

# SCIENCE EDUCATION (SCED)

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## SCED 4004 - Elementary Science Teaching (3 Credits)

This course explores issues in elementary school science learning and teaching. Teacher candidates will develop knowledge of the nature of science and science content, engage in scientific inquiry, work to identify student conceptions, and plan and enact science instruction. Cross-listed with SCED 5004. Restriction: Professional Year Admission required. Repeatable. Max Hours: 9 Credits.

Grading Basis: Letter Grade

Repeatable. Max Credits: 9.

Professional Year Admission required. Students must be enrolled in one of the following plans: ECED-LICU or EGLH-LICU or ELED-LICU or FWLF-LICU or FWLS-LICU or MATH-LICU or MSMA-LICU or SCIG-LICU or SPED-LICU or SSSS-LICU

## SCED 4050 - Introduction to Science Teaching and Learning (2 Credits)

Focus on conceptual development, conceptual change, collaborative learning, students' conceptions of various topics in science, practical issues encountered in facilitating learning, managing the classroom, formative and summative assessment, and differentiating instruction in a collaborative environment. Seminar for Learning Assistants. Student must be serving as a Learning Assistant in the CU Denver LA program. Max hours: 2 Credits.

Grading Basis: Letter Grade

## SCED 4340 - Equity & Culture in Science Education: Local/Global (3 Credits)

This course examines literature in science education related to issues of culture and equity. Topics will be framed by an understanding of equity in diverse classrooms and how it informs research, curriculum and instruction. Cross-listed with SCED 5340 and ENVS 5340. Max hours: 3 Credits.

Grading Basis: Letter Grade

## SCED 4350 - Issues and Trends in Science Education (3 Credits)

Explores the current issues and trends in science education related to theory, pedagogy, practices, curriculum, and other contemporary topics. Cross-listed with SCED 5350. Max hours: 3 Credits.

Grading Basis: Letter Grade

## SCED 4400 - Theory and Pedagogy of Science Learning (3 Credits)

Examines current issues, strategies, materials, and technology related to the teaching and learning of science at the middle and secondary school levels. Science curriculum, teachers' pedagogical content knowledge, and research in science education are investigated. Cross-listed with SCED 5400. Restriction: Professional Year Admission required. Repeatable. Max Hours: 9 Credits.

Grading Basis: Letter Grade

Repeatable. Max Credits: 9.

Professional Year Admission required. Students must be enrolled in one of the following plans: ECED-LICU or EGLH-LICU or ELED-LICU or FWLF-LICU or FWLS-LICU or MATH-LICU or MSMA-LICU or SCIG-LICU or SPED-LICU or SSSS-LICU

## SCED 4401 - Inquiry Science Pedagogy and Practices (3 Credits)

An in-depth study of inquiry science pedagogy and practices and how inquiry science supports standards-based education to make science accessible to ALL learners. The course provides a review of research on pedagogy and practices that support student understanding, problem solving and creativity through the use of inquiry science. Prereq: Concurrent enrollment in an internship or permission of instructor is required. Cross-listed with SCED 5401. Restriction: Professional Year Admission required. Max hours: 3 Credits.

Grading Basis: Letter Grade

Professional Year Admission required. Students must be enrolled in one of the following plans: ECED-LICU or EGLH-LICU or ELED-LICU or FWLF-LICU or FWLS-LICU or MATH-LICU or MSMA-LICU or SCIG-LICU or SPED-LICU or SSSS-LICU