



## MODULE SPECIFICATION

<b>Academic Year (student cohort covered by specification)</b>	2020-21
<b>Module Code</b>	3260
<b>Module Title</b>	Cell Biology of Host-Pathogen Interactions
<b>Module Organiser(s)</b>	Dr Theresa Ward and Dr Rob Moon
<b>Faculty</b>	Infectious & Tropical Diseases
<b>FHEQ Level</b>	Level 7
<b>Credit Value</b>	<b>CATS:</b> 15 <b>ECTS:</b> 7.5
<b>HECoS Code</b>	100822:100265 (1:1)
<b>Term of Delivery</b>	Term 3
<b>Mode of Delivery</b>	For 2020-21 this module is delivered online.  Teaching will comprise a combination of live and interactive activities (synchronous learning) as well as recorded or self-directed study (asynchronous learning). We do not yet know whether or not there will be any on-campus activities during Term 3. This decision will be made in February.
<b>Mode of Study</b>	Full-time
<b>Language of Study</b>	English
<b>Pre-Requisites</b>	A basic understanding of cell biology is required.
<b>Accreditation by Professional Statutory and Regulatory Body</b>	None
<b>Module Cap (Maximum number of students)</b>	No cap on student numbers
<b>Target Audience</b>	This module is intended for students wishing to focus in depth on the cell biology of the host-pathogen relationship, and those wishing to gain further insight into general mammalian cell biology.
<b>Module Description</b>	The module will cover fundamental aspects of cell biology, including cell division and membrane trafficking, that are ubiquitous processes in eukaryotic cells. This will be further explored in the context of pathogen infection, as well as the cell biology of the pathogens themselves.
<b>Duration</b>	5 weeks at 2.5 days per week
<b>Timetabling slot</b>	Slot E



<b>Last Revised (e.g. year changes approved)</b>	October 2020
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<b>Programme(s)</b>	<b>Status</b>
This module is linked to the following programme(s)	
MSc Immunology of Infectious Diseases	Recommended Option
MSc Medical Parasitology	Recommended Option

## Module Aim and Intended Learning Outcomes

<b>Overall aim of the module</b>
<p>The overall module aim is to:</p> <ul style="list-style-type: none"> <li>provide students with an understanding of key aspects of the cell biology of mammalian cells and model organisms, particularly cells of the immune system, and how this relates to the establishment and survival of intracellular microorganisms.</li> </ul>

<b>Module Intended Learning Outcomes</b>
<p>Upon successful completion of the module a student will be able to:</p> <ol style="list-style-type: none"> <li>Evaluate the diversity of host cell-pathogen interactions;</li> <li>Demonstrate an understanding of the cytoskeleton and cellular events it regulates;</li> <li>Distinguish the triggers and mechanisms of endocytosis / phagocytosis and of the secretory pathway;</li> <li>Describe the molecular signals governing cell cycle control;</li> <li>Compare how microbes utilise, distort, subvert, or are influenced by the host cell biology during infection, either by the host cell cycle or by membrane trafficking;</li> <li>Critically assess and analyse the methodology for studying molecular cell biology and infection.</li> </ol>

## Indicative Syllabus

<b>Session Content</b>
<p>The module is expected to cover the following topics in the context of cells with and without pathogens:</p> <ul style="list-style-type: none"> <li>Cell cycle control;</li> <li>Endocytosis, phagocytosis and vacuoles;</li> <li>Exocytosis and cytoskeleton;</li> <li>Trypanosomes and cell survival mechanisms;</li> <li>Light and electron microscopy;</li> <li>Ethics of data analysis and presentation.</li> </ul>

## Teaching and Learning

### Notional Learning Hours

Type of Learning Time	Number of Hours	Expressed as Percentage (%)
Contact time	40	27
Directed self-study	32	21
Self-directed learning	33	22
Assessment, review and revision	45	30
<b>Total</b>	<b>150</b>	<b>100</b>

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. Student contact time also includes tutor-mediated activities that take place in online environments, which may be synchronous (using real-time digital tools such as Zoom or Blackboard Collaborate Ultra) or asynchronous (using digital tools such as tutor-moderated discussion forums or blogs often delivered through the School's virtual learning environment, Moodle).

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

### Teaching and Learning Strategy

Primarily by online lectures, for introductory material, and by structured discussion involving student presentations. Practical sessions will include one practical demonstration and problem session held online.

## 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.

The assessment for this module will be online.

Assessment will be a short answer test at the end of the module based on data analysis and material covered in lectures and presentations.



## Summative Assessment

Assessment Type	Assessment Length (i.e. Word Count, Length of presentation in minutes)	Weighting (%)	Intended Module Learning Outcomes Tested
Timed Test (in-module test e.g. MCQ)	1.5 hours	100	1 - 6

### Resitting assessment

Resits will accord with the LSHTM's [Resits Policy](#)

The Resit assessment will be the same assessment type as the first attempt (see previous table).

## Resources

n/a

## 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](#).