Programme Information		
Programme Title	Programme Code	HECoS Code
Epidemiology	A3BF	For Registry Use Only

Award	Length of Study	Mode of Study	Entry Point(s)	Total Credits	
				ECTS	CATS
MSc	1 Year (12 months)	Full Time	Annually in October	90	180
PG Diploma – A3BFD	N/A	N/A	N/A	60	120
PG Certificate – A3BFC	N/A	N/A	N/A	30	60
The PG Certificate/PG Diploma are exit awards and not available for entry. You must apply to and join the MSc					

Ownership			
Awarding Institution	Imperial College London	Faculty	Faculty of Medicine
Teaching Institution	Imperial College London	Department	School of Public Health
Associateship	Diploma of Imperial College (DIC)	Main Location(s) of Study	White City and Hammersmith
External Reference			
Relevant QAA Benchmark Statement(s) and/or other external reference points		Master's Degrees in Medicine	
FHEQ Level		Level 7 - Masters	
EHEA Level		2nd Cycle	
External Accreditor(s) (if applicable)			
External Accreditor 1:	N/A		
Specification Details			
Programme Lead		Dr Nuno Faria Professor Marta Blangiardo	
Student cohorts covered by specification		2024-25 entry	
Date of introduction of programme		October 17	
Date of programme specification/revision		March 24	

Programme Overview

The MSc in Epidemiology offers a thorough grounding in epidemiological research and the application of statistical and mathematical methods to epidemiological investigation and practice. Students will be given the opportunity to apply research techniques to a variety of challenging epidemiological, public health and biomedical problems.

The programme is an intensive full-time programme requiring active study for a full 12 months.

Students who complete the MSc Epidemiology proceed to careers in academia and as epidemiologists or analysts in industry, healthcare, government, non-governmental and third sector organisations.

Term One

The core focus of term one is to lay the foundations in biostatistics, modelling, research methods and epidemiologic study design and analysis. It will build core knowledge on methods in epidemiology and the application of these in research. The programme comprises four **compulsory modules** in term one.

Term Two

The core focus of term two is to develop more specialised skills and interests, with the development of knowledge on advanced methods and their application in epidemiological research.

In term two, students build upon the knowledge gained in term one through five or six optional/elective modules. Optional/elective modules for this MSc are carefully designed and reviewed to ensure they cover a range of topics and advances in epidemiological research and allow a certain degree of specialism, whilst ensuring that students gain skills across a broad range of topics related to infectious and chronic disease epidemiology. The **optional/elective modules** are subject to change each year.

Term Three

From approximately May until September, a supervised research project will be carried out; this is a **core module** on the MSc Epidemiology.

The titles of the research projects are offered by prospective supervisors each year and will be made available before the start of term two for you to select from. You are also encouraged to propose your own research projects, subject to internal academic approval, the availability of appropriate supervision and ethics approval.

Example and indicative projects from previous years include:

- Predicting the public health impact of pyrethroid resistance for malaria control
- The impact of COVID-19 control-measures on the transmission of childhood respiratory infections in Western Australia
- Investigating the spatiotemporal association between climate and West Nile Virus
- Origins of data amongst mathematical models of tuberculosis
- Infectious disease risk assessment under a changing climate: phenological environmental suitability modelling for invertebrate disease vectors
- Systematic review and meta-analysis of circulating vitamin D in critically ill patients
- Projecting *Onchocerca volvulus* infection trends and times to onchocerciasis elimination using the EPIONCHO-IBM transmission model
- Estimating heterogeneity in onward SARS-CoV-2 transmission and its relation to epidemic severity

On completion of the project, a written dissertation will be produced and submitted in late August, followed by an oral viva in September with an internal and external examiner.

Students are expected to attend ALL timetabled sessions and any additional practical classes, tutorials and group-work meetings. The attendance requirement is full-time i.e. usual working hours from Monday to Friday for the taught components and for the research project. It is possible for projects to be carried out partly or wholly at an external organisation.

Learning Outcomes

By the end of the programme, students should be able to:

1. Develop a synoptic understanding of the big issues in chronic and infectious disease epidemiology
2. Systematically search, engage with, and critically appraise relevant literature
3. Formulate clear research questions, aims and objectives, and to propose theoretically and technically appropriate studies to address them
4. Design, analyse, interpret, and critique epidemiological and biomedical research
5. Apply essential principles of modern biostatistical methods to data analysis and interpretation of research findings
6. Identify key concepts in the ecology and evolutionary biology of infectious disease. To then use these concepts to propose solutions to mitigate and solve real world, contemporary problems
7. Employ basic mathematical and computational skills used in the analysis of infectious disease pathogenesis, transmission, and control
8. Apply principles of modelling to address real world and contemporary health problems
9. Communicate research proposals, activities, and findings to both scientific and lay audiences, and to engage in high quality scientific dialogue with peers
10. Argue the importance of, and adhere to, ethical standards in research and practice
11. Work effectively in interdisciplinary teams to develop innovative solutions to epidemiological, biomedical and public health problems

The Imperial Graduate Attributes are a set of core competencies which we expect students to achieve through completion of any Imperial degree programme. The Graduate Attributes are available at: https://www.imperial.ac.uk/about/education/our-graduates/

Entry Requirements

Academic Requirement	2.1 Honours degree in mathematics or statistics, medicine (human and veterinary) or biological sciences. For further information on entry requirements, please go to www.imperial.ac.uk/study/apply/postgraduate-taught/entry-requirements/accepted-qualifications/
Non-academic Requirements	None
English Language Requirement	Higher requirement (PG) Please check for other Accepted English Qualifications
Admissions Test/Interview	Applicants may be invited to a post-application interview to clarify contents of submitted application documents

The programme's competency standards documents are available from the department.

Learning & Teaching Approach

Learning and Teaching Delivery Methods
Teaching on this programme is delivered through in-person and online lectures, asynchronous formative quizzes, reading and pre-recorded materials, discussion forums, computer-based practicals, small groups tutorials, and guided independent study. Some modules include seminars, workshops, group work and drop-in office hours. For example, students may be asked to read and watch material alone before class, then attend a synchronous lecture followed by time for questions, before splitting into small groups of about 4-8 participants for practicals.

Following taught modules in terms one and two, students conduct a tractable independent research project. This is supported by academic supervisors and the course team through the provision of optional summer skills workshops.

Overall Workload
Your overall workload consists of face-to-face sessions and independent learning. While your actual contact hours may vary according to the optional modules you choose to study, the following gives an indication of how much

time you will need to allocate to different activities at each level of the programme. At Imperial, each ECTS credit taken equates to an expected total study time of 25 hours. Therefore, the expected total study time on the MSc Epidemiology is 2,250 hours in total. In terms one and two, you should expect to spend about 25-30% of your study time in taught sessions and supervised practicals or groupwork, and the remaining 70-75% on independent study.

In term three, except for supervision meetings and optional summer skills workshops, expect to spend all your time working independently on your research project.

Assessment Strategy

Assessment Methods

Summative assessments are delivered through a combination of

- Timed written exams
- Coursework, such as essays, reports and paper or case study reviews
- Mini research projects
- Individual and group presentations
- Video blogs

The balance of assessments across the year is approximately as follows.

	Term 1	Term 2*	Term 3
Coursework	60%	50%	70%
Practical or presentation	10%	25%	30%
Timed written exam	30%	25%	0%

*This depends on selected modules – estimate based on modules taken by most students in previous years.

Academic Feedback Policy

The programme complies with the university's policy and will provide students with feedback within a timely and appropriate turnaround time. You will be provided with a bespoke assessment schedule confirming all submission deadlines, marking periods and feedback points to manage your expectations and ensure feedback can inform the next assessment, where appropriate. In line with other taught post-graduate programmes in the School of Public Health, considered in light of assessment load and to ensure students are provided with comprehensive feedback, the turn-around time for compulsory modules is five weeks, while for optional modules this is four weeks.

Feedback will take different forms depending on the type of assessment:

- To support preparation for summative assessments, students will receive feedback for formative coursework either individually or in group sessions
- Formative feedback for exams is given in revision sessions and group discussions
- For summative written reports, you will be given written feedback, and given the opportunity to discuss your provisional marks
- For summative examinations, students will receive a mark, and may approach tutors for additional feedback, but may not review your submitted examination paper
- For oral presentations, comments and immediate feedback will be given during some presentations, and written feedback will be provided once provisional marks are published
- You will be given written feedback for your final written research project report and receive preliminary oral feedback following the oral presentation, as well as written feedback after the event.

Further exchanges will also take place throughout the programme through:

- Questions during or after the lectures
- Interaction with tutors during practicals and one-to-one sessions
- Support and academic advice provided by the Course Organisers

Imperial's Policy on Academic Feedback and guidance on issuing provisional marks to students is available at: www.imperial.ac.uk/about/governance/academic-governance/academic-policy/exams-and-assessment/

Re-sit Policy
Imperial's Policy on Re-sits is available at: www.imperial.ac.uk/about/governance/academic-governance/academic-policy/exams-and-assessment/
Mitigating Circumstances Policy
Imperial's Policy on Mitigating Circumstances is available at: www.imperial.ac.uk/about/governance/academic-governance/academic-policy/exams-and-assessment/

Additional Programme Costs		
This section should outline any additional costs relevant to this programme which are not included in students' tuition fees.		
Description	Mandatory/Optional	Approximate cost
Computational machine	Mandatory	Not provided

Important notice: The Programme Specifications are the result of a large curriculum and pedagogy reform implemented by the Department and supported by the Learning and Teaching Strategy of Imperial College London. The modules, structure and assessments presented in this Programme Specification are correct at time of publication but might change as a result of student and staff feedback and the introduction of new or innovative approaches to teaching and learning. You will be consulted and notified in a timely manner of any changes to this document.

Programme Structure[1]				
Year 1 - FHEQ Level 7 **You will study all core and compulsory modules.** **You must choose either five or six elective modules, totalling 30 Credits.**				
Code	Module Title	Core/ Compulsory/ Elective	Term	Credits
PUBH70025	Introduction to Statistical Thinking and Data Analysis	Compulsory	Autumn	7.5
PUBH70026	Principles and Methods of Epidemiology	Compulsory	Autumn	7.5
PUBH70059	Research Methods	Compulsory	Autumn	7.5
PUBH70060	Introduction to Infectious Disease Modelling	Compulsory	Autumn	7.5
PUBH70061	Bayesian Reasoning and Methods for Spatio-temporal Data	Elective	Spring	10
PUBH70062	Further Methods in Infectious Disease Modelling	Elective	Spring	5
PUBH70051	Outbreaks	Elective	Spring	5
PUBH70063	Advanced Regression	Elective	Spring	5
PUBH70038	Emerging and Neglected Tropical Diseases	Elective	Spring	5
PUBH70064	Genetics of Infectious Disease Pathogens	Elective	Spring	5
PUBH70039	Environmental Epidemiology	Elective	Spring	5
PUBH70057	Nutritional Epidemiology	Elective	Spring	5
PUBH70065	Molecular and Genetic Epidemiology	Elective	Spring	5
PUBH70055	Environmental Policy and Impact Assessment	Elective	Spring	5
PUBH70066	Research Project	Core	Summer	30
			Credit Total	90

[1] **Core** modules are those which serve a fundamental role within the curriculum, and for which achievement of the credits for that module is essential for the achievement of the target award. Core modules must therefore be taken and passed in order to achieve that named award. **Compulsory** modules are those which are designated as necessary to be taken as part of the programme syllabus. Compulsory modules can be compensated. **Elective** modules are those which are in the same subject area as the field of study and are offered to students in order to offer an element of choice in the curriculum and from which students are able to select. Elective modules can be compensated.

Progression and Classification

Award and Classification for Postgraduate Students

Award of a Masters Degree (including MRes)
To qualify for the award of a postgraduate degree you must have:

1. accumulated credit to the value of no fewer than 90 credits at level 7
2. and no more than 15 credits as a Compensated Pass;
3. met any specific requirements for an award as outlined in the approved programme specification for that award.

Exit Awards:

Award of a Postgraduate Certificate (PG Cert)
To qualify for the award of a postgraduate certificate you must have a minimum of 30 credits at Level 7

Award of a Postgraduate Diploma (PG Dip)
To qualify for the award of a postgraduate diploma a you must have passed modules to the value of no fewer than 60 credits at Level 7:

1. and no more than 10 credits as a Compensated Pass;

Classification of Postgraduate Taught Awards

For a Masters, your classification will be determined through:

- The Programme Overall Weighted Average meeting the threshold for the relevant classification band.

Your degree algorithm provides an appropriate and reliable summary of your performance against the programme learning outcomes. It reflects the design, delivery, and structure of your programme without unduly over-emphasising particular aspects.

Programme Specific Regulations

N/A

Supporting Information
The Programme Handbook is available from the department.
The Module Handbook is available from the department.
Imperial's entry requirements for postgraduate programmes can be found at: www.imperial.ac.uk/study/apply/postgraduate-taught/entry-requirements
Imperial's Quality & Enhancement Framework is available at: www.imperial.ac.uk/registry/proceduresandregulations/qualityassurance
Imperial's Academic and Examination Regulations can be found at: www.imperial.ac.uk/about/governance/academic-governance/regulations
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Imperial College London is regulated by the Office for Students (OfS) www.officeforstudents.org.uk/advice-and-guidance/the-register/
This document provides a definitive record of the main features of the programme and the learning outcomes that you may reasonably be expected to achieve and demonstrate if you take full advantage of the learning opportunities provided. This programme specification is primarily intended as a reference point for prospective and current students, academic and support staff involved in delivering the programme and enabling student development and achievement, for its assessment by internal and external examiners, and in subsequent monitoring and review.