

# Science and Mathematics Education (SCMATHE)

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## Courses

SCMATHE 210 Practicum in Science and Math Education Research and Development 1 - 4 Units

Terms offered: Fall 2017, Spring 2017, Fall 2016

Practical experience on an educational research or development project on campus or elsewhere for 8-12 hours per week. Class meetings augment research experience with discussions of readings and interaction with guest speakers.

### Rules & Requirements

**Prerequisites:** Consent of instructor

**Repeat rules:** One unit of credit for each four hours of student effort per week. Course may be repeated for credit. Course may be repeated for credit when topic changes.

### Hours & Format

**Fall and/or spring:** 15 weeks - 0 hours of fieldwork per week

### Additional Details

**Subject/Course Level:** Science and Mathematics Education/Graduate

**Grading:** Letter grade.

SCMATHE 220C Instructional Design in Science and Mathematics Education 3 Units

Terms offered: Spring 2017, Spring 2016, Spring 2015

Survey of literature on design of instruction in science and mathematics, including development of computer-based instruction. Includes consideration of evaluation methods and development of instruction modules for topics in science and mathematics.

### Rules & Requirements

**Prerequisites:** 220B or consent of the instructor

### Hours & Format

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

### Additional Details

**Subject/Course Level:** Science and Mathematics Education/Graduate

**Grading:** Letter grade.

SCMATHE 292 Research Seminar and Colloquium 1 Unit

Terms offered: Fall 2017, Spring 2017, Fall 2016

Discussion of current education research carried on by students, faculty, and guest speakers. A written analysis of several presentations required.

### Rules & Requirements

**Prerequisites:** Consent of instructor

**Repeat rules:** Course may be repeated for credit. Course may be repeated for credit when topic changes.

### Hours & Format

**Fall and/or spring:** 15 weeks - 2 hours of colloquium per week

### Additional Details

**Subject/Course Level:** Science and Mathematics Education/Graduate

**Grading:** Offered for satisfactory/unsatisfactory grade only.

SCMATHE 294 Formulation of Educational Research 1 - 3 Units

Terms offered: Fall 2017, Spring 2017, Fall 2016

Development of thesis proposal under supervision of faculty member.

### Rules & Requirements

**Prerequisites:** Consent of instructor

**Repeat rules:** One unit of credit for each four hours of student effort per week. Course may be repeated for credit. Course may be repeated for credit when topic changes.

### Hours & Format

**Fall and/or spring:** 15 weeks - 0 hours of independent study per week

### Additional Details

**Subject/Course Level:** Science and Mathematics Education/Graduate

**Grading:** Letter grade.

SCMATHE 295 Research 1 - 12 Units

Terms offered: Fall 2017, Spring 2017, Fall 2016

Independent research activities under supervision of a faculty member.

### Rules & Requirements

**Prerequisites:** Consent of instructor

**Repeat rules:** One unit of credit for each four hours of student effort per week. Course may be repeated for credit. Course may be repeated for credit when topic changes.

### Hours & Format

**Fall and/or spring:** 15 weeks - 0 hours of independent study per week

### Additional Details

**Subject/Course Level:** Science and Mathematics Education/Graduate

**Grading:** Letter grade.

SCMATHE 299 Individual Reading and Study 1 - 5 Units

Terms offered: Fall 2017, Spring 2017, Fall 2016

Individual reading and study under the supervision of a faculty member.

**Rules & Requirements**

**Prerequisites:** Consent of instructor

**Repeat rules:** One unit of credit for each four hours of student effort per week. Course may be repeated for credit. Course may be repeated for credit when topic changes.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 0 hours of independent study per week

**Additional Details**

**Subject/Course Level:** Science and Mathematics Education/Graduate

**Grading:** Letter grade.

SCMATHE 602 Individual Study for Qualifying Examination 1 - 8 Units

Terms offered: Fall 2017, Spring 2017, Fall 2016

Individual study, under the supervision of a faculty member, designed to prepare the student for Ph.D qualifying examination.

**Rules & Requirements**

**Prerequisites:** Consent of instructor

**Credit Restrictions:** Course does not satisfy unit or residence requirements.

**Repeat rules:** Course may be repeated for credit. Course may be repeated for credit when topic changes.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 0 hours of independent study per week

**Additional Details**

**Subject/Course Level:** Science and Mathematics Education/Graduate examination preparation

**Grading:** Offered for satisfactory/unsatisfactory grade only.