

SCE: Science Education Courses

Courses

SCE 3905 Directed Study

College of Ed and Prof Studies, Department of School of Education

1-12 sh (may be repeated indefinitely for credit)

SCE 4310 Teaching Science in Elementary Schools

College of Ed and Prof Studies, Department of School of Education

3 sh (may not be repeated for credit)

This course incorporates current research and best practices in science education to prepare prospective teachers to foster meaningful science learning in the elementary (K-6) classroom. In the course, prospective teachers reflect on and develop their competence in the three dimensions of science learning, and their understanding of the nature of science. They also explore subject-specific pedagogy with an emphasis on planning inquiry-based instruction that engages elementary learners in experiencing and explaining phenomena, and builds on their prior knowledge. Furthermore, the course develops prospective teachers' awareness of strategies to assess science learning, and promote equitable participation of underrepresented populations in science learning experiences. A material and supply fee is assessed for an elementary science materials kit.

SCE 4320 Teaching Science in Middle and Secondary Schools

College of Ed and Prof Studies, Department of School of Education

3 sh (may not be repeated for credit)

Theory and methods of teaching science in the middle and secondary schools; explores current research on approaches in teaching and learning science; examines the practice of science, disciplinary core ideas in specific science disciplines of choice (i.e. Biology, Earth/Space, Chemistry, Physics), and crosscutting themes in science; compares various models of teaching (i.e. direct instruction, inquiry, project-based learning); Includes practices to effectively move student thinking toward meaningful understanding focusing on best practices in STEM disciplines.

SCE 4905 Directed Study

College of Ed and Prof Studies, Department of School of Education

1-12 sh (may be repeated indefinitely for credit)

SCE 6905 Directed Study

College of Ed and Prof Studies, Department of School of Education

1-12 sh (may be repeated indefinitely for credit)