

## **Section 2: Year 1 modules**

Details of all the modules including timetables, more information, reading lists and resources is found at the Year 1 Moodle site or on the medical school web pages <http://www.ucl.ac.uk/medicalschoo/staff-students/course-information/year-1>

### **Introduction and Orientation Module to Year 1**

This introductory week will provide:

- an overview of the MBBS programme
- an opportunity to meet your fellow students and the staff and faculty of the medical school
- the distribution of a small amount of relevant course materials and key information

### **Module 1: Foundations of Health and Medical Practice**

This module is the first step in your medical training and, as such, it is highly relevant to your future in medical practice. The overall aim of this module is to provide you with a firm foundation of the knowledge and skills you will need in order to appreciate and understand the later systems-based and clinical modules. In medical practice, you will be expected to care for as well as treat patients and therefore this module will introduce you to palliative, mental health and social care aspects of medical practice.

#### **Aims of the module**

The module aims to provide:

- an understanding of the structure and function of the body: cells, tissues, organs and the integrated whole as a foundation to the systems-based modules in Years 1 and 2
- the development of critical and analytical thinking, through the use of self-paced learning activities and small group sessions
- the application and integration of scientific knowledge to the diagnosis, management and care of individuals and populations
- the development of critical scientific, analytical and clinical thinking including the ability to assess, understand and synthesise evidence through appreciation of (and explanations for) the variation in clinical measurements through statistical evaluation
- an introduction to the relationship between health, illness, people and society by introducing epidemiology, sociology, psychology and palliative care, emphasising the relevance of knowledge to clinical practice and professionalism (CPP modules)
- clinical exposure to create a foundation of experience, through early patient contact
- an appreciation of what medicine will look like in the 2020's

### **Module 2: Infection and Defence**

This module introduces you to the world of infectious agents, the mechanisms by which they cause disease, the ways in which the body defends itself against them,

their epidemiological characteristics, the social and psychological consequences to the patient of various infections and the ways in which appropriate drugs work against them.

### **Aims of the module**

The module aims to provide:

- an introduction to the wide spectrum of infectious microorganisms, the mechanisms by which they cause disease, and their treatment
- an understanding of the different components of the immune system and how they protect the body against infectious microorganisms

### **Module 3: Circulation and Breathing**

This module introduces you to the functions of the cardiovascular and respiratory systems. It essentially considers how we breathe and how oxygen and nutrients are delivered to the tissues, and the waste products of tissue metabolism are carried away. Because of their functional association, if lung function is impaired it will often lead to cardiovascular complication and equally cardiovascular dysfunction is often associated with respiratory complications.

You will consider the role of the cardiovascular and respiratory systems in depth and the medicine used to treat disorders of these systems.

### **Aims of the module**

The module aims to provide:

- knowledge and understanding of the structures and functions of the respiratory and cardiovascular systems and how they respond to changing metabolic needs of the body, organs and tissues, revealing the relevance of such knowledge to clinical practice
- knowledge and understanding of the origin and associated risk factors of common diseases of the cardiovascular and respiratory systems
- practice in the basic skills used in testing the function of these systems in the clinic
- an introduction to how drugs can be used to treat cardiovascular and respiratory diseases

### **Module 4: Fluids, Nutrition and Metabolism**

This module integrates the basic science underlying common clinical problems relating to the kidney and gastrointestinal tract, metabolic imbalance and problems of fluid and electrolyte balance. It covers the anatomy, histology, development and function of the gut and abdominal organs. Diet and health are also covered, in particular why diet is important in health promotion and the prevention of disease.

### **Aims of the module**

The module aims to provide:

- basic knowledge in nutrition, metabolism and fluid balance, including the relevant anatomy, biochemistry and physiology of the abdomen, gastrointestinal and urinary systems
- application of this knowledge to common clinical problems of nutrition, metabolism and fluid balance
- development of basic skills of interpretation, particularly in relation to images of internal organs
- the ability to make calculations that allow conclusions to be made regarding a patient's nutritional status, common disorders of renal function and acid-base imbalance