

SCIENCE EDUCATION (SCIE)

Courses

SCIE 170 SPECIAL TOPICS IN SCIENCE EDUCATION (1-4)

Special topics in the area of science education. Special topics will be determined by the interests of the faculty and the needs of the curriculum. May be repeated for a maximum of 8 units. Prerequisites: As a special topics course, prerequisites will vary with each topic and will be designated by the department each time a topic is scheduled.

SCIE 355 TEACHING ENGINEERING DESIGN IN SCIENCE EDUCATION (2)

Introduces engineering design in the context of and as a means to extend K-12 science education. Focuses on interactions among: science concepts and practices; the engineering design process; engineering practices and habits of mind; and the products of engineering design (i.e., technologies). Includes a field placement. Lab/Class fee will be assessed.

SCIE 371 TEACHING SCIENCE IN EARLY CHILDHOOD (2)

Familiarizes students with appropriate methods and materials in science for the young child. Emphasis will be on interdisciplinary approach. Prerequisite: ECED 341 (may be taken concurrently). Lab/Class fee will be assessed.

SCIE 376 TEACHING SCIENCE IN ELEMENTARY SCHOOL (3)

Application, analysis, and integration of science teaching skills in the elementary classroom. Field experience in local schools. Corequisite: BIOL 303 and/or PHSC 303. Lab/Class fee will be assessed.

SCIE 380 TEACHING SCIENCE IN THE SECONDARY SCHOOLS (3)

Selection of appropriate content, methods and evaluation techniques, analysis of resources for teaching science in the middle and high schools. Corequisite: SEMS 498 or consent of the department.

SCIE 381 TEACHING SCIENCE AT THE MIDDLE SCHOOL LEVEL (3)

Selection of appropriate content, methods and evaluation techniques, analysis of textbooks and resource materials for teaching science at the middle school level. Teaching methods include and complement inquiry approaches to learning science. Prerequisite: SCED 201. Lab/Class fee will be assessed.

SCIE 393 INTERNSHIP IN SECONDARY EDUCATION-SCIENCE (12)

Practical experience in observation, participation and student teaching in public school classrooms under the guidance of master teachers and a University supervisor. Graded S/U. Internship/Practicum fee will be assessed.

SCIE 430 SEMINAR IN STUDENT TEACHING - SCIENCE (1)

Seminar for current student interns to discuss topics from the classroom experience and current issues, along with guiding students to completion of their Towson UTeach portfolio. Corequisite: SCIE 393. Prerequisite: SEMS 370. Graded S/U.

SCIE 477 SPECIAL TOPICS IN SCIENCE EDUCATION (1-4)

Special topics in the area of science education. Special topics will be determined by the interests of the faculty and the needs of the curriculum. May be repeated for a maximum of 8 units provided different topics are covered. Prerequisites: As a special topics course, prerequisites will vary with each topic and will be designated by the department each time a topic is scheduled.