MSc Medical Ultrasound

This document provides a definitive record of the main features of the programme and the learning outcomes that a typical student may reasonably be expected to achieve and demonstrate if s/he takes full advantage of the learning opportunities provided. This programme specification is intended as a reference point for prospective students, current students, external examiners and academic and support staff involved in delivering the programme and enabling student development and achievement.

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<th>Programme Information</th>
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<td>Programme Title</td>
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<th>Specification Details</th>
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Programme Overview
Our MSc in Medical Ultrasound provides clinicians and medical scientists with intensive training in both the theoretical basis of medical ultrasound and the required scanning and diagnostic skills.

The course is both academic and vocational in nature, and is the only MSc of this type to offer a clinical attachment as part of the course.

As an academic degree, it does not provide automatic qualification to practise as a sonographer, and national examinations may be required to achieve this.

Nevertheless, the programme follows the core British Society of Echocardiography syllabus and prepares any future candidate for the successful completion of the national examinations.

Each is speciality is run independently in its respective department. You will have exposure to patients, and get a substantial amount of hands-on experience through placement with Imperial College Healthcare NHS Trust.

The research project forms a major part of the programme and students will be expected to plan and carry out a major piece of independent research under the guidance of their supervisor.

Please note that echocardiography students will receive 'MSc Medical Ultrasound (Echocardiography)' as their award upon successful completion of the course, whereas vascular ultrasound students graduate with 'MSc Medical Ultrasound'.

**Learning Outcomes**

The Imperial Graduate Attributes are a set of core competencies which we expect students to achieve through completion of any Imperial College degree programme. The Graduate Attributes are available at: [www.imperial.ac.uk/students/academic-support/graduate-attributes](http://www.imperial.ac.uk/students/academic-support/graduate-attributes)

**Knowledge and Understanding:**
- Knowledge and understanding of the physical principles and clinical use of imaging including data recording and retrieval;
- Knowledge and understanding of vascular anatomy, physiology, pathophysiology and haemodynamics and angiography;
- Knowledge and understanding of advanced Doppler techniques and their applications to the diagnosis of vascular disease.

**Intellectual Skills:**
- Capacity to formulate hypotheses;
- Ability to perform and interpret basic statistical analyses;
- Ability to evaluate published research;
- Ability to abstract data;
- Ability to design, execute, analyse and write up novel research.

**Practical Skills:**
- The ability to perform a comprehensive echo-, vascular ultrasound analysis as appropriate to specialisation selected;
- The research skills required to successfully plan, execute and write up a novel research project.
### Transferable Skills:
- Self-management including planning, prioritisation, timekeeping;
- Capacity to work independently and as part of a team;
- Ability to reflect and refine own practice;
- Ability to keep comprehensive and accurate records.

### Entry Requirements

<table>
<thead>
<tr>
<th>Academic Requirement</th>
<th>Normally a 2:1 UK Bachelor’s Degree with Honours in Medicine or a Biological, Engineering or Physical Science subject (or a comparable qualification recognised by the College).</th>
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<tbody>
<tr>
<td>English Language Requirement</td>
<td>Standard requirement: IELTS 6.5 with a minimum of 6.0 in each element or equivalent.</td>
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### Learning & Teaching Strategy

#### Scheduled Learning & Teaching Methods
- Lectures
- Seminars
- Problem solving
- Experimental design
- Directed and self-directed learning
- Laboratory
- Clinical and private study
- Work-based learning

#### E-learning & Blended Learning Methods
- Blackboard VLE
- Turnitin

#### Project Learning Methods
- Independent research project;
- Clinical sessions;

#### Placement Learning Methods
- Clinical placements will be taken at Hammersmith Hospital

### Assessment Strategy

#### Assessment Methods
- Examination
- Coursework
- Practical
- Clinical exam
- Logbook
- Review, ethics and proposal
- Dissertation

### Academic Feedback Policy

Students will receive regular informal, constructive verbal feedback throughout their programme. Formal feedback on summative coursework assessments will be normally provided within two weeks.
of submission according to College policy. All members of teaching faculty undertaking assessment will undergo training in the provision of effective feedback.

Re-sit Policy

Students who fail an examination may re-sit on one further occasion, normally at the next opportunity. Students who fail a piece of coursework may re-submit within a timeframe agreed by the Programme Director and Academic Stream Lead in consultation with the student.

Mitigating Circumstances Policy

Students may be eligible to apply for mitigation if they have suffered from serious and unforeseen circumstances during the course of their studies that have adversely affected their ability to complete an assessment task and/or their performance in a piece of assessment.

The College’s Policy on Mitigating Circumstances is available at: https://www.imperial.ac.uk/about/governance/academic-governance/academic-policy/exams-and-assessment/

Assessment Structure

Marking Scheme

Pass:
- The Pass Mark for postgraduate taught courses is 50%.
- In order to be awarded a result of pass candidates must obtain 50% in each component.

Merit:
- In order to be awarded a merit, a candidate must obtain a mark of 60% or greater in each component; a result of distinction requires a mark of 70% or greater in each component.
- Where appropriate, a Board of Examiners may award a result of merit where a candidate has achieved a mark of 60% or greater across the programme as a whole AND has obtained a mark of 60% or greater in each component with the exception of one component AND has obtained a mark of 50% or greater in this latter component.

Distinction:
- In order to be awarded a distinction, a candidate must obtain a mark of 70% or greater in each component.
- Where appropriate, a Board of Examiners may award a result of distinction where a candidate has achieved an aggregate mark of 70% or greater across the programme as a whole AND has obtained a mark of 70% or greater in each component with the exception of one component AND has obtained a mark of 60% or greater in this latter component.
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<tr>
<th>Module</th>
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<td>Physics</td>
<td>25%</td>
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<tr>
<td>Specialism (Vascular Ultrasound)</td>
<td>25%</td>
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<tr>
<td>Clinical Placement</td>
<td>20%</td>
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<tr>
<td>Research Project</td>
<td>30%</td>
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<td>Project Dissertation</td>
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## Supporting Information

The Programme Handbook is available at:  
[https://www.imperial.ac.uk/medicine/study/postgraduate/masters-programmes/msc-medical-ultrasound/](https://www.imperial.ac.uk/medicine/study/postgraduate/masters-programmes/msc-medical-ultrasound/)

The Module Handbook is available at:  
[https://www.imperial.ac.uk/medicine/study/postgraduate/masters-programmes/msc-medical-ultrasound/](https://www.imperial.ac.uk/medicine/study/postgraduate/masters-programmes/msc-medical-ultrasound/)

The College's entry requirements for postgraduate programmes can be found at:  
[www.imperial.ac.uk/study/pg/apply/requirements](http://www.imperial.ac.uk/study/pg/apply/requirements)

The College’s Quality & Enhancement Framework is available at:  
[www.imperial.ac.uk/registry/proceduresandregulations/qualityassurance](http://www.imperial.ac.uk/registry/proceduresandregulations/qualityassurance)

The College’s Academic and Examination Regulations can be found at:  
[https://www.imperial.ac.uk/about/governance/academic-governance/regulations](https://www.imperial.ac.uk/about/governance/academic-governance/regulations)

Imperial College is an independent corporation whose legal status derives from a Royal Charter granted under Letters Patent in 1907. In 2007 a Supplemental Charter and Statutes was granted by HM Queen Elizabeth II. This Supplemental Charter, which came into force on the date of the College’s Centenary, 8th July 2007, established the College as a University with the name and style of "The Imperial College of Science, Technology and Medicine".  
[http://www.imperial.ac.uk/admin-services/secretariat/college-governance/charters/](http://www.imperial.ac.uk/admin-services/secretariat/college-governance/charters/)

Imperial College London is regulated by the Higher Education Funding Council for England (HEFCE)  
[http://www.hefce.ac.uk/reg/register/](http://www.hefce.ac.uk/reg/register/)