



Theory of Equations. Augustin-Louis Cauchy (1789-1857).
<http://www.1902encyclopedia.com/A/ALG/algebra-14.html>

The Mathematics and Science Teacher Initiative (MSTI) at California State University, Fresno announces...

Mathematics and Science CSET Workshops & Teaching Methods Courses for Prospective Mathematics and Science Teachers

Spring - Summer 2014

The Mathematics and Science Teacher Initiative (MSTI) at California State University, Fresno is pleased to announce the availability of math and science CSET workshops and teaching methods courses for **prospective middle school or high school teachers of mathematics and science**. Below and on the next four pages, you will find information about Single Subject mathematics and science teaching credentials, as well as information about the workshops and courses. Visit the **MSTI Web site** for updates: www.fresnostate.edu/teachmathscience (look under “Announcements”). Also, feel free to contact the MSTI Director, Dr. Carol Fry Bohlin, with any questions: carolb@csufresno.edu

Single Subject Mathematics and Science Credentials

To teach math or science in a departmentalized public school setting (typically in a middle school or high school) you need a Single Subject teaching credential. You may earn your initial credential in conjunction with your bachelor's degree or at any time after graduation. Visit www.fresnostate.edu/kremen for instructions on applying to the credential program. For details on the Single Subject credential program, visit www.fresnostate.edu/kremen/applications/ssreqs.html

You may also add a math and/or science credential to an existing credential. If you already have a SS or a Multiple Subject (MS) credential, you will need to pass 2-3 CSET subtests (www.cset.nesinc.com/) to demonstrate subject matter competency in the desired subject. Taking the subtests is also required if you are currently pursuing a MS credential and desire an additional teaching authorization or if you are a SS credential student who didn't take a state-approved course of study for prospective math or science teachers. See below for more details on available SS math and science credentials:

- **Foundational-Level Mathematics (FLM):** Allows you to teach through algebra and geometry at any grade level, but intended primarily for those who wish to teach middle school math – Algebra I and below. Holders of Single Subject credentials (in an area other than math) and Multiple Subject credentials need to pass CSET: Mathematics Subtests I and II (#110 and 111) plus take a Foundational-Level Mathematics teaching methods course: CI 161/FLM. Fresno State is offering this course during SP 2014 and also during SU 2014. Email May Lee, MSTI Administrative Coordinator, if you are interested in taking this course during the summer: mayl@csufresno.edu Course prerequisite: A passing score on at least one of the CSET math subtests, a Liberal Studies concentration in math, or a substantial number of undergraduate mathematics courses. (Those desiring a full credential in mathematics--see below--need to take CI 161/Math in Fall 2014.)

- **Mathematics:** Allows you to teach math courses through AP Calculus. Single Subject–Mathematics credential students need to pass CSET: Math Subtests I, II, & III (#110-112) if a CTC-approved math subject matter preparation program has not been taken. Others (MS or SS teachers/credential students) must pass these three subtests and take CI 161/ Math (offered each fall). Course prerequisites include passing at least two of the three required CSET math subtests.

- **Foundational-Level General Science (FLGS):** Allows you to teach introductory and general science, intro. life science, and intro. physical science in grades K-12 and integrated science in grades K-8. SS teachers must pass CSET: Science Subtests I and II (#118 & 119). Multiple Subject teachers need to pass the two subtests and take CI 161/FLGS, which will be offered in SP 2014 and also in SU 2014. Email mayl@csufresno.edu if interested in the summer course.

- **Science:** Allows you to teach introductory life and general science; integrated science I, II, III; plus either biology/life science (biology option), earth and planetary science (earth sciences option), chemistry (chemistry option), or physics (physics option). Single Subject (SS) science teachers are encouraged to add at least one other area of science to an initial credential to increase instructional and employment options. Multiple Subject or non-science SS teachers who desire a SS Science credential must pass CSET: Science Subtests I and II (General Science) and CSET: Science Subtest III in a desired science content area. (Additional authorizations can then be added by passing CSET: Science Subtest III in other areas of science.) Alternatively, MS and SS teachers can add a SS Science (Specialized) Credential by passing CSET: Science Subtests III and IV in the desired area(s). In addition to passing CSET: Science Subtests I-III (or III and IV), MS teachers would also need to take CI 161/Science (SS science teaching methods course) offered during the fall semester at Fresno State. (Those interested in taking this course should first contact Dr. David Andrews - davidan@csufresno.edu)

CSET Mathematics and Science Preparation Workshops & Teaching Methods Courses

All workshops and courses will be held on the campus of California State University, Fresno

MSTI's CSET: Mathematics Subtests I-III (#110-112) Workshops for Spring-Summer 2014

Registration and Fees: Because MSTI is funded by a grant received from the CSU Chancellor's Office, the fee for each mathematics workshop series (CSET Subtest I, II, or III) is only **\$25** if you are a current or prospective Multiple Subject credential student (from any university), a current or prospective Fresno State Single Subject credential student, or a credentialed teacher (Multiple or Single Subject), because you are eligible to apply for a math credential through Fresno State's credential office (Kremen Education, Room 100). You may also take advantage of other MSTI benefits such as CSET fee reimbursement and membership in professional organizations such as CMC.

If you are not able to apply for your initial or additional math credential through Fresno State's credential office, the fee per workshop series is \$200. This situation would apply if you are currently earning or plan to earn an initial SS math or science credential through another university. Registration is on a first-come, first-served basis. Space is reserved in the order of the date that payment is received. Mail a check (*made payable to SJVMP*) to May Lee c/o MSTI; 5005 N. Maple Ave., M/S ED 2; Fresno, CA 93740-8025; or bring a check to Kremen Education, Room 250, in an envelope addressed to May Lee. Email May with any questions: mayl@csufresno.edu

Parking: Free (paid for by MSTI) for those who are not Fresno State students. A parking permit will be distributed on Saturdays for the next class meeting. For the first class, registered students can pick up a daily parking permit in Kremen Education, Room 250 (559-278-0240) the week before the class begins between 8 a.m. and 4:45 p.m.

Spring 2014

CSET: Mathematics Subtest I Overview (Algebra)

- **Instructor:** Dr. Lance Burger (lburger@csufresno.edu)
- **Dates:** (Mondays and Wednesdays) March 3 - 26, 2014
- **Time:** 5:30-8:30 p.m., Q&A from 8:30-9:00 p.m. on **Wednesdays**
- **Location:** Fresno State Campus: TBA

CSET: Mathematics Subtest II Overview (Geometry; Probability/Statistics)

- **Instructor:** Dr. Lance Burger (lburger@csufresno.edu)
- **Dates:** (Mondays and Wednesdays) April 7 - May 7 (no class meetings the week of April 14-18—Spring Break)
- **Time:** 5:30-8:30 p.m., Q&A from 8:30-9:00 p.m. on **Wednesdays**
- **Location:** Fresno State Campus: TBA

Summer 2014

CSET: Mathematics Subtest I (Algebra)

- **Instructor:** Dr. Comlan de Souza (cdesouza@csufresno.edu)
- **Dates:** July 7 - July 25, 2014
- **Time:** (Monday-Friday) 9:00 a.m. - 11:50 p.m., Q&A from 11:50 a.m. - 12:20 p.m. on **Wednesdays**
- **Location:** Fresno State Campus: TBA

CSET: Mathematics Subtest II (Geometry; Probability/Statistics)

- **Instructor:** Dr. Stefaan Delcroix (sdelcroix@csufresno.edu)
- **Dates:** July 7 - July 25, 2014
- **Time:** (Monday-Friday) 12:30 p.m. - 3:20 p.m., Q&A from 3:20 p.m. - 3:50 p.m. on **Thursdays**
- **Location:** Fresno State Campus: TBA

MSTI's CSET: Science Subtest I-IV Workshops for Spring-Summer 2014

The CSU Chancellor's Office funds Fresno State's MSTI grant, allowing the full-day science workshops to be offered **free of charge** if you are a current or prospective Multiple Subject (MS) credential student (from any university), a credentialed teacher (Multiple or Single Subject), or a current or prospective Single Subject credential student at Fresno State, assuming you apply for your new credential through Fresno State's credential office (Kremen Education, Room 100). You are also eligible to take advantage of our courses, have your CSET fees reimbursed, and obtain free membership in CSTA. (See "Important Note" below about registration.)

If you are currently earning (or plan to earn) a Preliminary Single Subject science credential through another university, the workshop fee is **\$150 per day**. In this case, mail a check (*payable to SJVMP*) to May Lee; 5005 N. Maple Ave., M/S ED 2; Fresno, CA 93740-8025, or bring the check to Room 250 in the Kremen Education building (NW corner of Maple and Shaw Ave.) for May Lee (c/o MSTI). For questions about payment, email May Lee at mayl@csufresno.edu

**** IMPORTANT NOTE:** To reserve a seat for a particular SCIENCE workshop, May Lee (address above) must receive a deposit of \$25 **by 5:00 p.m.** on the **Tuesday (4 days)** before the workshop. The check (or cash) will be **returned to you** at the workshop or mailed shortly thereafter. **If you do not attend, the deposit will not be refunded.** If you are unable to attend, your deposit **will** be returned IF you notify May Lee by the Monday (5 days) before the workshop. In addition to taking or mailing your \$25 deposit to May Lee, **email the CSET Science Coordinator, Dr. Brad Huff**, at bradh@csufresno.edu to let him know that you plan to attend the workshop. Dr. Huff can answer any questions you have about the workshop and will also provide you with more details (e.g., the schedule, the snacks, whether a session needs to be cancelled due to too few registrants, room change, etc.)

CSET: Biology, Chemistry, Earth & Planetary Science, General Science, & Physics Workshops

- **Instructors:** Dr. Brad Huff, Ms. Kelly Sullivan, and Dr. David Tinker
- **Location and Dates** are shown in the table below.
- **Parking:** Free in green and yellow lots on the Fresno State campus on Saturdays

Date in 2014 (Saturdays) Location	Times	Topic(s)	Presenter(s)
February 22 Education 10	8 a.m. - 4 p.m.	<ul style="list-style-type: none"> • Introduction/Orientation • Credential application information • Overview of all science areas • Review for General Science Subtests (118 & 119). 	Huff, Sullivan, Tinker, Bohlin, and Lee
March 8, 2014		CSET Administration-Register by Feb. 7 to avoid late fees.	
March 22 Education 10	8 a.m. - 4 p.m.	Review for General Science Subtests I and II	Huff, Sullivan, Tinker, and Lee
March 29 Education 10	8 a.m. - 3 p.m.	Physics for those needing more review for 118 and for those wanting to prepare for Subtests 123 and 127	Huff
April 5 Education 10	8 a.m. - 3 p.m.	Biology for those needing more review for 119 and those wanting to prepare for Subtests 120 and 124	Sullivan
April 26 Education 10	8 a.m. - 12 p.m. 12:30 p.m.-3 p.m.	Chemistry for those needing more review for 119 and those wanting to prepare for Subtests 121 and 125 Earth & Planetary Science for those needing more review for 118 and those wanting to prepare for Subtests 122 & 126	Tinker
May 3, 2014		CSET Administration - Register by April 4 to avoid late fees.	
June 7 Education 10	8 a.m. - 4 p.m.	Review for General Science Subtests I and II (118 & 119)	Huff, Sullivan, Tinker, Bohlin, and Lee
June 14 Education 10	8 a.m. - 3 p.m.	Physics for those needing more review for 118 and for those wanting to prepare for Subtests 123 and 127	Huff

June 21 Education 10	8 a.m. - 3 p.m.	Biology for those needing more review for 119 and those wanting to prepare for Subtests 120 and 124	Sullivan
June 28 Education 10	8 a.m. – 12 p.m. 12:30 p.m.–3 p.m.	Chemistry for those needing more review for 119 and those wanting to prepare for Subtests 121 and 125 Earth & Planetary Science for those needing more review for 118 and those wanting to prepare for Subtests 122 & 126	Tinker
July 12, 2014		CSET Administration – Register by June 13 to avoid late fees.	

Note: The subject-specific workshops will help you prepare for Subtests I and II since they go into more depth in the science content areas.

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### *CI 161 - Foundational-Level Mathematics and Science Teaching Methods Courses*

**CI 161/FLM** – Required 3-unit methods class for prospective Foundational-level Mathematics (FLM) teachers. Prerequisite: Must have passed at least one CSET: Mathematics subtest or have a strong math background (e.g., 4+ classes toward a minor or major in mathematics; Liberal Studies concentration in math). Those pursuing a full math credential must take CI 161/Math, which is offered each Fall Semester. Email the instructor of that course, Dr. Rajee Amarasinghe: [ramarasi@csufresno.edu](mailto:ramarasi@csufresno.edu), for more information. We are offering CI 161/FLM during Spring 2014 and Summer 2014. Email the instructor of this course, Dr. Lance Burger ([lburger@csufresno.edu](mailto:lburger@csufresno.edu)), for more information. Current students will register for the spring course online via [my.fresnostate.edu](http://my.fresnostate.edu). Non-matriculated students may register via Open University with instructor permission (\$295/unit). See [www.fresnostate.edu/cge/openuniversity](http://www.fresnostate.edu/cge/openuniversity) for more information.

MSTI is offering CI 161/FLM during July-August 2014 as a Fresno State extension course and will provide a \$700 fee scholarship to non-Fresno State students (who will pay only \$75 a unit). Current Fresno State students will receive a 100% fee scholarship, so the course is FREE for them! All students planning to take the Summer 2014 section of CI 161/FLM must register through May Lee. Contact May if you wish to take CI 161/FLM in July/August for more details: [mayl@csufresno.edu](mailto:mayl@csufresno.edu)

**Spring 2014:**

- **Instructor of CI 161/FLM:** Dr. Lance Burger ([lburger@csufresno.edu](mailto:lburger@csufresno.edu))
- **Class Number:** 35418
- **Dates/Times:** Tuesday, January 21 - May 13, 2014; 5:30-8:20 p.m.
- **Location:** Fresno State Campus: Science II, Room 207

**Summer 2014:**

- **Instructor of CI 161/FLM:** Dr. Lance Burger ([lburger@csufresno.edu](mailto:lburger@csufresno.edu))
- **Dates/Times:** July 14 – August 1, 2014; 4:00-6:50 p.m.
- **Location:** Fresno State Campus: TBA
- **To register for the summer course and to receive course updates:** May Lee will email you the registration form for the summer course and will send you any additional course information: [mayl@csufresno.edu](mailto:mayl@csufresno.edu). Please also email May if you have any questions about the fees (non-Fresno State students) or the fee waiver (Fresno State students).

**CI 161/FLGS** – Required 3-unit methods class for prospective Foundational-level General Science teachers; not required for teachers currently holding another Single Subject credential and not appropriate for students pursuing a full science credential in a content area such as biology or a physical science. These students must take CI 161 with Dr. Andrews. This course is offered each Fall Semester.

MSTI is offering CI 161/FLGS during June/July 2014 as a Fresno State extension course and will provide a \$700 fee scholarship to non-matriculated students (who will pay only \$75 a unit). Current Fresno State students will receive a 100% fee scholarship, so the course will be FREE of charge! All students planning to take the Summer 2014 section of CI 161/FLGS must register through May Lee. Contact May if you wish to take CI 161/FLGS in June/July: [mayl@csufresno.edu](mailto:mayl@csufresno.edu)

**Spring 2014:**

- **Instructor of CI 161/FLGS:** Dr. Fred Nelson ([fnelson@csufresno.edu](mailto:fnelson@csufresno.edu))
- **Class Number:** 36549
- **Dates/Times:** Monday, January 21 - May 13, 2014; 5:30-8:20 p.m.
- **Location:** Fresno State Campus--Kremen Education Building, Room 153

**Summer 2014:**

- **Instructor of CI 161/FLGS:** Dr. Fred Nelson (fnelson@csufresno.edu)
- **Dates/Times:** Summer 2014: Monday - Friday, June 16 – July 7, 2014; 4-6:50 p.m. (no class meeting on July 4)
- **Location:** TBA
- **To register for the summer course and to receive course updates:** May Lee will email you the registration form for the summer course and will send you any additional course information: [mayl@csufresno.edu](mailto:mayl@csufresno.edu). Please also email May if you have any questions about the fees.

~~ *Additional MSTI Support for Prospective Math and Science Teachers* ~~

*Note: Fee reimbursements are not available to students currently in (or planning to apply for) a Single Subject credential program at another university. All other students (including Multiple Subject candidates at other universities, all current and prospective Fresno State students, and all credentialed teachers) are eligible for these reimbursements.*

**CSET Fees: MSTI will reimburse your test fees!** We'll need a copy of your receipt, a copy of your official test score(s), and our invoice form (obtain from May Lee: [mayl@csufresno.edu](mailto:mayl@csufresno.edu)). MSTI will reimburse up to two attempts per test (i.e., you can fail the first attempt and we will still reimburse your fee). The paperwork for your final CSET subtest fee reimbursement will be processed along with your credential application fee reimbursement.

**Applying for your Credential: MSTI will reimburse your credential application fee!** It's very important that you apply for your credential through Sherri Nakashima's office in the Kremen Education building, Room 100 (8 a.m.-5 p.m., M-F) once you have passed the necessary CSET subtests and CI 161 (if required). Sherri's email address is [sherrin@csufresno.edu](mailto:sherrin@csufresno.edu) Request the form from May Lee: [mayl@csufresno.edu](mailto:mayl@csufresno.edu)

**Professional Support:** MSTI provides *free memberships in professional associations* for students enrolled in math and science methods classes, plus *conference support* (CMC, CSTA, CUE) and *scholarships* for a variety of *workshops and institutes* for Fresno State credential students! Contact Dr. Carol Fry Bohlin for more information: [carolb@csufresno.edu](mailto:carolb@csufresno.edu)

**COMET:** All MSTI workshop/course participants can receive a free subscription to the publication, *California Online Mathematics Education Times* (COMET). Check out back issues at <http://comet.cmpso.org/>

**CSET:** To register, visit the CSET Web site: [www.cset.nesinc.com](http://www.cset.nesinc.com) CSET test administration dates for Science Subtests: [www.cset.nesinc.com/CS\\_ann20132014testdates.asp](http://www.cset.nesinc.com/CS_ann20132014testdates.asp) (Jan. 11, Mar. 8, May 3, & July 12, 2014) **Important note for CSET Math test administration dates:** CSET computer-based tests are available by appointment, year-round, Monday through Saturday (excluding some holidays). The two testing centers closest to Fresno State are both Pearson Professional Centers: (1) Fresno: 7555 N. Palm Avenue Suite 205, 93711 and (2) Visalia: 5300 West Tulare Avenue Suite 108, 93277. Space is limited, so register early for the date(s) you desire.

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If you have any questions, please feel free to contact Dr. Carol Fry Bohlin, Professor and Director, Mathematics and Science Teacher Initiative (MSTI), California State University, Fresno: [carolb@csufresno.edu](mailto:carolb@csufresno.edu) or (559) 999-3188 (cell).

For updates, please visit [www.fresnostate.edu/kremen/special\\_projects/math\\_science.html](http://www.fresnostate.edu/kremen/special_projects/math_science.html)