

# BIOLOGICAL SCIENCE (BSC)

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## **BSC 108L: Fundamental Concepts in Science (1 credits)**

Science is made up of various branches that include biology, physics and chemistry. In this course, you will be introduced to areas of chemistry that can be applied to everyday life and future science courses. You will analyze your observations of the scientific method, understand physical and chemical changes, explore biological macromolecules important to life and understand how pH, temperature and concentration affect enzyme activity. Please note that lab supplies required by this online course take time to order and ship. If you choose to enroll in this course, it is your responsibility to make sure that you follow up on lab related communications as needed in order to secure your lab supplies in a timely fashion. Adding this course to your schedule after the start of class may result in obtaining your lab supplies late.

*Lab fee: \$248.00*

## **BSC 109: Biology I (4 credits)**

This course will examine basic concepts of cellular biology, developmental biology, genetic variation and heredity, and evolution. Laboratory sessions will involve mitosis, embryology, heredity and recombinant DNA technology, and biochemical evolution.

## **BSC 150: Anatomy and Physiology I (3 credits)**

This course provides an overview of tissue types and their identification and function, as well as the integument, skeletal and muscular human body systems.

## **BSC 150L: Anatomy and Physiology I Lab (1 credits)**

This course provides an overview of tissue types and their identification and function, as well as the integument, skeletal and muscular human body systems. Please note that lab supplies required by this online course take time to order and ship. If you choose to enroll in this course, it is your responsibility to make sure that you follow up on lab related communications as needed in order to secure your lab supplies in a timely fashion. Adding this course to your schedule after the start of class may result in obtaining your lab supplies late.

*Lab fee: \$232.00*

*Corequisite: BSC150*

## **BSC 151: Anatomy and Physiology II (3 credits)**

This course involves a study of the structural anatomy and physiological functioning of the respiratory, circulatory, endocrine, nervous, and urinary systems.

## **BSC 151L: Anatomy and Physiology II Lab (1 credits)**

Laboratory topics include the dissection of neurological organs to study gross and histological structure as well as the evaluation of selected physiological, clinical, and diagnostic tests. Please note that lab supplies required by this online course take time to order and ship. If you choose to enroll in this course, it is your responsibility to make sure that you follow up on lab related communications as needed in order to secure your lab supplies in a timely fashion. Adding this course to your schedule after the start of class may result in obtaining your lab supplies late.

*Lab fee: \$217.00*

*Corequisite: BSC151*

## **BSC 210: General Microbiology (3 credits)**

The General Microbiology course explores the core organisms and tenets of microbiology. Topics will include: taxonomy, morphology, metabolism, replication, genetics, and virulence. Organisms to be studied will include: bacteria, archaea, fungi, protozoa, viruses and other acellular microorganisms.

*Prerequisite: BSC 109*

## **BSC 210L: General Microbiology Lab (1 credits)**

The General Microbiology Lab will support learning about the core organisms and tenets of microbiology through hands on and simulated (virtual) lab experiments. Topics will include: morphology, metabolism, replication, among others. Organisms to be studied may include: bacteria, fungi, protozoa, and viruses. This course is taken concurrently with BSC210.

*Lab fee: \$218*

*Corequisite: BSC210*

## **BSC 250: Survey of Biochemistry (3 credits)**

The Survey of Biochemistry course explores the core tenets of biological chemistry and is focused on the major macromolecules and cellular processes. Topics will include the structure and function of: proteins (including enzymes), DNA/RNA, carbohydrates, and lipids.

*Prerequisite: BSC 109 and CHM 150*

## **BSC 250L: Surveys of Biochemistry Lab (1 credits)**

The Survey of Biochemistry Lab course supports learning of the major macromolecules and cellular processes. Labs will be conducted via hands on activities and simulations. Topics will include the structure and function of proteins (including enzymes), nucleic acids, carbohydrates, and lipids. This course is taken concurrently with BSC250. Please note that lab supplies required by this online course take time to order and ship. If you choose to enroll in this course, it is your responsibility to make sure that you follow up on lab related communications as needed in order to secure your lab supplies in a timely fashion. Adding this course to your schedule after the start of class may result in obtaining your lab supplies late.

*Lab fee: \$236.00*

*Corequisite: BSC250*

## **BSC 280: Human Genetics and Disease (3 credits)**

The Human Genetics course is focused on the current knowledge of the human genome, its structure and functioning, Mendelian inheritance, genetic mutations, evolution, and gene related disease and therapies.

*Prerequisite: BSC 109 and BSC 250*

## **BSC 280L: Human Genetics and Disease Lab (1 credits)**

The Human Genetics course is focused on the current knowledge of the human genome, its structure and functioning, Mendelian inheritance, genetic mutations, evolution, and gene related disease and therapies. This course is taken concurrently with BSC280. Please note that lab supplies required by this online course take time to order and ship. If you choose to enroll in this course, it is your responsibility to make sure that you follow up on lab related communications as needed in order to secure your lab supplies in a timely fashion. Adding this course to your schedule after the start of class may result in obtaining your lab supplies late.

*Lab fee: \$182*

*Corequisite: BSC280*