

UNIT SPECIFICATION

FOR TAUGHT MB ChB UNITS



Name of Unit		MB ChB Phase 1 Integrative Unit					
Parent School/Dept		Medical School					
Programmes where Unit is offered		MB ChB					
Status (compulsory, optional, free choice)		Compulsory		Pre-Requisite Modules or Qualifications		n/a	
FHEQ Level	7	Unit Value	Component of integrated programme	Unit Code (where applicable)		Unit Lead	Professor Stewart Petersen
Terms Taught		Term 6		Applicable From		2015	

Educational Aims of the Unit

The unit aims to enable students to make progress towards meeting some of the learning outcomes described in Tomorrow's Doctors (2009) relevant to 'The Doctor as a Scholar and Scientist', 'The Doctor as a Practitioner' and 'The Doctor as a Professional'. This unit is in two parts. The aim of the first part, comprising six sessions is that you should understand the body's defences against infection, and be able to explain what happens when those defences fail or are activated inappropriately. The aim of the second part, made up of five sessions is that you should have consolidated your understanding of the clinically relevant anatomy for the first part of Phase 2.

Learning Outcomes From Tomorrow's Doctors (2009)

Outcomes 1: The Doctor as a Scholar and Scientist.

8. Apply to medical practice biomedical scientific principles, method and knowledge relating to: anatomy, biochemistry, cell biology, genetics, immunology, microbiology, molecular biology, nutrition, pathology, pharmacology and physiology.
 - a. Explain normal human structure and functions.
 - b. Explain the scientific bases for common disease presentations.
 - c. Justify the selection of appropriate investigations for common clinical cases.
 - d. Explain the fundamental principles underlying such investigative techniques.
 - g. Make accurate observations of clinical phenomena and appropriate critical analysis of clinical data.
12. Apply scientific method and approaches to medical research.
 - a. Critically appraise the results of relevant diagnostic, prognostic and treatment trials and other qualitative and quantitative studies as reported in the medical and scientific literature.
 - c. Apply findings from the literature to answer questions raised by specific clinical problems.

Outcomes 2: The Doctor as a Practitioner

13. Carry out a consultation with a patient.
 - b. Take and record a patient's medical history, including family and social history, talking to relatives or other carers where appropriate.
 - c. Perform a full physical examination.

Outcomes 3: The Doctor as a Professional

20. Behave according to ethical and legal principles.
 - e. Recognise the rights and the equal value of all people and how opportunities for some people may be restricted by others' perceptions.
21. Reflect, learn and teach others.
 - b. Establish the foundations for lifelong learning and continuing professional development, including a professional development portfolio containing reflections, achievements and learning needs.
 - c. Continually and systematically reflect on practice and, whenever necessary, translate that reflection into action, using improvement techniques and audit appropriately - for example, by critically appraising the prescribing of others.
 - d. Manage time and prioritise tasks, and work autonomously when necessary and appropriate.
 - e. Recognise own personal and professional limits and seek help from colleagues and supervisors when necessary.

Teaching and Learning Strategies

Principles will be introduced in formal lectures, and learning will be reinforced in facilitator led small-group work immediately afterwards. Student will work in the same teams throughout Phase I to encourage team-working. Formative assessment will take place in week 6. Students will be provided with workbooks describing structured tasks to direct independent learning throughout the unit, and ongoing use of an e-portfolio will nurture and encourage reflective practice.

Unit Outline

Session 1: *Introduction to the immune system*

Lecture: Molecules of the Immune System

Group work: Case studies

Lecture: The Innate Immune System

Session 2: *Adaptive Immunity*

Lecture: Adaptive Immunity 1

Group session: Case Studies in Adaptive Immunity

Lecture: Adaptive immunity 2

Session 3: *Defensive Failure*

Lecture: Primary Immune Deficiency

Group Work: Case Studies in Immune Deficiency

Lecture: Secondary Immune Deficiency

Session 4: *Acid Base Balance*

Lecture: Acid Base Balance in clinical practice

Group work: Case studies in Acid Base Balance

Lecture: Auto-immune Diseases

Session 5: *Tumour Immunology*

Lecture: Immuno-pathology of Tumours

Group work: Case studies

Lecture: Immunotherapy for Cancer

Session 6: Blood Transfusion & Transplant Immunology

Lecture: Blood Transfusion

Group Work: Blood Transfusion

Formative assessment

Lecture: Transplant Immunology

Session 7: Musculoskeletal Care – Back and Lower Limb

Lecture: Clinical Anatomy of the Back and Lower Limb

Group Work 1: Back and Lower Limb

Group Work 2: Case Studies – Disorders Affecting the Back and Upper Limb

Session 8: Musculoskeletal Care – Upper Limb

Lecture: Clinical Anatomy of the Upper Limb

Group work 1: Upper Limb

Group Work 2: Case studies – Disorders Affecting Upper Limb

Session 9: Cardiorespiratory Care - Clinical Anatomy

Lecture: Clinical Anatomy of the Cardio-respiratory Systems

Group work 1: Thorax

Group work 2: Case Studies – Disorders Affecting Cardio-respiratory Systems

Session 10: Gastrointestinal and Renal Care - Clinical Anatomy

Lecture: Clinical Anatomy of the Gastrointestinal and Renal Systems

Group work 1: Disorders Affecting the Abdomen

Group work 2: Case Studies- Disorders Affecting the Abdomen

Session 11: Clinical Anatomy – The Pelvis

Lecture: Clinical Anatomy of the Pelvis

Group Work 1: Pelvis

Group Work 2: Case Studies- Disorders Affecting Structures in the Pelvis

Session 12: Revision**Student Engagement Hours (Exclusive of Scheduled Revision and Exam Time)**

Type <i>(Lectures, Tutorials, Seminars, Guided/Independent Learning Time, Other)</i>	Number per term <i>(e.g. 10)</i>	Duration of each <i>(e.g two hours)</i>	Total Time
Lectures	17	1 hour	17
Demonstration/ Practical Class	0	0 hours	0
Group Work	16	2-4 hours	36
Tutorials	0	0 hours	0
Guided self-directed Learning	11	4 hours	44
<i>Total Independent Learning Hours</i>			48
<i>Total Contact Hours:</i>			48
Total Engagement Hours			96

Assessment Method Summary*

Type (Examination, Test, Coursework, Presentation, Practical, Other)	TD's Outcomes	Duration (e.g. 1 hour, 4,000 words)	Timing
Written examinations (a combination of single best answer, constructed response or extending matching questions)	Doctor as Scholar/ Scientist	2x 2 hours	End of term 6.
Objective Structured Clinical Examinations	Doctor as a Scholar/ Scientist Doctor as Practitioner	12 stations	End of term 6.
E-portfolio [†]	Doctor as a Professional		Formative during phase I, summative at end of Phase II

**All learning outcomes described will be tested to a sufficient standard in Phase I to satisfy the requirements of an exit degree.*

Secondary Learning Outcomes

In addition to meeting the outcomes described in Tomorrow's Doctors, at the completion of the unit students will be able to:

By the end of this unit you be able to:

- Discuss the concepts of 'self' and 'non self'
- Explain the processes involved in innate immunity, including:
 - The role of barriers
 - Cells of the innate immune system
 - The Role of complement
- Explain the processes involved in adaptive immunity, including:
 - The molecules of the adaptive immune response
 - Presentation of antigens
 - Antibody and cell-mediated responses
- Explain how the immune system may become compromised and the consequences of that compromise, including:
 - Inherited immune deficiencies
 - Acquired immune deficiencies
 - Immuno-suppression by drugs
- Explain the different types of hypersensitivity reactions, and how, in principle they may be managed
- Explain the mechanisms and consequences of common autoimmune conditions.
- Explain the role of the immune systems in the surveillance and prevention of malignancy, and the potential for immunotherapy in the management of malignancy
- Explain the human blood group systems and the principles of ensuring compatibility of transfused blood

and blood products.

- Explain the role of immuno-suppressive drugs in transplantation.
- Explain the clinically relevant features of the anatomy of the musculo-skeletal system
- Explain the clinically relevant anatomy of the cardiovascular and respiratory systems.
- Explain the clinically relevant anatomy of the abdomen & pelvis.
- Explain the clinically relevant anatomy of the peripheral nervous system and cranial nerves
- Apply understanding of the concepts in this unit to the diagnosis and management of patients who present with:
 - acute or recurrent chronic chest pain
 - anaemia
 - Acute productive cough
 - Haemoptysis
 - Haemorrhage
 - Sudden or progressive breathlessness
 - Abnormal swollen lymph nodes
 - Abnormal weight
 - Acute abdominal pain
 - Oedema
 - Acute joint pain
 - Fractures
 - Back pain & Sciatica
 - Impaired voiding
 - Pregnant
 - Fever
 - Numbness or tingling
- Apply understanding of the concepts in this unit, where relevant, to the diagnosis and management of patients who present with the remaining key presentations in the list defined in the 'Code of Practice for Assessment'

Key Texts and/or Other Learning Materials

The first half of the unit deals with the fundamentals of immunology. There are a variety of textbooks that you might consult:

For immunology:

"Immunology for Medical Students, 3e" Matthew Helbert FRCP FRCPath PhD,

Or

"Basic immunology: Functions and disorders of the immune system, 5 e" Abass Lichtmann and Pillai

The second half of the unit considers clinical anatomy. You should use your usual anatomy texts and resources. This unit is packed with opportunities to gain feedback about your progress:

- Every session has case studies very similar to the form of questions in your summative assessments. If you complete these and compare your responses to the feedback provided after the sessions you will get a clear idea of your level of understanding.
- There will be formative tests held at the beginning of each group work sessions
- There is a formal formative assessment in week six

Please note: This specification provides a concise summary of the main features of the unit and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. More detailed information on the learning outcomes, content and teaching, learning and assessment methods can be found in the support documents via Moodle. The accuracy of the information contained in this document is subject to ongoing review by the University of Buckingham and forms part of the Medical School's annual return

to the General Medical Council.	
Date of Production:	July 24 th 2014
Date approved by School Board of Study	
Date approved by University Learning and Teaching Committee	