Module Specification

ABOUT THIS DOCUMENT

This module specification applies for the academic year 2018-19

Last revised: 15 August 2018 by Greg Bancroft

London School of Hygiene & Tropical Medicine, Keppel St., London WC1E 7HT. www.lshtm.ac.uk

GENERAL INFORMATION

Module name: Immunology of Infectious Diseases
Module code: 3120
Module Organiser: Dr Greg Bancroft
Contact email: Gregory.Bancroft@lshtm.ac.uk
Home Faculty: Faculty of Infectious & Tropical Diseases


Credit: 50 credits, within the larger 60-credit Term 1 super-module for each MSc course. Credits are not awarded for this module individually, but only for successful completion of the Term 1 super-module.

Accreditation: Not currently accredited by any other body.

Keywords: Communicable diseases (in general), Viral, HIV/AIDS, Bacterial, TB, Parasitic, Malaria, Worm infections, Zoonotic diseases, Laboratory science (incl. quality assurance), Teaching, Learning, Communication (oral, written), Team-work (incl. interdisciplinary, inter-professional), Tropical medicine, Pathogens, Immunology.

AIMS, OBJECTIVES AND AUDIENCE

Overall aim: To provide students with a thorough grounding in basic immunology at both the theoretical and practical level.

Intended learning outcomes: By the end of this module, students should be able to:
- Demonstrate understanding of basic concepts of modern molecular immunology and immunity to infection
- Understand immunological components of other relevant modules provided by the School
- Carry out basic laboratory work illustrating relevant experimental principles and immunological techniques
- Apply basic statistical methods to the gathering and analysis of immunological data

Target audience: General Immunology will be appropriate for those students with little or no prior experience in the subject. It will be essential for those with no
experience in modern immunology who wish to pursue the Advanced Immunology modules.

## CONTENT

### Session content

The module is expected to address the following topics (though please note that these may be subject to change):
- Innate immunity mechanisms
- The lymphoid system
- Cells of the immune response
- Leucocyte migration
- Phagocytes
- Antibody structure and function; B cell biology
- The major histo-compatibility complex
- Antigen processing and presentation
- T-cell receptors and activation
- Cytokines
- Cell cooperation
- Cytotoxicity
- Inflammation
- Tolerance
- Autoimmunity
- Hypersensitivity
- Immunodeficiency
- Immunogenetics
- Mucosal immunity
- Immune responses to infections
- Nutrition and immunity
- Vaccines

## TEACHING, LEARNING AND ASSESSMENT

### Study resources provided or required

A module handbook containing information about each session and key references for the module.

### Teaching and learning methods

Lectures, practicals and time-tabled discussions/journal club sessions/problem solving sessions.

### Assessment details

Two formative MCQ examinations (one on the immunology core and one on applied/infectious diseases immunology) will be held during the module. Formal summative assessment will be by:
- i) submission of a coursework essay on a selected topic on the immunology of infection submitted before the end of Term 1 (30% of Module GPA) and
- ii) an unseen written assessment held during the week before the start of Term 2 (70% of Module GPA).

### Assessment dates

As above. MCQ 1 and 2 will take place in weeks 6 and 10 respectively. For students who are required to resit, or granted a deferral or new attempt at either of the summative assessments, the next assessment date will be at the start of Term 3 of the same academic year.
<table>
<thead>
<tr>
<th><strong>Language of study and assessment</strong></th>
<th>English (please see ‘English language requirements’ below regarding the standard required for entry).</th>
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**TIMING AND MODE OF STUDY**

<table>
<thead>
<tr>
<th><strong>Duration</strong></th>
<th>10 weeks at 4 days per week</th>
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<tbody>
<tr>
<td><strong>Dates</strong></td>
<td>Mondays to Thursdays</td>
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<tr>
<td><strong>Timetable slot</strong></td>
<td>Term 1</td>
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<tr>
<td><strong>Mode of Study</strong></td>
<td>The module is taught face-to-face in London. Both full-time and part-time students follow the same schedule.</td>
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<tr>
<th><strong>Learning time</strong></th>
<th>The notional learning time for the module totals 500 hours, consisting of:</th>
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<tbody>
<tr>
<td></td>
<td>• Contact time ≈ 201 hours</td>
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<tr>
<td></td>
<td>• Directed self-study ≈ 200 hours</td>
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<td></td>
<td>• Self-directed learning ≈ 49 hours</td>
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<td></td>
<td>• Assessment, review and revision ≈ 50 hours</td>
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**APPLICATION, ADMISSION AND FEES**

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<tr>
<th><strong>Pre-requisites</strong></th>
<th>None</th>
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<tr>
<td><strong>English language requirements</strong></td>
<td>A strong command of the English language is necessary to benefit from studying the module. Applicants whose first language is not English or whose prior university studies have not been conducted wholly in English must fulfil LSHTM’s English language requirements, with an acceptable score in an approved test taken in the two years prior to entry. Applicants may be asked to take a test even if the standard conditions have been met.</td>
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<tr>
<td><strong>Student numbers</strong></td>
<td>Approximately 20 (numbers may be capped due to limitations in facilities or staffing)</td>
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| **Student selection** | Preference will be given to LSHTM MSc students and LSHTM research degree students. Other applicants meeting the entry criteria will usually be offered a place in the order applications are received, until any cap on numbers is reached. Applicants may be placed on a waiting list and given priority the next time the module is run. Partial Registration (partial participation) by LSHTM research degree students is allowed for this module. |

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<tr>
<th><strong>Fees</strong></th>
<th>For registered LSHTM MSc students, fees for the module are included within MSc fees (given on individual course prospectus pages). If registering specifically for this module, as a stand-alone short course, individual module fees will apply. Tuition fees must be paid in full before commencing the module, or by any fee deadline set by the Registry.</th>
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<tr>
<th><strong>Scholarships</strong></th>
<th>Scholarships are not available for individual modules. Some potential sources of funding are detailed on the LSHTM website.</th>
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