

# Integrated Science (ISCI)

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**ISCI 2001. Exploring Our Ecosphere. 3 Hours.**

An integrated overview of the core life and earth science content covered in the K-5 Georgia performance standards. Topics include the solar system, earth processes, characteristics of living organisms, biodiversity and the natural history of Georgia.

**ISCI 2002. Physical Science for Early Childhood Education Teachers. 3 Hours.**

A basic overview of the principles of scientific investigation utilizing topics in physics and chemistry. Transformations and interactions of matter and energy will be studied at the conceptual level. Scientific tools and instruments as well as mathematical skills will be used in scientific activities. Important features of scientific inquiry, including the scientific method, will be emphasized.

**ISCI 3000. Science for Early Childhood Education Teachers. 3 Hours.**

Prerequisite: ECED 2999 or SPEC 2000. Basic information about biology, chemistry, and the physical sciences including astronomy, geology, and physics for early childhood education majors. The course will provide an integrated view of the role of the biological, chemical and physical sciences in understanding the natural world. Coordinated laboratory activities will be an integral part of the course.

**ISCI 3101. Matter and Energy for Middle Grades Education. 4 Hours.**

A study of matter and energy, concentrating on the properties and phases of matter, motion, forces, and exchange of energy. Students will gain a conceptual understanding of Newton's laws, electricity and magnetism, the structure of the atom, and chemical bonding and reactions. Interactive demonstration and laboratory experiments will illustrate important concepts.

**ISCI 3102. Earth and Space Science for Middle Grades Education. 4 Hours.**

An integrated overview of earth and space science for MGE majors with a concentration in science. Topics include plate tectonics, Earth materials and resources, Earth history, weather and climate, oceanography, global cycles, the solar system, origin and evolution of stars, and cosmology.

**ISCI 3103. Natural History for Middle School Teachers. 4 Hours.**

Survey primarily of the biota of south Georgia and associated biological processes. Using the biota of south Georgia as a model, students will study basic ecological principles, population structure and dynamics, life history patterns, and reproductive strategies and behaviors common to living systems. Special topics covered in the course include the biology of rare and endangered species and the importance of biological resources to human society.