

# SCIENCE AND MATH EDUC (SMED)

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**SMED 510 - Life Science for Teachers I (3 Credits)**

Topics appropriate for elementary and middle-school curricula; phylogenetic organization of major kingdoms, characteristics of plants and animals, including humans; ecological principles; communities; energy needs, resources, flow and balance; heredity and adaptation.

**SMED 586 - Energy, Motion, and Matter (3 Credits)**

Integrated study of the earth's atmosphere for pre-service and in-service middle school teachers combining concepts from earth, life, and physical science leading to an understanding of the interaction of all systems.

**Prerequisites:** introductory-level courses in life, earth, and physical sciences.

**SMED 587 - Interdependence of Living Systems (3 Credits)**

Integrated study of the biotic and abiotic environments combining life, earth, and physical science concepts to understand relationships in living systems. For pre-service and in-service middle school teachers.

**Prerequisites:** introductory-level courses in life, earth, and physical sciences.

**SMED 588 - Origin and Evolution of Living and Non-Living Systems (3 Credits)**

Study of the earth system for pre-service and in-service middle school teachers, with emphasis on the origin, evolution, and interactions of the subsystems of the earth system.

**Prerequisites:** introductory-level courses in life, earth, and physical sciences.

**SMED 591 - Data Analysis for Teachers (3 Credits)**

Introduction to statistics for elementary, middle, and high school teachers. The fundamentals of data collection, descriptive statistics, probability, and inference with special focus on methods of teaching statistical reasoning. For M.A.T. (excluding mathematics) / M.Ed. / M.T. and nondegree credit only. For M.A.T. (excluding mathematics) / M.Ed. / M.T. and nondegree credit only.

**Cross-listed course:** STAT 591

**SMED 729 - Special Topics in Science for Teachers (1-3 Credits)**

Topics not likely to be incorporated into regular offerings, offered as seminars, workshops, and formal courses. Variable credit, depending on contact hours. May be taken more than once.

**SMED 769 - PD: Math for Teachers (1-3 Credits)**