REMOTE MEDICINE
COURSE GUIDE FOR PROSPECTIVE STUDENTS
2022 - 2023
Welcome to the Remote Medicine BSc!

This document aims to provide a short introduction to key features of the course. It has been designed to provide you with some insight into the course, to help you decide if you’d like to apply.

We hope you find it useful,

The Remote Medicine Team.

CONTENTS

FROM THE COURSE DIRECTOR PAGE 3
COURSE FACULTY PAGE 4
COURSE STRATEGY PAGE 5
COURSE STRUCTURE PAGE 7
COURSE ASSESSMENT PAGE 9
SOME INSPIRATION PAGE 10
ACKNOWLEDGMENTS PAGE 11
Welcome to the Remote Medicine BSc!

Thank you for your interest in the course. This document aims to give you an overview of what you could expect from your time with us in the 2022-23 academic year.

The ‘Remote Medicine’ BSc. explores medicine and research in a variety of remote and low-resource environments. We have carefully designed the course to provide you with a high-quality learning environment, exciting content and expert faculty.

We will introduce you to new concepts and areas of medicine that you’ve probably not had exposure to in your training thus far. You’ll learn about the challenges to providing emergency care in expedition environments, discover how spaceflight impacts human physiology and consider ways to improve healthcare provision to rural communities. As well as introducing these exciting ideas, we’ll challenge you to appraise the evidence that underlies our current understanding of them and develop a variety of research skills to prepare you for undertaking your BSc projects in Spring 2023.

You will also gain experience of a variety of interactive teaching methods, including; small group workshops, Problem-Based Learning (PBL), Team-Based Learning (TBL) and journal clubs. These sessions will provide you with opportunities to develop your presentation, team-working and leadership skills throughout your time with us.

Since launching in 2019-20, the ‘Remote Medicine’ BSc. has adapted to deliver high-quality teaching whilst managing the impact of COVID-19. We have found effective ways to deliver our course in a ‘blended’ way, with a mixture face-to-face and online learning whilst maintaining a high level of interactivity and student satisfaction.

As we develop the 2022-23 course, our focus will remain on providing you with the best learning experience possible. As all Imperial’s BSc pathways, our course will remain ‘blended’. We will design the timetable to optimise your time on campus, providing valuable opportunities to gain practical skills, interact with other students and make the most of campus life.

Whilst there remains some uncertainty over the impact the pandemic may still have in coming years, we are confident in our ability to provide you with a brilliant course.

I hope this guide helps you get to grips with what the ‘Remote Medicine’ BSc offers and excites you for the year ahead!

Best Wishes,

Dr. Andrew Darby-Smith
Remote Medicine BSc. Course Director
e: andrew.darby-smith@imperial.ac.uk
The Remote Medicine BSc. course covers a wide range of subject areas. In your first week on the course, we will introduce you to specific course topics as well as some of our diverse faculty.

In addition to the broad range of specialists you will learn from, we also have a core ‘Remote Medicine’ team, responsible for delivering your course. You would see us throughout the year and we would be your ‘go to’ faculty for queries, concerns or mentoring throughout your time with us.

DR ANDREW DARBY-SMITH
Course Director
e: andrew.darby-smith@imperial.ac.uk

Andrew is involved in all three modules of the course and retains overall responsibility for the delivery of the Remote Medicine BSc.

PROF CLAIRE SHOVLIN
Module 1 Lead
e: c.shovlin@imperial.ac.uk

As Module 1 Lead, Claire is responsible for the delivery of teaching across all three Module 1 ‘blocks’ and will become a familiar face to you all!

DR TAMLYN PEEL
Module 1 Assessment & Module 3 Lead
e: tamlyn.peel@imperial.ac.uk

Tamlyn is responsible for Module 1 assessments as well as organisation of your research projects in Module 3. He will also be a key faculty member in your ‘face-to-face’ teaching.

DR PANKAJ ‘PANK’ BHAVSAR
Module 2 Lead
e: p.bhavsar@imperial.ac.uk

Pank is a Senior Research Fellow at The National Heart & Lung Institute (NHLI). He is involved in other BSc. courses based at NHLI and is responsible for the Module 2 ‘CST’ assessment.

MS JENNIFER HALEY
Administration & Communications
e: j.haley@imperial.ac.uk

Jen is responsible for administrative aspects of the course and manages our course communications. She will be your first port of call for assessment submissions, queries and key information.
COURSE STRATEGY

The Remote Medicine BSc. has been designed to achieve a clear objective and work towards our future vision. The course is based on six principles and three core values.

COURSE OBJECTIVE
DEVELOP RESEARCH SKILLS BY EXPLORING MEDICINE IN REMOTE & LOW-RESOURCE ENVIRONMENTS

OUR FUTURE VISION
A THRIVING COMMUNITY OF REMOTE MEDICS AT IMPERIAL

COURSE PRINCIPLES

- DEVELOP RESEARCH SKILLS TO SUPPORT STUDENTS AS FUTURE ACADEMIC DOCTORS
- APPLY KEY CONCEPTS & EMERGING RESEARCH TO CLINICAL DECISION-MAKING
- CONDUCT HIGH QUALITY RESEARCH PROJECTS IN REMOTE ENVIRONMENTS
- PROMOTE A COLLABORATIVE LEARNING CULTURE BETWEEN FACULTY & STUDENTS
- SHOWCASE THE BREADTH OF EXCITING CAREER PATHS IN REMOTE MEDICINE
- APPLY RESEARCH FROM REMOTE ENVIRONMENTS TO WIDER HEALTHCARE ISSUES

OUR CORE VALUES

- COLLABORATION
BUILD MULTI-DISCIPLINARY PARTNERSHIPS WITH LIKE-MINDED GROUPS

- INNOVATION
EMBRACE NEW WAYS TO IMPROVE STUDENTS’ LEARNING EXPERIENCE

- SOCIAL RESPONSIBILITY
SUPPORT ORGANISATIONS PROVIDING HEALTHCARE TO REMOTE COMMUNITIES
OUR CORE VALUES

COLLABORATION
We will challenge students with complex, multi-faceted problems which demand effective team-working and knowledge from different disciplines. We will actively develop collaborative links with relevant, like-minded groups from within and outside of medicine.

INNOVATION
The course curriculum will feature a variety of teaching methods, specifically chosen to optimise the learning experience for students. We will continue to adapt and improve our teaching, including through use of technology and digital learning platforms.

SOCIAL RESPONSIBILITY
In addition to delivering an excellent learning experience for students, we will actively seek to support organisations committed to research or healthcare provision for communities living in remote environments both within the UK and internationally.

COURSE PRINCIPLES

DEVELOP RESEARCH SKILLS TO SUPPORT STUDENTS AS FUTURE ACADEMIC DOCTORS
Students will be exposed to a variety of academic literature and research by drawing on scientific excellence from Imperial and beyond. The course will develop robust academic skills & a critical approach to medicine to support students pursue academic clinical careers.

APPLY KEY CONCEPTS & EMERGING RESEARCH TO CLINICAL DECISION-MAKING
The course will emphasise the importance of evidence-based medicine and challenge students to assimilate emerging research findings, key conceptual knowledge and specific patient, as well as environmental, factors in order to inform clinical decision-making.

CONDUCT HIGH QUALITY RESEARCH PROJECTS IN REMOTE ENVIRONMENTS
Students will be offered the opportunity to conduct research projects within, or related to, a remote environment. Research themes will be developed that provide students a framework in which to pursue a specific research project that aligns with their interests.

PROMOTE A COLLABORATIVE LEARNING CULTURE BETWEEN FACULTY & STUDENTS
We will cultivate an environment in which faculty and students can share experiences as lifelong learners. The importance of team-work, ‘non-technical’ skills and multi-disciplinary collaboration will be emphasised through innovative, cross-faculty teaching sessions.

SHOWCASE THE BREADTH OF EXCITING CAREER PATHS IN REMOTE MEDICINE
Students will be exposed to clinicians and researchers from a variety of backgrounds, with specific focus on the diverse range of opportunities available in Remote Medicine and possible approaches to developing outside interests within an NHS career.

APPLY RESEARCH FROM REMOTE ENVIRONMENTS TO WIDER HEALTHCARE ISSUES
By exploring physiology, psychology and healthcare delivery in remote environments, students will be be able to identify multiple ways this knowledge and research can be applied to wider healthcare issues in the UK as well as globally.
The 2022/23 course will be delivered across three modules. Ahead of this, we would provide you with some pre-course material, aiming to refresh some of your existing knowledge to enable you to make the most of the unique teaching opportunities in Module 1.

MODULE 1
Teaching will be presented in three ‘Blocks’ (‘Expedition Physiology’, ‘Aerospace Medicine’, ‘Remote Healthcare’). Each block will:

- Explore ‘Topics’ from specific remote and low-resource environments
- Focus on developing an understanding of key concepts related to multiple ‘Topics’
- Develop a robust understanding of research methods as per learning outcomes

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Teaching is likely to be ‘blended’ (i.e. A mixture of ‘face-to-face’ and ‘online’ teaching). Whilst there are different teaching methods used throughout the module, you will become familiar with three main types of taught session:

- ‘Face-to-Face’ (F2F) sessions
  - These are in-person sessions, on campus.
- ‘Guided Online Learning’ (GOL) sessions
  - These are sessions that you can complete remotely, in your own time.
  - These materials will be available on the ‘Insendi’ learning platform.
- ‘Live Online Learning’ (LOL) sessions
  - These are ‘live’ sessions that you attend remotely, at a specific time.
  - You will be invited to attend these sessions via ‘Microsoft Teams’.

You will also undertake three in-course assessments during Module 1.
(These are introduced in more details in the next few pages.)
MODULE 2
Module 2 consists of two assessments; ‘Critical Summary of the Topic’ (CST), a group-based literature review task, and ‘Science in Context’ (SiC), an individual task based on a clinical case.

CST: You will be able to submit preferences for one of the ‘Blocks’ from Module 1.
SiC: You will participate in one of five real-time, clinical simulation scenarios. These will form a virtual case which you will write-up as a ‘Case Study’.

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<th>Week 13 - Week 16</th>
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<tr>
<td>EXPEDITION PHYSIOLOGY</td>
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<tr>
<td>CRITICAL SUMMARY OF THE TOPIC (CST)</td>
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<tr>
<td>SCIENCE IN CONTEXT (SiC) CLINICAL SIMULATION &amp; CLINICAL CASE STUDY</td>
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MODULE 3
During Module 3, you will conduct a 15-week research project. We are hopeful to offer opportunities that include:

Research Expedition: Open to all, but with limited spaces (requiring OH clearance) (NB. We must stress that this is highly dependent on the COVID-19 pandemic. More information will be shared nearer the time).
Scotland Residency: 4 x students (in partnership with Belford Hospital, Fort William)
London-Based Projects: TBC x students (provided at research centres within Imperial)

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<th>Week 17 - Week 33</th>
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<tr>
<td>RESEARCH EXPEDITION PROJECTS TBC</td>
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<td>LONDON-BASED PROJECTS MULTIPLE RESEARCH THEMES (DEVELOPED WITHIN IMPERIAL)</td>
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<td>FORT WILLIAM RESIDENCY 2 – 3 RESEARCH THEMES (DEVELOPED AT THE BELFORD)</td>
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</table>
OVERVIEW OF IN-COURSE ASSESSMENT

The aims of Imperial’s Intercalated BSc. programme are to develop robust, transferrable academic skills and appreciate the importance of critically appraising research in order to inform best practice.

The assessment model is similar across different BSc pathways and aims to ensure assessment methods are aligned with the key objectives the intercalated BSc programme. There are no written exams and all assessment will be in-course, as below. You will have preparation for all of these and Module 1 specifically focuses on your data handling skills so that you can confidently approach ICA 2.

MODULE 1 - IN-COURSE ASSESSMENTS 1, 2 & 3

<table>
<thead>
<tr>
<th>ICA 1 – WRITTEN TASK</th>
<th>ICA 2 – DATA ANALYSIS TASK</th>
<th>ICA 3 - PRESENTATION</th>
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DR TAMLYN PEEL
Module 1 Assessment & Module 3 Lead
e: tamlyn.peel@imperial.ac.uk

Tamlyn is responsible for our Module 1 assessments and will provide more information on what to expect from assessments during Week 1 of the course.

MODULE 2 - IN-COURSE ASSESSMENTS 4 & 5

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<tr>
<th>ICA 4 - CRITICAL SUMMARY OF THE TOPIC</th>
<th>ICA 5 - CLINICAL CASE REPORT</th>
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MODULE 3 – IN-COURSE ASSESSMENTS 6 & 7

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<tr>
<th>ICA 6 - RESEARCH PROJECT WRITE-UP</th>
<th>ICA 7 - PROJECT PRESENTATION</th>
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All key information is provided in the ‘BSc Assessment Guide for Students’.
SOME INSPIRATION

If you’re interested in the course, and want to go into some of the subject material in a bit more detail, we’ve highlighted some exciting books, podcasts and videos to whet your appetite below!

**Book - ‘Extreme Medicine’ by Dr Kevin Fong**
By discussing exciting cases from the 20th century, Dr Fong presents the fascinating links between exploration and medicine, as well as how significant challenge drives innovation.

(DOI: Course Faculty have no pecuniary interest in sales of 'Extreme Medicine')

**Book - ‘War Doctor’ by Prof David Nott**
Based in Imperial, Prof Nott is a world-renowned humanitarian surgeon with extensive experience providing healthcare in the world’s conflict zones. In ‘War Doctor’, he provides some insight into his career and its effect on him.

(DOI: Course Faculty have no pecuniary interest in sales of 'War Doctor')

**Book - ‘Expert’ by Prof Roger Kneebone**
Also based in Imperial, Prof Kneebone has had a unique career; training as a surgeon in the UK, before moving to work as a trauma surgeon in southern Africa. He then returned to the UK to train as a general practitioner, and currently combines his clinical work with education and research. He has long-held interests in how one develops expertise in a specific field, and what we can learn from experts in other disciplines.

(DOI: Course Faculty have no pecuniary interest in sales of 'Expert')

**Podcast - ‘Desert Island Discs’, BBC Radio 4 – Various**
For those who haven't heard of it, ‘Desert Island Discs’ is a long-standing BBC Radio 4 show in which exceptional individuals are interviewed, providing insight into their careers and life’s work. Recommended episodes include the guests: Dr Kevin Fong, Prof David Nott, Prof Hugh Montgomery.

**Video – ‘Xtreme Everest – Taking Medicine from Mountainside to Bedside’ (57 min)**
This recorded talk from Prof Mike Grocott, explains the rationale behind the ‘Xtreme Everest’ expeditions conducted in 2007 onwards. You can search online for the video or click here.

Thank you for your interest in the ‘Remote Medicine’ BSc
ACKNOWLEDGMENTS

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Mentor by counloucon from the Noun Project
Mountain by Noe Araujo from the Noun Project
Collaboration by Hare Krishna from the Noun Project
Innovation by Max Hancock from the Noun Project
Team by priyanka from the Noun Project
Group by Alice Deisng