

## **SCIENCE COURSES**

### **BSCI330 Cell Biology and Physiology (4 credits)**

Biochemical and physiological mechanisms underlying cellular function. Properties of cells which make life possible and mechanisms by which cells provide energy, reproduce, and regulate and integrate with each other and their environment.

### **BSCI353 Principles of Neuroscience (3 credits)**

Principles of nervous system function, ranging from molecular and cellular basis of neuron function through nervous system integration.

### **BSCI422 Immunology (3 credits)**

The immune system in health and disease. Presentation and analysis of the cellular and molecular processes that comprise the immune system.

### **BSCI440 Mammalian Physiology (4 credits)**

A study of the cardiovascular, hemopoietic, gastrointestinal, renal and respiratory systems. Chemical and endocrine regulation of physiological functions in mammals.

### **BSCI454 Neurobiology Laboratory (1 credit)**

Basic neuroanatomical techniques, intracellular and extracellular recordings of electrical potentials from nerve and muscle.

### **BCHM463 Biochemistry of Physiology; (3 credits)**

An introduction to general biochemistry. A study of protein structure, enzyme catalysis, metabolism, and metabolic regulation with respect to their relationship to physiology.

### **PHYS331 Fundamentals of Physics I (4 credits)**

The first part of a two-semester course in general physics treating the fields of mechanics, heat, sound, electricity, magnetism, optics, and modern physics.

### **PHYS332 Fundamentals of Physics II (4 credits)**

A continuation of PHYS331.

## **NON-SCIENCE COURSES**

Students pursuing a B.S. in Biological Sciences are required to meet a minimum of 6 credit hours of Advanced Studies, at least one Diversity course (3 credit hours) and a Professional Writing (3 credits) requirement as part of the general education degree requirements. Students may need to take additional courses to earn enough credits for graduation (120) and do so by taking courses from other UMCP programs at the Universities at Shady Grove.

Program Sample Course:

Communications: COMM 371 Communication and Digital Media (3 credits)

Criminology and Criminal Justice: CCJS 352 Drugs and Crime (3 credits)

Business Management: BMGT 350 Marketing Principles and Organization (3 credits)

