sciences - subtests 215 and 217 B. Chemistry subtests -215 and 218 C. Earth and Space Sciences – subtests 215 and 219 D. Physics – subtests 215 and 220
Single Subject (science)	Single Subject Science: A. Biological Science B. Chemistry C. Geosciences D. Physics	Grades 12 and below: • Specific subject area • Integrated sciences grades 7-9 • Introductory general science • Introductory life science • Introductory physical science	1) Subject matter competency by passing CSET exams: www.ctcexams.nesinc.com A. Life Sciences – subtest 217 B. Chemistry - subtest 218 C. Earth and Space Sciences - subtest 219 D. Physics – subtest 220 *A separate science methodology course is not required if you already hold a science credential.*
Single Subject (non-science)	Single Subject Foundational-Level Science	Grades 12 and below: • Introductory and general science • Introductory life science • Introductory physical science Integrated science grades 8 and below	1) Pass CSET subtest 215 2) Three semester or four quarter unit FL science methodology course

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~Other Science Authorizations Added to a MULTIPLE SUBJECT Credential~

(Supplementary or Subject Matter Authorizations are met by completing coursework only, CSETs not required)

Subject Matter Authorization - 32 semester units (previously required for No Child Left Behind – no longer mandated)		
Added Authorization	**Authorized Assignments**	**Requirements**
Subject Matter Authorization Introductory Science added to a Multiple Subject credential	Curriculum grades 9 and below; students can be grade 12 and below. Includes Earth/Geosciences, Integrated Science grades 7-9, Introductory/general science, introductory life and physical science	Completion of 32 semester units in 4 specific areas of science: biological science, chemistry, geosciences and physics. Can be a combination of upper and lower division units. Minimum of 6 semester units in each area. http://www.ctc.ca.gov/credentials/leaflets/cl852.pdf
Specific Subject Matter Authorization in Biological Science, Chemistry, Geosciences, Physics added to a Multiple Subject credential	Grade 12 and below in the specific subject area. Biological Science can also teach Introductory Life Science	Completion of 32 semester units in the specific subject area. Can be a combination of upper and lower division units. http://www.ctc.ca.gov/credentials/leaflets/cl852.pdf
Supplementary Authorization - 10/20 semester units		
Added Authorization	**Grade Levels/Settings**	**Requirements**
Supplementary Authorization Introductory Science added to a Multiple Subject credential	Students Grade 9 and below. Integrated science grades 7-9, introductory/ general science, introductory life and physical science	Completion of 10 upper division or 20 semester units with at least one course in 4 specific areas of science: biological science, chemistry, geosciences and physics. Must include a one-year sequence of courses in two of the four areas and at least one lab component. The 20 units can be a combination of upper and lower division units. http://www.ctc.ca.gov/credentials/leaflets/cl629.pdf

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~Other Science Authorizations Added to a SINGLE SUBJECT Credential~

(Supplementary or Subject Matter Authorizations are met by completing coursework only, CSETs not required)

Subject Matter Authorization - 32 semester units (previously required for No Child Left Behind – no longer mandated)		
Added Authorization	**Authorized Assignments**	**Requirements**
Subject Matter Authorization Introductory Science added to a Single Subject credential	Curriculum grades 9 and below; students can be grade 12 and below. Includes Earth/Geosciences, Integrated Science grades 7-9, Introductory/general science, introductory life and physical science	Completion of 32 semester units in 4 specific areas of science: biological science, chemistry, geosciences and physics. Can be a combination of upper and lower division units. Minimum of 6 semester units in each area. http://www.ctc.ca.gov/credentials/leaflets/cl852.pdf
Specific Subject Matter Authorization in Biological Science, Chemistry, Geosciences, Physics added to a Single Subject credential	Grades 12 and below in the specific subject area only. Biological science can also teach introductory life science. No integrated science.	Completion of 32 semester units in the specific subject area. Can be a combination of upper and lower division units. http://www.ctc.ca.gov/credentials/leaflets/cl852.pdf
Supplementary Authorization – 10/20 semester units		
Added Authorization	**Authorized Assignments**	**Requirements**
Supplementary Authorization Introductory Science added to Single Subject credential	Curriculum grades 9 and below; students can be in grade 12 and below. Integrated science grades 7-9; Introductory/general science, introductory life and physical science	Completion of 10 upper division or 20 semester units in 4 specific areas of science: biological science, chemistry, geosciences and physics. Must include a one-year sequence of coursework in 2 of the 4 areas and at least one lab component Can be a combination of upper and lower division units.. http://www.ctc.ca.gov/credentials/leaflets/cl603.pdf
Specific Supplementary Authorization in Biological Science, Chemistry, Geosciences, Physics added to a Single Subject Credential	Grades 12 and below in the specific subject area. Biological science can also teach introductory life science.	Completion of 10 upper division or 20 semester units (combination upper and lower division units) in the specific areas listed below. http://www.ctc.ca.gov/credentials/leaflets/cl603.pdf BIOLOGICAL SCIENCE: course of study must include: a) molecular and cellular biology, b) biology of organisms, c) evolution. At least one course must include a lab component. CHEMISTRY: course of study must include: a) structure and stability, b) chemical reactions. At least one course must include a lab component. GEOSCIENCES: course of study must include: a) astronomy, b) geology, c) meteorology, d) oceanography. At least one course must include a lab component. PHYSICS: course of study must include: a) energy-mechanics, b) energy-heat, c) energy-electricity and magnetism, d) wave motion, e) atomic and nuclear physics. At least one course must include a lab component.

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