

BIOLOGY (BIOL)

BIOL 5001. Selected Topics in Biology. (3 Credits)

BIOL 5002. Innovative Developments in Bio. (3 Credits)

BIOL 5003. Biotechnology. (3 Credits)

BIOL 5004. Microbiology. (3 Credits)

BIOL 5005. Biological Chemistry. (3 Credits)

BIOL 5010. Selected Topics in Zoology. (3 Credits)

BIOL 5011. Biology of the Invertebrates. (3 Credits)

BIOL 5011K. Biology of Invertebrates. (3 Credits)

BIOL 5012. Parasitology. (3 Credits)

BIOL 5013. Mammalian Anatomy. (3 Credits)

BIOL 5014. Mammalian Physiology. (3 Credits)

BIOL 5020. Selected Topics in Botany. (3 Credits)

BIOL 5021. Vegetation of South Georgia. (3 Credits)

BIOL 5022. Plant Biology. (3 Credits)

BIOL 5023. Nonvascular Plants. (3 Credits)

BIOL 5024. Vascular Plants. (3 Credits)

BIOL 5030. Selected Topics in Human Bio. (3 Credits)

BIOL 5030K. Selected Topics in Human Biolo. (3 Credits)

BIOL 5040. Genetics. (3 Credits)

BIOL 5050. Ecology. (3 Credits)

BIOL 5051. Selected Topics in Ecology. (3 Credits)

BIOL 5052. Evolution and Nature of Sci. (3 Credits)

BIOL 5501. Selected Topics in Botany. (3 Credits)

This course will emphasize the principles of vascular plant functions including hormonal regulation of growth and development. The topics will be selected to reflect the interest and needs of the students participating in the course. Offered: As Needed .

BIOL 5502. Selected Topics in Zoology. (3 Credits)

This course will emphasize basic concepts of invertebrate zoology. The students (in-service teachers) in the course will help determine course content based upon their specific needs. Offered: As Needed .

BIOL 5503. Selected Topics in Human Biology. (3 Credits)

This course will emphasize various aspects of human morphology and physiology. The topics will be selected to reflect the interests and needs of the students participating in the course.

BIOL 5504. Ecology. (3 Credits)

This course will emphasize principles and concepts of modern ecology. Investigative activities will include analysis of aquatic (marine and freshwater) terrestrial ecosystems. Offered: As Needed .

BIOL 5505. Biology of the Invertebrates. (3 Credits)

Biology of the invertebrates is an advanced study of the taxonomy, anatomy, physiology, life history and ecology of invertebrates. Protozoa through the echinodermata are covered.

BIOL 5506. Genetics. (3 Credits)

A review of the basic principles of inheritance and classical genetics with detailed emphasis on molecular genetics, population and eugenics will be covered in this course. Offered: As Needed.

BIOL 5507. Vegetation of South Georgia. (3 Credits)

This course will include a study of the common trees, shrubs and herbs of South Georgia. Emphasis will be placed upon the angiosperms of the area. Collections will comprise a major part of the course.

BIOL 5508. Parasitology. (3 Credits)

A detailed study of the common parasites of man and domestic animals will be investigated in this course. Some emphasis will be placed on life cycles and vectors.

BIOL 5509. Mammalian Anatomy. (3 Credits)

This course will involve a study of the gross and microscopic structures of various mammalian organ systems. Emphasis will reflect the needs of the students taking the course.

BIOL 5510. Microbiology. (3 Credits)

This course will emphasize concepts and principles of bacteria, fungi and other microbial groups. Some attention will be given to morphological, physiological and biochemical relationships in these groups.

BIOL 5511. Nonvascular Plants. (3 Credits)

An evolutionary survey of the plant kingdom with emphasis on comparative morphology and evolution of the algae, fungi and bryophytes will be conducted in this course.

BIOL 5512. Vascular Plants. (3 Credits)

This course introduces the student to the structure and development of vegetative and reproductive organs of vascular plants, especially those associated with angiosperms and gymnosperms.

BIOL 5513. Mammalian Physiology. (3 Credits)

This course will emphasize the homeostatic mechanisms of such organ systems as cardiovascular, nervous, gastrointestinal, respiratory and genital urinary.

BIOL 5514. Biology Chemistry. (3 Credits)

This course is the study of the biologically important molecules and their metabolism and reactions in living systems. Offered: As Needed.

BIOL 5515. Selected Topics in Biology. (3 Credits)

This course will enhance and reinforce biological concepts and principles for biology teachers. Emphasis will also be placed on biology methodology and computer utilization for middle grades and secondary teachers. Offered: As Needed.

BIOL 5516. Innovative Developments in Biology. (3 Credits)

This course will address biological concepts in the areas of cell biology, genetics and metabolism for middle grades and secondary teachers. Emphasis will be placed on increasing teachers' knowledge and understanding in identifying, applying and analyzing recent biology concepts, processes and principles and increasing teachers' understanding and skills in using the methods of science through the use of open-ended investigations.

BIOL 5517. Selected Topics in Ecology. (3 Credits)

This course will address ecological concepts in northern, middle and coastal areas of Georgia for middle grades and secondary teachers. Emphasis will be placed on addressing current ecological issues that incorporate hands-on field activities into the learning process.

BIOL 5518. Biotechnology. (3 Credits)

This course will emphasize the study of gene structure and regulation. It is designed to acquaint students with current concepts and issues in biotechnology and to explore its applications in plant, animal, biomedical, human society and the global environment.

BIOL 5519. Plant Biology. (3 Credits)

Particular attention will be placed on the identification, selection and use of materials for correlating the study of plants with other subjects. The teacher will develop a base of knowledge that will enhance his/her effectiveness in planning and executing laboratory and field exercises in botany that complement lecture presentation. Offered: As Needed .

BIOL 5520. Evolution and the Nature of Science. (3 Credits)

The nature of science and the fundamentals governing its origin will be presented in relation to current problems affecting the maintenance of life on earth. Special emphasis will be placed on the interaction of biological and cultural evolution and the alternatives to extinction that challenge contemporary man. Offered: As Needed.

BIOL 5521. Hydrology/Water Use Efficiency. (3 Credits)

This course is designed to introduce concepts basic to hydrology and irrigation. Fundamental characteristics of aquifers - tributary and non-tributary - are discussed along with their relevance for policy issues. Irrigation techniques and water use efficiency are discussed.

BIOL 5522. Enviro and Nat Resour. (3 Credits)

This course provides an overview of the economic principles, public policy instruments, and current practice involved in the management and conservation of natural and environmental systems. Emphasis is on the basic economic, ecology, principles and concepts that are necessary for effective resource management.

BIOL 5523. Water Resources/Envr Plan. (3 Credits)

This course provides the basic concepts necessary for applying benefit cost analysis to water projects and issues.

BIOL 5524. Water Law. (3 Credits)

This course is designed to introduce students without a background in law to basic legal concepts that are of critical importance for the design and implementation of water policies. Included will be a review of all major court decisions concerning equitable apportionment and their relevance for contemporary water policy.