

# BIOLOGY (BIOL)

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## **BIOL 5380. Advanced Evolutionary Biology (3)**

This course is an advanced study of evolutionary biology including discussions of topics from recent primary literature. The course will help students develop an understanding of the current state of research in the field as well as its applications in areas of conservation biology medicine, and agriculture.

**Prerequisites:** (BIOL 1107 and BIOL 1107L and BIOL 1108 and BIOL 1108L and BIOL 3200 and BIOL 3201 and BIOL 3380 and BIOL 3500)

## **BIOL 5400. Science and Society (3)**

This course will focus on the influence of science on society from a historical and modern perspective. Exploration of societal issues and informed decision-making will be emphasized.

## **BIOL 5620. Microbial Ecology (3)**

This course emphasizes the roles of microorganisms in ecosystems, including, microbial physiology, nutrient cycles, methods of microbial analysis, and the functional roles of microorganisms. Laboratory component is integrated within this course.

**Prerequisites:** (BIOL 3250 or BIOL 3200 or CHEM 4202)

## **BIOL 5640. Adv. Cell & Molecular Biology (3)**

This course will cover selected topics in cellular biology and study them from an experimental approach. Students will read literature, participate in discussions and/or write papers, grant proposals and give presentations.

**Prerequisites:** BIOL 3200

## **BIOL 5700. Special Topics in Biology (3)**

Selected advanced topics of current interest in biology. This course will be offered as fits the needs and interests of the student and faculty.

**Prerequisites:** (BIOL 1107 and BIOL 1107L and BIOL 1108 and BIOL 1108L and BIOL 3200 and BIOL 3201 and BIOL 3380 and BIOL 3500)

## **BIOL 5701. Special Topics in Biology (3)**

Selected advanced topics of current interest in biology. This course will be offered as fits the needs and interests of the student and faculty.

**Prerequisites:** (BIOL 1107 and BIOL 1107L and BIOL 1108 and BIOL 1108L and BIOL 3200 and BIOL 3201 and BIOL 3380 and BIOL 3500)

## **BIOL 5702. Special Topics in Biology (3)**

Selected advanced topics of current interest in biology. This course will be offered as fits the needs and interests of the student and faculty.

**Prerequisites:** (BIOL 1107 and BIOL 1107L and BIOL 1108 and BIOL 1108L and BIOL 3200 and BIOL 3201 and BIOL 3380 and BIOL 3500)

## **BIOL 5703. Special Topics in Biology (3)**

Selected advanced topics of current interest in biology. This course will be offered as fits the needs and interests of the student and faculty.

**Prerequisites:** (BIOL 1107 and BIOL 1107L and BIOL 1108 and BIOL 1108L and BIOL 3200 and BIOL 3201 and BIOL 3380 and BIOL 3500)

## **BIOL 5820. Conservation Biology (3)**

This course will explore the fundamentals and theory behind conservation biology. Threats to biodiversity and approaches to conserving and restoring biodiversity will be explored.

## **BIOL 5840. Plant Ecology (3)**

This course explores the interactions between plants and their environment, between individuals within the same species and various species of plants, and between plants and other species. The effects of anthropogenic influences on plants, as well as Piedmont ecology, will also be investigated.

**Prerequisites:** (BIOL 2500 and BIOL 3500)

## **BIOL 5901. Methods Teach Sec Bio (3)**

This course will explore theory and pedagogy of secondary biology instruction with a focus on teaching methods across varied topics.

Appropriate integration of technology into science teaching and learning will be emphasized. This course is cross listed as SCI 4901.

## **BIOL 6222. Research in Bio Sciences (1-6)**

Research experience for students in Biology. Specific research topics will be determined by the student in consultation with major advisor.

**Prerequisites:** (BIOL 1107 and BIOL 1107L and BIOL 1108 and BIOL 1108L and BIOL 3200 and BIOL 3201 and BIOL 3380 and BIOL 3500)