Improving Health Worldwide

MSc Epidemiology

Programme Handbook 2017-18
# Table of Contents

**INTRODUCTION AND WELCOME** .............................................................................................................. 3

1. **ADMINISTRATIVE ARRANGEMENTS** ........................................................................................................... 4
    1.1 Key Contacts ............................................................................................................................................ 4
    1.2 Taught Programme Directors ........................................................................................................... 4
    1.3 Teaching Support Office (TSO) ........................................................................................................ 5
    1.4 Notices and Mail ................................................................................................................................... 5
    1.5 Programme Committee .................................................................................................................... 5
    1.6 Programme Representatives ............................................................................................................ 5
    1.7 Programme Evaluation ..................................................................................................................... 6
    1.8 Class Photographs ............................................................................................................................ 6
    1.9 Student Handbook ............................................................................................................................. 6

2. **PROGRAMME OF STUDY** ......................................................................................................................... 8
    2.1 Term and Holiday Dates .................................................................................................................... 8
    2.2 MSc Programme Structure ............................................................................................................... 8
    2.3 Timetable Overview .......................................................................................................................... 10
    2.4 MSc Programme Description .......................................................................................................... 11

3. **STUDY MODULES** ................................................................................................................................... 18
    3.1 Schedule of Modules .......................................................................................................................... 18
    3.2 Module Information ............................................................................................................................ 20
    3.3 Module Descriptions .......................................................................................................................... 21
    3.4 Module Choices .................................................................................................................................. 23

4. **THE PROJECT REPORT** ......................................................................................................................... 25
    4.1 Project Handbook ................................................................................................................................ 25
    4.2 Objectives of the Project Report ........................................................................................................ 25
    4.3 Project Types ....................................................................................................................................... 25
    4.4 Project Length ..................................................................................................................................... 25
    4.5 Project Supervision ............................................................................................................................ 26
    4.6 Project Approval .................................................................................................................................. 26
    4.7 Ethics Approval .................................................................................................................................... 26
    4.8 Timescales and Deadlines ................................................................................................................ 26
    4.9 Further Information ............................................................................................................................ 26
    4.10 Academic Writing .............................................................................................................................. 26

5. **ASSESSMENT & CREDITS** ....................................................................................................................... 27
    5.1 Introduction ....................................................................................................................................... 27
    5.2 Participation in a Programme ............................................................................................................. 27
    5.3 Credit Framework ............................................................................................................................... 27
    5.4 Credits and Learning Time ................................................................................................................ 28
    5.5 Award of Credits and Compensation .............................................................................................. 28
    5.6 Resits .................................................................................................................................................. 29
    5.7 Degree Classification ......................................................................................................................... 29
    5.8 Assessments and Exams during the Academic Year ....................................................................... 29
    5.9 Regulations for Examinations and Timed Assessments .................................................................... 30
    5.10 Extenuating Circumstances and Extensions .................................................................................. 30
    5.11 Special Assessment Arrangements .................................................................................................. 30
    5.12 Submission of Assessments ............................................................................................................. 31
    5.13 Late Submission of Assessments ..................................................................................................... 31
    5.14 Marking of Assessed Work .............................................................................................................. 31
    5.15 Grading and Feedback Procedures .................................................................................................. 32
    5.16 Preparation for Assessments and Examinations .......................................................................... 33

6. **ACADEMIC MISCONDUCT** ..................................................................................................................... 34
    6.1 Introduction ....................................................................................................................................... 34
    6.2 Assessment Irregularities Procedure ............................................................................................... 34
    6.3 Declaration on Plagiarism and Cheating .......................................................................................... 34
    6.4 Plagiarism ......................................................................................................................................... 35
    6.5 Cheating ............................................................................................................................................ 35
Disclaimer

This Programme Handbook refers to the current academic session. Every effort has been made to ensure that the information contained in this Handbook is accurate at the time of going to press (September 2017). Changes to the information may need to be made due to unforeseen circumstances and students will be notified of this in advance of any changes. In the event of any inconsistency between the information in this handbook and any other document, the decision of the Academic Registrar shall be final.
Welcome to the London School of Hygiene and Tropical Medicine (the School) and the MSc Epidemiology Programme for 2017/18. The MSc in Epidemiology is largely taught by research active staff from the Faculty of Epidemiology and Population Health (EPH). You will meet many of us throughout the year in lectures and practical sessions. The Faculty’s broad research portfolio ranges from investigations of the determinants of specific health conditions to the prediction of future diseases and includes work on communicable and non-communicable disease epidemiology, evaluation of interventions, and demographic and reproductive health. The research within the Faculty often involves collaborations across disciplines, including epidemiology, statistics, demography, mathematical modelling and social sciences and is often conducted with partner institutions in the UK, other developed countries and in middle- and low-income countries. The teaching will often be informed by our research as well as our methodological expertise. We hope you will find the year both productive and enjoyable.

This Programme Handbook provides you with key information about your programme and modules. It should be read alongside the Student Handbook and the School’s Policies and Regulations, the Pre-Registration web pages and your Offer Letter. The School’s Student Handbook and Policies and Regulations can be found on the intranet at: https://lshtm.sharepoint.com/students.

The School also has a Student Charter which sets out the mutual responsibilities and aspirations of students and the School. The Student Charter can be found on the School’s website at the following link https://lshtm.sharepoint.com/Teaching-and-Support/Documents/student_charter.pdf#search=student%20charter.

If you have any queries about the programme feel free to contact us at any time.

Best wishes

Ian Douglas and Simon Cousens
Programme Directors for MSc Epidemiology
1. ADMINISTRATIVE ARRANGEMENTS

1.1 Key Contacts

MSc Programme Directors
Ian Douglas
Simon Cousens
E-mail: MscEpi@lshtm.ac.uk

MSc Programme Administrator
Alexandra Anghel
Room: Teaching support office, G90b
Tel: 020 7958 8222
E-mail: Alexandra.Anghel@lshtm.ac.uk

1.2 Taught Programme Directors

Each Faculty has a Taught Programme Director (TPD) who oversees the taught programmes for their respective Faculty. You may need to contact a TPD in another Faculty if you are following a module based in that Faculty.

Epidemiology and Population Health (EPH)
Mr Craig Higgins
Taught Programme Director
Room: 140a Keppel Street
Tel: 020 7927 2244
E-mail: craig.higgins@lshtm.ac.uk

Infectious and Tropical Diseases (ITD)
Dr Nick Dorrell
Taught Programme Director
Room: 382 Keppel Street
Tel: 020 7927 2838
E-mail: nick.dorrell@lshtm.ac.uk

Public Health and Policy (PHP)
Dr Hannah Babad
Taught Programme Director
Room: G18 Tavistock Place
Tel: 020 7927 2328
E-mail: hannah.babad@lshtm.ac.uk
1.3 Teaching Support Office (TSO)

The Teaching Support Office (TSO) is located in Room G90b, Keppel Street, next door to the Registry which is located in G90a. There is a student helpdesk in the TSO, where staff will be able to help you with any teaching-related questions you may have. The office is normally open from 9:00am to 5:00pm, Monday to Thursday and 9:00am to 1:00pm on Fridays, throughout the year. The TSO provides a friendly, one-stop location for information and advice about the School's face-to-face teaching programmes.

The TSO provides administrative support for the School's London-based taught programmes and TSO responsibilities include:

- provision of programme/module information, teaching materials, timetables etc.
- allocation of teaching rooms
- arrangements for examinations and assessments
- assisting with the organisation of programme, departmental and School activities
- supporting Faculty committees
- liaison with teaching staff, Registry and the Distance Learning Office

TSO contact details
Tel: 020 7299 4800 (enquiries)
E-mail: HTSO@lshtm.ac.uk

1.4 Notices and Mail

Notices about your programme and modules will be posted on the relevant programme Moodle page or on specific module Moodle pages as appropriate. Occasionally you may have mail to collect from the Teaching Support Office and you will be notified when mail is available.

1.5 Programme Committee

Each MSc Programme has a Programme Committee which oversees the development and operation of the MSc. It is chaired by the MSc Programme Director(s). Student representatives are invited to attend and actively participate in the Programme Committee for their MSc.

1.6 Programme Representatives

Each programme nominates up to three representatives to the Students’ Representative Council (SRC). These representatives also represent the class on the relevant Programme Committee and at Faculty Student Representatives meetings. MSc Epidemiology has three student representatives - two representing the full time students, and one representing the part time students. Class meetings with a member of staff (generally the MSc Programme Director) will take place at regular intervals so that any problems can be voiced as they occur. The class representatives should arrange these meetings and agree the form they are to take. They should endeavour to build up a working relationship with the MSc Programme Director and other members of staff.
Full details of the Constitution and Terms of Reference of the SRC can be found on the website here: https://www.lshtm.ac.uk/study/studentservices/students-representative-council

1.7 Programme Evaluation

Programmes and modules evolve from year to year and we depend upon feedback from students to help us to continually improve them. Evaluation is of several types:

Modules
An online evaluation is completed for each module and provides the School with feedback on the various parts of the programme. There are normally open-ended as well as closed questions to allow full expression of your opinions. We would like to stress how important it is that everyone completes these questionnaires.

MSc Programme
Evaluations are usually carried out twice a year, at the end of Term 1, and around the end of the E slot module, through structured face to face discussions about the MSc. These discussions are coordinated by the MSc Programme Director and the student representatives.

Specific surveys
Surveys are conducted each year on satisfaction with study at the School as a whole and on specific aspects such as IT or Library facilities.

National surveys
The School participates in the Postgraduate Taught Experience Survey (PTES) which is run by the Higher Education Academy (HEA). This is a sector-wide survey which aims to gain insights about all taught postgraduate students’ learning and teaching experience.

1.8 Class Photographs

A class photograph is normally arranged by the TSO at the end of the year in Term 3 to coincide with the examination dates.

1.9 Student Handbook

In addition to this Programme Handbook, the School produces a Student Handbook for all students who registered on face-to-face programmes. The Student Handbook provides important information about:

- Basic Maths Support
- Bullying and Harassment
- Careers
- Change of name/address
- English for Academic Purposes (EAP)
- Global Health Lecture Series
- Guidance on School Policies
• Interruption of Studies/Withdrawal
• IT Facilities
• Library and Archive Services
• Medical Health
• Safety and Security
• Student Support and Study Facilities
• Teaching Rooms
• Tier 4 visa advice

Please ensure you read the Student Handbook and familiarise yourself with the School’s policies, procedures and facilities. If you have any questions, please ask a member of staff in the Teaching Support Office or the Registry, or speak to your MSc Programme Director, Personal Tutor or Module Organiser.
2. PROGRAMME OF STUDY

2.1 Term and Holiday Dates

The teaching for each Master’s programme is divided into three terms: autumn (term 1), spring (term 2) and summer (term 3). MSc Epidemiology spans a full academic year from September to September. The term and holiday dates can be found on the School’s website at the following link: https://www.lshtm.ac.uk/aboutus/term-and-holiday-dates.

2.2 MSc Programme Structure

The Master’s programme is organised on a modular basis so that students take a range of modules during the year. Each Masters programme has an approved choice of compulsory and optional modules which students register for, as detailed in Section 3 of this Handbook.

The academic year starts with a two-day International Students Welcome, followed by a one-week Orientation period for all students. During this time, students are introduced to the School and its staff, given time to settle into London and to meet students and staff on their programme. Students are also introduced to some essential study skills, given guidance about module choices and allocated a personal tutor.

Classes are scheduled throughout Terms 1 and 2, except during Reading Weeks which are periods intended for academic study, study skills and computer workshops. In Term 3, classes are held in the second half of the first five weeks of the term and finish prior to the examination period in early June. Revision sessions and project preparation sessions will be scheduled during the other half of those weeks. After a period of revision, the written examinations are taken in June. During the remainder of the academic year (June, July and August) students undertake work on their Project Report for submission in early September.

Although the examination period finishes in early June, all students are required to be available throughout the summer term in case an assessment needs to be rescheduled at short notice. For one-year master’s students, the vacation starts after the end of your programme in the following September.

A diagram showing the structure of the academic year can be found on the following page.
### Structure of the MSc Academic Year

<table>
<thead>
<tr>
<th>TERM 1</th>
<th>DATES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Term 1 Modules</td>
<td>2 Oct – 3 Nov 2017</td>
</tr>
<tr>
<td>Reading Week</td>
<td>6 - 10 Nov 2017</td>
</tr>
<tr>
<td>Term 1 Modules</td>
<td>13 Nov – 15 Dec 2017</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TERM 2</th>
<th>DATES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mon – Wed (12:30)</td>
<td>Wed (14:00) – Fri</td>
</tr>
<tr>
<td>C1 Module</td>
<td>C2 Module</td>
</tr>
<tr>
<td>8 Jan – 9 Feb 2018</td>
<td></td>
</tr>
<tr>
<td>Reading Week</td>
<td>12 - 16 Feb 2018</td>
</tr>
<tr>
<td>D1 Module</td>
<td>D2 Module</td>
</tr>
<tr>
<td>19 Feb – 23 Mar 2018</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SUMMER (TERM 3)</th>
<th>DATES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revision/Project</td>
<td>E Module</td>
</tr>
<tr>
<td>18 Apr – 18 May 2018</td>
<td></td>
</tr>
<tr>
<td>Examinations</td>
<td>6 &amp; 8 Jun 2018</td>
</tr>
<tr>
<td>Project Submission</td>
<td>5 Sep 2018</td>
</tr>
<tr>
<td>Resit Assessments</td>
<td>19 &amp; 21 Sep 2018</td>
</tr>
</tbody>
</table>
### 2.3 Timetable Overview

Students will be able to check the timetables and room information for each modules they are enrolled on via their personalised eTimetable and can be accessed via Outlook or via a smartphone calendar. Full instructions on how to access your eTimetable will be provided. Week 1 of the timetable will be available on Moodle as some students may not be able to access eTimetable in the first few days.

<table>
<thead>
<tr>
<th>Wks</th>
<th>Dates</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>25/09 - 29/09</td>
<td><strong>Orientation Period</strong> (Not full Time)</td>
<td><strong>Retreat</strong></td>
<td><strong>Epidemiology in Practice</strong> (Wks 2-6)</td>
<td><strong>Statistics for EPH</strong> (Wks 2-12)</td>
<td><em>Private Study, key skills training</em></td>
</tr>
<tr>
<td>2</td>
<td>02/10 - 06/10</td>
<td><strong>Epidemiology and -omics</strong> (Wks 8-12)</td>
<td><strong>Extended Epidemiology</strong> (Wks 8-12)</td>
<td><strong>Extended Epidemiology</strong> (Wks 8-12)</td>
<td><strong>Extended Epidemiology</strong> (Wks 8-12)</td>
<td><em>P-Demographic Methods</em></td>
</tr>
<tr>
<td>3</td>
<td>09/10 - 13/10</td>
<td><strong>Epidemiology in Practice</strong> (Wks 2-6)</td>
<td><strong>Statistics for EPH</strong> (Wks 2-12)</td>
<td><strong>Clinical Trials</strong> (Wks 2-12)</td>
<td><strong>Clinical Trials</strong> (Wks 2-12)</td>
<td><em>Private Study</em>*</td>
</tr>
<tr>
<td>4</td>
<td>16/10 - 20/10</td>
<td><strong>Epidemiology in Practice</strong> (Wks 2-6)</td>
<td><strong>Statistics for EPH</strong> (Wks 2-12)</td>
<td><strong>Clinical Trials</strong> (Wks 2-12)</td>
<td><strong>Clinical Trials</strong> (Wks 2-12)</td>
<td><em>Private Study</em>*</td>
</tr>
<tr>
<td>5</td>
<td>23/10 - 27/10</td>
<td><strong>Epidemiology in Practice</strong> (Wks 2-6)</td>
<td><strong>Statistics for EPH</strong> (Wks 2-12)</td>
<td><strong>Clinical Trials</strong> (Wks 2-12)</td>
<td><strong>Clinical Trials</strong> (Wks 2-12)</td>
<td><em>Private Study</em>*</td>
</tr>
<tr>
<td>6</td>
<td>30/10 - 03/11</td>
<td><strong>Epidemiology in Practice</strong> (Wks 2-6)</td>
<td><strong>Statistics for EPH</strong> (Wks 2-12)</td>
<td><strong>Clinical Trials</strong> (Wks 2-12)</td>
<td><strong>Clinical Trials</strong> (Wks 2-12)</td>
<td><em>Private Study</em>*</td>
</tr>
<tr>
<td>7</td>
<td>06/11 - 10/11</td>
<td><strong>Epidemiology and -omics</strong> (Wks 8-12)</td>
<td><strong>Extended Epidemiology</strong> (Wks 8-12)</td>
<td><strong>Extended Epidemiology</strong> (Wks 8-12)</td>
<td><strong>Extended Epidemiology</strong> (Wks 8-12)</td>
<td><em>P-Demographic Methods</em></td>
</tr>
<tr>
<td>8</td>
<td>13/11 - 17/11</td>
<td><strong>Epidemiology in Practice</strong> (Wks 2-6)</td>
<td><strong>Statistics for EPH</strong> (Wks 2-12)</td>
<td><strong>Clinical Trials</strong> (Wks 2-12)</td>
<td><strong>Clinical Trials</strong> (Wks 2-12)</td>
<td><em>Private Study</em>*</td>
</tr>
<tr>
<td>9</td>
<td>20/11 - 24/11</td>
<td><strong>Epidemiology in Practice</strong> (Wks 2-6)</td>
<td><strong>Statistics for EPH</strong> (Wks 2-12)</td>
<td><strong>Clinical Trials</strong> (Wks 2-12)</td>
<td><strong>Clinical Trials</strong> (Wks 2-12)</td>
<td><em>Private Study</em>*</td>
</tr>
<tr>
<td>10</td>
<td>27/11 - 01/12</td>
<td><strong>Epidemiology in Practice</strong> (Wks 2-6)</td>
<td><strong>Statistics for EPH</strong> (Wks 2-12)</td>
<td><strong>Clinical Trials</strong> (Wks 2-12)</td>
<td><strong>Clinical Trials</strong> (Wks 2-12)</td>
<td><em>Private Study</em>*</td>
</tr>
<tr>
<td>11</td>
<td>04/12 - 08/12</td>
<td><strong>Epidemiology in Practice</strong> (Wks 2-6)</td>
<td><strong>Statistics for EPH</strong> (Wks 2-12)</td>
<td><strong>Clinical Trials</strong> (Wks 2-12)</td>
<td><strong>Clinical Trials</strong> (Wks 2-12)</td>
<td><em>Private Study</em>*</td>
</tr>
<tr>
<td>12</td>
<td>11/12 - 15/12</td>
<td><strong>Epidemiology in Practice</strong> (Wks 2-6)</td>
<td><strong>Statistics for EPH</strong> (Wks 2-12)</td>
<td><strong>Clinical Trials</strong> (Wks 2-12)</td>
<td><strong>Clinical Trials</strong> (Wks 2-12)</td>
<td><em>Private Study</em>*</td>
</tr>
<tr>
<td>13-15</td>
<td>18/12 - 07/01</td>
<td><strong>Holiday</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16-20</td>
<td>08/01 - 09/02</td>
<td><strong>Study Module C1</strong> (Mon/Tues All day &amp; Wed am)</td>
<td><strong>Study Module C2</strong> (Wed pm &amp; Thurs/Fri All day)</td>
<td><strong>Study Module C2</strong> (Wed pm &amp; Thurs/Fri All day)</td>
<td><strong>Study Module C2</strong> (Wed pm &amp; Thurs/Fri All day)</td>
<td><strong>Study Module C2</strong> (Wed pm &amp; Thurs/Fri All day)</td>
</tr>
<tr>
<td>21</td>
<td>12/02 - 16/02</td>
<td><strong>Reading Week - Deadline for Project Report Outlines is Friday 16th February 2018. Deadline for submission of the Ethics Approval Form is at the end of Term 2 (March 2018)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22-26</td>
<td>19/02 - 23/03</td>
<td><strong>Study Module D1</strong> (Mon/Tues All day &amp; Wed am)</td>
<td><strong>Study Module D2</strong> (Wed pm &amp; Thurs/Fri All day)</td>
<td><strong>Study Module D2</strong> (Wed pm &amp; Thurs/Fri All day)</td>
<td><strong>Study Module D2</strong> (Wed pm &amp; Thurs/Fri All day)</td>
<td><strong>Study Module D2</strong> (Wed pm &amp; Thurs/Fri All day)</td>
</tr>
<tr>
<td>27-31</td>
<td>26/03 - 16/04</td>
<td><strong>Holiday</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32-36</td>
<td>18/04 - 18/05</td>
<td><strong>Advanced Research Methods</strong></td>
<td><strong>Study Module E</strong> (Wed pm &amp; all day Thur &amp; Fri)</td>
<td><strong>Various Choices</strong></td>
<td><strong>Various Choices</strong></td>
<td><strong>Various Choices</strong></td>
</tr>
<tr>
<td>37-38</td>
<td></td>
<td><strong>Revision Period</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>04/06 - 08/06</td>
<td><strong>Exams - Paper 1 (Wed 06 June 10am-1pm) and Paper 2 (Fri 08 June 10am-1pm)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40-51</td>
<td></td>
<td><strong>Project Report Submission 2pm Wed 5th September 2018</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2.4 MSc Programme Description

The aim of the programme – consistent with LSHTM's mission to improve health worldwide – is to equip students with the knowledge and skills to make valuable contributions to both epidemiological research and public health. Epidemiological methods underpin clinical medical research, public health practice and health care evaluation to investigate the causes of disease, and to evaluate interventions to prevent or control disease. Epidemiology is a key discipline for understanding and improving global health. This programme covers both communicable and non-communicable disease epidemiology, and has a substantial statistical component.

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

- demonstrate advanced knowledge and awareness of the role of epidemiology and its contribution to other health-related disciplines;
- choose appropriate designs and develop detailed protocols for epidemiological studies;
- enter and manage computerised epidemiological data and carry out appropriate statistical analyses;
- assess the results of epidemiological studies (their own or other investigators’), including critical appraisal of the study question, study design, methods and conduct, statistical analyses and interpretation.

The programme is taught using a variety of teaching methods including: lectures, small group seminars, computing practicals, and group work with peers. All elements of the programme have specific learning objectives, with content designed to help students achieve these outcomes. Students are expected to learn through both directed and self-directed study. The programme is assessed through individual module assessments (which may include essays, other written coursework, short written exams, practical exams, group work, presentations or other tasks), formal summer exams, and a project report. Such tasks are designed to assess, via the most appropriate method, whether learning objectives have been met. More details on module choices and assessment methods are given in the following sections.

To give a flavour of the teaching and the staff you will meet in the second half of term 2 and in term 3, we have listed some of our taught programme modules which are exemplary of the range of skills and interests of our staff who will be teaching you.

For example, we have staff from the Department of Non-Communicable Disease Epidemiology teaching on ongoing research and challenges in this area. Similarly, key members of the Department of Infectious Disease Epidemiology will teach you about communicable disease epidemiology.
EPIDEMIOLOGY OF NON-COMMUNICABLE DISEASES (2407)
ORGANISERS: Professor Neil Pearce
Dr Pauline Scheelbeek

TIMETABLE SLOT: Term 2 - D1

CONSTITUENCY
This module is intended for those with an interest in non-communicable diseases including those concerned with public health in low and middle income countries. Students will be expected to have a good knowledge of epidemiological methods including familiarity with the different study designs, their analysis and interpretation. They should normally have attended the Extended Epidemiology (2007) or Basic Epidemiology (2001) module in Term 1.

CONCEPTUAL OUTLINE
The module is expected to include sessions addressing the following topics (though please note that these may be subject to change):
1. An overview of the emergence of the field of non-communicable disease epidemiology, and a critical evaluation of the definition of this heterogeneous field including the reality that many diseases in this category involve infectious agents as in their aetiology.
2. The contemporary burden of non-communicable diseases in different regions of the world and key drivers of trends including urbanization and other aspects of societal change.
3. Challenges to the study of non-communicable diseases including the limits of observational evidence, construction of conceptual frameworks in life-course epidemiology and the potential contribution of genetic associations to understanding environmental aetiologies.
4. Challenges in the control of non-communicable diseases in different parts of the world.
EPIDEMIOLOGY & CONTROL OF COMMUNICABLE DISEASES (2437)
ORGANISERS: Professor Francesco Checci and Dr Elizabeth Fearon

TIMETABLE SLOT: Term 2 - D2

CONSTITUENCY
This module is intended for students interested in the epidemiology and control of infectious diseases in either developing or developed countries. To benefit from the module students will need to have an understanding of basic epidemiological and statistical methods as covered in Term 1. Some prior familiarity with the Epi-Info or Epi-Data software package is recommended but not essential.

CONCEPTUAL OUTLINE
The module material is expected to include sessions addressing the following topics (though please note that these may be subject to change):
1. Methods and concepts: incubation periods, epidemic patterns, modes of transmission, transmission dynamics, measures of infectiousness, secondary attack rates, mathematical models of infection dynamics and sero-epidemiology.
2. Outbreak investigation and surveillance: includes a simulated outbreak which students investigate, analyse and write-up.
3. Vaccination: includes technical and clinical/immunological aspects, schedules, adverse reactions, contraindications, vaccine efficacy, impact assessment, UK and EPI programme issues.
4. Specific diseases: will include some or all of TB, Malaria, Polio, STIs, AIDS, Meningococcal meningitis, Hepatitis B, and Measles.

The Infectious Disease Epidemiology Department also includes specialists who will teach how to model infectious diseases using current examples from their cross cutting research.
MODELLING & THE DYNAMICS OF INFECTIOUS DISEASES (2464)
ORGANISERS: Dr. Richard White (LSHTM)
Dr. Emilia Vynnycky (HPA)
Dr. Adam Kucharski (LSHTM)

TIMETABLE SLOT: Term 2 – D1

CONSTITUENCY
Mathematical modelling is increasingly being applied to understand the dynamics and predict the control of infectious diseases. This module is designed to introduce students to this exciting and expanding area. It builds on and consolidates many of the themes covered in the module on the Epidemiology & Control of Communicable Diseases (2437), and attendance at that module (or equivalent knowledge) is beneficial, but not required. Students will also need to have an understanding of basic epidemiology. Students will benefit from reading the first chapter of the book “An Introduction to Infectious Disease Modelling” by E Vynnycky and RG White before the start of the module. They may also find it helpful to work through the exercises in the basic maths chapter of this book or through the maths refresher which will be posted on Moodle before the module. Familiarity with the spreadsheet package Excel is important (those with no experience should attend introductory courses). Training in the modelling package Berkeley Madonna is provided. Specialist mathematical training is not required as the emphasis is on developing a conceptual understanding of the basic methods and their practical application. Students who have attained the equivalent of a good high school mathematics training have generally been able to benefit from the module. The module aims to bring a conceptual understanding of mathematical models and their applications in infectious disease research to individuals who have not had any advanced training in mathematics. It is also suitable for individuals with a background in mathematical disciplines who wish to obtain an understanding of the broad range of applications of mathematical models in infectious disease epidemiology and who may wish to specialize in this area in the future.

CONCEPTUAL OUTLINE
The module material is expected to include sessions addressing the following topic (though please note that these may be subject to change):
1. Basic methods and motives for developing infectious disease models.
2. Analysis and applications of seroprevalence data: methods for elucidating age (and time-) dependent transmission; application for designing models for predicting the impact of control strategies.
3. Additional methods and dynamics - stochastic and network modelling, model-fitting and sensitivity analyses.
Social epidemiology is a key topic that is of interest to both non-communicable and communicable diseases – as you will see in the module outline below. The Social Epidemiology module was developed by staff in our Faculty who has now moved into the Faculty of Public Health and Policy.
Genetic epidemiology is important to understand biological pathways in disease and causation of disease. Both topic areas have their specific statistical approaches on how to understand the role of social or genetic risk factors on later disease.
SOCIAL EPIDEMIOLOGY (2472)
ORGANISERS: Dr Delia Boccia
Dr Bilal Avan

TIMETABLE SLOT: Term 2 - D1

CONSTITUENCY
All LSHTM students interested in conducting research on social determinants of health and health inequalities in both rich and poor countries.

CONCEPTUAL OUTLINE
The module is expected to include sessions addressing the following topics (though please note that these may be subject to change):
□ An overview of the major conceptual and measurement issues in conducting research into the effects of key social factors on individual, community and population health.
□ Examination of pathways and aetiological models through which social determinants operate at different stages of the life course, different levels of analysis (i.e. individuals, household, communities) and in different population groups.

Policy responses and interventions to promote health or reduce health inequality through structural interventions
ENVIRONMENTAL EPIDEMIOLOGY (1301)
ORGANISER: Professor Paul Wilkinson

TIMETABLE SLOT: Term 2 – D2

CONSTITUENCY
The module is compulsory for students taking the Environment & Health stream of the MSc in Public Health. It is intended for anyone with an interest in the links between the environment and health, and covers both local hazards and global environmental concerns. An understanding of basic epidemiological principles is assumed such as would be gained from any introductory module on epidemiology. There is a focus on methods and principles. The module is relevant to both high- and low-income settings, but there is greater emphasis on examples and methods from higher income settings. All students will require a sound basic knowledge of epidemiology (i.e. the equivalent of the Basic or the Extended Epidemiology Linear Module).

CONCEPTUAL OUTLINE
The module is expected to include sessions addressing the following topics (though please note that these may be subject to change):

- Key issues in environmental epidemiology.
- Methods for investigating environmental hazards.
- Climate change.
- Estimation of exposure and problems of measurement.
- Analysis of health and exposure data using Geographical Information Systems and time-series methods (computer-based practical).
- Disease clusters.
- Investigation of health effects of air pollution, electromagnetic fields, hazardous waste, stratospheric ozone depletion.
- Water-related health risks.
- Risk assessment.
- Critical review of key papers on air pollution epidemiology and case studies of other environmental hazards to health.

The above module also introduces you to time series methods increasingly used in both communicable and non-communicable disease epidemiology.
Most epidemiologists whom you meet will tell you that analytic skills are essential to epidemiology. The vast majority of our students take the module below. When taking this module, you will meet the many statisticians working in this Faculty, together with epidemiologists.
ADVANCED STATISTICAL METHODS IN EPIDEMIOLOGY (2412)
ORGANISERS: Professor Richard Hayes and Tim Clayton

TIMETABLE SLOT: Term 3 - E

CONSTITUENCY
This is an advanced module intended for students with a strong grasp of quantitative methods, who have successfully completed the module in Statistical Methods in Epidemiology (2402).

CONCEPTUAL OUTLINE
The module is expected to include sessions addressing the following topics (though please note that these may be subject to change):

Regression methods for case-control studies:
- Unconditional and conditional logistic regression
Regression methods for cohort studies and survival analysis:
- Stratifying on time
- Poisson regression
- Cox regression
- Further issues in the analysis of cohort studies
Analysis of correlated data:
- Random effects models
- Generalised estimating equations
- Design and analysis of cluster-randomized trials
Miscellaneous topics:
- Causal diagrams
- Attributable fractions
- Additive and multiplicative models
- Analysis of quantitative data
- Missing data
- Strategies of analysis
3. STUDY MODULES

3.1 Schedule of Modules

Term 1
Students take modules taught on a linear basis throughout the term over a 10-week period.

Term 2
In Term 2 there are four module slots. Each Term 2 module runs for 2½ days a week over a 5-week period. The C-slot runs before Reading Week and the D-slot runs after Reading Week. C1/D1 modules run in the first part of the week and C2/D2 modules run in the second part of the week. This is represented in the table below.

<table>
<thead>
<tr>
<th>Slot</th>
<th>Term</th>
<th>When</th>
<th>Period</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>2</td>
<td>Before Reading Week</td>
<td>Mon (am) to Wed (lunchtime)</td>
<td>5 weeks</td>
</tr>
<tr>
<td>C2</td>
<td>2</td>
<td>Before Reading Week</td>
<td>Wed (pm) to Fri (pm)</td>
<td>5 weeks</td>
</tr>
<tr>
<td>D1</td>
<td>2</td>
<td>After Reading Week</td>
<td>Mon (am) to Wed (lunchtime)</td>
<td>5 weeks</td>
</tr>
<tr>
<td>D2</td>
<td>2</td>
<td>After Reading Week</td>
<td>Wed (pm) to Fri (pm)</td>
<td>5 weeks</td>
</tr>
</tbody>
</table>

Term 3
In Term 3 there is one module slot (E-slot), with sessions between Wednesday lunchtime and Friday afternoon for a five-week period. A summary of the E-slot is provided below.

<table>
<thead>
<tr>
<th>Slot</th>
<th>Term</th>
<th>When</th>
<th>Period</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>3</td>
<td>Before Exams</td>
<td>Wed (pm) to Fri (pm)</td>
<td>5 weeks</td>
</tr>
</tbody>
</table>

Additional training sessions
Training sessions covering areas like computing, basic maths skills, English for academic purposes, using library resources, study skills and more are offered during the year (most being available from early in Term 1). Students are strongly recommended to attend the Global Health Lecture Series which runs weekly during term-time in Terms 1 and 2 and to attend teaching on Advanced Research Methods in the first half of the week in term 3. Session details will be made available at the end of term 2. Students can choose what will be useful for their project reports and also consider attending as part of post MSc life-long learning.

Part-time study
We recognise that part-time students taking the Programme over two years have to balance work and programme commitments. There are no special requirements or regulations for part-time students other than that at the end of the 2 years they must have satisfied all the requirements for the MSc Epidemiology. However, you are required to take the two core modules Extended Epidemiology and Statistics for EPH in the first year as these are important “foundation” modules. Whether you take the other modules, in particular Epidemiology in Practice, the five modules in Terms 2 and 3, and the Advanced Research Methods sessions in Term 3, in year 1 or year 2 is up to you.

However, if you intend to do the Study Design module in year 1, we would recommend attending in term term 1 modules Clinical Trials and Epidemiology in Practice (especially sections on reviewing the literature and sections on data management) in year 1 before undertaking the Study Design module. Please check with the Programme Directors whether...
your term 1 and C module choices in year 1 prepare you adequately for your D and E module choices in year 1.

You may take the examination Paper 1 in June of either year, but Paper 2 must be taken at the end of the second year. Please note that if you are working part-time you may have only a few days of exam preparation time if you choose to take your E module in year 2.

The Project Report must be submitted after both Papers 1 and 2 have been taken, i.e. at the end of the second year. You may work on your project over both years but you must check with your supervisor if this is acceptable to them and does not exceed the tutor supervision available (described later). The Programme Directors will be happy to discuss the best way forward for you. The principles are shown in the table on the next page.

It is also possible to do the MSc as split study (“6 months + 6 months”): being full time for half the year (usually to include the C slot modules, i.e. to finish by term 2 reading week) and return the second year after Term 2 reading week to complete the other advanced modules and finish the year. A discussion with the Programme Directors is encouraged if you are considering other times at which you would like to split your study.

**Example of Year 1 and 2 module choices for part time students**

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Year 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Term 1</td>
<td>Term 2</td>
</tr>
<tr>
<td>Extended</td>
<td>Rest of Epidemiology</td>
</tr>
<tr>
<td>Epidemiology</td>
<td>in Practice</td>
</tr>
<tr>
<td>Statistics for EPH</td>
<td>Possibly Clinical</td>
</tr>
<tr>
<td>Epidemiology in Practice (reviewing the literature and possibly data management)</td>
<td>Some peripheral modules</td>
</tr>
<tr>
<td>Possibly Clinical trials</td>
<td>Global Health</td>
</tr>
<tr>
<td></td>
<td>Lecture Series</td>
</tr>
<tr>
<td>Term 2</td>
<td>C module</td>
</tr>
<tr>
<td>C module</td>
<td>C module</td>
</tr>
<tr>
<td>Term 3</td>
<td>D module</td>
</tr>
<tr>
<td>D module</td>
<td>D module</td>
</tr>
<tr>
<td>Term 3</td>
<td>E module</td>
</tr>
<tr>
<td>Some of the Advanced Research Methods sessions joint with MSc Med Stats (optional)</td>
<td>E module</td>
</tr>
<tr>
<td>Project Report</td>
<td>Shared over two summers</td>
</tr>
</tbody>
</table>
### 3.2 Module Information

- **C** = **Compulsory** (these must be taken for your programme)
- **R** = **Recommended Options** (you can choose from these options)
- **P** = **Peripheral Options** (you must consult your Programme Director prior to selection)

#### Term 1 Modules

<table>
<thead>
<tr>
<th>Module Title</th>
<th>Code</th>
<th>Slot</th>
<th>Type (C/R/P)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical Trials</td>
<td>2033</td>
<td>AB1</td>
<td>C</td>
</tr>
<tr>
<td>Demographic Methods</td>
<td>2057</td>
<td>AB1</td>
<td>P</td>
</tr>
<tr>
<td>Epidemiology in Practice</td>
<td>2056</td>
<td>AB1</td>
<td>C</td>
</tr>
<tr>
<td>Extended Epidemiology</td>
<td>2007</td>
<td>AB1</td>
<td>C</td>
</tr>
<tr>
<td>Epidemiology and -omics</td>
<td>2052</td>
<td>AB1</td>
<td>P</td>
</tr>
<tr>
<td>Statistics for EPH</td>
<td>2021</td>
<td>AB1</td>
<td>C</td>
</tr>
</tbody>
</table>

#### Term 2 Modules

<table>
<thead>
<tr>
<th>Module Title</th>
<th>Code</th>
<th>Slot</th>
<th>Type (C/R/P)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study Design: Writing a Study Proposal</td>
<td>2400</td>
<td>C1</td>
<td>C</td>
</tr>
<tr>
<td>Statistical Methods in Epidemiology</td>
<td>2402</td>
<td>C2</td>
<td>C</td>
</tr>
<tr>
<td>Applied Communicable Disease Control</td>
<td>1454</td>
<td>D1</td>
<td>P</td>
</tr>
<tr>
<td>Control of Sexually Transmitted Infections</td>
<td>3192</td>
<td>D1</td>
<td>P</td>
</tr>
<tr>
<td>Current Issues in Safe Motherhood &amp; Perinatal Health</td>
<td>2459</td>
<td>D1</td>
<td>P</td>
</tr>
<tr>
<td>Epidemiology of Non-Communicable Diseases</td>
<td>2407</td>
<td>D1</td>
<td>R</td>
</tr>
<tr>
<td>Evaluation of Public Health Interventions</td>
<td>1127</td>
<td>D1</td>
<td>P</td>
</tr>
<tr>
<td>Medical Anthropology and Public Health</td>
<td>1802</td>
<td>D1</td>
<td>P</td>
</tr>
<tr>
<td>Modelling &amp; the Dynamics of Infectious Diseases</td>
<td>2464</td>
<td>D1</td>
<td>R</td>
</tr>
<tr>
<td>Nutrition in Emergencies</td>
<td>2451</td>
<td>D1</td>
<td>P</td>
</tr>
<tr>
<td>Social Epidemiology</td>
<td>2472</td>
<td>D1</td>
<td>R</td>
</tr>
<tr>
<td>Spatial Epidemiology</td>
<td>3135</td>
<td>D1</td>
<td>R</td>
</tr>
<tr>
<td>Tropical Environmental Health</td>
<td>3434</td>
<td>D1</td>
<td>P</td>
</tr>
<tr>
<td>Design &amp; Evaluation of Mental Health Programmes</td>
<td>2342</td>
<td>D2</td>
<td>P</td>
</tr>
<tr>
<td>Environmental Epidemiology</td>
<td>1301</td>
<td>D2</td>
<td>R</td>
</tr>
<tr>
<td>Epidemiology &amp; Control of Communicable Diseases</td>
<td>2437</td>
<td>D2</td>
<td>R</td>
</tr>
<tr>
<td>Ethics, Public Health &amp; Human Rights</td>
<td>3189</td>
<td>D2</td>
<td>P</td>
</tr>
<tr>
<td>Globalisation &amp; Health</td>
<td>1503</td>
<td>D2</td>
<td>P</td>
</tr>
<tr>
<td>Nutrition Related Chronic Diseases</td>
<td>2442</td>
<td>D2</td>
<td>P</td>
</tr>
</tbody>
</table>

#### Term 3 Modules

<table>
<thead>
<tr>
<th>Module Title</th>
<th>Code</th>
<th>Slot</th>
<th>Type (C/R/P)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Statistical Methods in Epidemiology</td>
<td>2412</td>
<td>E</td>
<td>R</td>
</tr>
<tr>
<td>AIDS</td>
<td>3174</td>
<td>E</td>
<td>P</td>
</tr>
<tr>
<td>Applying Public Health Principles in Developing Countries</td>
<td>3198</td>
<td>E</td>
<td>P</td>
</tr>
<tr>
<td>Integrated Vector Management</td>
<td>3176</td>
<td>E</td>
<td>P</td>
</tr>
<tr>
<td>Principles and Practice of Public Health</td>
<td>1608</td>
<td>E</td>
<td>P</td>
</tr>
</tbody>
</table>
The following are some examples of pathways people take on the MSc Epidemiology Programme:

<table>
<thead>
<tr>
<th>Term 2</th>
<th>Mon-Weds am</th>
<th>Weds pm-Fri</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>Study Design</td>
<td>SME</td>
</tr>
<tr>
<td></td>
<td><strong>Communicable Disease interest:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Modelling*</td>
<td>ECCD</td>
</tr>
<tr>
<td>D</td>
<td>Spatial epidemiology</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Non Communicable Disease interest:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ENCD or Social Epidemiology</td>
<td>Environmental Epidemiology</td>
</tr>
<tr>
<td></td>
<td><strong>General interest:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ENCD or Social Epidemiology</td>
<td>ECCD</td>
</tr>
</tbody>
</table>

| Term 3 | E | (Optional) Advanced Research Methods sessions | ASME |

*Students who are interested in taking the module on Modelling & Dynamics of Infectious diseases will also need to take the Module on the Epidemiology & Control of Communicable disease.

ENCD = Epidemiology of Non-Communicable Diseases
ECCD = Epidemiology and Control of Communicable Diseases
ASME = Advanced Statistical Methods in Epidemiology

### 3.3 Module Descriptions

A link to the Module Specifications is published on the relevant module pages on Moodle. The Module Specifications can also be found on the website at the following link: [https://www.lshtm.ac.uk/study/courses/masters-degrees/module-specifications](https://www.lshtm.ac.uk/study/courses/masters-degrees/module-specifications)

The Module Specifications contain the following information:

- **General Information** – Module code, credits, Module Organiser etc.
- **Aims, Objectives and Audience** - the goals of the module, the intended learning outcomes each student should achieve by the end of the module, and which students it is principally aimed at.
- **Content** - an overview of sessions and themes/topics covered.
- **Teaching, Learning and Assessment** - describes the teaching methods used and method(s) of assessment contributing towards the final degree result (note – some Term 1 modules do not have an integrated assessment contributing to the final degree, but may carry out formative progress tests during the module).
- **Timing and Mode of Study** - indicates the dates, duration and timetable slot of the module, mode of study, and total learning time associated with the module. Learning time is divided into:
  - **Contact Time** spent in scheduled sessions such as lectures, seminars, practicals
  - **Directed Self-Study** such as directed readings, work in study groups
  - **Self-Directed Learning** such as background reading, researching topics
Assessment, Review and Revision time spent on the assessment and revision

Application and Admission – indicates any prerequisites (background knowledge or experience that students must have to be able to enrol), as well as information on class numbers and how students are prioritised to enrol where module numbers are restricted.

Mixed Mode
In-house students who are not on a Tier4 visa can take up to two modules by distance learning (DL) instead of in-house. A list of modules available by DL is shown below. This is called 'mixed mode' study. If a student is full-time these are done instead of C or D-slot modules in-house. The MSc Epidemiology has two compulsory face to face modules in the C slot, which means that full-time MSc Epidemiology students can only choose to study D-slot modules by DL.

E-slot module replacement may be allowed on an individual basis, e.g. if there are extenuating circumstances, in consultation with the Programme Directors. If a student is part-time, DL modules can replace D-slot or, in the first year, E-slot modules.

AVAILABILITY OF DISTANCE LEARNING MODULES TO LONDON-BASED MSc EPIDEMIOLOGY STUDENTS 2017-18 (MIXED MODE)
(Subject to MSc programme-specific restrictions – see above and DL module pre-requisites)

CTM202 Trial designs
CTM203 Project management and research co-ordination
CTM204 Regulatory affairs, GCP and ethics
CTM209 Cluster randomised trials

EPM301 Epidemiology of communicable diseases*
EPM302 Modelling and the dynamics of infectious diseases
EPM307 Global non-communicable disease Epidemiology
EPM304 Advanced statistical methods in epidemiology

IDM201 Bacterial infections
IDM202 Nutrition and infection
IDM203 Parasitology
IDM 204 Viral infections
IDM205 Healthcare-associated infection
IDM213 Immunology of infection and vaccines
IDM301 Epidemiology and control of infectious diseases in developing countries
IDM501 HIV/AIDS
IDM502 Tuberculosis
IDM503 Malaria

PHM201 Analytical models for decision making
PHM203 Economic analysis for management policy
PHM204 Economic evaluation
PHM205 Environmental epidemiology
PHM206 Environmental health policy
PHM207 Health care evaluation
PHM209 Globalisation and health
PHM211 Medical anthropology in public health
PHM213 Principles and practice of health promotion

* Those choosing to study EPM301 Epidemiology of communicable diseases should email the DL Office (dlsupport@lshtm.ac.uk) as soon as possible (and no later than 1 December) to sign up for specific 6-week dates in which to carry out the group work outbreak exercise which forms the assessment for this module

Full details on taking Distance Learning Modules by Mixed Mode can be found on the School Intranet at: https://lshtm.sharepoint.com/Teaching-and-Support/Documents/mixed_mode_dl_modules_phd_and_drph.pdf#search=mixed%20mode

Please note: Students enrolled at the School on a Tier 4 Student visa are not permitted to take Distance Learning modules as part of their MSc programme. The Home Office guidance states that any study under Tier 4 must be full-time, classroom-based learning that takes places within the UK. Distance learning programmes or modules do not meet this definition and therefore are not accepted by the Home Office as leading to an approved qualification for overseas students on Tier 4 visas.

3.4 Module Choices

Students will be given information about module choices during Orientation Week at the start of the year. Module selection takes place via the School’s Online Module Registration System. A number of modules are compulsory for your programme which means you have to take these modules. Other modules are optional which allows for a degree of choice. Optional modules are further divided into ‘Recommended’ which you select from, or ‘Peripheral’ which you have to discuss with your Programme Director prior to selection. If you need help with your Module Choices, please ask your Personal Tutor or MSc Programme Director. All module choices are subject to final approval by the MSc Programme Director.

Consider the following before making your choices:

(a) Read the MSc Programme Description provided in section 2.
(b) Consult the Module Availability Chart showing the modules available.
(c) Consider the Module Specifications which can be found in the Module Catalogue on at: https://www.lshtm.ac.uk/study/courses/masters-degrees/module-specifications.
(d) Seek the advice of MSc Programme Directors and Personal Tutors.
(e) Module Organisers can supply more information about particular modules.
(f) Further information on module choices will be given during Orientation Week.
(g) There will be a Module Fair in the November Reading Week for you to review your Term 2 and 3 choices.

Deadlines for module choices
The following deadlines have been set for you to make your module choices via the Online Module Registration system:

2.00 pm Friday 29 September 2017 Term 1 module choices to be made
2.00 pm Friday 17 November 2017 Term 2 and 3 module choices to be made
The School only allows changes to module choices after these deadlines in exceptional circumstances. In no circumstances will changes be allowed after the first week of the module commencing. An Application to Change Module Choice form must be completed. This can be found on the intranet here: https://lshtm.sharepoint.com/students/Pages/forms.aspx.

Failure to choose your modules in accordance with the process will mean that you are incorrectly registered for a module and will automatically receive a zero mark (fail) for any assessments associated with that module. Therefore, it is very important to make your choices carefully by the deadlines shown above. Staff in the Teaching Support Office and Registry are there to provide help and guidance if needed.

Module Fair
During Reading Week in Term 1, there will be a Module Fair where you can discuss your Term 2 and 3 module choices with the Module Organisers. You will then have a week in which to choose your Term 2 and 3 module selections or you change them if you chose them at the start of the year.

Special Cases
It is possible to take module which is not part of your programme, if you can demonstrate a special case for doing this (i.e. the module is of particular relevance to your proposed project). Students are allowed to make a maximum of one ‘special case’ module choice which must be formally approved by the MSc Programme Director and the relevant Module Organiser. Students wishing to make a special case module choice must complete the Application for Special Approval of a Module Choice which is available on the School’s website at the following location: https://lshtm.sharepoint.com/students/Pages/forms.aspx. The completed forms must be submitted to the Teaching Support Office by the published deadline for module choices.

Module Limits
There will be a limit on the number of students permitted to take laboratory-based Term 2 and 3 modules due to safety regulations so this may mean students being required to make alternative choices.
4. THE PROJECT REPORT

4.1 Project Handbook

A separate Project Handbook will be published on your MSc Moodle page by the start of Term 2, however, the key points are outlined below. The Project Handbook will provide details about the requirements for the Project Report and further guidance will be provided by MSc Programme Directors during Term 1. The Project Handbook has two sections: a generic section which applies to all students and a programme-specific section which is tailored to your Masters programme.

4.2 Objectives of the Project Report

The Project Report is the culmination of your MSc studies at the School. As an independent piece of research on a topic relevant to your programme, it should demonstrate the learning, understanding and skills you have developed in the subject. Projects are a vital element of MSc work; they are assessed and will contribute towards a substantial proportion of your final degree result as outlined in the final MSc Awards Scheme. The Project Handbook gives details of the project marking scheme used, as well as further guidance on the learning objectives your Project Report will need to demonstrate.

4.3 Project Types

Students select a type of project on a topic of their interest. There is scope for great variety in terms of your summer project work. You may have a specific topic in mind, you may approach a member of LSHTM staff working in an area you are interested in, or you may ask your tutor to recommend a project topic. The programme-specific section of the Project Handbook gives details of the types of project permitted for your MSc programme. Different types of Report may be undertaken, for example:

- an analysis of work done or data collected prior to or during the programme
- a comprehensive and original review of the literature on a relevant subject
- a review of a policy issue using data from literature and/or from original sources to draw conclusions and make policy recommendations

4.4 Project Length

The Project Handbook gives details of the recommended and maximum permitted length for Project Reports. Some programmes will specify a word limit, while others will specify a maximum number of pages in a set format. The programme-specific section of the Project Handbook gives details.
4.5 **Project Supervision**

Each project will generally be supervised by a Faculty member who is familiar with MSC Epidemiology. If a project is offered by someone outside the faculty and not an MSc Epi tutor your own personal tutor must be consulted and their approval and active involvement in defining the scope required. They will also need to agree to co-supervise you so you can do the project well. In order for you to be aware of what is expected for an MSc Epidemiology summer project, we have given you further information on the at the end in Appendix 2.

4.6 **Project Approval**

You are required to get approval for your project before you begin work beyond the planning stage. The School has rigorous processes for this, to ensure that the proposed topic is academically suitable, that safety and risk considerations have been taken into account, and that any ethical implications are considered and ethical approval sought if required.

4.7 **Ethics Approval**

All MSc Epidemiology projects must be given formal ethical approval by the School before they can proceed.

4.8 **Timescales and Deadlines**

Because of the need to gain approval in good time before beginning work, you will need to start initial planning (thinking about your project topic, and developing an initial proposal) from early in the spring term, if not before. While taking taught modules in the spring term, you will also need to develop your proposal more fully, then get formal approval from your supervisor and Programme Director(s), and possibly from the Ethics Committee. The main work of the project is expected to be undertaken over the summer, after the exams finish in June. Your final Report must be submitted by the deadline in early September. The Project Handbook sets out all key project dates and deadlines.

4.9 **Further Information**

The Project Handbook contains a great deal of further useful information or will direct you as to where to find out more on important topics such as laboratory and fieldwork safety, ethical approval, potential sources of funding, writing up your Project Report, recognising the contribution of others, and submission procedures and requirements for the final Project Report. Copies of past students’ projects are also available via the Library.

4.10 **Academic Writing**

The Academic Writing handbook also gives helpful guidance for writing up extended pieces of academic work like the project (especially how to cite and reference correctly). This is available at [https://www.lshtm.ac.uk/sites/default/files/academicwritinghandbook.pdf](https://www.lshtm.ac.uk/sites/default/files/academicwritinghandbook.pdf)
5. **ASSESSMENT & CREDITS**

5.1 **Introduction**

This section summarises the School's arrangements for assessment and examinations, leading to the award of credits, for Masters degree programmes. Further details can be found in the MSc Award Scheme and the Taught Postgraduate Degree Regulations on the School’s website at the following link: [https://lshtm.sharepoint.com/students/Pages/student-regulations.aspx](https://lshtm.sharepoint.com/students/Pages/student-regulations.aspx)

5.2 **Participation in a Programme**

In order to be awarded a Masters degree, students must have participated fully over the **WHOLE** of the period of study specified for that degree. The learning experience for all students, in lectures, seminars, group work, practical exercises and field trips etc. are dependent on student participation. Therefore, students are expected to attend, be properly prepared, and actively participate in such activities. If a student persistently fails either to attend or willingly participate in such required activities, the MSc Programme Director may judge that the student has not fulfilled the requirements for the award of the degree. This will be reported to the relevant Board of Examiners. Regardless of the marks obtained in any assessed coursework submitted by the student, the Board may decide to refuse to award the degree on the grounds that the student has failed to participate fully in the programme. No such decision shall be taken by the Board of Examiners without considering any extenuating circumstances reported to it and, in all cases, an oral examination of the student will also take place.

5.3 **Credit Framework**

All of the MSc programmes offered by the School, operate under the credit framework. Credits are gained for passing the specific modules prescribed for the programme, associated exams, and the research project. These credits will be shown on final degree transcripts. Students are required to obtain 180 credits in total to be awarded a Masters degree.

At the School, all Masters modules are benchmarked at Masters level (in line with Level 7 of the Framework for Higher Education Qualifications of Degree-Awarding Bodies in England, Wales and Northern Ireland)). Further information on this is available from the Quality Assurance Agency website at the following link: [http://www.qaa.ac.uk/en/Publications/Documents/qualifications-frameworks.pdf](http://www.qaa.ac.uk/en/Publications/Documents/qualifications-frameworks.pdf)

**Major elements of the credit system**

Each Masters programme has three major elements

- Term 1 plus exams
- Modules in Terms 2 and 3
- Research project
<table>
<thead>
<tr>
<th>When</th>
<th>Term 1 (Oct-Dec) plus summer exams</th>
<th>Terms 2 &amp; 3 (Jan-May)</th>
<th>Term 3 (June-Sept)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Element</strong></td>
<td>A range of taught modules of different sizes.</td>
<td>5 individual taught modules</td>
<td>Research project</td>
</tr>
<tr>
<td><strong>Credits</strong></td>
<td>60 credits (awarded as a block)</td>
<td>75 credits (15 credits per module)</td>
<td>45 credits</td>
</tr>
<tr>
<td><strong>Assessment</strong></td>
<td>Unseen written exams in the summer (Papers 1 &amp; 2)</td>
<td>Coursework for each module</td>
<td>Project report</td>
</tr>
<tr>
<td><strong>Grades required to be awarded credits</strong></td>
<td>Paper 1 = ≥ 1, and Paper 2 = ≥ 1, and Papers combined = ≥ 2</td>
<td>A minimum mark of 2 is required for each module. <em>(One module with a mark of 1-1.99 can be compensated provided the combined GPA for all five modules is ≥ 2).</em></td>
<td>A minimum mark of 2 is required.</td>
</tr>
</tbody>
</table>

\[ \geq = \text{Equal to or greater than} \]

\[ \text{GPA} = \text{Grade Point Average} \]

### 5.4 Credits and Learning Time

The credits assigned to different elements are based on the amount of time students are expected to spend on them. Each credit corresponds to 10 notional learning hours, which will include:

- staff contact time (teaching, tutorials, seminars etc.)
- directed self-study (e.g. prescribed reading)
- self-directed learning (your own personal study, reading and research)
- assessment plus associated revision

Therefore an MSc which is worth 180 credits should entail 1,800 hours of learning time. A one-year MSc is 51 weeks long, so full-time students should expect to study for approximately 36 hours per week, normally more during term-time, and less during the periods between terms. Part-time students should expect to study for approximately 18 hours per week.

### 5.5 Award of Credits and Compensation

Assessment uses a Grade Point Average (GPA) scheme, running from 5 (excellent) to 0 (very poor fail) and with a pass threshold of 2 (satisfactory). Full credits are awarded for passing each individual credit-bearing element. Credits are not awarded for failing, unless this can be compensated in line with the MSc Award Scheme.
5.6 **Resits**

Any student who does not gain credits for a certain element of their degree, as a result of failing particular assessments, will need to resit the failed assessment(s). **Assessments can be resat only once**, so if a resit is required it is essential to pass it in order to gain the credits necessary to pass the degree.

Failing one module will not necessarily require a resit if compensation can be applied. This is outlined in the MSc Award Scheme.

Failing a project will require a resit on a basis prescribed by the Exam Board. Timing and requirements will depend on the issues identified; standard requirements will be one of the following:

(a) Revise and resubmit within a two-month timescale
(b) Collect new data and update the project, for submission by the following year’s deadline
(c) Undertake an entirely new project, for submission by the following year’s deadline.

5.7 **Degree Classification**

For students who have obtained sufficient credits and are hence due an award, degree classifications of Pass or Distinction are determined using the MSc Award Scheme which can be found on the School website at the following link: https://lshtm.sharepoint.com/students/Pages/student-regulations.aspx#taughtcourse. Grades from modules, exams and the project are combined to calculate a degree GPA.

The degree GPA will be weighted as follows:

- **30% from the examined Term 1 component**
- **40% from assessed Term 2 and 3 modules** (always counting grades from study design and statistical methods in epidemiology modules, and then averaging with the best 2 grades of out of the 3 remaining modules)
- **30% from the project**

Degree GPA scores of 4.3 or above constitute distinctions, and any in the range 4.15 to 4.3 will be considered by the Exam Board for the potential award of a distinction.

5.8 **Assessments and Exams during the Academic Year**

**Assessment in Term 1 (60 credits)**

There is no formal assessment during Term 1 teaching.

The award of credits for Term 1 is determined by the summer exams, which consist of two equally-weighted 3-hour unseen written examination papers. Paper 1 tests the specific content of the teaching in Term 1; while Paper 2 tests ability to integrate the knowledge acquired during the whole programme, building on Term 1 material and learning.

Many Term 1 modules also have formative assignments for monitoring purposes; these do not count towards the award of credit or the final degree.
Assessment in Terms 2 and 3 (75 credits)
Formal assessment in Terms 2 and 3 consists of assessment tasks for each module studied, used to determine the award of credits. Students take 5 modules worth 15 credits each. Details of the assessment for each module are provided in the module specification.

Project Report (45 credits)
The Project, is undertaken over the summer and written up as a Project Report for submission by a deadline in early September. Please see the Project Handbook for further details, and the MSc Epidemiology specific marking guidelines in the appendix.

5.9 Regulations for Examinations and Timed Assessments
Students will be issued with a set of regulations with their Examinations Admissions Notice for the summer examinations. These regulations also apply to any timed module assessments. You must read the regulations and abide by them.

5.10 Extenuating Circumstances and Extensions
Extenuating Circumstances (ECs) are defined as unforeseen, exceptional, short-term events, which are outside of a student’s control and have a negative impact on their ability to prepare for or take an assessment. These events will normally occur shortly before or during an assessment. All requests must be accompanied by appropriate evidence and submitted by the deadline in the Extenuating Circumstances Policy. The potential impact on assessment can be:

- Attempted but performance has been affected
- Deferral of assessment to the next opportunity
- Extension to a coursework or project deadline (maximum extension of 3 calendar weeks for coursework and 6 calendar weeks for projects.)

If extenuating circumstances are granted, you can be allowed a new attempt at the assessment at a later date. This will involve a different task or exam which will not count as a resit. The extenuating circumstances policy and procedure and the form that needs to be completed can be found on the web at the following link:
http://www.lshtm.ac.uk/edu/taughtcourses/handbooks_regs_pols/extcircs.html

5.11 Special Assessment Arrangements
Special assessment arrangements can be made for students undertaking assessments in cases of long-term health conditions (including pregnancy) or disability, for example, extra time in examinations for dyslexia, or special chairs for students with back problems. Students should email disability@lshtm.ac.uk early in Term 1 and be prepared to provide documentary evidence of any condition. The Special Assessment Arrangements Policy can be found in the Assessment Handbook on the School’s website here:
https://www.lshtm.ac.uk/aboutus/organisation/academic-quality-and-standards
A candidate who has Special Assessment Arrangements in place can still submit a request for extenuating circumstances if they experience a serious and unforeseen effect of their conditions or if they experience extenuating circumstances based on factors not connected with their condition.

5.12 Submission of Assessments

All module assessment tasks must be completed and submitted electronically via Moodle by the specified deadline for that module. For Term 2 and 3 modules, this date will be no later than the last day of the module (and may be earlier) - Wednesday for C1 and D1 modules and Friday for C2, D2 and E modules. Details of arrangements for assessment submission, including the deadline, will be provided on the Module Moodle page and must be adhered to.

Project Reports must be submitted by early September. The date will be published in the Project Handbook.

5.13 Late Submission of Assessments

If an assignment is submitted up to one week late, the mark will be lowered by one grade; if it is more than one week late, it will be considered a failure and students will automatically be given a zero mark (fail). Project Reports handed in late will automatically be given a zero mark (fail).

If there are exceptional personal or health reasons that mean you will find it difficult to meet a deadline, you may request an extension to the deadline in line with the Extenuating Circumstances Policy. Assessments submitted late without prior agreement will be penalised as described above.

5.14 Marking of Assessed Work

The School uses a standard assessment system, marking against six grade points:

- Grade points are integers from 0 to 5
- Grades 2 and above are pass grades (grade 5 can be seen as equivalent to distinction standard)
- Grades below 2 are fail grades

Single pieces of work, such as essays, will normally be assigned an integer grade in this way. Where multiple pieces of work are combined to give an overall module result, you will normally be given separate integer grades for the separate pieces of work; with your overall grade being a grade point average (GPA – in the range 0 to 5, and not necessarily an integer) which is based on averaging the individual grades against an agreed weighting.

Individual assessments will have their own requirements and marking criteria. However, as a general guide, the table below gives examples of simple general criteria that apply for different types of assessments, such as multiple choice questions (quantitative) or essays (qualitative).
<table>
<thead>
<tr>
<th>Grade point</th>
<th>Qualitative work (e.g. essays or other written assignments)</th>
<th>Quantitative work (e.g. multiple choice questions, mathematical questions, laboratory ‘spot’ tests)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>A comprehensive discussion of the topic giving all relevant information, showing in-depth critical understanding of the topic, going beyond conventional answers, and bringing in additional relevant ideas or material.</td>
<td>All correct.</td>
</tr>
<tr>
<td>4</td>
<td>A full discussion of the topic that includes all relevant information and critical evaluation.</td>
<td>Almost all correct, none incorrect.</td>
</tr>
<tr>
<td>3</td>
<td>The major points are discussed, but relevant, though less important considerations, are omitted.</td>
<td>Most correct, a few incorrect allowed.</td>
</tr>
<tr>
<td>2</td>
<td>Sufficient relevant information is included but not all major points are discussed, and there may be some errors of interpretation.</td>
<td>Essential parts correct (to be defined), some incorrect.</td>
</tr>
<tr>
<td>1</td>
<td>A few points are included, but lack of understanding is shown together with use of irrelevant points.</td>
<td>Many correct but essential part (to be defined) incorrect or unknown.</td>
</tr>
<tr>
<td>0</td>
<td>None of the major points present; many irrelevant points included and a serious lack of understanding. or Not submitted.</td>
<td>Some correct, essential part incorrect. or Not attempted.</td>
</tr>
</tbody>
</table>

### 5.15 Grading and Feedback Procedures

Assessed work which contributes to the final degree result is marked independently by two members of staff. Where discrepancies in marks occur, the two members of staff discuss and agree a final mark. In some cases, the work may be referred to a third member of staff to agree the mark. Once the markers have agreed the provisional marks, these are moderated by another member of staff. A selection of assessed work is also reviewed by the external examiner. Marking of assessed work is done anonymously - which means staff are not aware of which student’s work they are marking - except where the assessment method precludes anonymity. You will be assigned a candidate number for this purpose which must be used for submission of assessed work.

You will receive comments on your coursework assessment tasks to aid learning. If there is a delay in providing feedback, i.e. due to staff illness, you will be notified in advance.

<table>
<thead>
<tr>
<th>Term/Slot</th>
<th>Feedback provided by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Term 1</td>
<td>Monday 22 January 2018</td>
</tr>
<tr>
<td>Term 2 (C1/C2)</td>
<td>Monday 05 March 2018</td>
</tr>
<tr>
<td>Term 2 (D1/D2)</td>
<td>Monday 23 April 2018</td>
</tr>
<tr>
<td>Term 3</td>
<td>Monday 18 June 2018</td>
</tr>
</tbody>
</table>

All marks reported to students during the year are strictly provisional until confirmed by the Board of Examiners.
5.16 Preparation for Assessments and Examinations

Some guidance on preparation for assessment tasks and the summer examinations is given in Appendix 1.
6. ACADEMIC MISCONDUCT

6.1 Introduction

You are expected to comply with the School’s standards and expectations in all your scholarly activity – assessments, examinations and research. The following notes cover key points you should be aware of when undertaking assessed work, including:

- The School’s definitions of assessment irregularities – things you must not do in your work. Please be aware that breaches of these rules, whether intentional or unintentional, will be treated very seriously and may result in penalties which affect your degree.
- Guidance about how to ensure your work follows the rules – the main principle is to cite and reference the work of others in an appropriate way, so as to avoid plagiarism. A worked example is given in Appendix 2.

If you are unfamiliar with concepts like correct referencing or avoiding plagiarism, then you are strongly encouraged to read through the Academic Writing handbook available at [https://www.lshtm.ac.uk/sites/default/files/academicwritinghandbook.pdf](https://www.lshtm.ac.uk/sites/default/files/academicwritinghandbook.pdf). This gives more detailed guidance and is designed as a resource you can refer to when you want to find out more about something specific, e.g. how to reference different sources like journal articles, books, web pages, etc.

Otherwise, please consult your Personal Tutor, Programme Director or Supervisor if you are having any difficulties with assessed work, need clarification, or are in any doubt about what is permissible.

6.2 Assessment Irregularities Procedure

The School’s Assessment Irregularity Policy, as established under the Regulations, is available via the School’s website at the following link: [https://lshtm.sharepoint.com/students/Pages/student-regulations.aspx](https://lshtm.sharepoint.com/students/Pages/student-regulations.aspx). The procedure sets out how any allegations will be investigated, and the potential penalties that may be applied. In the event that an allegation or case arises which affects you, anything you are required to do will be clearly communicated and explained. Your Personal Tutor, your Programme Director(s) or the Registry can be asked for further advice.

6.3 Declaration on Plagiarism and Cheating

By submitting work for assessment you are confirming that:

- You understand the School’s definitions of plagiarism and cheating (which follow); and that failure to comply with the School’s policies may be penalised
- That all work submitted is your own
- You give consent for the School to upload relevant documents and information to external services or third parties, in order to identify potential plagiarism or irregularities.
6.4 Plagiarism

Plagiarism is the copying or use of the work of others, whether intentionally or unintentionally, as if it were your own. Such work may come from any source whether published or unpublished, in print or online – including words, images, audio recordings, diagrams, formulae, computer code, performances, ideas, judgements, discoveries and results.

6.5 Cheating

Cheating is a deliberate attempt to deceive in order to gain advantage in an assessed piece of work, including coursework, in-module assessments and examinations. This covers a range of offences, from significant instances of plagiarism to exam misconduct.

Key points you should be aware of include:

- That you must not engage in any deliberate deception in order to gain advantage in formal assessment or evaluation
- This applies to all forms of assessment – e.g. coursework assignments, presentations, group work, module tests, formal examinations, or research project reports
- Submitting someone else's work, knowledge or ideas, while pretending that they are your own, constitutes cheating
- Serious forms of plagiarism, fraud, collusion or personation, or any deliberate failure to comply with assessment regulations, are all liable to constitute cheating
- The use of commercial essay banks, essay-writing services or any similar 'cheat sites' is highly likely to constitute cheating
- Any inappropriate activities under exam conditions, e.g. bringing unauthorised materials into an exam room, will also constitute cheating

6.6 Other Assessment Irregularities

The School’s policies also define other types of assessment irregularities which you must avoid, such as collusion, impersonation or fraud. More detailed explanations are given in the Academic Writing handbook. You should also be aware that strict rules govern what is or is not permissible under formal exam conditions. Any exam hall offences or misconduct will be treated extremely seriously.

6.7 How to Avoid Plagiarism

Please note that failure to observe the rules, even unintentionally, may constitute plagiarism and be penalised accordingly. Most cases of plagiarism are not due to students deliberately copying the work of others and trying to pass it off as their own, but because information they used was not appropriately acknowledged or referenced. It can be easy to copy text but forget to add the appropriate reference; but you must make every effort to avoid doing so, or else you run the risk of committing plagiarism.

In order to avoid plagiarism, you must follow the guidelines below:
- Where any use or mention is made of the work of others, it must be acknowledged.
- A recognised citation system must be used
- Quotations must accurately refer to and acknowledge the originator(s) of the work
- Direct quotations, whether extended or short, must always be clearly identified
- Paraphrasing – using other words to express the ideas or judgements of others – must be clearly acknowledged
- Work done in collaboration with others must appropriately refer to their involvement and input
- Use of your own past work should be referenced as clearly as the work of others

Key points you should be aware of include:

- **Sources:** You must acknowledge all sources from which you have drawn – whether published works such as journal articles or books; grey literature (such as conference proceedings or reports from organisations and government agencies); material from the internet, whether or not it has a named author; or unpublished materials such as lecture/tutorial notes or other students’ work. If re-using any of your own previous work, e.g. elements of essays done for other assessments, you should clearly indicate this.
- **Quotations:** You must always clearly identify any directly copied quotations (such as sentences, phrases or even striking expressions), e.g. by placing them inside quotation marks, followed by a clear citation.
- **Paraphrasing:** You must equally clearly indicate where you have paraphrased or summarised another person’s words, ideas or judgments – by referring to that person in your text (e.g. by giving a reference in a bracket after the paraphrasing, or in a footnote) and including the work referred to in your reference list.
- **Referencing:** You should use a recognised citation system throughout your work – the two most common are Harvard and Vancouver – and provide a full reference list at the end. Precise requirements will vary depending on the assessment you have been asked to carry out. Comprehensive guidance about how to cite and reference correctly is given in the Academic Writing Handbook.

### 6.8 Detecting Plagiarism through Turnitin

School staff have a responsibility to ensure that all students' assessed work is marked fairly and equitably – this includes checking for plagiarism, to ensure that no-one gains an unfair advantage. Staff have considerable expertise in identifying plagiarism, and all markers look out for assessment irregularities and have access to a variety of tools to assist them.

The School uses the plagiarism detection service Turnitin UK, which is widely used by universities across the country. **Any work you submit for assessment may be cross-checked using Turnitin.** This is done anonymously, by candidate number, and this material cannot be seen by others unless permission is given by School staff.

### 6.9 Penalties

Where an assessment irregularity is identified and confirmed, a range of penalties may be invoked, e.g. a reduction of the grade, or an outright fail for the piece of work with a
requirement to resubmit. The nature and extent of each case will differ, so there is no standard set of prescribed penalties in relation to specific offences. However, severe offences may result in students having their registration on a programme terminated, or even being excluded from entry to any further School examinations or future degree awards from the School. Students have the right to appeal such decisions via the School’s Appeals Policy and Procedure available on the School website.

The above details are not intended to frighten you; occasional slips in attribution or similarity of text may happen with even the most diligent student. All relevant factors will be taken into account in consideration of any case, and students will be presumed innocent unless the contrary can be established through formal procedures and on the balance of probabilities. However, please do not be tempted to copy material; plagiarism and other offences are easy to detect, and the risks are very high. It is not unusual for one or two students a year to fail an entire module or even their entire degree programme due to assessment irregularity issues, including plagiarism.

6.10 Avoiding Plagiarism – A Worked Example

A worked example of how to avoid plagiarism can be found in Appendix 2.
7. PERSONAL TUTORS & TUTORIALS

Early in Term 1 you will be allocated a Personal Tutor. The role of the personal tutor is to support you throughout your time at the School, assisting you to gain maximum benefit from the programme. The personal tutor can help you with problems you are having during the programme and/or refer you to other people or services that can help. Your personal tutor is the main person with particular interest in your progress, so do make use of them and keep them informed of any difficulties you might be having. These are some suggestions as to how your personal tutor might assist you.

- **Personal Problems:** If you have personal problems, no matter how trivial, you may wish to discuss these with your personal tutor. If they are unable to help you, they will be able to advise you on where to go for help.

- **Academic Problems:** If you are having any problems with the programme (you do not understand, cannot keep up, etc.), see your personal tutor as soon as possible. Do not leave it until you have fallen behind. They will be able to help you clarify the nature of the problem and suggest ways to solve it (for example, knowing someone who will be able to help you).

- **Project Report:** Begin to think about your Project Report early in the academic year, in consultation with your personal tutor who can help you decide what sort of project you would like to do. They will be able to give you general advice about the process and may or may not end up being your supervisor. If not, they will be able to guide you towards resources (e.g. other staff members who may be more appropriate to act as a supervisor).

- **Results:** A copy of your results on the assessed parts of the programme will be sent to your personal tutor. You should arrange to meet with them to discuss your progress.

- **Module Choices:** Your personal tutor will assist you in your choice of modules.

- **Programme Questions:** Your personal tutor is not expected to be able to answer technical questions on the content of all aspects of your programme. Where they have the technical expertise themselves, they will share it with you; where they do not, they will advise you where to look for it.

- **Meetings:** It is your responsibility to arrange to see your personal tutor, so please make an effort to arrange a mutually suitable time.

- **Frequency of Meetings:** Early on, establish the best way for arranging these meetings with your personal tutor. During Term 1 you should see your tutor about once a fortnight. During Terms 2 and 3 you are likely to meet your tutor once every 3 to 4 weeks, unless they are your project supervisor in which case it would be more frequent than this.

- **Tutor Absence:** When your personal tutor is absent for more than two weeks they will arrange for a substitute tutor and inform you who this is - contact the MSc Programme Director if such arrangements have not been made.

8. STUDY GUIDANCE

8.1 Studying at the School

Some of you may have only recently completed your first degree or other professional training - in which case you will be well aware of how to study. For others, however, this may be your first experience of formal teaching and learning for some years and you may wonder how well you will adapt to an intensive taught programme. The School's taught Masters degrees are intensive - there is a lot to cover in a short time and we expect a high standard. Remember also that while knowledge of the basic facts in your area is essential, at this level we expect to see from you evidence of independent critical thought and real understanding.

To help you study, we provide several sources of advice:

- Some introductory talks during the Orientation Period at the start of your studies.
- Your personal tutor is the first person you should contact if you are struggling to cope with the return to learning - or with anything else. Look in the section of this Handbook on Personal Tutors and Tutorials for more detailed information.
- Other staff – especially the Student Adviser (Welfare & Disability) and your MSc Programme Director.
- Online resources to support specific skills – see the School's Study Skills page at https://lshtm.sharepoint.com/Teaching-and-Support/Pages/study-skills-links.aspx
- The Library has a wide range of books that provide guidance and support for studying. Study Skills and Academic Writing books are shelved under the classmarks AR.AT and AHAZ. These include:
  - Getting Ahead as an International Student, by Dave Burnapp (Open University Press, 2009).
  - Study skills for international postgraduates, by M. Davies (Open University Press, 2011).
  - Cite them right: the essential guide to referencing and plagiarism, by Richard Pears and Graham Shields (Northumbria University Press, 2006).
  - Complete guide to referencing and avoiding plagiarism, by Colin Neville (Open University Press, 2010).
  - Writing your dissertation, by Derek Swetnam (How To Books, 2004).

The Library staff offer a range of support in finding information, including online training and guidance, training courses and personalised one-to-one support. Further information is available via the Library & Archives Service intranet page at https://lshtm.sharepoint.com/services/library.
8.2 What is the Workload?

During term time we plan our teaching on the assumption that an average full-time student will need to spend approximately 36 hours per week on work related to their programme at the School. Not all of this time is actually spent in contact with members of staff: reading, thinking and preparing assessed coursework are all equally important. Each module is described in a module specification. These contain a section setting out the approximate breakdown of the time you are expected to spend on the various components of the module.

The module specifications be found on the web at: https://www.lshtm.ac.uk/study/courses/masters-degrees/module-specifications.

Forty hours per week is a considerable amount of time and you should certainly expect to study in the evenings and at weekends. On the other hand, there should also be an opportunity for you to spend time doing other things that are important to you: relaxing, enjoying yourself and finding out what London has to offer.

There are two main holiday periods - Christmas and Easter, each lasting a few weeks, and two Reading Weeks during the academic year. It is important that you use these periods to unwind after a hard term’s work but they are also an opportunity to reflect on what you have been taught, to do some general reading around your subject and, above all, to catch up on material which you did not understand or found particularly difficult during term time. Furthermore, additional sessions such as workshops on IT or other study skills often take place during these periods.

8.3 Reading

Every programme and module will provide you with a reading list, although the content of these will vary. In some cases, you will be expected to have read a particular paper or book chapter before coming to a practical class or seminar group session. This essential reading is very important and you will gain very little from the subsequent session if you have not done it. Other articles or books are important but in a more general way - they cover the same material as a lecture but in more detail or from a different perspective. Reading this material will deepen your understanding and fill in gaps - things that you may have missed or not understood during a lecture. Finally, many programmes will provide supplementary lists of material that you may wish to read if you want to investigate a particular topic in depth.

Reading as part of your programme is not a passive activity (it is often described as focused reading or focused study) and you need to think about the material and about the author’s arguments as you read. Making notes or highlighting text is very helpful and these notes and highlights will be useful when you need to revise material.

8.4 Programme Materials

You will be provided with teaching materials and information through your programme and module Moodle pages. The Moodle pages will contain information about the module and a copy of the timetable, together with copies of essential readings, where applicable. Some modules also have an online reading list (ORC) which can be accessed via Moodle and which gives you links to relevant books and journal articles.
For many of the lectures you attend, copies of lecture slides or other materials will be published via Moodle. As far as is practicable these materials will be made available in advance of the lectures, although this is not always possible, particularly where individual lecturers are external to the School. However, whilst Module Organisers are encouraged to put lecture slides or other materials on Moodle, you should be aware this is not a requirement nor always appropriate and practices will vary between individual modules.

8.5 Lecture Capture

The School has an automatic lecture capture system fitted in the John Snow and Manson Lecture Theatres and all of the classrooms at Keppel Street and Tavistock Place. This allows us to audio record lectures and to publish the recordings on the relevant module pages on Moodle for students to review and download. This can be particularly useful for revision and for students who miss lectures due to illness but is NOT intended to be a substitute for attendance.

Please be aware of the following:

- Whilst the vast majority of lectures are captured, some specific lectures or modules are not recorded. This may be due to the confidential nature of the lecture material or due to individual speakers not consenting to being recorded.
- We aim to record all lectures that take place in external venues but cannot guarantee this as it depends on available resources at those locations.
- Whilst we do our best to publish recordings as soon as possible after the teaching session is over, the speed of publication depends on a number of factors (including whether we are still awaiting the permission of the speaker) so please be patient.

8.6 Lectures and Other Teaching Methods

Almost all of your modules will include some lectures. Lectures are not meant to convey detailed information but to set the scene, explain general concepts and excite you about the relevance and importance of the topic. Many lecturers provide lecture notes on Moodle or references to key reviews, which will provide a permanent record of the subject matter. You do not need to write down everything that is said in the lecture. Instead, concentrate on listening and understanding the arguments; note down key concepts, exciting insights and also anything that you do not understand. Always try to speak to the lecturer immediately afterwards if you have a query.

You will experience many other teaching methods during your time at the School including practical/seminar sessions, small group work, laboratory sessions, and computer-based sessions. Many of these are used to extend the material presented in lectures. In all cases, you will derive most benefit from teaching sessions by preparing well in advance and spending time afterwards on extra work and reading.

8.7 Essays and Project Reports

The ability to produce good written work is vital not only to obtaining your degree but also in your subsequent professional life. Academic writing has to follow certain rules and
conventions. Comprehensive guidance about this, including how to cite and reference correctly and avoid the risks of plagiarism and cheating, is given in the Academic Writing handbook available at:

Further useful information about writing skills is given on the Study Skills pages at:
https://www.lshtm.ac.uk/study/new-students/starting-your-course-distance-learning/study-skills-links

The Project Handbook also gives comprehensive guidance and requirements for writing up your project.

8.8 Developing Independent and Critical Thinking

All School assessments will require you to demonstrate knowledge of the basic facts in the area under discussion by making use of the literature, and citing the work of relevant authorities. Over and above this, at postgraduate level you are expected to demonstrate evidence of independent critical thought and real understanding. As well as summaries of what other researchers have found, you should give details of what you think of their findings and their interpretations. Do not be afraid to be critical of other people’s ideas, however eminent the author (academic life is based on criticism); but always give the reasons why you disagree. Your point of view should come across to the reader as a justified judgement or reasoned argument, and not simply as an opinion.

8.9 Computers and Learning

Many of you will already be familiar with using computers. It is very important that students learn to use the School’s system as a lot of information is distributed by email and many modules make some use of computers. The School also uses Moodle where information about modules is stored, including extra lecture notes and other resources. IT Services provide a lot of help and you should refer to their web site here:
https://lshtm.sharepoint.com/Services/IT-Services/.
## Appendix 1 – Preparation for assessments

### What we look for in good assessments

When reading or listening to your work, examiners look for several different things. The main dimensions are listed below. Note that, where appropriate, you are expected to give your own opinion of the material you read and the main debates in an area. We want to hear your own view, not just a simple description. If you are uncertain about what is needed, you should discuss these criteria with your tutor.

<table>
<thead>
<tr>
<th>GOOD ANSWERS</th>
<th>POOR ANSWERS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ARGUMENTS</strong></td>
<td></td>
</tr>
<tr>
<td>Rigorous, relevant to question</td>
<td>Weak and off the point</td>
</tr>
<tr>
<td>Clear, logical</td>
<td></td>
</tr>
<tr>
<td><strong>STRUCTURE</strong></td>
<td>Muddled</td>
</tr>
<tr>
<td>Relevant, selective</td>
<td></td>
</tr>
<tr>
<td><strong>USE OF SOURCES</strong></td>
<td>Irrelevant, unselective</td>
</tr>
<tr>
<td>Imaginative interpretation</td>
<td>Purely descriptive</td>
</tr>
<tr>
<td>Critical approach to both theory and methods used in sources</td>
<td>Purely descriptive</td>
</tr>
<tr>
<td>Deep, developing own ideas</td>
<td>Superficial</td>
</tr>
<tr>
<td><strong>UNDERSTANDING</strong></td>
<td></td>
</tr>
<tr>
<td>Fluent, clear</td>
<td>Repetitive, unclear</td>
</tr>
<tr>
<td><strong>STYLE</strong></td>
<td></td>
</tr>
<tr>
<td>(Students will not be penalised for imperfect use of English, as long as the level is reasonably adequate and comprehensible.)</td>
<td></td>
</tr>
<tr>
<td>Correctly cited</td>
<td>Lacking or incorrect</td>
</tr>
<tr>
<td><strong>REFERENCES</strong></td>
<td></td>
</tr>
<tr>
<td>Legible, correct length</td>
<td>Hard to read</td>
</tr>
<tr>
<td><strong>PRESENTATION</strong></td>
<td></td>
</tr>
</tbody>
</table>

The Academic Writing handbook gives further guidance on the above areas – including tips about answering questions appropriately, structuring and presenting your work, language skills and standards, citing and referencing, etc. This is available on the web at: [https://lshtm.sharepoint.com/Teaching-and-Support/Documents/academicwritinghandbook.pdf#search=academic%20writing%20handbook](https://lshtm.sharepoint.com/Teaching-and-Support/Documents/academicwritinghandbook.pdf#search=academic%20writing%20handbook).
Preparation for examinations

The term 3 timetable is arranged to allow you substantial revision time – in the first half of the first five weeks of the term, and in the period between the end of teaching and the exams in June. Your programme will usually schedule some specific classes or revision sessions during this period to help you prepare, but you will still need to plan and structure your time so that you cover everything that you want to. You are strongly encouraged to spend as much time on intensive revision in this period as you have done when studying modules earlier in the year. Many people find the following helpful:

- Make yourself a revision timetable. Plan to do the same amount of revision for each of the main subjects on which you will be examined. Do not spend a lot more time revising the subjects you like best or find easiest nor spend all your time on the subjects you find most difficult
- Look at past papers or specimen papers (available via Moodle) to see the types of question that are being set and how much choice you will have. But check with your MSc Programme Director that the examination format has not recently been changed
- Do not try revising absolutely everything you have been taught in each subject. Choose a smaller set of topics which you know most about or are most relevant to you. However, you must also make sure that these will give you enough choice in the examination itself. Then concentrate your revision efforts on these
- Finally, do make sure that you don't spend every minute on revision. Your mind needs a rest and your body needs exercise

Exam techniques

How well you do in unseen written examinations is mainly determined by how well you have learned and understood the material covered in your programme. Examination technique, however, is also important and you may find the following helpful:

- Read the paper right through to the end, then go back and read the instructions again (even if you think that you know how many questions are to be answered). Turn the examination paper over and make sure that you have read all the questions. Note:
  - If any questions are compulsory
  - The required number of questions
  - If you must answer at least one question from each section
  - If you are only allowed to answer a maximum number of questions from any one section.
- Before you start writing, choose all the questions you are going to answer. In this way you avoid realising, when you have answered one or two questions, that you should really have answered different ones. Reread your chosen questions very carefully. Some questions that look easy at first glance turn out to be very hard on a second look. See if other apparently difficult questions would actually be easier to answer well.
- Plan how you are going to spend the time that you have available. Look carefully at the instructions to see whether all questions carry equal weight; if one has twice the weight of all the others it is normally sensible to spend about twice as much time answering it
- One of the easiest ways to lose marks is by not answering the question. Read the question carefully, particularly if it looks similar to one that you have seen in a past
paper - it might contain small changes that completely alter what is wanted. Think carefully about the meaning of key words such as list, describe, compare, contrast, discuss, explain.

- In any written examination you should spend perhaps a sixth of your time just thinking and planning and not writing answers at all. In a three-hour examination, spend the first 10 minutes studying the whole paper carefully, reading the instructions and selecting the questions you are going to answer.

- Before you answer each of the questions you have chosen, spend 5-10 minutes developing a plan. Decide which facts and arguments you are going to present and draw up an outline of a logical, coherent and well-argued answer. Once you start writing you can if necessary add any additional thoughts to your plan, but you should have a firm structure in place before you start. Remember that a good answer is not a list of everything you know about the subject!

- Remember that some questions contain several parts and you will be marked down heavily if you only answer some of them. Study the question carefully, identify its main components and plan an answer to each of them.

- If English is not your first language, you may worry that you will both read and write more slowly than your colleagues do. Even if this is the case, remember that you can always get good grades for writing clear, critical and well-organised answers containing all the key facts and arguments even if they are expressed briefly. It is easy to write at great length and actually say very little.

- If you write anything that you do not wish the examiners to mark, cross it out clearly. In particular, if you start a question and then, after a few minutes, realise that you cannot answer it, make sure that it is crossed out. Otherwise these few lines may be marked and your final, brilliant answer ignored.

- And finally, get the practical things right. Find out where and when the examination is to be held and allow more than enough time to get there - even if the Underground is closed or the bus breaks down. Bring several pens that write and a calculator that works (if you need and are allowed one). Do not take anything into the examination room that could possibly lead to you being accused of cheating. Ignore what everyone else is doing, think and plan before you write and, above all, don’t panic!
Appendix 2 – Avoiding Plagiarism

This section runs through some examples of how to cite and reference the work of others in your own work, to demonstrate what is and is not permissible. The author-date (Harvard) style has been used throughout, but the same basic principles will apply if using alternative referencing styles.

Original material to be quoted

Let’s say you want to refer to a paper by El-Sadr concerning the treatment of tuberculosis. This is the original version, as written in her article:

“One of the most important issues that remain controversial is whether 6 months of treatment with regimens that include rifampin can effectively and safely treat HIV-related tuberculosis. The ability to use this short-course regimen for HIV-infected patients could allow programs to provide DOT to a larger number of patients, and it also would allow programmatic efficiency in the treatment of patients both with and without HIV infection with the same duration of therapy.”


An acceptable approach – direct quotation with citation

If you want to quote exactly what an author has said, you must include the quotation inside inverted commas followed by a citation. The most usual way to do this is as an embedded quotation:

As El-Sadr notes, “One of the most important issues that remain controversial is whether 6 months of treatment with regimens that include rifampin can effectively and safely treat HIV-related tuberculosis.” (El-Sadr et al. 2001, p.630).

Note that the section quoted word for word is inside inverted commas and the citation includes the page number.

An alternative way to present a word-for-word quotation (particularly a lengthy one) is as a separated indented paragraph:

“One of the most important issues that remain controversial is whether 6 months of treatment with regimens that include rifampin can effectively and safely treat HIV-related tuberculosis. The ability to use this short-course regimen for HIV-infected patients could allow programs to provide DOT to a larger number of patients, and it also would allow programmatic efficiency in the treatment of patients both with and without HIV infection with the same duration of therapy.” (El-Sadr et al. 2001, p.630).
Other alternative forms of presentation use italics to indicate quoted text. This is also fine but the quotation should still be inside inverted commas and include a citation.

**An acceptable approach – paraphrasing with citation**

If you want to refer to El-Sadr’s idea but not to quote her entire sentence or paragraph then you can paraphrase (rewrite the text in your own words), but **must also cite the source**. When paraphrasing, you should always check your wording against the original idea – to ensure that the author’s original meaning is conveyed accurately and unambiguously. For example, this would be acceptable:

> There is debate concerning the use of short-course regimens to treat tuberculosis in people with HIV infection (El-Sadr et al. 2001).

**An unacceptable approach – direct quotation without indication**

If you quote a sentence word-for-word from another author, then you must make it clear that it is a quotation. The following would **not** be acceptable, because the word-for-word quotation is not indicated by inverted commas:

> One of the most important issues that remain controversial is whether 6 months of treatment with regimens that include rifampin can effectively and safely treat HIV-related tuberculosis. (El-Sadr et al. 2001).

Note that even though a citation has been given, the lack of quotation marks is misleading and makes it appear as if you have paraphrased rather than quoted. This counts as plagiarism.

The following would likewise **not** be acceptable:

> One of the key issues that remain controversial is whether 6 months of treatment with drugs including rifampin can effectively and safely treat HIV-related tuberculosis. Use of this short-course regimen for HIV-infected patients could allow programs to provide DOT to more patients, and it also would allow programmatic efficiency in the treatment of patients both with and without HIV infection with the same duration of therapy.

This is a particularly poor use of the source material; not only are there no inverted commas to indicate a quotation, but the authors are not cited at all so you are effectively claiming that this is your original idea.

**An unacceptable approach – editing without indication or citation**

It is also not sufficient just to change a few words. The following would still be regarded as inappropriate:

> One of the key issues that remain controversial is whether 6 months of treatment with drugs including rifampin can effectively and safely treat HIV-related tuberculosis. Use of this short-course regimen for HIV-infected patients could allow programs to provide DOT to more patients, and it also would allow programmatic efficiency in the treatment
of patients both with and without HIV infection with the same duration of therapy. (El-Sadr et al. 2001)

Note that the words used above remain effectively the original authors’ words, and have not been paraphrased in your own words, just edited very slightly. The lack of quotation marks is misleading as it makes it look like you have put the authors’ idea in your own words; this counts as plagiarism.

Were such an edited quote to be presented without quotation marks and also without a citation at the end, this would be an even stronger case of plagiarism.

**What to put in the reference list**

In all the above cases, you should include an appropriately-formatted full reference in the reference list at the end of your work, e.g. like:


Full details about how to do this are given in the Academic Writing handbook. Remember that the appropriate reference format should vary depending on the type of source – the above example is for a journal article, but this would look different depending on whether it was perhaps a book, or a webpage, or an NGO report, or some other type of material.
Appendix 3 – The project report for MSc Epidemiology – an introduction

Please note: A separate Project Handbook provides details about the requirements for the Project Report and further guidance will be provided by MSc Programme Directors during Term 1.

The key points are as follows:
i) Students select a type of project on a topic of their interest. The Report may be one, or a combination, of the following:
   • A comprehensive and original review of the literature on a relevant subject
   • An analysis of work done or data collected prior to or during the course
   • A protocol for a new study
   • A modelling study

During the summer period students work on a Project Report (dissertation). The Project Report is assessed and contributes 30% to the final assessment. The aim of this work is to apply, develop and deepen epidemiological concepts and skills learnt during the programme. The student should be able to show competence in at least one of the following areas: study design, methods of analysis, critical evaluation of epidemiological hypotheses or methods. S/he should also be able to demonstrate an awareness of practical aspects of planning and conducting a study including potential problems and pitfalls. Data or projects students have been working on before the MSc may be used but these should be discussed at an early stage with their tutors to assess suitability. The project will be assessed on the student’s understanding of the key epidemiological methods and their implementation. While students are encouraged to do projects which are of relevance to their future work, this must not be at the expense of the above aims. There is no requirement for the Project Report to be an original contribution to knowledge.

The topic may be either:

(a) Analysis of an existing data set
You may have access to, or have brought with you, data sets for analysis. It is important that you discuss with your tutor whether it will make a suitable basis for a Project Report. The statistical approach taken to the analysis should be based on methods you have been taught during your MSc. If you intend to use such a data set, you must ensure that it will provide you with appropriate epidemiological data, and that it is available to you within the time constraints of the Project Report. It is very important that you check with ITS Helpdesk that there are no technical problems in reading or converting these. You are advised to have your data ready by the start of term 3. It is also essential that you get full written agreement from the owner of the data set for you to use it for your Project Report. Other than in exceptional circumstances de novo data collection would not be approved as part of the Project Report.

(b) Protocol for a new study
This must be an Epidemiology study (clinical trials are included). Some students will wish to work on a protocol for a research fellowship (of which the MSc Epidemiology course is the training component). This is acceptable provided that the protocol represents your own research ideas and development; it should not be work already completed before coming to LSHTM. The protocol should be for a study you hope to carry out, not merely a theoretical exercise. Where possible, the protocol should include a draft budget, and timeline as appendices.
(c) **Critical Literature Review**
This should be a comprehensive, systematic and critical review in which you will be expected to demonstrate your understanding of the epidemiological issues involved, a concise synthesis of the "state of the art" in that field, and to state clear recommendations for future research direction. Suitable topics are (i) problems or diseases of public health importance and controversial aetiologies (ii) novel epidemiological or statistical methods. It is necessary to demonstrate at the project outline stage early on in the year that there are a reasonable number of studies (at least 5) that can be used based on a quick Pubmed search.

(d) **Modelling projects**
Modelling projects are acceptable as Project Reports for the MSc Epidemiology in house as long as the project allows for, and the student displays, a solid understanding of epidemiological principles.

In a modelling project, the student will be expected to:

1. Justify why mathematical modelling is well suited to address the question under study and demonstrate an awareness of the limitations of the approach.

2. Demonstrate a good understanding of the epidemiology and natural history of the disease under study and of the problem being modelled.

3. Describe the source and limitations of data used to fit the model and to define parameter values (for example with regard to random error, selection bias, confounding or errors in ascertainment of exposure, infection or disease) and their implications for the conclusions of the modelling study.

4. Provide a clear statement of the assumptions made by the model and a critical discussion of the validity of these assumptions and of the implications for the model findings of any departures from them.

5. Depending on what outcome is being modelled, to present uncertainty ranges for the main model outputs. These uncertainty ranges may come from sensitivity analyses or some other approach, but should provide some quantification of uncertainty, not just a statement that there is uncertainty in the point estimates.

**Project Specific Guidelines are available at the end of this appendix**

You will be allocated a supervisor for your Project Report; this may be your personal tutor or another member of staff. Supervisors act as advisors, not collaborators. Your supervisor will discuss your project with you and usually review one draft of the Report, although they are not expected to correct your English. You should expect to do most of the work independently, and should discuss when it will be possible for your tutor to read a draft well in advance.

Projects require approval for their proposed academic content, approval from the School's Ethics Committee and a risk assessment to be completed. You should discuss your ideas for your project with your tutor before the end of Term 2. A written outline of the project (around 500 words) must be submitted to your Programme Administrator by 2pm on **Friday 16th February 2018**. You will receive further details on these procedures during Term 1.

The Project Report must be submitted by 2pm on **Wednesday 5th September 2018**.
PROJECT SPECIFIC GUIDELINES

Guidelines for students:
These guidelines are meant to guide students in the structure and content of their summer project, and are specific to each of the 4 types of project: (i) data analysis (ii) design of a research protocol (iii) critical review of the literature (iv) modelling.

These guidelines were adapted from Dissertation marking guidelines (University of Liverpool).

DATA ANALYSIS

Abstract
• Is the abstract an adequate summary (rigorous, relevant to the question, clear and logical)?

Introduction/Background to study aim/research question
• Is the background sufficient for the general reader to understand the study objectives?
• Has the justification for the study (epidemiological context / public health relevance of the study) been made clear?
• Has the literature been explored adequately and appraised critically?
• Is the range of sources sufficient, relevant and adequately structured?
• Have the work and contributions of others been summarised and referenced/attributed correctly?

Aims and Objectives (Research Question)
Study aim(s) [+/- overall research question]: Is it (are they) clear, and are the rationale and context explicit?
Study objectives: Are they clear and specific to the aim(s) and do they follow logically and from the aim(s)? Are the exposure and outcome adequately specified? Are the objectives achievable?

Methods (Study Design/Setting and Data Handling)
• Are the methods documented adequately and with enough detail, with a clear structure on design features, validity (if applicable), data management, variable categorisation, analysis method and analysis strategy?
• Is the study design defined correctly?
• Does the report follow a clearly defined, justified and adequate strategy of analysis?
• Are the methods appropriate to the study design, outcome type (e.g. categorical, binary, continuous)?
• Will the methods/analysis approach fulfil the study aim(s)/objectives and address the limitations of the study design?
• Have appropriate strategies for identifying and dealing with missing data been used?
• Have the appropriate permissions/approvals been documented?

Results (Outcomes)
• Relevant results (descriptive and analytical) derived from both uni- and multivariable analyses, including missing values, must be reported.
• Does the commentary summarise relevant results, and present them appropriately?
• For a multitude of results a selective approach may be appropriate – provided other results presented in the appendix are not essential for the report.
• Are the presented data/analyses appropriate and aligned in contents and structure to previous sections (e.g. to the study aim(s)/objectives/question/methods)?

Discussion (Critique) and Conclusions
• Are the results well summarised?
• Are the strengths/limitations/theoretical assumptions of the study design/analysis methods highlighted and choices/alternative approaches/ethical issues explored appropriately? This includes an appropriate discussion of design/power, confounding/interaction, bias/validity, cut-off points.
• Is the study discussed in the context of other relevant work and the study aim(s)?
• Are the implications of the findings discussed, in particular within a wider epidemiology and/or public health context?
• Are the conclusions and ‘lessons learned’ clear and relevant? Do they reflect study results, limitations and the published literature?
**Presentation of Report**
- Is the report well-organized and clearly presented overall? Do not mark down for language errors provided the meaning is clear.
- Are tables and figures clear and appropriately labelled and titled?
- Is referencing accurate and consistent (LSHTM accepts a range of reference styles)?
- Overall impression - understanding and synthesis at MSc level?

---

**DESIGNING A STUDY PROTOCOL**

**Abstract**
Is the abstract an adequate summary (clear and logical, fair representation of the proposal, within word count)?

**Introduction/Background**
- Is the public health relevance of the question being addressed and its importance explained?
- Has the existing literature been thoroughly searched, reviewed and critically appraised?
- Is the literature review well presented (i.e. clear and logical, could be understood by someone unfamiliar with the topic)?
- Is the study well justified (i.e. its need clearly follows from the limitations of existing research)?

**Aims and Objectives (Research Question)**
- Are the aims and objectives of the study clearly defined (follow from the background, context/assumptions are explicit, and objectives are spelt out in a specific/measurable fashion)?

**Methods (Study Design/Setting and Data Handling)**
- Study design: Has an appropriate type of study design (cross-sectional, longitudinal, case-control, etc) been chosen, and has this choice been adequately justified? Are alternatives reviewed? Is the proposed plan feasible?
- Study population: Are the methods of selecting the study participants clearly explained and appropriate? Are inclusion and exclusion criteria specified? Are controls (if relevant) appropriately chosen?
- Data collection: Are procedures and investigations clear and appropriate? Are arrangements for interviewing clearly explained and appropriate? Have measurement issues been carefully addressed including validity, sensitivity and specificity of case definitions, exposures and confounders, and appropriate methods for any laboratory measurements? Have the key forms or questionnaires to be used been included and are they well designed, capturing key information?
- Data analyses: Are the data processing methods (database, data entry) described? Are the statistical methods to be used outlined? Are these appropriate (identification of primary and secondary endpoints, specification of analysis group (e.g. ITT/ATP), variable categorisation, methods of analysis appropriate for the type of outcome variable, appropriate methods proposed for handling confounding)? Do the methods address the study aims? Is there a plan for dissemination of the results?
- Bias and confounding: Have potential biases been considered and reasonable efforts been made to address them? Is follow-up adequate? Have potential confounders been identified and appropriate data collection and analyses planned?
- Sample size: has this been calculated using appropriate methods, using realistic assumptions, and taking account of uncertainty in assumed quantitative values?
- Logistics and budget: Are practical logistics and budget addressed adequately, covering all work aspects (including staff, equipment, and consumables)? Is the budget adequate/reasonable? Is a timeline given and is it realistic? Is involvement of local partners (e.g. Ministry of Health) mentioned?
- Ethics: have the ethical issues been addressed adequately? Have the information sheet and consent form been included and do these include the important elements? If an investigational product is to be used is there mention of regulatory approval?

**Discussion (Critique) and Conclusions**
- Are the strengths/limitations/theoretical assumptions of the study design/analysis methods highlighted and choices/alternative approaches/ethical issues explored appropriately?
<table>
<thead>
<tr>
<th><strong>CRITICAL REVIEW</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Abstract, introduction, and background to the review</strong></td>
</tr>
<tr>
<td>• Is the abstract an adequate summary, within the word limit?</td>
</tr>
<tr>
<td><strong>Introduction, and background to the review</strong></td>
</tr>
<tr>
<td>• Has the public health context of the review been made clear?</td>
</tr>
<tr>
<td>• Has the need for a review been well justified?</td>
</tr>
<tr>
<td><strong>Aims and objectives (research question)</strong></td>
</tr>
<tr>
<td>Review objectives:</td>
</tr>
<tr>
<td>• are they clear?</td>
</tr>
<tr>
<td>• do they follow logically from the rationale presented in the introduction and background?</td>
</tr>
<tr>
<td>• are they questions that can be answered by a systematic review?</td>
</tr>
<tr>
<td>• do they adequately specify exposure (or treatment) and participants (or comparison groups)?</td>
</tr>
<tr>
<td><strong>Methods</strong></td>
</tr>
<tr>
<td>• Are the inclusion and exclusion criteria for (a) studies and (b) participants:</td>
</tr>
<tr>
<td>o well described?</td>
</tr>
<tr>
<td>o justified?</td>
</tr>
<tr>
<td>o adhered to?</td>
</tr>
<tr>
<td>• Is the search strategy:</td>
</tr>
<tr>
<td>o well described?</td>
</tr>
<tr>
<td>o appropriate to the question (e.g. if RCTs did they search the Cochrane Trials Register)?</td>
</tr>
<tr>
<td>o likely to have identified all (or virtually all) appropriate studies (within the constraints of a summer project: hand-searching and a lot of grey literature may not be feasible)?</td>
</tr>
<tr>
<td>• Critical appraisal of studies</td>
</tr>
<tr>
<td>• Data extraction: was this done:</td>
</tr>
<tr>
<td>o systematically (e.g. data extraction form used or some other method)?</td>
</tr>
<tr>
<td>o were all relevant variables extracted?</td>
</tr>
<tr>
<td>o were there reasonable strategies for dealing with key variables not being available (e.g. sensitivity analysis)? - it is probably not reasonable to expect primary contact with authors.</td>
</tr>
<tr>
<td>• Analysis:</td>
</tr>
<tr>
<td><em>If no meta-analysis undertaken:</em></td>
</tr>
<tr>
<td>o was not undertaking a meta-analysis well justified?</td>
</tr>
<tr>
<td>o were differences between studies explored in detail, placing their results in the epidemiological context, and drawing inferences from the differences between studies?</td>
</tr>
<tr>
<td>o some attempt to explore small study bias should usually still be possible.</td>
</tr>
<tr>
<td><em>If meta-analysis undertaken:</em></td>
</tr>
<tr>
<td>o appropriate methods chosen and justified?</td>
</tr>
<tr>
<td>o heterogeneity assessed and explored?</td>
</tr>
<tr>
<td>o small study bias assessed and explored?</td>
</tr>
<tr>
<td>o appropriate caution interpreting sub-group effects, especially if using study level variables?</td>
</tr>
<tr>
<td>• Overall:</td>
</tr>
<tr>
<td>o would the methods fulfill the review objectives?</td>
</tr>
<tr>
<td>o were methodological guidelines (e.g. PRISMA statement, MOOSE, Cochrane Reviewer’s Handbook) utilised if appropriate?</td>
</tr>
<tr>
<td><strong>Results</strong></td>
</tr>
<tr>
<td>• Are the results presented appropriate to the objectives?</td>
</tr>
</tbody>
</table>
Are the results of the search, results of screening appropriate studies from the search, results of analysis of remaining appropriate studies presented?

Are the results (tables, graphs etc) well presented?

Does the text commentary summarise relevant results, and present them appropriately?

**Discussion and conclusions**

Are the strengths/limitations/ and assumptions of the methods highlighted and choices/alternative approaches explored appropriately?

Are the strengths/limitations of the results highlighted and alternative interpretations explored appropriately, in the context of the assumptions made?

Is the review discussed in the context of other relevant work and the review aim(s)?

Is the wider relevance of the findings for the public's health appraised critically?

Are the implications of the findings discussed adequately?

Are the conclusions and 'lessons learned' clear, reflective, and relevant?

Are the recommendations for further investigation and public health action clear and relevant, and justifiable given the research presented?

**Presentation of project**

Is presentation clear and well organised/well structured?

Are tables and figures clear and appropriately labelled and titled?

Is referencing consistent and accurate within the required style?

Overall impression - understanding and synthesis at MSc level?

---

**MODELLING**

**Abstract**

Is the abstract an adequate summary? (clear, logically structured and providing a good summary of the key contents of the report).

**Introduction/Background**

Literature coverage should be adequate but not excessive (clear, and understandable to someone not familiar with the topic, shows evidence of critical appraisal from an epidemiological perspective, and leads logically to the project aims and objectives). Is the approach used to identify literature sources described, and is it appropriate?

Is a rationale given for why mathematical modelling is suited to address the research question?

Is a good understanding of the epidemiology and natural history of the disease under study and of the problem being modelled demonstrated?

**Aims and Objectives (Research Question)**

Are the overall aims and specific objectives clearly stated?

Do they follow logically from the rationale in the introduction?

Is the scope of the aims appropriate for an MSc project?

**Methods (Study Design/Setting and Data Handling)**

Is there a description of the sources of data used to define parameter values (for example with regard to uncertainty, generalizability, potential for bias)?

Is the structure of the model clearly explained with diagrams and equations?

Does the model include an appropriate level of detail? Is the model appropriately structured e.g. by age, rural/urban, vaccination status, season? Have assumptions about mixing patterns been justified (or at least their limitations acknowledged)? Are the transitions between states specified correctly?

Is there a clear statement of the assumptions made by the model?

Have the computational methods been described and are they appropriate?

Has some attempt been made to explore the stability of the results to varying assumptions about input parameter values?

**Results (Outcomes)**

Are the results clearly described with appropriate tables and figures?

Is there description of the sensitivity of results to changes in parameter settings?

Have relevant analytical results been presented?
Discussion (Critique) and Conclusions
• Are the results interpreted appropriately?
• Is there discussion of whether the aims were achieved?
• Is there critical discussion of validity of assumptions and implications of departures from them?
• Are the strengths and limitations of the approach highlighted appropriately?
• Are alternative approaches (and ethical issues if any) discussed appropriately?
• Are the findings discussed in the context of other work?
• Are appropriate practical conclusions drawn?

Presentation of Report
• Is the report well-organized conceptually, well formatted and typographically accurate?
• Are tables and figures clear and appropriately labelled and titled?
• Is referencing consistent and accurate within the required style?
• Are the appendices appropriate and justifiable?
• Overall impression – understanding and synthesis at MSc level?