MODULE SPECIFICATION

Academic Year (student cohort covered by specification)	2022-23
Module Code	3134
Module Title	Advanced Immunology 1
Module Organiser(s)	Dr Julius Hafalla
Faculty	Infectious & Tropical Diseases
FHEQ Level	Level 7
Credit Value	**CATS:** 15 **ECTS:** 7.5
HECoS Code	100265:100345 (1:1)
Term of Delivery	Term 2
Mode of Delivery	For 2022-23 this module will be delivered by predominantly face-to-face teaching modes. Where specific teaching methods (lectures, seminars, discussion groups) are noted in this module specification these will be delivered by predominantly face-to-face sessions. There will be a combination of live and interactive activities (synchronous learning) as well as recorded or self-directed study (asynchronous learning).
Mode of Study	Full-time
Language of Study	English
Pre-Requisites	Prior experience in immunology is essential. Students proposing to take these modules should have, as a minimum, a basic knowledge of immunology equal to that provided by the Immunology of Infectious Diseases (3120) module in Term 1.
Accreditation by Professional Statutory and Regulatory Body	None
Module Cap (Indicative number of students)	20
Target Audience	Students who wish to undertake future research in immunology of infection.
Module Description	This module provides the student with a critical and comprehensive appreciation of current concepts in immunology

	in conjunction with the linked Advanced Immunology 2 (3144) module.
Duration	5 weeks at 2.5 days per week
Timetabling slot	Slot C1
Last Revised (e.g. year changes approved)	August 2022

Programme(s) This module is linked to the following programme(s)	**Status**
MSc Immunology of Infectious Diseases	Compulsory

Module Aim and Intended Learning Outcomes

Overall aim of the module
The overall module aim is to: • provide students with a critical and in-depth understanding of contemporary topics in immunology of infectious diseases in conjunction with Advanced Immunology 2 (3144). Advanced Immunology (linked modules 3134 and 3144) is made up of 4 weeks coursework and 1 week writing a 'Nature' style News and Views review article.

Module Intended Learning Outcomes
Upon successful completion of the module a student will be able to: 1. Critically analyse published papers in various areas of contemporary immunology; 2. Assess the main areas of research in a particular aspect of the subject; 3. Identify important unanswered questions and suggest ways of answering them; 4. Communicate scientific information effectively using a variety of techniques (e.g. oral and poster presentation, responding to oral questioning and 'News and Views' writing).

Indicative Syllabus

Session Content
The module is expected to cover the following topics: • Cellular Immunity and Immunological Memory; • Vaccinology; • Infectious Disease Immunology; • Innate Immunity, Inflammation and Immunopathology. • Advances in Immunological Techniques

Teaching and Learning

Notional Learning Hours

The total notional learning time for the Advanced Immunology 1 module and Advanced Immunology 2 module totals 300 hours.

Type of Learning Time	Number of Hours	Expressed as Percentage (%)
Contact time	50	16%
Directed self-study	140	46%
Self-directed learning	20	6%
Assessment, review and revision	90	30%
Total	300	100%

Student contact time refers to the tutor-mediated time allocated to teaching, provision of guidance and feedback to students. This time includes activities that take place in face-to-face contexts such as lectures, seminars, demonstrations, tutorials, supervised laboratory workshops, practical classes, project supervision as well as where tutors are available for one-to-one discussions and interaction by email.

The division of notional learning hours listed above is indicative and is designed to inform students as to the relative split between interactive and self-directed study.

Teaching and Learning Strategy
The teaching strategy will primarily consist of student-centred learning through interactive small group work, oral and poster presentations, and discussion sessions, with a few formal lectures. Approximately 50% of the time will be reserved for private study.

Assessment

Assessment Strategy
The assessment for this module has been designed to measure student learning against the module intended learning outcomes (ILOs) as listed above. Formative assessment methods may be used to measure students' progress. The grade for summative assessment(s) only will go towards the overall award GPA. **A problem based written test on research data** will take place at the end of the module, to evaluate knowledge and understanding of the topics presented in weeks 1, 4 and 5, and the ability to analyse data (3134). The assessment for this module will take place in the classroom or online. **A review of a paper related to the vaccine immunology week** will be prepared in Week 3 (3144) and will be submitted online.

Assessment Strategy
These assessments cover the two linked modules.

Summative Assessment

Assessment Type	Assessment Length (i.e. Word Count, Length of presentation in minutes)	Weighting (%)	Intended Module Learning Outcomes Tested
Written assessment	2.5 hours	100	1-3

Resitting assessment
Resits will accord with the LSHTM's Resits Policy The task will be the same as the original assessment.

Resources

Indicative reading list
Recent published reviews on cellular immunology, immunological memory, vaccine design, immune responses to pathogens, innate immunity, inflammation and immune-mediated pathology

Key papers on the above themes

Other resources
Key references are listed in online resources for each week.

Teaching for Disabilities and Learning Differences

The module-specific site on Moodle gives students access to lecture notes and copies of the slides used during the lecture. Where appropriate, lectures are recorded and made available on Moodle. All materials posted on Moodle, including computer-based sessions, have been made accessible where possible.

LSHTM Moodle is accessible to the widest possible audience, regardless of specific needs or disabilities. More detail can be found in the Moodle Accessibility Statement which can also be found within the footer of the Moodle pages. All students have access to "SensusAccess" software which allows conversion of files into alternative formats.

Student Support Services can arrange learning or assessment adjustments for students where needed. Details and how to request support can be found on the LSHTM Disability Support pages.