

BPM 500 : Basic Principles of Medicine I (BPM1)

The course Basic Principles of Medicine 1 (BPM1) is a 17-credit course taught over 17 weeks in Term 1 of the Doctor of Medicine (MD) program of St George's University School of Medicine, Grenada, and within the St. George's University of Grenada School of Medicine/Northumbria University Program (SGUSOM/NU), in collaboration with Northumbria University, Newcastle upon Tyne, UK. It is part one of an organ system-based curriculum for the first academic year of the Basic Sciences program and is taught in three consecutive modules:

- Foundation to Medicine: 6 weeks
- Musculoskeletal System: 4 weeks
- Cardiovascular, Pulmonary and Renal Systems: 7 weeks

Total: 17 weeks

Foundations to Medicine

In this first module, students will learn about the biological molecules associated with cells, tissues and organs from biochemical and cellular discussions towards a molecular understanding of human disease and pathology. Students will learn about normal and abnormal physiological states including homeostasis and how it is controlled via biochemical and genetic means. Cellular control of proliferation, senescence, apoptosis and necrosis will be explored. Histological, biochemical, physiological, and genetic aspects of cancer will be synthesized to develop a comprehensive analysis of the principles of this disease state. Students will increase their knowledge of human patterns of genetic inheritance beyond Mendelian concepts with the objective of seeing patients through a genetic lens. Genetic and genomic tests for diagnosis and characterization will be taught so that students will have a broad understanding of the advantages and limitations of these technologies. An overarching theme of this module is to introduce students to the language embedded in pathology tests and to provide an understanding and interpretation of the results. To this end, biochemical, physiological and genetic aspects of pharmacology will also be introduced.

Musculoskeletal System

The Musculoskeletal System module is an interdisciplinary study of the anatomical, histological, physiological and pharmacological principles of this organ system. The overall goal of this module is to provide a comprehensive knowledge base for understanding the normal gross anatomical and microscopic structures as well as the development and functioning of the musculoskeletal system. Case studies, practical laboratory sessions and small group discussions are an integral component throughout the entire module. The module also exposes students to cadaveric prosections and ultrasound simulation sessions with standardized patients to aide in their understanding of key anatomical concepts and allows them to apply this knowledge to a clinical setting.

Cardiovascular, Pulmonary and Renal Systems

The Cardiovascular, Pulmonary, and Renal Systems module is an interdisciplinary study of the anatomical, histological, physiological, biochemical, and pharmacological principles of these organ systems. The overall goal of this module is to provide a sound comprehensive knowledge base for understanding the normal anatomical and microscopic structures, biochemical processes, and functioning of the cardiovascular, pulmonary and renal organs. Case studies and practical laboratory sessions are also presented as an integral component throughout the entire module. An introduction to inflammation, various cardiovascular, pulmonary and renal acid-base disorders will be explored to aid with the application and integration of the normal basic science principles into pathological disease process.

Core Course

Credits 17