

SCIENCE ENGINEERING MATH (SCEM)

SCEM 190 Exploring the Natural Sciences (1 semester hour)

Introduction to the areas of study and career opportunities within the natural sciences. Frank R. Seaver College of Science and Engineering majors only.

SCEM 192 Health Professions Advising I (0-3 semester hours)

The course provides students with a comprehensive overview of the preparation needed to become a competitive applicant to graduate health professional programs. Students will build a strong foundation to become successful academically, as an applicant, and as a future health care professional. It is intended for post-baccalaureate students applying to medical or dental school only. Post-baccalaureate students only.

SCEM 193 Health Professions Advising II (0-3 semester hours)

The second in the series, this course focuses on the components of medical or dental school applications. It is intended for post-baccalaureate students applying to medical or dental school only. Prerequisite: Health Professions Advising I. Post-baccalaureate students only

SCEM 195 Applying to Medical or Dental School (1 semester hour)

This course is intended for undergraduate students applying to medical or dental school the summer immediately following its completion. Students will be given comprehensive overview of the preparation needed to become a competitive applicant to medical or dental school, with a focus on application components and what to expect after applications are submitted. Juniors and Seniors only. Credit/No credit only.

SCEM 198 Special Studies (0-3 semester hours)

SCEM 199 Independent Studies (0-3 semester hours)

SCEM 265 Women in Science and Mathematics: Breaking the Stereotype (3 semester hours)

A study of the work of prominent women scientists and mathematicians. The course will also examine their lives and how they succeeded in traditionally male disciplines. Prerequisite: MATH 101 or higher, or placement into MATH 106 or higher.

SCEM 267 The Science and Life of Galileo (3 semester hours)

A study of the scientific works of Galileo and how they influenced changes in our world view during the 17th century. Prerequisite: MATH 101 or higher, or placement into MATH 106 or higher.

SCEM 270 Experimenting in Science I (4 semester hours)

Combination laboratory designed to acquaint student with how science is done. Emphasis on active learning strategies such as performing experiments, demonstrations, group discussions. The study of general science principles, such as those typically introduced in K-8 education, in the areas of physical and earth science. Prerequisite: MATH 101 or higher, or placement into MATH 106 or higher. Liberal Studies majors only. University Core fulfilled: Explorations: Nature of Science, Technology, and Mathematics.

SCEM 271 Experimenting in Science II (4 semester hours)

Combination laboratory course designed to acquaint student with how science is done. Emphasis on active learning strategies such as performing experiments, demonstrations, group discussions. The study of general science principles, such as those typically introduced in K-8 education, in the areas of earth science and life science. Prerequisite: MATH 101 or higher, or placement into MATH 106 or higher. Liberal Studies majors only.

SCEM 298 Special Studies (1-3 semester hours)

SCEM 320 Science, Theology, and the Future (3 semester hours)

A look at scientific discoveries, advances, and knowledge will be presented. The implications of the findings in science on theological questions and our worldview will be explored. Prerequisites: BIOL 101, 102, 111, 112; CHEM 110, 111, 112, 113.

SCEM 370 Workshop Biology: Life Works I (3 semester hours)

The course discusses science pedagogy and allows students to experience working with science content as teachers, before they enter the classroom. Students will complete at least twenty hours of observation in high school classrooms and will be teaching lessons that they can develop.

SCEM 371 Workshop Biology: Life Works I Laboratory (1 semester hour)

The laboratory companion course for SCEM 370. Corequisite: SCEM 370.

SCEM 372 Workshop Biology: Life Works II (3 semester hours)

This is a community-based learning course that is project-based; students will create high school science curricula in collaboration with education staff at a local environmental non-profit and teachers from an area high school. Students background and interests, and the particular needs of the non-profit's education program and high school teachers, will play a significant role in defining each project. Prerequisites: SCEM 370 and 371. Corequisite: SCEM 373.

SCEM 373 Workshop Biology: Life Works II Laboratory (1 semester hour)

The companion course for SCEM 372. Corequisite: SCEM 372.

SCEM 376 Workshop Chemistry: The Elements Nature I (3 semester hours)

The course discusses science pedagogy and allows students to experience working with science content as teachers, before they enter the classroom. Students will complete at least 20 hours of observation in high school classrooms and will be teaching lessons that they develop. Corequisite: SCEM 377.

SCEM 377 Workshop Chemistry: The Elements of Nature I Laboratory (1 semester hour)

The laboratory companion course for SCEM 376. Corequisite: SCEM 376.

SCEM 378 Workshop Chemistry: The Elements of Nature II (3 semester hours)

This course discusses science pedagogy and allows students to experience working with science content as teachers, before they enter the classroom. Students will complete at least twenty hours of observation in high school classrooms and will be teaching lessons that they develop. Prerequisite: SCEM 376 and 377. Corequisite: SCEM 379.

SCEM 379 Workshop Chemistry: The Elements of Nature II Laboratory (1 semester hour)

The laboratory companion course for SCEM 378. Corequisite: 378.

SCEM 398 Special Studies (1-4 semester hours)

SCEM 399 Independent Studies (0-3 semester hours)

SCEM 490 STEM Teaching (1 semester hour)

This course is the registration component for Teaching Assistants. Permission of instructor required.

SCEM 491 Science Education Internship (1-4 semester hours)

Work on a project in science education either in the elementary school or secondary school setting or at another appropriate location.

SCEM 498 Special Studies (1-4 semester hours)

SCEM 591 Science Education Internship (1-4 semester hours)

Work on a project in science education either in the elementary school of secondary school setting or at another appropriate location.