

A Brief Overview of the Center for Science and Mathematics Education

Goals

The College of Science and Engineering has established CSME to cultivate wonderful science learning and teaching at all educational levels. The Center's main work is to

- recruit, prepare, and support good science and mathematics teachers;
- promote success of science students of all backgrounds;
- and establish a community of science and mathematics education scholars, practitioners, and students.

Programs and Resources

The Center manages a number of projects and resources and serves as a support to many other education projects within COSE.

- CSME Teaching Fellowships (details below)
- Retention and Equity Initiative (details below)
- PRIME partnership with SFUSD
- (CM)² partnership with SFUSD
- San Francisco Teachers Institute
- Bechtel Future Teacher Pathways: Community College to University

CSME also manages a Student Lounge and the new CSME Annex, which comprises a teaching resource center, a classroom and office space for education projects.

CSME Retention and Equity Initiative

The Center has a new focus on retention and equity in the science majors, both overall and with emphasis on women and underrepresented minorities. The current plan is to

- Analyze specific college needs and collect success rate statistics
- Offer supplemental instruction sections for bottleneck science major courses
- Improve science tutoring programs
- Increase scholarships and create a support network for lower division students

CSME Teaching Fellowships

This is the flagship program of CSME. The CSU Chancellor's Office calls it "a model for the state and nation." An outside evaluator describes it as "an oasis at a large state university."

Goals. To support future teachers in pursuit of their career goals and broaden their understanding of learning in different environments.

Success. The program has increased number of science teachers going to SFSU credential program, increased science credentials awarded, and gotten high satisfaction ratings.

Influence. This program supports more than 50 science and math majors interested in a K-12 teaching career annually. The program eventually helps secondary school students who will learn from better math and science teachers.

Approaches. We offer stipends to reduce need to work part-time, extra mentoring, exclusive resource center and lounge, regular community events, special internships and programs, such as Spaceward Bound, a collaboration with NASA scientists, and STAR Internships at local federal science labs.

Need. We would ultimately like to have funding to cover full funding of approximately 50 Teaching Fellows (the current number of qualified program applicants). We currently have funding for 20 fully funded spots (which we have stretched to cover 30 fellows through reduced stipends). To fund each additional fellow costs about \$8,000. We already have an ongoing state grant and a private donor supporting six named fellowships.



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Director: Prof. Eric Hsu, erichsu@sfsu.edu

Donations: Wendy Abraham, wra@sfsu.edu

<http://csmesf.org> • csme@sfsu.edu • 415-405-4190