

# Science and Math Education

## Minor

The Science and Math Education minor is offered by the Cal Teach program. Cal Teach is a program for undergraduate STEM (Science, Technology, Engineering, and Mathematics) majors interested in exploring a career in education.

Cal Teach at UC Berkeley is working to increase the number of qualified STEM educators in K–12 classrooms. Courses in the Cal Teach program are open to any STEM major with a desire to promote math and science education and equity.

Cal Teach is unique from other education programs in that it is focused on learning and applying those skills in local classrooms. All the courses in the Science and Math Education minor have field placements (<http://calteach.berkeley.edu/cal-teach-program/field-placements.php>) in local K-12 STEM classrooms. By the time students graduate with the minor, they will have spent over 100 hours honing their teaching in local classrooms.

The Cal Teach program is unique in that it offers STEM students the unique opportunity to complete both a bachelor's degree and a California teaching credential as an undergraduate. See teaching credential and minor with Cal Teach (<http://calteach.berkeley.edu/cal-teach-program/cal-teach-credential.php>) for more information.

The courses in the Science and Math Education minor cover topics including inquiry-based learning, creating and assessing student learning outcomes, equity in urban education, project-based instruction, methods of conducting and presenting research, and positive teacher-student interactions. The knowledge and skills gained in these courses are integral to success in any field that requires the communication of knowledge to others. This includes, but is not limited to, education, business, scientific/engineering industry, and public service.

Additional scholarships, internships, and research opportunities (<http://calteach.berkeley.edu/scholarships-and-opportunities>) are provided to students in the Cal Teach minor.

## Applying for the Minor

It is recommended to schedule a meeting with the Cal Teach student services coordinator to discuss your planning and educational goals as early as possible. Learn more about advising resources here (<http://calteach.berkeley.edu/cal-teach-program/advising-and-resources.php>).

After completing the introductory course and all five upper division minor courses, speak with the student services coordinator about completing the appropriate paperwork to be awarded the minor.

The minor in Science and Math Education demonstrates a passion and excellence in K-12 STEM Education. Additionally earning the Science and Math minor allows you to apply to the Cal Teach science and math credential program and earn your California Teaching Credential.

To learn more, schedule or plan, and to declare the minor please schedule an appointment with the Cal Teach Student Services Coordinator. (<http://calteach.berkeley.edu/cal-teach-program/advising-and-resources.php>)

## Guidelines

1. Enroll in and complete UGIS 82 K-8 Teaching and Inquiry-Based Lesson Design in the Science and Mathematics Classroom.
2. Speak with the Cal Teach student services coordinator about fitting the courses for the minor into your schedule.
3. The minor in Science and Math Education requires five courses. Note that two of these courses also fulfill American Cultures and Historical Studies breadth requirements (EDUC 131AC, and HIST 138T/180T/182AT, respectively).

## Required Courses

Take these three courses in sequence after completing UGIS 82:

EDUC 130	Knowing and Learning in Mathematics and Science	3
EDUC 131	Classroom Interactions in Science and Mathematics: A Focus on Equity and Urban Schools	3
UGIS 187	Project-Based Instruction	4

Complete the following two courses at any point after completing UGIS 82 and before the completion of your bachelor's degree:

UGIS 188	Research Methods for Science and Mathematics K-12 Teachers	3
HISTORY 138T	History of Science in the US CalTeach <sup>1</sup>	4
	or HISTORY 180T History of the Life Sciences Since 1750 (Cal Teach)	
	or HISTORY 182A Science, Technology, and Society (Cal Teach)	

<sup>1</sup> The course offered varies by semester. Check <http://schedule.berkeley.edu> for which course is offered in the upcoming semester.