SCE - SCIENCE EDUCATION

SCE 2100 Integrated Science Content PK-6 Cr. 3
Satisfies General Education Requirement: Natural Scientific Inquiry
This course will address core integrated science content topics, concentrating on PK-6 performance expectations; across all science disciplines: life/environmental science, physical science, earth/space science, and engineering/technology/design. Offered Every Term.
Corequisite: SCE 2105

SCE 2105 Integrated Science Lab PK-6 Cr. 1
Satisfies General Education Requirement: Natural Sci Inquiry w/ Lab
This lab will provide the opportunity to authentically engage in science and engineering practices and scientific inquiry, use scientific modeling, and conduct controlled experiments; within and integrated across the science disciplines of life/environmental science, physical science, earth/space science, and engineering/technology/design. Offered Every Term.
Corequisite: SCE 2100
Fees: $15

SCE 5010 Biological Sciences for Elementary and Middle School Teachers Cr. 3
Significant biological principles, generalizations and understandings with relation to their use with children. Appropriate learning activities; experiments, field trips, text and reference materials, audio-visual resources, evaluation. Offered Every Term.
Fees: $10

SCE 5020 Physical Sciences for Elementary and Middle School Teachers Cr. 3
Significant principles, generalizations and understandings in the physical sciences with relation to their use with children. Appropriate learning activities including experiments, field trips, reference materials, audio-visual resources. Offered Every Term.
Fees: $10

SCE 5030 Earth/Space Science for Elementary and Middle School Teachers Cr. 3
Principles, generalizations and understandings related to teaching earth/space science to children. Learning activities, field trips, technology, and evaluation. Offered Every Term.
Fees: $10

SCE 5060 Methods and Materials of Instruction in Secondary School Science I Cr. 3
Role of science in the secondary curriculum. Problems and techniques of teaching science in the secondary schools; objectives, planning laboratory experiments, demonstrations, directed study, student projects, text and reference material, audio-visual resources, evaluation. Offered Fall.
Restriction(s): Enrollment limited to students in the College of Education.
Fees: $10

SCE 5070 Methods and Materials of Instruction in Secondary School Science II Cr. 3
This course is designed to provide a foundation for instructional strategies that promote phenomenon-based learning with a focus on Engineering Design and Technology performance expectations specifically for grades 5 – 9 and 7-12 secondary science instruction. Offered Fall.
Prerequisite: SCE 5060 with a minimum grade of C
Corequisite: TED 5600
Restriction(s): Enrollment limited to students in the College of Education.

SCE 5100 Integrated Science Content (PK-6) Cr. 3
Addresses core integrated science content topics, concentrating on PK-6 performance expectations across all science disciplines: life/environmental science, physical science, earth/space science, and engineering/technology/design. Offered Every Term.
Corequisite: SCE 5105

SCE 5105 Integrated Science Lab (PK-6) Cr. 1
The lab provides the opportunity to authentically engage in science and engineering practices and scientific inquiry. Students will use scientific modeling, and conduct controlled experiments within, and integrated across, the science disciplines of life/environmental science, physical science, earth/space science, and engineering/technology/design. Offered Every Term.
Corequisite: SCE 5100
Fees: $15

SCE 6010 Safety in the Science Classroom Cr. 2
Principles of Laboratory safety in all K-12 science classrooms, including legal responsibilities related to the use, storage and disposal of chemicals and biological specimens as well as legal and ethical use of living organisms in the classroom. Offered Winter.
Restriction(s): Enrollment limited to students in the College of Education.

SCE 6030 Advanced Studies in Teaching Science in the Junior High and Middle School Cr. 3
Innovations and improvements in middle school and junior high school science teaching. Exploration of appropriate areas of study, development and selection of learning activities and materials; laboratory experiences in selected areas. Offered Every Other Year.
Restriction(s): Enrollment limited to students in the College of Education.

SCE 6040 Advanced Studies in Teaching Science in the High School Cr. 3
Emphasis on methods of teaching biology and the physical sciences in the high school. Recent curriculum studies, research, and current problems. Laboratory experiments, equipment, textual and reference material, audio-visual resources, and evaluation procedures. Offered Every Other Year.
Fees: $10

SCE 6080 Teaching Environmental Studies Cr. 3
Ecological concepts and environmental problems, possible solutions, and their implications for curriculum development and classroom teaching in K-12 educational settings. Science as a process is stressed throughout classroom activities, field trips, and assignments. Offered Every Other Year.
Fees: $10