Three Pathways to Teaching Middle School Science  
May 2012

I. Elementary and Middle School:
A. Pass the CSET-MS and earn a multiple subject credential.
B. When you apply for your credential or later, add the Introductory Subject Matter Authorization (ISMA) in science (see below) by proving you have completed 32 units of science with the required pattern of courses and a C or better each course.

This pathway is best for individuals who prefer to teach in elementary school but want the option to teaching in middle school. Student teaching is completed in an elementary school. K – 8 districts are more likely to hire individuals with this certification than individuals with just the elementary school certification.

II. Elementary and Middle School:
A. Pass the CSET-MS and earn a multiple subject credential.
B. Add a single subject credential in Foundational-Level General Science (see below) by
   1. satisfying the Foundational Level General Science requirements (see below for the two options) AND
   2. passing TE 914, the single subject science methods class. This class is offered during fall semesters usually Wednesdays at 4 PM. (In rare cases, this course may be taken while you are completing the multiple subject credential program; however, usually you need to complete it the following fall through the College of Extended Studies.)

This pathway is best for individuals who want to teach in either elementary or middle school. Student teaching is completed in an elementary school. K - 12 districts, such as the San Diego Unified School District, have told Bonnie Telfer that they are more likely to hire individuals with a single subject credential and Foundational-Level General Science certification than individuals with just an Introductory Subject Matter Authorization in science and a multiple subject credential.

III. Middle School Only:
A. The CSET-MS is NOT required because you will not earn a multiple subject credential!
B. Instead earn a single subject credential in Foundational-Level General Science certification by
   1. satisfying the Foundational Level General Science requirements (see below for the two options) AND
   2. completing the single subject credential program.

This pathway is for individuals who know they want to teach science in middle school. Student teaching is done in middle, which makes these individuals more hirable for these levels. Students who later change their minds and decide they also want the option of teaching in elementary school can do so by passing (a) the CSET-MS, (b) the RICA exam or TE 930, Teaching Reading and Language Arts in the Elementary Classroom, and (c) TE 910, Elementary Methodology (ask Bonnie Telfer).

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Documentation:
1. Subject Matter Authorization Guideline Book, Commission on Teacher Credentialing, Feb. 2005:
   *Introductory subject* matter authorizations may be added to a . . . Multiple Subject . . . Teaching Credential. The introductory subjects authorize the holder to teach the subject matter content typically included in curriculum guidelines and textbooks approved for study in grades 9 and below. This allows an employer to assign a teacher with an introductory authorization to teach a class in which the curriculum is for grades 9 and below but the students may be in grades K-12 (p. 1).
   *Acceptable coursework must be: a. completed with a grade of “C” or better (“credit,” “passing,” or “satisfactory” is acceptable) (p.2).
   *An applicant will qualify for a subject matter authorization upon the completion of . . . 32 semester . . . hours of non-remedial collegiate coursework in the subject area requested. Science introductory subject matter authorizations require a minimum of six semester hours in each of the specific content areas:
biological science, chemistry, geosciences, and physics. The balance of the units may be in any course within the subject category (paraphrased from p. 2 and p. 7).

See the Liberal Studies Introductory Subject Matter Authorization (ISMA) in Science worksheets for 2010 and earlier catalogs (under Middle School Options) or 2011 and later catalogs (under Content Focus Areas) on the Liberal Studies web site.

2 or 3. Information on Foundational-Level General Science (FLGS)
You can satisfy the FLGS requirements either by completing SDSU’s Commission on Teacher Credentialing approved FLGS Program (fall 2011) or passing the CSET-Science I and CSET-Science II tests.

(A) For the requirements for the CTC approved program, see the FLGS Program advising sheet for (1) 2010 and earlier catalogs or (2) 2011 and later catalogs. (Go back to the previous web page.)

(B) For information on the two CSET science tests, go to the CSET web site at www.cset.nesinc.com. Select: Before You Register  Test Selection  Paper-Based Testing  scroll down to CSET: Single Subjects Scroll down to:

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<td>Dynamic Processes of the Earth</td>
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<td>II (119)</td>
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Important notes: A Single Subject Teaching Credential in Foundational-Level General Science authorizes teaching only in general, introductory, and integrated science (integrated science through Grade 8 only).

A scientific calculator will be provided to examinees for CSET: Science subtests (see "Scientific Calculators" following these test information tables for detailed information).

For help passing the CSET-Science I and CSET-Science II tests:
The Math Science Teacher Institute (MSTI) offers summer course is designed to help individuals pass the CSET-Science I (118) and CSET-Science II (119). Take the course for free in June-July and try to pass the two science CSET tests in July. Go back to the previous web page to find the MSTI flyer.