

Cal Teach Program Summary
UC Davis: Mathematics and Science Teaching (MAST) program
June 4, 2009

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| <p>Key features that distinguish Cal Teach from (your) other teacher preparation programs</p> | <p>CalTeach at UCD is embedded in the Mathematics and Science Teaching program (MAST). MAST is the only comprehensive program of instruction and advising on campus that helps students explore their interest in teaching and prepare to enter 5th year teaching credential programs. Key features of the program include:</p> <ol style="list-style-type: none"> 1. Natural Sciences major. The Natural Sciences major is a unique program in the UC system that was designed especially to provide the breadth and depth of science education recommended for science teachers, who commonly teach in more than one discipline. Students are required to have an introductory year of coursework in Chemistry, Earth Science, Life Science, Mathematics and Physics. Advanced work in two natural sciences provides the subject matter preparation to teach in two disciplines. The MAST program emphasizes the Natural Science and Mathematics majors as vehicles for the training of teachers because other majors are significantly more restrictive for <i>any</i> pathway to a credential. 2. Strong advising component. We provide extensive staff and faculty advising support for students in order to help them navigate the numerous requirements for subject matter preparation and prerequisites for credential programs. Contrary to common perceptions, completing appropriate preparation for a 5th year credential program is more demanding than preparing for graduate school in a science or math discipline. In order to complete that preparation within four years, it is important that students have help in keeping all their options open. 3. Widespread participation by science and mathematics faculty. The MAST program is advised by a steering committee of thirteen faculty members from the College of Letters and Science, College of Engineering, College of Biological Sciences, and the School of Education. |
| <p>Structure of the undergraduate portion of your Cal Teach program</p> | <p>Recommended Preparation for a 5th Year Credential Program</p> <ol style="list-style-type: none"> 1) Major in Natural Sciences or Mathematics 2) History of the United States (HIS17A or 17B, 4 units) 3) Learning in Science and Mathematics (EDU/GEL 81, 2 units, CaT1, includes 2 hours per week in an elementary classroom) 4) Teaching in Science and Mathematics (EDU/GEL 181, 2 units CaT2, includes 2 hours per week in a middle school classroom) 5) Educational Psychology: General (EDU 110, 4 units) 6) Educating Children with Disabilities (EDU 115, 2 units) 7) Teaching High School Science and Mathematics (EDU/GEL 183, 3 units, CaT3, includes 3 hours per week in a high school classroom) |

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| | <p>8) Cultural Diversity and Education (EDU 153, 2 units)</p> <p>9) Inquiry-based instruction for Mathematics and Science Learning Assistants (CaT4)</p> <p>The CaT courses emphasize active participation in K-12 classroom activities with graduated increases in responsibility for learning and teaching. In CaT3 and CaT4, students are expected to prepare and lead classroom activities and discussions.</p> |
| <p>Alternative pathways to the credential at your campus</p> | <p>1. Education Minor The education minor at UCD prepares students to enter a credential program. It requires 20 units of upper division coursework in Education. The CaT courses and courses outside of education may be used to satisfy the requirements of the minor program.</p> <p>2. Mathematics for Secondary Teaching Students majoring in mathematics have the option of earning A.B. (Secondary teaching option) or B.S. (Mathematics for secondary teaching option) degrees in mathematics. In order to prepare for a 5th year credential program, these subject matter preparation programs may be combined with either the CalTeach courses recommended by MAST or the Education minor.</p> <p>3. Late-deciders Students in traditional science or mathematics majors commonly decide only late in their education that they might like to consider teaching as a career. The MAST program offers multiple entry points into the CalTeach courses and a strong advising structure that helps students find an appropriate pathway to a credential program.</p> |
| <p>Type/format of your credential program(s)</p> | <p>The School of Education at UCD offers both a traditional 5th year credential program and an integrated M.A./credential program that can be completed in 15 months. Credentials offered at UCD include the California Single Subject Credential in Biology, Chemistry, Geosciences, Mathematics, and Physics for secondary school teachers.</p> |
| <p>Other important elements of your Cal Teach program.</p> | <p>CaT courses at UC Davis are taught by master teachers who typically have decades of practical experience in K-12 classrooms. The MAST program is also fortunate to have a large and stable core of experienced teachers who serve as hosts and mentor our students in K-12 classrooms. Students in CaT4 may participate in our new Learning Assistants program, helping Teaching Assistants in introductory science and mathematics courses.</p> |
| <p>Website</p> | <p>http://mast.ucdavis.edu/</p> |