The University of Edinburgh and Royal College of Physicians of Edinburgh

Certificate/ Diploma/ MSc

Internal Medicine
(Online/ Distance learning)

Student Handbook

Updated December 2011

internalmeded.org

Email: internal.medicine@ed.ac.uk
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Welcome

Welcome to the University of Edinburgh and to the College of Medicine and Veterinary Medicine. We are very pleased you have chosen to take this degree, and we very much hope you will enjoy your time studying with us.

You are encouraged to get to know and enjoy working with the other members of the programme, and so build up your own academic network for the future. We would like to emphasise that you are not in competition with one another—there is, for example, no limit on the number of ‘distinctions’ available. Students should be able to commit 8–12 hours per week to study.

This handbook is a guide to what is expected of you on the MSc Internal Medicine and the academic and pastoral support available to you. Please read it carefully. It will help you to make the most of your time on the programme.

The MSc in Internal Medicine is an online (distance learning) course, completed part-time over three years. For early-career doctors, the course will provide key and timely knowledge, enabling the transition from junior doctor to specialty trainee, and will complement the syllabus for MRCP. Doctors further on in their careers can update their skills and knowledge with teaching from our expert tutors.

Disclaimer

Some important general aspects covered in this handbook are amplified in the University’s Code of Practice for Taught Postgraduate Programmes, www.acaffairs.ed.ac.uk/Regulations/CoP/PGT/Index.htm. This handbook does not supersede the University Regulations, which are available at www.drps.ed.ac.uk/010-11/regulations/postgrad.php. We consider it each student’s responsibility to make themselves familiar with the contents of this handbook and also the Code of Practice for Taught Postgraduate Programmes. The information provided in this handbook is intended to help you avoid unnecessary problems.

Programme overview

Credits allocation

The programme has been divided into a sequence of inter-related modules, a mixture of compulsory and elective options. The first two years contain a series of taught 10 and 20 credit modules and are followed by a dissertation for completion at master’s level. The credit allocation is as follows: 60 points for successful completion of year 1 (6 x 10 credit modules or 4 x 10 credit modules and 1 x 20 credit module), equivalent to a certificate; an additional 60 points for 6 more 10 credit modules to achieve Diploma level; and a further 60 points gained on completion of the dissertation, i.e. 180 points in total.
Programme structure / credits

In the first Year 2 cohort (2012/2013), we will not run the elective modules marked with an asterisk. In later years, as student numbers increase, all modules will be available, but students will be asked to rank their elective choices in each block as first and second choice. We would hope in the majority of cases that students will be able to do their preferred elective choices.

Year 1

Each 10 credit module will last for five weeks with one week at the end for self-study/ assignment writing.

1. Introductory and Generic Skills (10 credits)  Approx. dates
   Sept–Oct
3. Science of Medicine (pathophysiology) (20 credits)  Dec–March
   OR Two clinical modules from Elective Blocks†
   for students completed MRCP part 1)
4. Principles of Laboratory Medicine (10 credits)  March–May
5. Imaging in Medicine (10 credits)  May–June

†For those entering the first year in 2011 already in possession of MRCP Part 1, there will be the option of doing 2 elective modules instead of the Science of Medicine course. These modules will be Renal Medicine and Clinical Education.

Year 2

Students will complete the following compulsory courses:  Sept–Oct
1 Clinical Skills Principles (examination, communication and procedures)  Oct–Dec
2 Acute Medicine and Clinical Decision Making (10 credits)

2.3 Elective Module Block 1 (10 credits):  Dec–Jan
Students will choose one of the following options:
   a) Cardiology
   b) Emerging Infectious Diseases
   c) Haematology
   d) Neurology
   e) Translational Medicine—Targeting and Measuring Disease

2.4 Elective Module Block 2 (10 credits):  Feb–March
Students will choose one of the following options:
   a) Respiratory
   b) Diabetes & Endocrinology
   c) Global Health*
   d) Oncology
   e) Palliative Care and Pain Management
2.5 Elective Module Block 3 (10 credits): March–May
Students will choose one of the following options:

a) Clinical Education and Teaching
b) Clinical Genetics*
c) Health Informatics
d) Renal Medicine

2.6 Elective Module Block 4 (10 credits): May–June
Students will choose one of the following options:

a) Medical Ethics / Medicine and the Law
b) Principles of Quality Improvements in Healthcare / Patient Safety*
c) Gastroenterology*
d) Medicine of Elderly/ Stroke

Year 3

Students will complete the following compulsory course:
Research Methods (assessed in dissertation) Sept–Nov

Dissertation (60 credits): a written reflective element/research report of approximately 15,000 words Nov–Aug

Elective modules

Whilst we will try to allow students to do their first choice of elective modules there may be some organisational practicalities that will not always allow this. In addition, modules will only run if there are at least 3 students interested. Some of the modules have a maximum student quota also – please speak to the course organisers for further details about this.

Programme timetable

A finalised timetable for each term will be published at the start of the term and sent to all enrolled students. All modules/events will also be entered into the WebCT calendar. Any late changes to scheduled tutorials will be advertised on WebCT and via email.

The course material for the individual weeks will be made available on the first Monday of the week. Most of this material, including e-lectures and core reading, can be accessed at any time, so they are not included in the timetable. Any scheduled events (usually tutorials) requiring fixed time commitment will be shown on the timetable distributed at the start of each term. Please make every effort to attend these live tutorials. We do understand that due to time differences, not all students will be able to attend these tutorials, and they will be archived for future viewing.

At the end of every week, the course content will remain in WebCT for revision purposes, and will be accessible at any time during the year.
Timetable for modules that will be taught during the 2011–12 academic year:

<table>
<thead>
<tr>
<th>Term 1</th>
<th>12 September 2011–16 December 2011 (14 weeks)</th>
</tr>
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<tbody>
<tr>
<td>Term 2</td>
<td>9 January 2012–30 March 2012 (12 weeks)</td>
</tr>
<tr>
<td>Term 3</td>
<td>16 April 2012–22 June 2012 (10 weeks)</td>
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<table>
<thead>
<tr>
<th>Week</th>
<th>Week Beginning</th>
<th>Course</th>
</tr>
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<tbody>
<tr>
<td>0</td>
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<td>Introductory Skills and Generic Skills</td>
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<tr>
<td>1</td>
<td>19 Sept 2011</td>
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<td>2</td>
<td>26 Sept 2011</td>
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<td>5</td>
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<td>6</td>
<td>24 Oct 2011</td>
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<tr>
<td>7</td>
<td>31 Oct 2011</td>
<td>Principles of Clinical Pharmacology</td>
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<tr>
<td>8</td>
<td>7 Nov 2011</td>
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<td>9</td>
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<td>12</td>
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<td>13</td>
<td>12 Dec 2011</td>
<td>Science of Medicine</td>
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<td>Xmas holidays 19 Dec–9 Jan 2012</td>
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<tr>
<td>24</td>
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<td>Principles of Laboratory Medicine</td>
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<td>Easter Holidays 2–9 April</td>
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<td>29</td>
<td>7 May 2012</td>
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<td>30</td>
<td>14 May 2012</td>
<td>Imaging in Medicine</td>
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<td>35</td>
<td>18 June 2012</td>
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<table>
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<tr>
<th>End June</th>
<th>External Examiner reviews assignments</th>
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<tr>
<td>July</td>
<td>Board of Examiners (2nd week in July)</td>
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<td></td>
<td>Release of student results after this</td>
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<tr>
<td>Sept</td>
<td>Certificate cohort progress to Year 2</td>
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<td></td>
<td>New intake commence Year 1</td>
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Mode of study and online environment

Postgraduate students are expected to be self-directed and motivated. You are responsible for organising your time and making sure you meet assessment deadlines and any other requirements. All of the course content is available online. There is no on-campus participation.

Course homepage

The course homepage can be found at internalmeded.org. You will access all of the course materials through this page. The homepage will be constantly updated.

Features include:

- Case of the Week: we will present new cases every week and these will be explored further in the discussion boards. All previous cases will be archived for future reference.
- RSS feeds from leading journals will appear, and we suggest that you take the opportunity to read any interesting articles that may be highlighted.
- Online textbooks: there are links to the login pages of our two core textbooks (Oxford Textbook of Medicine and Davidson’s Principles and Practice of Medicine).
- Link to the University of Edinburgh library pages
- Link to go directly to our Virtual Classroom in WebCT
- Information and contact details of the academic team

Virtual classroom (Web CT)

We will be using the online virtual learning environment known as WebCT to securely store all of the course content. Within this we will be presenting a number of online learning resources.

Content will be divided into modules, and each module lasts for five weeks, with a further week at the end for assessment. Each week within the module will cover a broad topic. Teaching will be delivered in variety of ways:

- Pre-recorded e-lectures, which students can view in their own time
- Interactive modules
- Discussion boards relevant to that week’s teaching
- Lecture notes: Text-based document covering specific topic
- Various reading materials will also be deposited on WebCT or can be found through the University library (see later section on Library Facilities).
- Online tutorials (see section on Wimba)
- Links to relevant online resources

In most modules there will be one or more lectures which frame a particular
topic and context and introduce key concepts. Students can explore these further in the literature, interactive resources and tutorials. Students will be encouraged to contribute to the discussion boards where they share their thinking with other students. During most weeks there will be interactive online tutorials (see below) in which students and tutors share information, discuss key issues, identify learning needs and gaps and benefit from the interaction of the group.

See ‘Computing Requirements’ for information on accessing and using WebCT.

**Online tutorials (Wimba tutorial space)**

We will also be using the Wimba platform to provide a virtual tutorial environment where students can meet for live lectures/tutorials/group discussions. Wimba allows delivery of face-to-face teaching and encourages a sense of community in the students. The frequency of these tutorials will vary depending on the module.

Students are strongly encouraged to attend the live tutorial sessions, but they will be archived for future viewing for the benefit of any students unable to attend. There will be an introductory tutorial in Fresher’s Week so that everyone has the opportunity to familiarize themselves with the tutorial platform. We would be grateful if all students could always be present in the tutorial room five minutes before the tutorial is due to start.

See ‘Computing Requirements’ for information on accessing and using Wimba.

**Online resources and OpenMed**

In addition to the core teaching material, we will be encouraging use of open-access resources that have been released (usually by other teaching or educational organisations) under creative commons licenses for general teaching use. We have collated these into different clinical specialties and graded them for level of user and quality; they can be accessed through the OpenMed website at openmed.co.uk.

**Screen shot of OpenMed:**
This site will be freely available to anyone in the world, with the aim to encourage better global medical education particularly in developing countries. For each specialty area we have grouped resources into a useful learning pathway or curriculum.

Many of our tutors will be adding and rating resources in their specialty areas and will point you in the direction of any useful additional resources. Anyone interested in contributing to the website should contact Dr Eleri Williams.

Library facilities and e-textbooks
Library facilities will be provided electronically through the University of Edinburgh Library Online. Students will also have access to the physical library buildings if they do wish to access these in Edinburgh.

The University library will allow access to most journals and online e-textbooks related to the course. For more information on e-resources access visit

www.ed.ac.uk/schools-departments/information-services/services/library-museum-gallery/finding-resources/library-catalogues/e-resources

There are two core course textbooks (Oxford Textbook of Medicine and Davidson’s Principles and Practices of Medicine), and all students will have online access to these texts. To access login pages got to www.internalmeded.org; individual logins will be issued before the start of the course.

Computer requirements

Computer and broadband
A computer and internet access (preferably broadband) are required to participate in the course. A webcam is very useful for full participation in tutorials but a microphone and headphones will allow ‘voice-only’ participation.

Software / computer configurations
We will ask you to download some free software and to run configurations to ensure your computer is set up to run some of the e-learning resources (e.g. Shockwave player) and virtual tutorial software (e.g. Wimba). You will be given full details of this prior to commencing the course—see below for further details:

Flash player
Check you have the latest Flash Player (Version 9 or above)

How do I know what version of Flash Player I have?
Two ways of doing this, either:
a) Right-click any flash object in a web browser
b) Click on Start> Control Panel >Add/Remove Programs.
Click on Adobe Flash Player ActiveX, and then select “Click here for support
information”. A dialogue appears that tells you the version of Flash Player currently installed. Don’t hit ‘remove’!

If you don’t have the latest version, follow this link: www.adobe.com/shockwave/download.

**Wimba Classroom**

**Ensure that your computer is configured to run Wimba (the online tutorial software) before starting the course.**

We will be using Wimba for the live tutorials. Please use the ‘wizard’ to check that your computer and headset are set up for Wimba: edlive.wimba.com/wizard.

Below is a screen shot for Wimba Classroom. We will talk you through the features at our first tutorial.

The following are links to demos/videos showing how Wimba Classroom works:

Wimba basics: www.youtube.com/watch?v=dkWuhNHoqv8&feature=related

The basics of how Wimba Classroom works: www.youtube.com/watch?v=jPUVurDaWAE&feature=related

Wimba Classroom: preparing content before a class (for doing presentations): www.youtube.com/watch?v=Du43n_i3d4&feature=related

Presenting in a Wimba Live Classroom: http://www.youtube.com/watch?v=CYjIKoNH0oM&feature=related
WebCT: your virtual learning environment

You will be given an EASE login when you start the course. This will allow you to access your email / bulletin boards, etc. through 'MyEd'. In your MyEd portal homepage under the tab 'Today' you will see a button labelled 'Launch my WebCT page'. Click on this to access your virtual learning environment (VLE). In WebCT all the content, files, assignments, discussion boards, lectures, past tutorials, etc. will be stored and organised in files. The individual module tutors will guide you through the material. You can also access WebCT via the Virtual Classroom link on our homepage.

Here is a screen grab from WebCT:

Before you start the course, go to the links below to ensure that your computer is configured for using WebCT:

Configuring machine and browser settings:
www.ed.ac.uk/schools-departments/information-services/services/learning-technology/webct/using/tips/general/machine-settings

WebCT help at the University of Edinburgh:
www.ed.ac.uk/schools-departments/information-services/services/learning-technology/webct/using

WebCT help specifically for students:
www.ed.ac.uk/schools-departments/information-services/services/learning-technology/webct/using/tips/for-students/1.24615

YouTube video from the University of New Mexico showing the basics of WebCT:
www.youtube.com/watch?v=WyY5jfmrbdg&feature=related
Computing assistance
Each student would be responsible for providing their own IT equipment in the form of a computer, webcam, headset, internet connection, and local software for tasks such as word processing, and arranging technical support for their machines. Students will be expected to work from home (or outwith the University).

Support for Learning Technology and will be provided by the College of Medicine and Veterinary Medicine, Learning Technology Section and Information Services (IS) skills.

Email
When you join the University you will get a University of Edinburgh email account and address which will be used for a variety of essential communications. You must access and manage this account regularly as important information from the University will be sent to this address. Failure to do so will not be an acceptable excuse or grounds for appeal.

If you already have a web-based email account and think you are unlikely to check your University email account, it is your responsibility to set up a forward on your University email. You can find on screen instructions on how to do this at www.ed.ac.uk/schools-departments/information-services/services/computing/comms-and-collab/email.

Full details on University Computing Regulations can be found at www.ed.ac.uk/schools-departments/information-services/computing.

Change of details
It is vital that you inform Registry Services of any change to details. Students can view the key details held on their student record via MyEd. You are given the opportunity to check and amend your details annually via your Registration Forms, but details can be changed at any time using the online form found here: www.registry.ed.ac.uk/easesecured/recordchangeform.cfm.

Transferable skills
IT Training: Students can access additional courses, sources and resources from the IS skills website: www.iskills.is.ed.ac.uk. These include Skillsoft (business skills, IT), Netskills (Web technologies, information skills, e-learning) and Microsoft (Microsoft products including Office 2007, some in foreign languages).

New students at the University of Edinburgh also have access to the ISIS (Information Skills and IT Skills) Web CT course. We strongly recommend that students complete this at the start of the course. This can be accessed from the WebCT channel in MyEd (see section on Mode of Study) and provides
information about finding reading materials, keeping your work safe, understanding plagiarism, posters and presentations, citing works, etc.

**Transkills training**

Transkills run a range of personal and professional development training courses for students across the University. For further information please visit [www.transkills.ed.ac.uk/services.htm](http://www.transkills.ed.ac.uk/services.htm).

**Programme faculty**

The Internal Medicine MSc is run by the University of Edinburgh in partnership with the Royal College of Physicians of Edinburgh.

**Programme director**

The programme director is Professor Neil Turner.

**Course organisers**

Eleri Williams (Lecturer in Internal Medicine) has responsibility for the day-to-day running of the course, and should be the first point of contact for all students.

The course administrator is Emma Farrell.

**Associate tutors**

Associate tutors with specialist expertise will be invited to contribute/run modules in their specialty areas. Some modules will be run by staff from other MSc courses operating within the University, e.g. health informatics, emerging infectious diseases, medical education (students will essentially transfer to these courses for those modules).

Most of the tutors are working in specialty areas either within the University of Edinburgh or within the NHS. All have great experience in the teaching and training of doctors.

**Contact information and support**

The programme director is responsible for the smooth running of the MSc in Internal Medicine including responsibility for the admissions to the programmes, plus coordination of teaching inputs, examinations, programme evaluation, and curriculum development. The programme director is also there to facilitate your orientation and smooth progression through the degree, from initial induction to subsequent course choice, and the transition into the dissertation stage and to the successful completion of the degree.
The programme director is also available as a first line of pastoral support and is usually designated as the supervisor for all students on the programme; when you progress to the dissertation stage, a new supervisor suitable for your chosen dissertation topic may be allocated.

It is your responsibility to inform the programme director immediately of any problems that are interfering with your coursework or progress through the programme, including any religious or medical requirements that might affect your participation in any aspect of the programme.

<table>
<thead>
<tr>
<th>Programme director:</th>
<th>Course organiser/lecturer in Internal Medicine:</th>
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<tbody>
<tr>
<td>Professor Neil Turner</td>
<td>Dr Eleri Williams</td>
</tr>
<tr>
<td>The University of Edinburgh</td>
<td>The University of Edinburgh</td>
</tr>
<tr>
<td>47 Little France Crescent</td>
<td>47 Little France Crescent</td>
</tr>
<tr>
<td>Edinburgh</td>
<td>Edinburgh</td>
</tr>
<tr>
<td>EH16 4TJ</td>
<td>EH16 4TJ</td>
</tr>
<tr>
<td>Tel: +44(0)131 242 9167</td>
<td>Tel: +44(0)131 242 9167</td>
</tr>
<tr>
<td>Email: <a href="mailto:neil.turner@ed.ac.uk">neil.turner@ed.ac.uk</a></td>
<td>Email: <a href="mailto:eleri.williams@ed.ac.uk">eleri.williams@ed.ac.uk</a></td>
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<table>
<thead>
<tr>
<th>Course administrator:</th>
<th>University emergency contact:</th>
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<tbody>
<tr>
<td>Emma Farrell</td>
<td>24hr telephone line:</td>
</tr>
<tr>
<td>The University of Edinburgh</td>
<td>44 (0)131 650 2257</td>
</tr>
<tr>
<td>47 Little France Crescent</td>
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<tr>
<td>Edinburgh</td>
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<tr>
<td>EH16 4TJ</td>
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<tr>
<td>Tel: +44(0)131 242 9167</td>
<td></td>
</tr>
<tr>
<td>Email: <a href="mailto:emma.farrell@ed.ac.uk">emma.farrell@ed.ac.uk</a></td>
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<table>
<thead>
<tr>
<th>Postgraduate College Office:</th>
<th>Course homepage:</th>
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<tbody>
<tr>
<td>College of Medicine and Veterinary Medicine</td>
<td>internalmeded.org</td>
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<tr>
<td>Postgraduate Section</td>
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<tr>
<td>The University of Edinburgh</td>
<td></td>
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<tr>
<td>The Chancellor's Building</td>
<td></td>
</tr>
<tr>
<td>49 Little France Crescent</td>
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<tr>
<td>Edinburgh</td>
<td>EH16 4SB</td>
</tr>
<tr>
<td>Hours: 9-5pm, Mon-Fri</td>
<td></td>
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<tr>
<td>Tel: 44 (0)131 242 6460</td>
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<tr>
<td>Fax: 44(0)131 242 6479</td>
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<tr>
<td><a href="mailto:mvmpg@ed.ac.uk">mvmpg@ed.ac.uk</a></td>
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<tr>
<th>University course page:</th>
<th>RCPE homepage:</th>
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<td><a href="http://www.ed.ac.uk/clinical-sciences/internal-medicine">www.ed.ac.uk/clinical-sciences/internal-medicine</a></td>
<td><a href="http://www.rcpe.ac.uk">www.rcpe.ac.uk</a></td>
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Assessment overview

Purpose

Each module will be individually assessed using one or more of the following formats. The style of assessment has been chosen to best complement the taught material and learning outcomes.

Summative assessments

Summative assessments will take the form of either:

- MCQ style exams to assess knowledge based subjects
- Case based long questions to assess diagnostic and clinical skills
- Formal written assignments (short referenced essays) to encourage self-directed learning and reflective practice
- Short clinical case reports and review articles in a style suitable for publication in a non-specialist journal
- Literature review reports (as though reviewing a paper for potential journal submission)

Formative assessments

Formative assessments will be carried out for some of the courses (usually constituting a small part of the overall grade) and will take into account participation in:

- Online discussion, tutorials and group work
- Virtual journal clubs

Formal written assignments should be:

- A4 format with easily-readable font (e.g. Times New Roman 12pt, Arial 10pt)
- With a structure, style and authorial voice consistent with the related literature – i.e. try to imagine your work might be published and read by peers in the academic community
- Appropriately referenced
- Any figures or tables should be clear and referred-to in the text
- The header or footer of each page should include page numbers & identification
- You should include a cover page containing the title, the name of the course, the date of submission, word count and personal identification
- It should be uploaded to the Internal Medicine website/ VLE in pdf format
- A plagiarism declaration must be completed for each submitted assignment

The detail of assessment for each of individual course modules is discussed in more detail in Appendix 1.
Dissertation in third year (up to 15,000 words)

The award of the ‘Master of Science’ (MSc) in Internal Medicine will be confirmed following the successful submission of a thesis of approximately 15,000 words. The thesis will demonstrate the student’s ability to complete a piece of objective research, which may be in the form of an extended clinical audit, a laboratory based project, a systematic review, or similar in any area of internal medicine. Methodology may use qualitative, mixed method or quantitative techniques. The student will be allocated an individual tutor/supervisor based at the University of Edinburgh, and we would aim to find people with appropriate specialist interest in the areas required. Candidates will however be encouraged to work closely with senior staff in their home institutions, with mutually beneficial fostering of suitable academic links between the University of Edinburgh and medical institutes worldwide.

The submission of the thesis (as per University regulations) on an agreed topic must normally be within 36 months of initial registration. Requests for an extension to the period of study must go through the Programme Director as a formal request to the College Postgraduate Studies Committee. Forms for this purpose, and for ‘interruption of studies’ due to special circumstances, are available from the course organizer.

The final thesis will be in two forms: a printed document that will be marked and lodged in the university library, and an electronic version which will be set in the course archive for reference by future students.

Students must ensure that their submitted dissertation meets the following criteria:

- 15,000 words or less (excluding references)
- A4 portrait format with appropriate margins
- Easily-readable font and font size (e.g. Times New Roman 12pt, or Arial 10pt)
- Appropriate referencing in Harvard or Vancouver style (note if Reference Manager or EndNote are used for references all field codes must be removed)
- Care should be taken to appropriately reference any previously published material to avoid plagiarism and / or infringement of copyright
- A concise abstract of the dissertation
- Any figures or tables should be clear and referred-to in the text
- Appropriate permission should be obtained to reproduce copyrighted or patient-sensitive images prior to submission
- A title page containing the title of thesis; author’s name and matriculation number; the date of submission; and ‘MSc Internal Medicine and ‘The University of Edinburgh’.
- Electronic submission as a Word or pdf document
- Submission before deadline (this will confirmed at a later date)
- Accompanied by a plagiarism declaration
The University Common Postgraduate Mark Scheme for dissertations

<table>
<thead>
<tr>
<th>Mark %</th>
<th>Grade</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>90-100</td>
<td>A1</td>
<td>An excellent performance</td>
</tr>
<tr>
<td>80-89</td>
<td>A2</td>
<td>Satisfactory for Distinction</td>
</tr>
<tr>
<td>70-79</td>
<td>A3</td>
<td>A very good performance</td>
</tr>
<tr>
<td>60-69</td>
<td>B</td>
<td>A good performance, satisfactory for a master’s degree</td>
</tr>
<tr>
<td>50-59</td>
<td>C</td>
<td>A satisfactory performance, satisfactory for a master’s degree</td>
</tr>
<tr>
<td>40-49*</td>
<td>D</td>
<td>A satisfactory performance for the diploma, but inadequate for a master’s degree</td>
</tr>
<tr>
<td>30-39**</td>
<td>E</td>
<td>Marginal Fail***</td>
</tr>
<tr>
<td>20-29</td>
<td>F</td>
<td>Clear Fail***</td>
</tr>
<tr>
<td>10-19</td>
<td>G</td>
<td>Bad Fail***</td>
</tr>
<tr>
<td>0-9</td>
<td>H</td>
<td></td>
</tr>
</tbody>
</table>

These points relate to the Dissertation
* A mark of 47–49 may be used to denote the possibility that by minor revision the work may be upgraded to master’s standard
** A mark of 37–39 may be used to denote the possibility that by minor revision the work may be upgraded to diploma standard
*** In those programmes where a diploma may be awarded for the taught component only, a failed dissertation may be put aside and the diploma awarded.

Progression and distinction

Candidates gain the given number of credits required for a degree award incrementally in each academic year. Credits required are as set out in the Scottish Qualifications Framework and incorporated into the University’s Curriculum Framework. Progression on the programme is dependent on satisfactory performance at each level of the award.

Students may choose to graduate after one year with a postgraduate certificate (60 credit points), or after the second year (120 credit points) entitling them to a postgraduate diploma.

**Year 1:** During the first year, the student is required to complete (to the satisfaction of the Board of Examiners) all compulsory modules (with the option of replacing the Science of Medicine course with two elective modules from year 2). On satisfactory completion of year 1, they can leave the programme with a Certificate in Internal Medicine, or progress to the second year.

All students who obtain a mark of greater than or equal to 40% are entitled to progress into the diploma year. Individuals failing to attain this grade will be deemed to have failed the programme.
**Year 2:** Students who have passed all courses (6 x 10 credit modules) at 50% or above are entitled to progress into the master’s year. Individuals who have an average of 40–49% will be awarded a postgraduate diploma. Students who fail their second year will leave the programme at this point with the award of a postgraduate certificate having attained sufficient credits for this award during their first year.

**Year 3:** Students who achieve 50% or more in the master’s dissertation will be entitled to graduate with a master’s degree. Individuals who fail to achieve 50% will leave the course with the award of a postgraduate diploma. Students who achieve a mark of at least 70% on all courses on the programme will be awarded a master’s with distinction.

This programme will adopt progression criteria in accordance with the University’s regulation should they change (we understand that these are being reviewed currently and are awaiting formalisation).

All 10-credit courses have equal weighting. The 20-credit Science of Medicine course will have double the weighting to the other 10-credit modules. Taking this into account, the assignment marks in each year will aggregated by averaging. Sufficiently high marks must be achieved at the first sitting in the first year (certificate) to allow progression to the second year (diploma) (see above).

The diploma will be marked by two Internal Examiners with quality assurance and check-marking by the External Examiner. The provisional marks and marker comments will be discussed by the Board of Examiners and a decision taken as to the mark awarded and feedback to be given to the candidate. Only one submission of a dissertation (or any of the other assignments) is permitted. Possible judgements on the dissertation include:

**Satisfactory** (grade C or above), **Unsatisfactory** (grade D or below), or **Borderline Unsatisfactory** (grade D—may be awarded the MSc provided certain minor deficiencies and imperfections are corrected within 10 working days). Note that major correction and resubmission is not permitted under University regulations (see below).

Students achieving at least 70% (Grade A) for the dissertation and an average close to 70% for the rest of the assignments will be awarded ‘master’s with distinction’. For those electing to leave the programme after two years with a diploma, an average assignment mark of 70% or more will earn the award of ‘diploma with distinction’.

**Late work or extensions for study**

**Submission dates**

You will be given submission dates for coursework at the start of each module. Submission dates for assessment work and assignments dates must be strictly
adhered to for a number of reasons, including fairness to other students. Consideration of late work lies with the Board of Postgraduate Studies and not with the Programme Directors. Normally a penalty of 5% loss of points will be imposed per day of late submission up to the end of the fifth day.

If circumstances or major events such as change of work, marriage, bereavement or illness occur, a letter to the Board of Postgraduate Studies (BPGS), via the programme director, asking for an extension will normally be treated sympathetically providing that this is done before the submission date.

Work that is late for some other reason, (“run out of time”, for example) must be accompanied by a letter of explanation of circumstances, and will be considered by the Board of Examiners (BoE). The BoE decide if the assignment will be accepted and not the course director.

Students suffering from illness during any assessment should obtain a medical certificate from their doctor as soon as possible and report the situation to the course organiser, who should bring evidence of illness or other mitigating circumstances to the attention of the board of examiners.

**Interruptions of study**

An interruption of study concession is applicable where a student is unable to work on the thesis for a significant period of time due to circumstances that are largely beyond their own control. Periods of interruption do not count towards the student's total permitted period of study and do not incur any additional fees or charges.

These circumstances can include, amongst others,

- Medical and health problems
- Personal and family problems
- Bereavement
- Problems experienced because of failure of university equipment or lack of access to equipment for good reasons that are beyond the control of the student

Changes to UK Border Agency regulations now mean that the University will not accept retrospective Interruptions to Study (IoS) of more than 30 days. So that UK/EC students and students on study visas are treated the same this will apply to all students. Students should be encouraged to request an IoS as soon as it is apparent that it is justified, rather than waiting to submit a retrospective one at a later date.

**Appeals procedure**

An academic appeal is a "...request for a review of a decision of an academic body charged with decisions on student progression, assessment and awards..."
(Quality Assurance Agency, or QAA, Scotland). At the University of Edinburgh, the academic body would normally be the Board of Examiners.

Any student wishing to submit an appeal must have legitimate grounds for doing so, namely one or both of the following:

(a) Substantial information directly relevant to the quality of performance in the examination which for good reason was not available to the examiners when their decision was taken.

(b) Alleged irregular procedure or improper conduct of an examination. For this purpose “conduct of an examination” includes conduct of a meeting of the Board of Examiners.

An appeal cannot be lodged until the decision being appealed has been ratified by the appropriate Board of Examiners.

There are strict timescales for the submission of academic appeals:

<table>
<thead>
<tr>
<th>Final Year Student / Graduate</th>
<th>Continuing Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 weeks after results issued</td>
<td>2 weeks after results issued</td>
</tr>
</tbody>
</table>

Late appeals may be considered where there are special circumstances in relation to the late submission of the appeal. A subcommittee of the Appeal Committee can consider whether late appeals are allowed to progress.

Further guidance and information about the appeals procedure can be found at www.docs.sasg.ed.ac.uk/AcademicServices/Regulations/AcademicAppealRegulations.pdf

**Plagiarism**

Plagiarism is the act of copying or including in one’s own work, without adequate acknowledgement, intentionally or unintentionally, of the work of another, for one’s own benefit. Plagiarism is a serious disciplinary offence and even unintentional plagiarism can be a disciplinary matter. The University of Edinburgh has always taken a strong stand against plagiarism and cheating, and penalties are severe. Please make yourself familiar with the regulations at www.docs.sasg.ed.ac.uk/AcademicServices/Discipline/PlagiarismStudentGuidance.pdf

College Policy is that as a minimum the first piece of a student's coursework should be put through Turnitin (plagiarism software) and feedback given to the student.
Academic regulations
Details of the University of Edinburgh’s Academic Regulations are available online at
www.ed.ac.uk/schools-departments/academic-services/students/postgraduate-taught
and
www.ed.ac.uk/schools-departments/academic-services/policies-regulations

There you will find regulations relating to the structure and delivery of this and other programmes, assessment, complaints, discipline and a number of other issues which sometimes arise. The University considers the following documents to be essential reading for all students prior to embarking on their studies, and for both staff and students.

Student will be expected to be familiar with these regulations in the event of an appeal. Many of the regulations and issues are already covered elsewhere in this handbook, such as the University’s ‘common marking scheme’, but we have highlighted a few pertinent aspects for your attention below.

Degree Regulations and Programmes of Study (DRPS)

University-wide and programme-specific regulations are available at www.drps.ed.ac.uk.

The University adheres to the Scottish Credit and Qualifications Framework (SQCF, www.scqf.org.uk). Two SCQF credit points are generally equivalent to one point in the European Credit Transfer System (ECTS).

The basic structure of the MSc programme is outlined in the Degree Programme Table, which has been agreed at high level and will not change without consultation.

Postgraduate assessment regulations

General University-wide regulations relating to all aspects of assessment are available at www.drps.ed.ac.uk/10-11. These include the following:

1.13 External examiners have the right to see all assignments and coursework.

3.3 Marks given for assignments during the year are provisional and may be modified when considered at the meeting of the Board of Examiners.

10.5 The Board of Examiners, in determining the final award, may have exercised discretion by taking into account additional relevant information (e.g. contribution to group work, formative assessments, attendance, etc.).

3.6 Students are only permitted one assessment attempt for courses at Scottish Credit and Qualification Framework level 9 and above [i.e. any University degree programme. Master’s is at level 11 of the SCQF.]

4.4 A dissertation may be judged by the Board of Examiners as satisfactory [award of MSc] or unsatisfactory [award of the diploma only]; alternatively they may decide that the student should be awarded the MSc provided certain minor deficiencies and imperfections are corrected. The time allowed for such minor
corrections is not more than 10 working days. Major revision and resubmission of a dissertation is not allowable.

5.1 It is the student’s responsibility to ascertain his/her assessment deadlines.

7.1 The dissertation constitutes more than one-sixth of the final overall assessment and will therefore be double-marked [for best practice we typically double-mark all assignments, although this is not a requirement]

7.4 Where practicable, assignments should be marked anonymously. Please use your unique examination number from your matriculation card for assignments, rather than your name or matriculation number.

**Code of practice for taught postgraduate programmes**

This in no way supersedes the above University regulations, but acts as a guide to required practice based upon the University’s regulations and reasonable expectations. It is available from [www.acaffairs.ed.ac.uk/Regulations/CoP/PGT/Index.htm](http://www.acaffairs.ed.ac.uk/Regulations/CoP/PGT/Index.htm) and includes the following:

1.2 The postgraduate student is expected to take full advantage of the facilities, teaching and supervision offered, and to keep the Programme Director informed of any circumstances affecting his/her academic performance.

4.2.1 Properly constituted staff/student liaison committee meetings are conducted at least twice in each year. (You are also likely to be asked for feedback by programme faculty from time to time, and to respond to the University annual questionnaire for taught postgraduate students. Please participate!)

5.1 A comprehensive range of both academic and pastoral support services exist at University, College and School levels. Their purpose is to enable students to make the most of their programme and to avoid or overcome difficulties. (These include study skills, tutorial assistance, library resources, IT support, transferable skills development, provision for disabled students, pastoral support and committees to consider special circumstances—information and contacts for all of them are available through the University website. Please ask the Programme Director if you have difficulty finding them.)

7.2.3 Students have responsibilities to meet their supervisors regularly and to hand in material at agreed times. Students should be made aware that approval by a supervisor, and the following of the advice and guidance of the supervisor carries no guarantee of success at examination (of the dissertation).

8. Progress to the dissertation component is conditional on a good performance in continuous assessment and examinations at the first attempt.

8.6 Where work is not submitted on time, students will be penalised (normally by deducting marks) unless there are extenuating circumstances.

9.2 Each degree programme should have at least one elected student representative whose names are available on school notice-boards.

10.3 A candidate has the right to lodge an appeal against the results of an examination. The formal grounds under which a postgraduate appeal may be considered are:

a) Substantial information directly relevant to the quality of the performance in the examination that for good reason was not available to the examiners when their decision was taken; or
b) Alleged irregular procedure or improper conduct of the examination. Any appeal must be submitted in writing to the University Secretary as soon as possible (usually less than 6 weeks).

10.4 University regulations on student discipline can be found at www.ed.ac.uk/schools-departments/academic-services/staff/discipline/code-discipline

10.6 Be aware of the services and support offered by Edinburgh University Students’ Association (EUSA, www.eusa.ed.ac.uk). Representation and informal feedback from any student is welcome by this group at any time.

Appendix I: It is the duty of all students to observe those parts of the University Health and Safety Policy relevant to their own work: see www.safety.ed.ac.uk

Appendix II: The University (staff and students) must comply with the Data Protection Act 1998. Further information can be found at www.recordsmanagement.ed.ac.uk.

Please note: This programme handbook in no way supersedes University regulations, but seeks to interpret and apply these and to provide further information relating to this particular programme.

Those entering Year 3 (dissertation) of the programme will also be expected to follow the University’s Code of Good Practice in Research, available from www.ukrio.org.

Programme governance

Governance

The Programme Director and all staff involved in the MSc in Internal Medicine report to the dedicated Curriculum and Assessment Committee (CAsC). This group reports to the Postgraduate Studies Committee (PGSC) for the College of Medicine and Veterinary Medicine. The Curriculum and Assessment Committee are responsible for all decisions about programme outcomes, content, assessment and evaluation, and make recommendations for the constitution of the Board of Examiners and appointment of External Examiners.

Current constitution of these groups is as follows:

**Curriculum and Assessment Committee**

Neil Turner (Chair), Eleri Williams, Marshall Dozier (Library Services), Helen Cameron (Centre for Medical Education), Tim Squires (Biomedical Teaching Organisation), Peter Leslie (NES), Elait Tait (RCPE), Mike Jones (RCPE) Kerri Baker (RCPE) and Lauren Johnston-Smith (Post graduate Office).

**Board of Examiners**

Professor James Garden will chair the Board of Examiners. Further members of the board have not been appointed at the time of writing.
External examiner

The external examiner has not been appointed at the time of writing.

Student feedback and course evaluation

Student feedback provides invaluable input to the review and development of curriculum and course organisation. At the beginning of the session students will be asked to elect programme representatives, the representatives can raise issues of general concern on behalf of their class. However all students should feel free to approach staff at any time throughout a session.

Students will be invited to take part in the Postgraduate Taught Experience Survey (PTES) run by the University of Edinburgh together with the Higher Education Academy. The overall aim is to identify, at both local and national level, areas where improvements could be made and efforts targeted to further enhance the provision of taught degree programmes. A high response rate is necessary to obtain robust results, so participation is very important and would be greatly appreciated.

A student representative sits on the College Postgraduate Taught Committee. They are able to raise concerns and issues which they may feel may be relevant to this Committee. Representatives are also welcome to participate in the Edinburgh University Students’ Association. Informal feedback is welcome at any time.

Graduation

All students intending to graduate must register by completing an online graduation registration form. The form should be submitted as soon as possible, but no later than 3 weeks before your ceremony. Any form submitted after this deadline will not be processed and graduation will be deferred until the next appropriate set of ceremonies.

A registration fee of £40 is payable on first graduation from The University of Edinburgh in respect of life membership of the General Council, the statutory body comprising all of the University’s graduates. Students will be required to pay this fee at the same time as they register to graduate (those graduating with a PG Certificate or PG Diploma do not need to pay this). Students who, for any reason, do not wish to attend a ceremony (graduate in absentia) may do so but must still complete an online graduation registration form in order to receive their award certificate.

Please be aware that if it is your intention to graduate at the above ceremony, any outstanding debts to the University must be paid to the Finance Office 21 days prior to the Graduation Ceremony.

Further information on Graduations can be found at www.registry.ed.ac.uk/Graduations.
Disabilities
Please note, if you have a disability that may affect your studies the University of Edinburgh Disability Office can offer support to students with a wide range of impairments and difficulties, including dyslexia, autism, sensory impairments, mobility impairments, mental health problems and medical conditions like asthma and diabetes. The Disability Office can assess your requirements and request adjustments and support you may need or negotiate specific assessment and exam arrangements. Assistance can only be offered if you have declared a condition or disability on your application form or have contacted the Disability Office
6-8 South College Street
Edinburgh
EH8 9AA
Email: disability.office@ed.ac.uk
Website: www.ed.ac.uk/schools-departments/student-disability-service

APPENDIX 1: Module assessments

YEAR 1

1: Introductory Skills (10 credits)
Students will be asked to complete online tutorials and interactive modules in various transferable skills (see below). Use of WebCT and associated IT skills are also requirements of the course. Assessment will be through an online journal review and basic statistics multiple choice questions.

2: Principles of Clinical Pharmacology (10 credits)
Formal summative written assessment of clinical case scenarios will constitute 90% of the student’s grade. Online assessment (participation in interactive modules, discussion boards and group work) will constitute the other 10% of the overall course grade and is taken to represent a formative assessment of learning throughout the programme.

3: Basic Medical Sciences (or 2 additional specialty modules from Year 2 – see below) (20 credits)
This module will cover a lot of hard factual material and is best assessed by a formal summative, multiple-choice-question (MCQ) exam. This is also the style of assessment favoured by the Royal College of Physicians for assessing part 1 MRCP. Students will appreciate being tested in this way as it also covers material similar to that required for RCOP exams.

4: Principles of Laboratory Medicine (Clinical Biochemistry, Haematology and Pharmacology) (10 credits)
Formal summative written assessment will constitute 100% of the student’s grade (online clinical case scenarios and MCQs).

5: Imaging in Medicine (10 credits)
Formal summative assessment will constitute 100% of the student’s grade. This will be a written assignment (MCQ) based on clinical cases and radiology theory and will be submitted online.

**YEAR 2**

1: Clinical Skills (examination, communication skills and practical procedures) (10 credits)

Formal summative written assessment will constitute 100% of the student’s grade. This will be partly MCQ-based (medical procedures and clinical signs) and partly a more discursive written paper. The discursive paper will cover unusual clinical scenarios, difficult patient consultations and aspects of good and bad communication, possibly involving video clips.

2: Acute Medicine and Clinical Decision Making (10 credits)

Formal summative written assessment of clinical case scenarios will constitute 90% of the student’s grade. Online assessment through discussion boards and group work (wikis) will constitute the other 10% of the overall course grade and is taken to represent an assessment of learning throughout the programme.

**Elective Modules**

**BLOCK 1**
3: Cardiology
4: Haematology
5: Neurology

(see below for assessment details for clinical modules)

6: Translational Medicine: Targeting and Measuring Disease (10 credits)

Formal summative written assessment (essay) will constitute 50% of the student's grade. Short-answer questions will make up another 20% of the grade. Online assessment through discussion boards and group work (wikis) will constitute the other 30% of the overall course grade and is taken to represent a formative assessment of learning throughout the programme (more details in programme proposal document).

7: Emerging Infectious Diseases (EMND 11006)

Students will transfer to the Emerging and Neglected Infectious Diseases course (ENID) to complete this module. Course assessments are discussed in the ENID course module documents (EMND 11006).

**BLOCK 2**
8: Diabetes and Endocrinology
9: Respiratory
10: Oncology

(see below for assessment details for clinical modules)

11: Global Health (10 credits)

Students will transfer to the Global Health MSc for this module. Materials and assessment will be guided by the Global Health MSc syllabus. Formal summative
written assessment will constitute 50% of the student's grade. This is a written assignment critically reviewing a specific current global health problem. Online assessment in the form of discussion boards/ tutorials and group work and participation will constitute the other 50% of the overall course grade. This is taken to represent a formative assessment of learning throughout the programme.

12: Palliative Care and Pain Management (10 credits)
Formal summative written assessment will constitute 100% of the student’s grade. The written assignment should review aspects of palliative care management and should be considered in a specific clinical scenario.

BLOCK 3
13: Renal Medicine
14: Clinical Genetics
(see below for assessment details for clinical modules)

15: Health Informatics (10 credits)
Students will transfer to the Health Informatics MSc for this module. Materials and assessment will be guided by the Health Informatics MSc syllabus. In general, course assessments relate to the learning outcomes. Summative works will be approximately 3,000 words in total and will be approved by the Health Informatics Programme Committee, on the recommendation of the Course Convener. Combined with formative assessments, it may incorporate one or more of the following:

* essay style analysis or commentary
* scenario analysis
* critical/significant incident analysis
* reflective practice accounts
* individual presentations
* multiple-choice questions
* other relevant assessments

16: Clinical Education and Teaching (10 credits)
Students will transfer to the Clinical Education MSc tutors for this module. Materials and assessment will be guided by the Clinical Education MSc syllabus. Formal summative written assessment will constitute 100% of the student’s grade. This will be a reflective piece of around 2,000-2,500 words entitled, for example: "Take a learning outcome from your own clinical area and discuss how you would teach, assess and evaluate it; explaining and justifying the reason for your choices". It should be in a formal academic style, appropriately formatted and referenced.

BLOCK 4
17: Gastroenterology
18: Stroke
(see below for assessment details for clinical modules)
19: Medicine Ethics and Medicine and the Law (10 credits)
Formal summative written assessment will constitute 70% of the student’s grade. This will be a written case assignment based on a particular patient-focused ethical situation and submitted online. Discussion boards and tutorial contributions will constitute the other 30% of the overall course grade which is also taken to represent a formative assessment of learning throughout the programme.

20: Principles of Quality Improvement in Healthcare and Patient Safety (10 credits)
Formal summative written assessment, a written assignment based on a clinical case, will constitute 90% of the student’s grade. Online assessment through participation in discussion boards, group work (wikis) and interactive materials will constitute the other 10% of the overall course grade and is taken to represent a formative assessment of learning throughout the programme.

ALL Clinical Specialty Modules (10 credits each)
Clinical Modules will be offered in the following specialties within each elective block as described above.
Within each specialty module students will be assessed by means of:

- Critical appraisal of recent journal articles (50%) through a combination of online journal clubs and written online journal article appraisal forms. Students will be encouraged to produce either a short PowerPoint presentation, podcast or audio lecture that can be put online for peer and tutor assessment. This piece of work also encourages development of skills in IT and presentation.

- A formal written assessment (50%) either in the form of
  - A case report (usually an unusual or rare diagnosis or treatment option) from their own work experience
  - A short review article discussing a specific sub-specialty topic (e.g. insulin pump therapy in diabetes, the use of MRI scanning in cardiology). This piece should be written in a style appropriate for a general medical (non-specialist) audience.

The formatting should be suitable for formal publication and should contain an appropriate review of the literature. Tutors and fellow students will grade presentations with marks allocated in a 60% (tutor) to 40% (student) ratio.
## APPENDIX 2: Module details and learning outcomes

### CERTIFICATE LEVEL COURSES

<table>
<thead>
<tr>
<th>Course name</th>
<th>Introductory Skills</th>
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<tbody>
<tr>
<td>Course Level:</td>
<td>SCQF level 11</td>
</tr>
<tr>
<td>Credit Points:</td>
<td>10</td>
</tr>
<tr>
<td>Prerequisite:</td>
<td>University of Edinburgh Master’s entry requirements</td>
</tr>
<tr>
<td>Co-requisite:</td>
<td>Compulsory for Year 1 of this programme</td>
</tr>
<tr>
<td>Student Load:</td>
<td>Approximately 10-14 hours a week (includes online talks and independent study such as reading, engaging with online resources and assessment activities)</td>
</tr>
<tr>
<td>Assessment:</td>
<td>Formal summative written assessment (practical online exercises on statistics and literature searching) will constitute 100% of the student’s grade.</td>
</tr>
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</table>

### Course description

This programme ensures that the student is equipped with the IT, literature researching and basic statistical skills necessary to cope with the activities planned in later modules. Writing skills, awareness of issues relating to plagiarism and referencing will be introduced. Appropriate use of referencing software will also be demonstrated and encouraged. Online tutorials and advice about using WebCT and Wimba will be delivered.

Students will be expected to actively use these tools throughout the course to create pieces of solo and group work, for example making presentations, reviewing journal articles and writing short review articles. The tools and resources available to perform thorough and accurate literature researching both within the University library services and on the internet will be introduced. How to conduct literature appraisal and the concept of evidence-based medicine will also be discussed. Students will receive some initial information on statistics that will be developed in later modules. The University’s librarians and a team for transferable skills will be working to tailor this module to students’ needs.

### Intended learning outcomes

At the end of this course candidates should be able to conduct a literature search and critically review research and statistics used in clinical research. They should be happy using the WebCT and Wimba platforms and the functions therein. Good writing skills will also be starting to develop.

The candidate should:

- Understand how to navigate WebCT, use discussion boards and play online lectures.
- Understand how to review a clinical research paper (critical appraisal).
- Be familiar with the common methodologies used to design research studies and the benefits of each.
- Understand the concept of evidence-based medicine.
• Understand what is meant by plagiarism and be aware of the University's policy on this.
• Understand how to reference a document and be familiar with a suitable software programme.
• Understand basic statistical principles and concepts to the level required for interpretation of most mainstream research publications (this will be further developed in Year 3).

Course name: Principles of Clinical Pharmacology
Course Level: SCQF level 11
Credit Points: 10
Prerequisite: University of Edinburgh, Master's entry requirements
Corequisite: Compulsory for Year 1 of this programme
Student Load: Approximately 10-14 hours a week (includes online talks and independent study such as reading, engaging with online resources and assessment activities)
Assessment: Formal summative written assessment will constitute 90% of the student's grade (clinical case scenarios). Online assessment (participation in interactive modules, discussion boards and group work) will constitute the other 10% of their overall course grade and is taken to represent a formative assessment of learning throughout the programme.

Course description
This programme aims to ensure that practitioners have a sound understanding of basic pharmacology principles and practices. Pharmacodynamic and pharmacokinetics principles will be taught using clinical examples. Reasons for individual variation, drug monitoring, and types of adverse drug reactions will be discussed using interactive and problem-based scenarios. Students will also learn and reflect on medication compliance: why medication errors occur and how safe prescribing guidelines can be formulated. Students will increase knowledge and understanding of drug regulation in the UK and internationally. Students will gain a good understanding of the mechanisms of action and effects of recreational misused drugs. They will discuss common clinical toxicology and poisoning case scenarios, developing analytical reasoning to aid diagnostic and management decisions.

Intended learning outcomes
At completion of this course the candidate should have sufficient understanding of the basic principles of pharmacology to guide prescribing in a general medical setting. Students should be able to diagnose and initiate appropriate treatment for common clinical toxicology presentations and understand why good prescribing practices are required to ensure patient safety. The basic framework of medicines management—internationally, nationally and locally—should be appreciated.

The candidate should:
• Understand basic principles of dose adjustment, pharmacokinetics and pharmacodynamics.
• Understand the factors contributing to individual variation including consideration of patients with organ failure and pregnant women.
• Understand types of adverse drug reactions and why they occur.
• Understand factors contributing to poor medication compliance.
• Understand why medication errors occur, the impact they can have, and be able to theorise about practice to improve safe prescribing.
• Be aware of the effects and side effects of common recreational drug misuse.
• Have the ability to diagnose and treat common presentation to a toxicology unit.

Course name: Science of Medicine
Course Level: SCQF level 11
Credit Points: 20
Prerequisite: University of Edinburgh, Master’s entry requirements
Corequisite: This is one of two options for Year 1 of this programme
Student Load: Approximately 10-14 hours a week (includes online talks and independent study such as reading, engaging with online resources and assessment activities)
Assessment: Formal summative written assessment will constitute 20 credits (100%) of the student’s grade. This will be in the form of a MCQ exam.

Course description
This programme aims to ensure that practitioners have a sound anatomical and physiological basis for treatment of common medical conditions encountered in adult acute and general medicine.

Intended learning outcomes
On completing this course the candidate should understand the anatomy, physiology and pathological processes that are important for the common diseases encountered in general medicine. Existing University of Edinburgh anatomy, physiology and pathology online e-learning tools will be utilised in combination with core reading (available in e-book format) as well as external resources to guide students through the various body systems. This module has been designed using priorities set out in Davidson’s Principles and Practices of Medicine and requirements for MRCP part 1 exam.

The candidate should understand the physiology, anatomy and common pathological processes involved in key medical specialities, namely:
• Cardiology (10%)*
• Clinical Haematology and Oncology** (10%)
• Clinical Sciences (cell, molecular and membrane biology, clinical anatomy, clinical biochemistry and metabolism, clinical physiology, genetics, immunology) (10%)
• Dermatology (5%)
• Endocrinology (10%)
Gastroenterology (10%)
Neurology (10%)
Renal Medicine (10%)
Respiratory Medicine (10%)
Rheumatology (5%)
Tropical Medicine, Infectious diseases and sexually transmitted diseases (10%)

*Percentages represent approximate time devoted to each specialty.
**Understanding of Clinical Haematology and Biochemistry will be developed further in Principles of Laboratory Medicine.

Course name: Principles of Laboratory Medicine
Course level: SCQF level 11
Credit points: 10
Prerequisite: University of Edinburgh, Master’s entry requirements
Corequisite: Compulsory for Year 1 of this programme
Student load: Approximately 10-14 hours a week (includes online talks and independent study such as reading, engaging with online resources and assessment activities)
Assessment: Formal summative written assessment (clinical case scenarios and MCQs) will constitute 100% of the student's grade. More details are available in the programme proposal document.

Course description
This course aims to ensure that practitioners have a sound understanding of the laboratory techniques used to aid in the diagnosis of common general medical problems. Key clinical cases will be used to improve understanding in each of the disciplines; microbiology, haematology and biochemistry. Students will discuss how to interpret a blood film, diagnose coagulation disorders, make a microbiological diagnosis and conduct simple biochemistry assays.

This module will also cover hospital-acquired infection, resistance patterns, lipid metabolism, porphyrias and some of the more unusual diagnoses requiring clinical biochemistry input. It will cover common clinical pitfalls and will be largely taught by way of problem-based learning using clinical scenarios.

Intended learning outcomes
On completing this course the candidate should have a basic understanding of the techniques used in laboratory medicine to aid in the diagnosis of clinical conditions.

The candidate should:
- Understand various methods used to conduct biochemistry assays (ELISAs, immunoassays, etc.) and the benefits and disadvantages of each.
- Be able to interpret most commonly used biochemical tests and understand their limitations.
- Gain an appreciation of clinical scenarios that might result in spurious results.
• Understand various methods used to diagnose common haematological conditions and coagulation problems.
• Be able to interpret common abnormalities on a blood film.
• Be able to diagnose some common microbiological infections from examination of culture dishes.
• Have an appreciation of the other common techniques used in microbiological and virology diagnosis such as PCR.

Course name: Imaging in Medicine
Course level: SCQF level 11
Credit points: 10
Prerequisite: University of Edinburgh, Master’s entry requirements
Corequisite: Compulsory for Year 1 of this programme
Student load: Approximately 10-14 hours a week (includes online talks and independent study such as reading, engaging with online resources and assessment activities)
Assessment: Formal summative assessment will constitute 100% of the student’s grade. This will be a written assignment of MCQs based on clinical cases and radiology theory, submitted online.

Course description
This course aims to ensure that the candidate will have a good understanding of the principles and practice of clinical radiology. They will gain understanding about the physical properties and risk of x-rays, and discuss the benefits and disadvantages of the various modalities and techniques used in medical imaging. They will gain experience in the interpretation of clinical radiology images through the use of clinical case scenarios. This will focus on conditions encountered in the acute and general medical setting.

Intended learning outcomes
On completing this course the candidate should have an understanding of the principles and various techniques involved in imaging patients in a modern healthcare environment. They should be able to interpret x-ray images to diagnose the common conditions encountered in acute and general medicine using clinical case scenarios.

The student should:
• Understand how x-rays work, the physical principles and the risks.
• Understand the main imaging modalities used in modern healthcare and the limitations of each.
• Develop the skills to diagnose some common clinical conditions encountered in the general medical setting (through the interpretation of images from plain x-rays, CT scanning and MRI).

DIPLOMA LEVEL COURSES
Year 1 should have equipped the student with knowledge surrounding the basic anatomy, physiology, and pathophysiology of most common medical conditions.
encountered in internal medicine. Elements of therapy and research methods have been introduced through the pharmacology and introductory courses.

Year 2 will allow the students to develop increasing generic skills essential for good clinical care, diagnosis and clinical management. Aspects of this year have been designed with the MRCP part 2 and PACES curriculum in mind.

Students will now also be introduced to increasingly complex clinical problems based in specialty areas. While some specialty courses are compulsory, there will also be options for elective modules thus allowing students to develop deeper knowledge in areas where they may wish to sub-specialise in their future careers.

Study will now focus more on the diagnosis of the illness or condition and ongoing management including recognised treatment options. Each course will cover current concepts of prevention, treatment and rehabilitation where relevant.

Course name: Clinical Skills Principles (Examination, Communication and Procedures)
Course level: SCQF level 11
Credit points: 10
Prerequisite: University of Edinburgh, Master’s entry requirements
Corequisite: Compulsory for year one of this programme
Student load: Approximately 10-14 hours a week (includes online talks and independent study such as reading, engaging with online resources and assessment activities)
Assessment: Formal summative written assessment will constitute 100% of the student’s grade. (A written assignment using online reporting forms, based on video clips discussing aspects of good and bad communication.) An online MCQ/ written assessment about medical procedures and examination.

Course description
This course aims to ensure that the candidate understands how to examine patients appropriately and thoroughly and will make use of virtual examination resources such as virtual stethoscope. The theory underpinning good communication with patients will be discussed and described (as well as shown on video) using examples of good and bad consultations. Common ward-based medical procedures that middle grade doctors need to be familiar with will be covered using interactive tools to demonstrate the anatomy and clinical risks associated with these procedures. Additional resources (such as MOCK PACES exams) will be available at this stage and later in the course for those attempting MRCP part II (PACES).

Intended learning outcomes
On completing this course the student should know how to examine a patient competently and understand what makes a good patient consultation. Students
should also be familiar with the theoretical and anatomical knowledge required to perform common medical procedures (e.g. central line insertion, arterial line insertion, lumbar puncture, ascitic drainage, chest drain insertion, bone marrow biopsy).

The student should:

- Understand the theory behind good communication with patients.
- Understand the anatomy, principles and risks associated with common ward-based medical procedures, namely lumbar puncture, central line insertion, chest drain insertion, bone marrow biopsy, arterial line insertion and ascitic drainage.
- Understand the process involved and the benefits of a well-conducted clinical examination.

**Course name:** Acute Medicine and Clinical Decision Making  
**Course level:** SCQF level 11  
**Credit points:** 10  
**Prerequisite:** Satisfactory completion of the Certificate year of Internal Medicine programme  
**Corequisite:** Compulsory for Year 2 of this programme  
**Student load:** Approximately 10-14 hours a week (includes online talks and independent study such as reading, engaging with online resources and assessment activities)  
**Assessment:** Formal summative written assessment will constitute 90% of the student’s grade (clinical case scenarios). Online assessment (discussion boards and group work wikis) will constitute the other 10% of their overall course grade and is taken to represent a formative assessment of learning throughout the programme.

**Course description**

This course aims to ensure that the candidate understands how to manage the majority of common emergency medical admissions and will be taught using clinical case scenarios. It will also look at clinical decision making in the acute medical context. Clinical decision making is an important but often neglected part of healthcare provision today. Psychologists have studied the process of decision making for over half a century and identified a number of theoretical frameworks that could explain the behaviours employed by physicians. This research can be applied to everyday clinical situations to analyse the effect on the level of patient care. This course will explore the underlying theories and put them into context.

**Intended learning outcomes**

On completing this course the student should have a broad knowledge of how to diagnose and treat common medical emergencies. They should be able to recognise and assess the sick patient, know how to perform advanced life support and how to implement ongoing care. Students should understand the main philosophical theories and processes that are relevant to clinical decision making. Barriers to effective decision making in a clinical environment will be
considered as well as ways to overcome them. Patient safety will be discussed more broadly and there will be an examination of how clinical processes could be improved.

The student should:
- Understand how to diagnose and treat common emergency medical presentations.
- Understand how to recognise a sick patient and when to call for help.
- Understand how to perform basic and advanced life support.
- Understand how to continue care for a patient once the emergency has been handled.
- Understand some of the main theoretical models of decision making.
- Understand the role of decision making in a clinical environment and barriers to effective clinical decision making.
- Consider how patient safety may be compromised by poor decision making and ineffective healthcare environments, and create strategies to overcome these.

**Elective Modules**

Students will choose one module in each of the four elective module blocks.

**ELECTIVE BLOCK 1**

Students will choose one of these modules in either a clinical specialty (below) or palliative care and pain management.

<table>
<thead>
<tr>
<th>Course name:</th>
<th>Specialty Modules in Clinical Topics: either Cardiology, Haematology or Neurology</th>
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</thead>
<tbody>
<tr>
<td>Course level:</td>
<td>SCQF level 11</td>
</tr>
<tr>
<td>Credit points:</td>
<td>10 credits</td>
</tr>
<tr>
<td>Prerequisite:</td>
<td>Satisfactory completion of the Certificate year of the Internal Medicine programme</td>
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<tr>
<td>Corequisite:</td>
<td>Elective module, block 1, Year 2 of the programme</td>
</tr>
<tr>
<td>Student load:</td>
<td>Approximately 10-14 hours a week (includes online talks and independent study such as reading, engaging with online resources and assessment activities)</td>
</tr>
<tr>
<td>Assessment:</td>
<td>Formal summative written assessment (a case report or specialist review article) will constitute 50% of the student’s grade. Online assessment incorporating a variety of activities (participation in discussion groups/ wikis, online presentation/ review of journal articles, submission of literature appraisal forms, etc.) will constitute the other 50% of the overall course grade. This is also taken to represent a formative assessment of learning throughout the programme. More details are available in the programme proposal document.</td>
</tr>
</tbody>
</table>

**Course description**
This course will allow students to develop a deeper level of knowledge and understanding in specialty areas of their choice. Individual specialty tutors will use increasingly complex clinical case studies to broaden knowledge. Tutors will guide students to appropriate seminal publications in the specialty and encourage them to present and review recent journal article in a group setting (online journal club). Online publication review forms will be used to assess literature evaluation skills.

Historically important, controversial, topical and novel papers will be discussed. Students’ writing skills will be developed through formative assessments (a case report or review article) which should contain an appropriate review of the literature in the specialist area. Students are encouraged to publish these pieces of work where possible.

**Intended learning outcomes**

On completing the course students should have a deeper knowledge and understanding of these specialty areas of medicine through discussion of complex clinical cases. They will also develop generic skills in literature evaluation, presentation, writing and publishing.

The student should:

- Understand the presentation, management and treatment of the common conditions encountered in a specialist area of medicine.
- Have an awareness of the seminal publications in a specialist area of medicine.
- Have the skills to critically review a journal article.
- Be able to write a short article in a style appropriate for medical publication.

**Course name:** Translational Medicine: Targeting and Measuring Disease  
**Course UoE code:** TRME 11003  
**Course level:** SCQF level 11  
**Credit points:** 10  
**Prerequisite:** Satisfactory completion of the Certificate year of the Internal Medicine programme  
**Corequisite:** Elective module for block 1, Year 2 of this programme  
**Student load:** Approximately 10-14 hours a week (includes online talks and independent study such as reading, engaging with online resources and assessment activities)  
**Assessment:** Formal summative written assessment (essay) will constitute 50% of the student’s grade. Short answer questions will contribute 20% of the grade. Online assessment (discussion boards and group work wikis) will constitute the other 30% of the overall course grade and is taken to represent a formative assessment of learning throughout the programme. More details are available in the programme proposal document.
Course description
There have been enormous advances in biomedical sciences in recent decades. In the post-genomic era there is rapid advancement in understanding biological mechanisms, especially at the molecular and biochemical level. New biological and clinical tools and technologies, coupled with bioinformatic approaches, are heralding a global and comprehensive analysis of fundamental molecular and cellular processes.

This course describes the spectrum of scientific and clinical measurements required in Translational Medicine research for the identification and definition of disease. Investigators have access to a research ‘toolbox’ containing an increasingly wide range of technologies for high throughput molecular and cellular readouts. As well as identifying specific gene targets, these technologies are used to generate molecular ‘signatures’ or ‘barcodes’, which permit sophisticated analysis of underlying biological pathways and networks.

In addition, genomic and proteomic signature patterns are also important for the definition of biomarkers which are utilized for monitoring pathogenesis and treatment of disease. These biomarkers are increasingly employed by the pharmaceutical industry in drug discovery and development strategies.

Nevertheless, full definition of disease requires manipulation and measurement of biological processes at all levels in the hierarchy. The role of genomic, proteomic, cellular and imaging technologies will be covered in relation to translational medicine. Further to this, there will be an overview of in vivo clinical and physiological measurements, as employed in translational research.

Intended learning outcomes:
- To place against the hierarchy of systems a series of relevant tools used in Translational Medicine.
- To describe the basis for, and the applications of, modern techniques in Translational Medicine including:
  - Genomics
  - Transcriptomics
  - Proteomics
  - Metabolomics
- To describe the principles and appropriate deployment of imaging tools including: X-ray, computerised tomography, magnetic imaging, functional magnetic resonance imaging, magnetic resonance spectroscopy, positron emission tomography, nuclear medicine imaging, ultrasound scanning and contrast agents for ultrasound.
- To be able to give examples of key in vivo clinical and physiological measurements employed in Translational Research.

During the course, participants will:
- Experience a “patient journey” through presentation, diagnosis, investigation and treatment using the new tools available in the age of Translational Medicine and Personalised Medicines.
- Obtain hypothetical results from the deployment of a section of these tools to address the Translational Medicine problem presented.
- Review depth of expertise at different levels of the hierarchy systems.

**Course name:** Emerging Infectious Diseases  
**Course UoE code:** EMND 11006  
**Course Level:** SCQF level 11  
**Credit Points:** 10

- **Prerequisite:** Satisfactory completion of the Certificate year of the Internal Medicine programme
- **Corequisite:** Elective module for block 1, Year 2 of this programme
- **Student Load:** Approximately 10-14 hours a week (includes online talks and independent study such as reading, engaging with online resources and assessment activities)

**Assessment:** Course assessments relate to the learning outcomes (see EMND 11006). Formal summative written assessment will constitute 60% of the student’s grade. Online assessment will incorporate a variety of activities will constitute 40% of the overall course grade and is taken to represent a formative assessment of learning throughout the programme.

**Course description:** See EMND 11006

This course aims to promote an understanding of the emergence of infectious diseases, the risk factors of disease emergence and the implications for disease surveillance and control in public health. The content will include a review of current legislation aimed at monitoring and controlling these diseases.

**Intended learning outcomes:** See EMND 11006

At the completion of this course the candidate should understand the process of disease emergence and have a good appreciation and be able to assess
- The risk factors for disease emergence.
- The effect of globalisation, increasing human population pressure and habitat encroachment on the host range of existing animal diseases.
- The importance of disease detection, identification and monitoring in public health and the gaps in current health systems approaches.
- The importance of public perception and political commitment for the surveillance and control of emerging diseases.
- The factors influencing whether an emerging disease is controlled or becomes endemic/epidemic as illustrated by different emerging diseases (STDs, HIV/AIDS, avian influenza, SARS, Ebola).

**ELECTIVE BLOCK 2**

Students will choose one of these modules in either a clinical specialty (below) or Global Health or Translational Research

**Course name:** Specialty Modules in Clinical Topics Respiratory, Diabetes and Endocrinology, or Oncology
Course level: SCQF level 11
Credit points: 10 credits
Prerequisite: Satisfactory completion of the Certificate year of the Internal Medicine programme
Corequisite: Elective Modules
Student load: Approximately 10-14 hours a week (includes online talks and independent study such as reading, engaging with online resources and assessment activities)
Assessment: Formal summative written assessment (a case report or specialist review article) will constitute 50% of the student’s grade. Online assessment incorporating a variety of activities (participation in discussion groups/ wikis, online presentation/ review of journal articles, submission of literature appraisal forms, etc.) will constitute 5 credits (50%) of the overall course grade and is taken to represent a formative assessment of learning throughout the programme (more details in programme proposal document).

Course description
This course will allow students to develop a deeper level of knowledge and understanding in speciality areas of medicine of their choice. Individual speciality tutors will use increasingly complex clinical case studies to broaden knowledge. They will guide students to appropriate seminal publications in their speciality and encourage them to present and review recent journal articles in a group setting (online journal club, e.g. using Wimba). Online publication review forms will also be used to assess of literature evaluation skills.

Historically important, controversial, topical and novel papers will be discussed. Students’ writing skills will also be enhanced through the formative assessments (a case report or review article), which should contain an appropriate review of the literature in their specialist area. Students will be encouraged to publish these pieces of work where possible.

Intended learning outcomes
At the completion of the course the students should have a deeper knowledge and understanding of these speciality areas of medicine through discussion of complex clinical cases. They will also develop generic skills in literature evaluation, presentation, writing and publishing.

The student should:
• Understand the presentation, management and treatment of the common conditions encountered in a specialist area of medicine.
• Have an awareness of the seminal publications in a specialist area of medicine.
• Have the skills to critically review a journal article.
• Have the skills to write a short article in a style appropriate for medical publication.
Course name: Palliative Care and Pain Management  
Course level: SCQF level 11  
Credit points: 10  
Prerequisite: Satisfactory completion of the Certificate year of the Internal Medicine programme  
Corequisite: Elective module for block 2, year two of this programme  
Student load: Approximately 10-14 hours a week (includes online talks and independent study such as reading, engaging with online resources and assessment activities)  
Assessment: Formal summative written assessment will constitute 100% of the student's grade (a written assignment reviewing aspects of palliative care management that should be considered in a specific clinical scenario).

Course description
This course will provide a detailed knowledge and understanding of palliative care through the study of case scenarios, online lectures and background reading with the aim of improving clinical management of patients requiring end of life care and symptom management. This course will specifically cover; an introduction to palliative care, recognising and managing the end-of-life experience, talking and planning for death, communicating well with patients ('the difficult conversation'), policy and practicalities of achieving a good death for all, and spiritual dimensions of dying in pluralist societies. In additional aspects of symptom control will be covered with material relating to the pharmacology of analgesia, the analgesic ladder, breakthrough pain and the Liverpool care pathway.

Intended learning outcomes
At the completion of the course the candidate should have an improved perception of who would benefit from palliative care management and the wide-ranging factors that need to be considered when dealing with dying patients. In addition practical guidance will be given about how to manage symptoms effectively.

The student should:
• Understand what palliative care is and who might benefit (including recognising the dying patient).  
• Understand the theory behind communicating bad news sensitively.  
• Understand the importance of managing end-of-life issues well, and be aware of policies and guidelines that may help achieve this.  
• Understand the need for sensitivity with regards to spiritual and cultural needs of patients.  
• Be aware of the main classes of drugs used for symptom control and their appropriate use and escalation.
Course name: **Global Health**  
Course level: SCQF level 11  
Credit points: 10  
Prerequisite: Satisfactory completion of the Certificate year of the Internal Medicine programme  
Corequisite: Elective module for block 2, year two of this programme  
Student load: Approximately 10-14 hours a week (includes online talks and independent study such as reading, engaging with online resources and assessment activities)  
Assessment: Formal summative written assessment will constitute 50% of the student’s grade. Online assessment (discussion boards, group work wikis, and participation in interactive activities) will constitute the other 50% of their overall course grade and is taken to represent a formative assessment of learning throughout the programme (more details in programme proposal document).  

**Course description**  
Health is one of the most important challenges facing developing countries. Despite considerable medical advances, over six million people die each year from malaria, HIV/AIDS, and tuberculosis. Meanwhile, smoking and obesity, traditionally viewed as problems associated with “industrialised” countries, are now significant public health problems in developing countries.  

Good health is essential for economic development and poverty reduction, and therefore tackling disease and ill health is of global importance. This course discusses some of the common global health problems taking examples from various countries. It discusses potential strategies to deal with the global burden of disease.  

**Intended learning outcomes**  
At the completion of the course the candidate should:  
- Understand the common and important illnesses threatening the population at a global level.  
- Understand the key organisations involved in global health strategies.  
- Have an appreciation of the medical impact of environmental disasters and the strategies to deal with this.  
- Understand various wide-ranging strategies to deal with global health issues.
ELECTIVE BLOCK 3

Students will choose one of these modules in either a clinical specialty (below) or Clinical Education and Teaching, or Health Informatics

**Course name:** Specialty Modules in Clinical Topics in either Renal Medicine or Clinical Genetics  
**Course level:** SCQF level 11  
**Credit points:** 10 credits  
**Prerequisite:** Satisfactory completion of the Certificate year of the Internal Medicine programme  
**Corequisite:** Elective Module, block 3, year 2 of the programme  
**Student load:** Approximately 10-14 hours a week (includes online talks and independent study such as reading, engaging with online resources and assessment activities)  
**Assessment:** Formal summative written assessment (a case report or specialist review article) will constitute 50% of the student’s grade. Online assessment incorporating a variety of activities (participation in discussion groups/ wikis, online presentation/ review of journal articles, submission of literature appraisal forms, etc.) will constitute 5 credits (50%) of the overall course grade and is taken to represent a formative assessment of learning throughout the programme (more details in programme proposal document).

**Course description**
This course will allow students to develop a deeper level of knowledge and understanding in speciality areas of medicine of their choice. Individual speciality tutors will use increasingly complex clinical case studies to broaden knowledge. They will guide students to appropriate seminal publications in their speciality and encourage them to present and review recent journal articles in a group setting (online journal club, e.g. using Wimba). Online publication review forms will also be used to assess literature evaluation skills.

Historically important, controversial, topical and novel papers will be discussed. Students’ writing skills will also be enhanced through the formative assessments (a case report or review article), which should contain an appropriate review of the literature in their specialist area. Students will be encouraged to publish these pieces of work where possible.

**Intended learning outcomes**
At the completion of the course the students should have a deeper knowledge and understanding of these speciality areas of medicine through discussion of complex clinical cases. They will also develop generic skills in literature evaluation, presentation, writing and publishing.

The student should:
• Understand the presentation, management and treatment of the common conditions encountered in a specialist area of medicine.
• Have an awareness of the seminal publications in a specialist area of medicine.
• Have the skills to critically review a journal article.
• Have the skills to write a short article in a style appropriate for medical publication.

Course name:          Health Informatics (Introduction)
Course level:         SCQF level 11
Credit points:        10
Prerequisite:         Satisfactory completion of the Certificate year of the Internal Medicine programme
Corequisite:          Elective module for block 3, year two of this programme
Student load:         Approximately 10-14 hours a week (includes online talks and independent study such as reading, engaging with online resources and assessment activities)
Assessment:          Course assessments relate to the learning outcomes. Summative work will be approximately 3,000 words in total and be approved by the Health Informatics Programme Committee on the recommendation of the Course Convener. Combined with formative assessments, it may incorporate one or more of the following:
* Essay-style analysis or commentary
* Scenario analysis
* Critical/Significant incident analysis
* Reflective practice accounts
* Individual presentations
* Multiple Choice Questions
* Other relevant assessments

Course description
The purpose of this introductory course is to explain the origins, key components and current state of Health Informatics. It also introduces the building blocks of Health Informatics at theoretical and applied levels. The course takes a systems approach to and critical analysis of the complex adaptive systems needed for effective healthcare delivery.

Intended learning outcomes
At the completion of the course the candidate should:
• Apply critical systems thinking to health informatics problems.
• Appraise the mechanisms for organising information and critically evaluate knowledge management methods.
• Describe the key applications of Health Informatics.
• Evaluate the stages in Health Informatics development and the scope and diversity of the field.
• Critically discuss the role of a socio-technical perspective on the development and future evolution of the electronic health record and other structures within Health Informatics.
Critically discuss factors influencing the development of Health Informatics.

**Course name:** Clinical Education and Teaching  
**Course level:** SCQF level 11  
**Credit points:** 10  
**Prerequisite:** Satisfactory completion of the Certificate year of the Internal Medicine programme  
**Corequisite:** Elective module for block 3, year two of this programme  
**Student load:** Approximately 10-14 hours a week (includes online talks and independent study such as reading, engaging with online resources and assessment activities)  
**Assessment:** Formal summative written assessment will constitute 100% of the student's grade. This will be a reflective piece of around 2,000-2,500 words entitled "Take a learning outcome from your own clinical area and discuss how you would teach, assess and evaluate it, explaining and justifying the reason for your choices". It should be in a formal academic style, appropriately formatted and referenced.

**Course description**  
This course will provide knowledge surrounding the principles of teaching and learning within clinical settings. It will discuss theoretical knowledge (learning theories) and practical skills relating to teaching styles and techniques. Students will learn how to implement teaching successfully within an organisation, and gain an appreciation of tools for assessment. They will be encouraged to reflect on how they will use these in their own practice.

**Intended learning outcomes**  
At the completion of the course the candidate should:

- Understand commonly described learning theories.
- Be familiar with a variety of teaching tools and styles, reflecting on the benefits and disadvantages of each.
- Have an awareness of various tools used for assessment and the pros and cons of each.
- Understand what is meant by problem-based learning and how it may enhance teaching.
- Understand commonly used techniques for clinical teaching such as OSCE/ mini CEx and the principles governing their success.
ELECTIVE BLOCK 4
Students will choose one of these modules in either a clinical specialty (below) or Medical Ethics/ Medicine and the Law or Principles of quality improvements in healthcare/ patient safety

Course name: Specialty Modules in Clinical Topics either Gastroenterology OR Medicine of Elderly and Stroke
Course level: SCQF level 11
Credit points: 10 credits
Pre-requisite: Satisfactory completion of the Certificate year of the Internal Medicine programme
Co-requisite: Elective module for block 4, year two of this programme
Student load: Approximately 10-14 hours a week (includes online talks and independent study such as reading, engaging with online resources and assessment activities)
Assessment: Formal summative written assessment (a case report or specialist review article) - will constitute 50% of the student’s grade. Online assessment will incorporate a variety of activities – participation in discussion groups/ wikis, online presentation/ review of journal articles, submission of literature appraisal forms etc. will constitute 5 credits (50%) of the overall course grade and is taken to represent a formative assessment of learning throughout the programme (more details in programme proposal document).

Course description
This course will allow students to develop a deeper level of knowledge and understanding in speciality areas of medicine of their choice. Individual speciality tutors will use increasingly complex clinical case studies to broaden knowledge. They will guide students to appropriate seminal publications in their speciality and encourage them to present and review recent journal article in a group setting (online journal club) (e.g. using Wimba). On-line publication review forms will also be used to assess of literature evaluation skills. Historically important, controversial, topical and novel papers will be discussed. Students writing skills will also be enhanced through the formative assessments (a case report or review article), which should contain an appropriate review of the literature in their specialist area. Students will be encouraged to publish these pieces of work where possible.

Intended learning outcomes
At the completion of the course the students should have a deeper knowledge and understanding of these speciality areas of medicine through discussion of complex clinical cases. They will also develop generic skills in literature evaluation, presentation, writing and publishing.

The student should:
- Understand the presentation, management and treatment of the common conditions encountered in a specialist area of medicine
• Have an awareness of the seminal publications in a specialist area of medicine
• Have the skills to critically review a journal article
• Have the skills to write a short article in a style appropriate for medical publication

Course name: Medicine Ethics/ Medicine and the Law
Course level: SCQF level 11
Credit points: 10
Pre-requisite: Satisfactory completion of the Certificate year of the Internal Medicine programme
Co-requisite: Elective module for block 4, year two of this programme
Student load: Approximately 10-14 hours a week (includes online talks and independent study such as reading, engaging with online resources and assessment activities)
Assessment: Formal summative written assessment will constitute 70% of the student's grade (this will be a written case assignment based on a particular patient focused ethical situation, submitted online). Discussion boards, and tutorial contributions will constitute the other 30% of their overall course grade and is taken to represent a formative assessment of learning throughout the programme. (more details in programme proposal document).

Course description
This course aims to ensure that the candidate have a good grounding in medical ethics and the common medico-legal issues that are likely to be encountered in the adult general medical setting. Consent to medical treatment, refusal of medical treatment, withholding and withdrawing care, medical negligence, patient confidentiality, human rights, mental capacity and ethics surrounding mental health will be discussed. Ethical aspects of social care of elderly patients, end of life care and ethics of research will also be covered. Because of the international studentship of the course, discussion will refer to UK law, but tends towards philosophical principles than specific UK legislation.

Intended learning outcomes
At the completion of the course, the student should have an understanding of the legal, philosophical and ethical framework relating to contemporary medical issues, illustrated with relevant case studies to guide their clinical practice.

The student should:
• Understand how ethical principles and medical legislation vary across the world and how international human rights legislation may impact on medical practice
• Understand the process and implications of consent
• Understand the implications of withholding or withdrawing medical treatment
• Understand the meaning of medical negligence
• Understand the principles surrounding patient confidentiality
- Understand the principle surrounding mental health issues and incapacity
- Understand the ethical issues arising in social care of the elderly and in end of life decisions
- Gain an awareness of ethical principles governing medical research

Course name: **Principles of Quality Improvement in Healthcare and Patient Safety**

Course level: SCQF level 11

Credit points: 10

Pre-requisite: Satisfactory completion of the Certificate year of the Internal Medicine programme

Co-requisite: Elective module for block 4, year two of this programme

Student load: Approximately 10-14 hours a week (includes online talks and independent study such as reading, engaging with online resources and assessment activities)

Assessment: Formal summative written assessment will constitute 90% of the student's grade (a written assignment based on a clinical case). Online assessment (participation in discussion boards, group work (wikis) and interactive materials) will constitute the other 10% of their overall course grade and is taken to represent a formative assessment of learning throughout the programme.

Course description
This module discusses the increasingly important question of quality improvement in healthcare and patient safety. It will assess the impact of healthcare infrastructure on patient management. It looks at ways of achieving the best clinical standard possible within budgetary restriction and within inflexible large organisations. This module will allow students to take a step back from the immediate clinical environment and consider how healthcare can be improved at an organisational level. This is increasingly important skill to develop as doctors advance into managerial roles during their careers.

Intended learning outcomes
Students should understand the main philosophical theories and processes that are relevant to quality improvement and patient safety taught through clinical scenarios and problem based learning. They will understand the barriers to quality improvement in a large healthcare system and consider way to overcome these. They will discuss patient safety more widely including the role of regulatory bodies and examine how processes could be improved.

The student should:
- Understand some of the main theoretical concepts surround patient safety and quality improvement.
- Understand about the organisational structure of large healthcare systems like the NHS
- Understand the role of individuals in influencing quality improvement.
• Understand how patient safety may be compromised by poor decision-making and ineffective healthcare environments
• Understand strategies to overcome these barriers.