

# BIOL 320 : Genetics

This is a basic course in Genetics appropriate for Arts and Science students as well as students of Premedical and Pre-Veterinarian studies. Genetics is presented over 16 weeks as part of the discipline-based curriculum in line with the expectations of the St George's University School of Medicine, designed to provide a fundamental basis for understanding Human Genetics pertinent to clinical medicine based on the Genetics Learning Objectives published by the American Society of Human Genetics (ASHG). You will be introduced to the language embedded in Medical Genetics and Molecular Biology. These general competencies and specific objectives are described in the ASHG MEDICAL SCHOOL CORE CURRICULUM IN GENETICS. Specifically, this course is designed to introduce you to the fundamental design of DNA leading to the structure and function of the human genome.

You will learn how recent advances in genetic research have led to a greater ability to diagnose and treat many human disease states:

- Module 1 - Begins with an introduction to the history of genetics where you will learn how traits are inherited.
- Module 2 - Begins with understanding how genes are organized within genomic DNA. You will learn of the importance of this organization according to how many copies of a gene are required and their exact location within the genomic DNA.
- Module 3 - You will learn how genes are expressed.
- Module 4 - You will learn about linking the information that is found in an organism's DNA and how it is related to the way an organism looks and behaves, also known as "Genotype to Phenotype".

A basic understanding of chemistry, biology, and physics will be assumed.

**Core Course**

**Credits 3**