CSM 600: History and Philosophy of Science Education

An introduction to the history of the field of science education and the related philosophical underpinnings. The course will survey the major events, ideas and philosophies and how these have changed over time. Particular focus will be on the time period from 1890 to the present day.

Offered
Fall, 3 credits, Letter graded (A, A-, B+, etc.)

CSM 610: The Nature and Practice of Science

An overview of the nature and practice of science through the analysis of current issues in science. Through the extensive use of case studies, students will address questions such as: What is science? What distinguishes science from other ways of knowing? What standards of evidence and scientific explanations, processes, and conventions are used in science? What philosophical, social, ethical, and historical perspectives are important in understanding science?

Offered
Fall and Spring, 3 credits, Letter graded (A, A-, B+, etc.)

CSM 620: Science Teacher Education

Introduction to the historical, philosophical and pedagogical issues surrounding science teacher education. Introduction to the nature of the research that has been conducted on teacher education in the past and current trends.

Offered
Spring, 3 credits, Letter graded (A, A-, B+, etc.)

CSM 630: Science Education Research Seminar

Introduction to the major theoretical frameworks and paradigms in societal issues (gender, culture, and diversity). Students will be required to critique research papers in the field and will conduct a literature review in their general thesis area.

Offered
Fall and Spring, 3 credits, Letter graded (A, A-, B+, etc.)

CSM 640: Directed Study in Science Education

In their fifth semester students will individually complete a directed study with a faculty advisor. The intent of this course is to prepare the students for the doctoral qualifying examination and assist them in refining their research topics.

Offered
Fall and Spring, 3-9 credits, Letter graded (A, A-, B+, etc.)

May be repeated for credit.