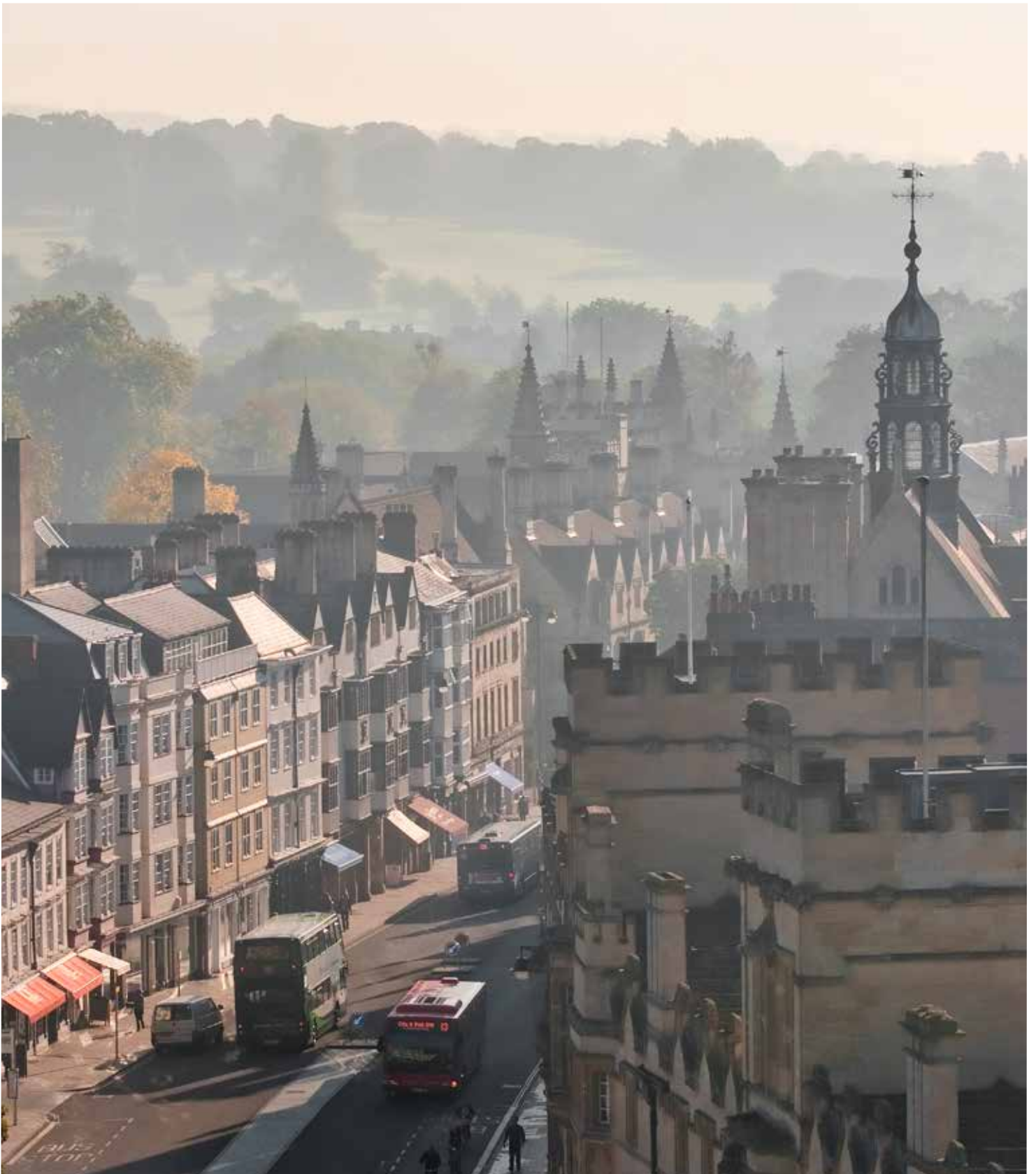




MSc in Evidence-Based Health Care

Postgraduate Diploma and Certificate in Health Research
DPhil in Evidence-Based Health Care





“Evidence-based healthcare has taken root as one of the central pillars of modern medicine. Arguably, the delivery of healthcare based on evidence has never been more important as we grapple with unexplained variations in practice and spiralling healthcare costs.”

Professor Carl Heneghan, Director-Centre for Evidence-Based Medicine

Oxford Evidence-Based Health Care Programme: learn from experts, utilise research in practice, develop evidence-based thinking

Evidence-Based Health Care

A unique learning experience to improve health care practice

The MSc in Evidence-Based Health Care offers students high quality education and skills in evidence-based health care, enabling them to better evaluate and improve their clinical practice. Individual students select their own programme of part-time study to accommodate specific training needs and time commitments. Learning takes place in a collegial environment with active researchers and experts and with other students who bring a diversity of professional experience and international perspectives.

Teaching and dissertation supervision are overseen by academics from the Department of Primary Care Health Sciences, home of the Centre for Evidence-Based Medicine. The MSc in Evidence-Based Health Care is delivered in partnership with the Continuing Professional Development Centre of the Department for Continuing Education, based in the heart of Oxford.

The Centre for Evidence-Based Medicine

The Centre for Evidence-Based Medicine was established in Oxford in 1995 with the aim of coordinating expertise and promoting evidence-based health care around the world. The centre aims to facilitate effective and up-to-date decision-making in health care. Activities are focussed on educating students and clinicians in the principles and practice of evidence-based medicine, and training in how to teach and undertake research in evidence-based practice.

Department of Primary Care Health Sciences

This department has a strong research record. It was ranked the top centre for primary care research in the UK in the 2008 national Research Assessment Exercise and it was similarly judged a top centre for the 1996-2001 assessment. Research is led by internationally renowned scientists, many of whom are practicing GP's. This research is quickly translated into improvements in patient care, which include improving clinical guidelines in many areas.

Programme goals

1. To offer world-class and innovative teaching in evidence-based healthcare

The programme draws on the high quality research and teaching in evidence-based health care at the University of Oxford and within the Centre for Evidence-Based Medicine.

2. To offer choice and flexibility during the learning experience

Students can design their part-time programme of study from a variety of modules. This will maximise choice to fit in with busy work lifestyles and commitments.

3. To create a dynamic learning environment that inspires learners and teachers

Students learn from experts in evidence-based health care and active researchers in small groups, and with other students from a broad mix of backgrounds, expertise and knowledge. Study involves extensive use of web technologies to extend the learning experience beyond Oxford classrooms.

4. To facilitate active use of research knowledge in everyday practice

Students are facilitated to understand and apply the core steps of evidence-based practice to influence and improve their practice, and to progress their careers by publishing and presenting their work.

5. To provide leadership opportunities in evidence-based health care

Students develop the understanding and skills required to lead evidence-based research and practice in their local environment, community or country, often in collaboration with other students and staff from the Centre for Evidence-Based Medicine.

Our mission is to lead a world-class programme in Evidence-Based Health Care by developing students to influence and improve health care.

Research to improve healthcare practice

Academic study alone cannot improve health care. The MSc in Evidence-Based Health Care will teach students the skills of accessing and using research critically to update their own practice. In this way, healthcare professionals will be prepared for significant transitions in their careers. Many students are attracted to this course because they want to improve an aspect of patient care, in their own work context. Students' dissertations consistently describe the ways in which they have identified a clinical challenge and used the research evidence to enhance their practice.

Small group multi-professional learning

Students learn in small groups with a range of other professionals from human and animal health care, and from diverse geographies and organisations. This builds camaraderie and reflects the complexity of many work environments, where colleagues have different levels of knowledge and experience. In this way, students can test out ideas with each other in a critical and dynamic manner. As a result, learning is easily transferred back to personal work environments.

Change to improve practice

The focus of learning about using evidence is always to improve some aspect of health care. The process of using research evidence in practice is a relatively new focus for many students and it requires a different set of skills and knowledge to that required for doing the research.

"It has completely changed the way I do my job. It's helped me have some new and interesting dialogue with my clinical colleagues, to help them think strategically... What I've found is that there is a clear need to improve clinical practice because technology and research is moving forward, but then we get into bad habits of changing for the sake of change, which is unsustainable... So this course has helped me communicate why change is necessary as well as how to implement it, which in turn has helped me to change the mind-sets of people I work with."
(Amelia, Manager, London)

Personal and career transformation

Students confirm that the MSc in Evidence-Based Health Care qualification has opened doors and transformed careers and lives for the better. Dr Bill Summerskill enrolled in this MSc as a "west country GP" and he now travels the world, as the executive editor of *The Lancet*, a leading international medical journal.

"I oversee the research section of The Lancet and I am involved in developing strategy – I helped establish our office in Beijing and I look after the editor in New York... on two of my planned trips, I will be speaking about evidence-based medicine."
(Bill Summerskill, *The Lancet*)

Research evidence for patient benefits

Students who complete the MSc in Evidence-Based Health Care are well positioned to inform the public and disseminate high quality evidence. In some cases, clinicians can directly inform their patients, so that they can contribute to their own health care.

"I think that enhanced training in evidence-based practice means that the public can have faster access to better treatments while we can at the same time, move more rapidly to effective earlier diagnosis and treatment, and act more quickly to remove interventions that are unhelpful or harmful."

Recent examples include the development and validation of a prediction model for assessing the risk of a caesarean section both before and during labour, the identification of risk factors for influenza-related hospitalisation in children who present with influenza-like-illness in primary care and evaluating the impact of different drugs for treating heart disease on the number of bed days in hospital. Students have also undertaken systematic reviews to synthesise the research evidence in preventing delirium, early rehabilitation for critically ill patients and measuring blood pressure in obese patients.

“It was really important to me to find a course which was flexible. I can take a week off from my clinical work, come to Oxford and spend the week studying, and the rest of the course is online. I feel very supported by the forums and I can stay in touch with my colleagues but at the same time I haven’t had to put my clinical career or the rest of my life on hold to be able to do a Master’s.” **Kristina, Physician, Canada**





"I want to thank the team and my supervisor for the excellent preparation, guidance and support. I have done other Masters and I have never experienced this. I started to realize how much I had learned when I put it all together and how specialized this knowledge truly is." **Amy, Psychologist, USA**

The benefits of an Oxford qualification in evidence-based health care

Skills for evidence-based practice

Ask focussed questions – translate clinical uncertainty into an answerable question

Find the evidence – systematically retrieve the best evidence available, to answer a clinical question

Critical appraisal – recognise the design, quality, context of research conducted

Make decisions – apply research evidence to local context, clinical expertise, patient values

Evaluate performance – monitor clinical practice to improve and sustain performance

Design research – clarify research gap and match study design to answer research question

Skills to improve healthcare practice

Students will be able to design their programme to improve local practice; whether in individual consultations, work teams or health care organisations. In addition, students will be facilitated to use research in environments where evidence-based practice is valued. This includes healthcare management, policy and commissioning.

Skills for the research environment

Students will develop the skills to work as, and with, active researchers. While many students do complete secondary evidence synthesis research, in the form of systematic reviews, others will conduct primary and implementation research. A number of students have gone on to do DPhils to develop their research ideas and become leaders in their field. The combination of academic modules, dissertation supervision and college mentorship is designed to foster critical thinking skills for the research environment.

Skills to teach evidence-based practice

All students are encouraged to become excellent communicators. Through the personal development of critical thinking and analytical skills, students understand the importance of continuing professional development. Many become excellent teachers of evidence-based practice. This is another skill that can be taken back to the workplace and further developed.

Academic and personal support

Students will be offered high quality academic and personal support networks to get the most from their time at Oxford. MSc students will be allocated a pre dissertation supervisor, who will assist with module choices; a dissertation supervisor who has specific academic or methodological expertise; and a college advisor to mentor personal growth and needs.

The MSc in Evidence-Based Health Care integrates local, national and international students in an environment of world-class research and teaching towards improving patient care for those with greatest need.

Professor Richard Hobbs, Department of Primary Care Health Sciences

MSc in Evidence-Based Health Care

About the course

The MSc in Evidence-Based Health Care will position students to integrate the best available research evidence with their own expertise and patient values to make better informed decisions in their field of health care. The flexible modular structure has been devised for busy professionals and to fit with the structure of specialist training.

Students are required to complete two compulsory introductory modules; and then choose 4 modules to match their learning needs. Students are assessed for each module using coursework designed to integrate new learning with current practice. Students deepen their learning through online learning activities and asynchronous discussion groups.

Dissertation

The dissertation is a major piece of independent work that investigates in depth an aspect of evidence-based practice. Students are encouraged to choose their own topic, in an area that has direct relevance to their professional work. Many students complete a systematic review, while others design small pilot studies or carry out a service evaluation or audit. Students will usually work on their dissertations over the course of one year. While there is no requirement for them to undertake their research in Oxford, they will have regular contact with their Oxford supervisor. Most students report on a significant change in their practice, and they are supported to publish their work, in a peer-reviewed journal.

Compulsory modules

Practice of Evidence-Based Health Care

This module will introduce the basic concepts and skills of evidence-based health care. Students will be facilitated to turn clinical queries into focussed questions, from which they can search the evidence. Participants will learn the skills to develop a search strategy for use across several databases. They will also learn about the importance of matching a research question with the most appropriate study design, and then be guided through suitable critical appraisal techniques, so that they can understand how and why published research can be used in clinical practice.

Introduction to Study Design & Research Methods

This module will introduce some of the more advanced concepts and skills of research design, emphasising how they relate to evidence-based health care. Choosing and designing the most appropriate study to address a clinical question is paramount in generating the best evidence. As students learn to identify the strengths and weaknesses of six key study designs, they will also learn how to design a research protocol. Participants will design data collection and analysis, including appropriate statistical tests. They will also learn strategies to manage bias and assess the quality of published research.



“The MSc programme is designed for busy and capable healthcare professionals who want to extend their capabilities to read and apply research evidence. Many students go on to improve an aspect of clinical practice in their work environment”
Dr Sharon Mickan, Director - MSc in Evidence-Based Health Care

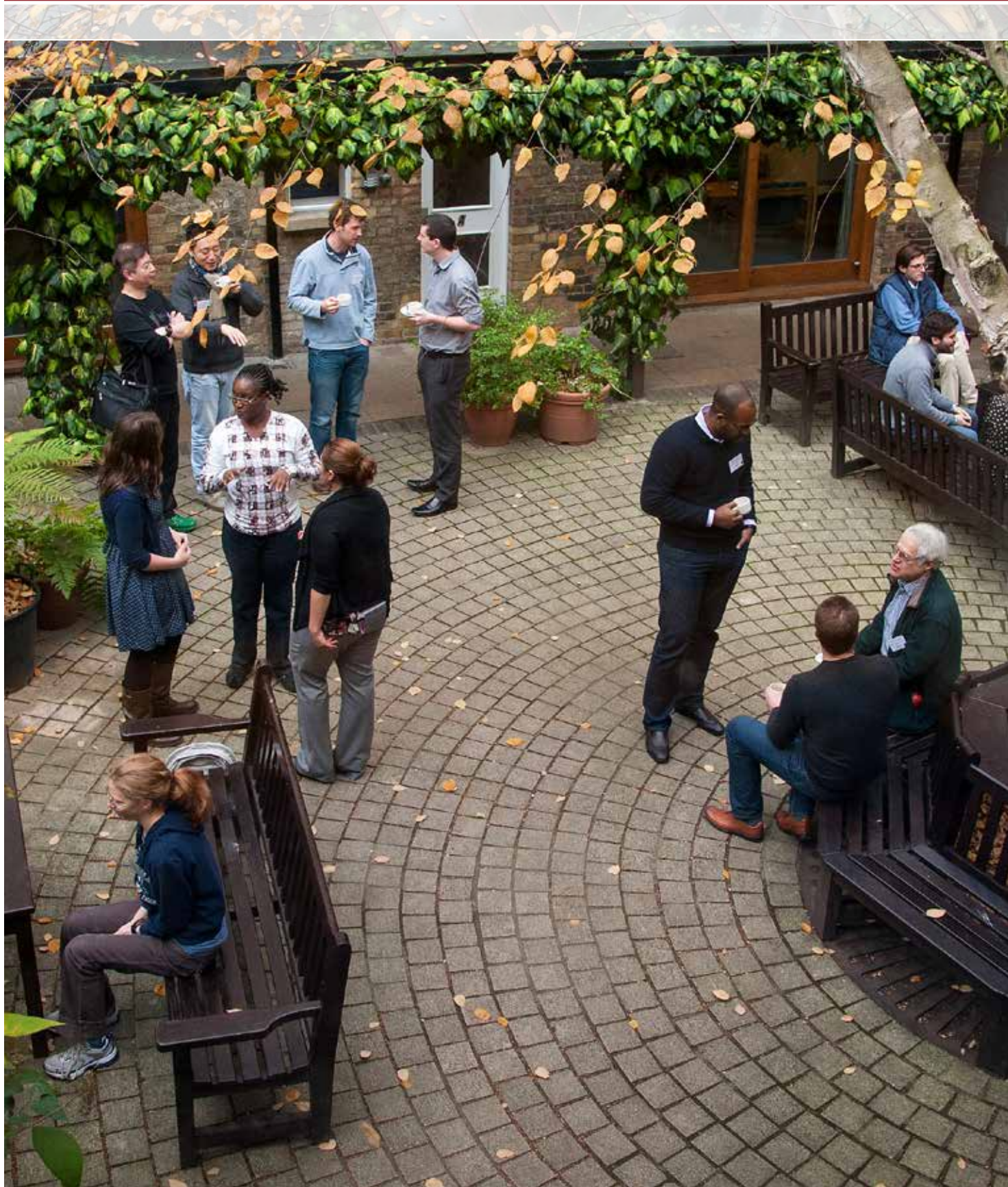




photo taken by John Cairns

Option modules

Evidence-Based Diagnosis and Screening

This module will teach students how to critically appraise and apply the best evidence on diagnostic tests. They will learn how to evaluate and interpret the diagnostic accuracy of tests and procedures in different settings. They will also learn how the evidence can inform screening and monitoring programmes.

Randomized Controlled Trials

This module will take students through the process of undertaking a randomized trial. It will focus on the practicalities of organising and running trials, and build on theory from the introductory modules. The module will use a problem-based learning approach in which each participant brings a specific topic for a trial to discuss, justify and revise during the module. Participants will consider the practicalities from the perspective of potential principal investigators, including the processes for resourcing the trial, recruiting and randomizing participants, maintaining the trial's momentum, and analysing and reporting it.

Essential Medical Statistics

This module is designed for health care professionals or graduate students who already have some research experience and an understanding of basic statistical principles, and who wish to develop their statistical expertise. Teaching is interactive and will emphasise the practical application of statistical methods to real-life problems, rather than statistical theory. Students will be able to explore and analyse data using a variety of statistical packages.

Systematic Reviews

This module will take students through the process of doing a systematic review. It will focus on the practicalities, and build on the introductory modules. The module will use a problem-based learning approach in which each participant brings a specific topic for a systematic review to discuss, justify and revise during the module. It will stress the importance of choosing the correct study design to answer the question posed by the systematic review and will, therefore, not be restricted to systematic reviews of randomized trials.

Knowledge into Action

This module will extend students' critical appraisal skills and facilitate understanding of how to use research evidence to inform decisions and improve clinical care. Students will learn strategies to identify local barriers and facilitators in order to plan and implement change. They will critically evaluate the use of clinical guidelines and understand the need to evaluate the process and outcomes of complex interventions.

Qualitative Research Methods

This module will provide an overview of the principles and practice of qualitative research. Students will explore how people make sense of their lives, and recognise ways in which qualitative research bridges the gap between scientific evidence and clinical practice by examining the attitudes, beliefs, and preferences of both patients and practitioners. Participants will learn to collect data using observation, interview and focus groups and become familiar with the techniques of thematic qualitative data analysis.

Clinical Trial Management

This module will focus on providing an understanding of the lifecycle of a clinical trial from design to publication and the key steps involved in their delivery. Students will learn about the practical steps involved in setting up and managing clinical trials. While there will be a focus on UK practice, the knowledge gained will be applicable across a number of research settings and countries, particularly those who are signatories to the ICH-GCP tripartite agreement (EU, Japan and United States, 1996).

Teaching Evidence-Based Practice

This module is designed for all health care professionals, who have knowledge of critical appraisal and experience in practising evidence-based health care, and who want to explore issues around teaching. Students will learn in small groups and be helped to practise and develop their skills in teaching evidence-based practice. Participants will also learn educational strategies to develop a curriculum and design evaluation.

Mixed Methods in Health Research

This module will introduce students to the nature and design of mixed methods research. This module assumes students will have some experience in either qualitative or quantitative methodologies, as the focus will be on the practical development of a variety of mixed methods studies. Participants will appreciate how research combining qualitative and quantitative studies can give a deeper understanding of complex healthcare issues. They will learn how to design, implement and analyse a mixed methods study to answer their own clinical question.

Introduction to Statistics for Health Care Research

This ten-week online statistics module is designed for health and social care professionals who want to understand the analysis methods commonly used in medical research, in order to understand published research and to participate in more specialised courses. Students will learn to use and interpret basic statistical methods using SPSS, with references to cohort studies, case control studies and randomized controlled trials. Online discussion forums enable communication between students and the tutor to provide support and interpretation for understanding

Ethics for Biosciences

This ten-week online module is designed to facilitate understanding, reflection on and engagement with key ethical and social issues thrown up by conducting clinical research, practising evidence-based health care, and engaging with science and technology. Online discussion forums enable real-time communication between students and the tutor, and facilitate informed critical thought and interpretation of practical scenarios.

The History and Philosophy of Evidence-Based Health Care

The module will introduce students to the history and philosophy of science to inform the debate about using research evidence in clinical practice. Students will learn from the writings of Galen, Maimonides, Avicenna, Descartes, and Locke, who were all medically-qualified philosophers. The need to pragmatically consider both the art and science of healthcare will be discussed. It is suggested that by combining an understanding of the history and philosophy of science, participants will be better informed about their acceptance of evidence-based practice.





Postgraduate Diploma / Certificate in Health Research

About the course

These two postgraduate-level courses are designed for all healthcare professionals, including medical, dental, allied health and nursing clinicians, managers and policy makers, to give participants the opportunity to learn about and contribute to health research, with a focus on evidence-based practice.

Both courses utilise modules from the MSc in Evidence-Based Health Care, in addition to modules developed for the MSc in Experimental Therapeutics (<http://www.conted.ox.ac.uk/expther>) and the MSc in Surgical Science and Practice (<http://www.conted.ox.ac.uk/ssp>).

Postgraduate Diploma in Health Research

This part-time course is designed to be completed in one to three years. Students are required to complete two compulsory introductory modules; *The Practice of Evidence-Based Health Care* and *Introduction to Study Design and Research Methods*. Normally, these modules are studied first, and then students choose an additional four modules to match their learning needs.

Postgraduate Certificate in Health Research

This part-time course is designed to be completed in one to two years. Students are required to complete the two compulsory introductory modules and then choose one further module to match their learning needs.

"The Postgraduate Diploma in Health Research has given me a richer knowledge-base in evidence-based health care. The variety of courses on offer meant that I could tailor my learning to benefit my day-to-day activities as a clinician and researcher. The skills I have acquired through my chosen modules have led to me completing my own systematic reviews, running a trial and teaching others about the principles of EBP."

Kamal, GP, London

"I think it's very important that people get to grips with evidence-based practice. I'm now doing a D Phil at Oxford and what I'm looking at is how we help dentists use research in practice." **Dominic, Dentist, London**

DPhil in Evidence-Based Health Care

About the DPhil

The part-time DPhil programme follows on from the MSc in Evidence-Based Health Care. Supervision is arranged to suit the DPhil topic and usually includes a member of the Centre for Evidence-Based Medicine and a supervisor from within the Medical Sciences Division. This part-time DPhil normally requires between six and eight years part-time study. Students will be supported to undertake appropriate research training and they will have opportunities to participate in seminars and informal meetings with staff and other researchers. However, their major commitment of time will be to individual study and research.

Admission to the DPhil in Evidence-Based Health Care is highly competitive and normally requires applicants to have completed the MSc in Evidence-Based Health Care, or an equivalent qualification.





“There were people from all different backgrounds - not just those involved with patient care - we had physiotherapists, dieticians, specialists - I suppose the common ground was a belief that there was a real opportunity to improve care. There was a real application for the skills we were learning.”

Bill Summerskill, *The Lancet*

“The well-developed collaboration between the Department of Primary Care Health Sciences, the Department for Continuing Education and Kellogg College provides an extraordinarily vibrant and supportive environment for continuing professional development” **Dr Adrian Stokes, CPD Director, Department for Continuing Education**

The student experience

Benefits of study at Oxford

Global Reputation – one of the oldest and most prestigious universities in the world

Valued Qualifications – recognised and valued by institutions and employers worldwide

Quality of Teaching – high-calibre teaching by research-active faculty means that modules are both academically challenging and intellectually rewarding

Personal Attention – small group learning and high quality academic and personal supervision

College Membership – membership of one of Oxford's 38 colleges enables MSc students to engage lifelong with academics and fellow students within a friendly, intellectual and social community

Modern Study Facilities – access some of the finest and most extensive library facilities in the world, for personal visits and for global online access

Perfect Location – just an hour away from London, Oxford is one of Britain's most glorious cities

International Outlook – a truly international community with students from 138 countries

Career Enhancement Potential – new skills and knowledge that are prized by employers

Teaching facilities

Rewley House in Wellington Square is the course's primary location, and the primary base of Oxford University's Department for Continuing Education. Based in Central Oxford, the Department has well-appointed meeting rooms in modernised period buildings, and a full-service residential and catering facility with four-star campus accommodation. It is within walking distance of most Oxford colleges and of public transport to London airports and major UK cities.

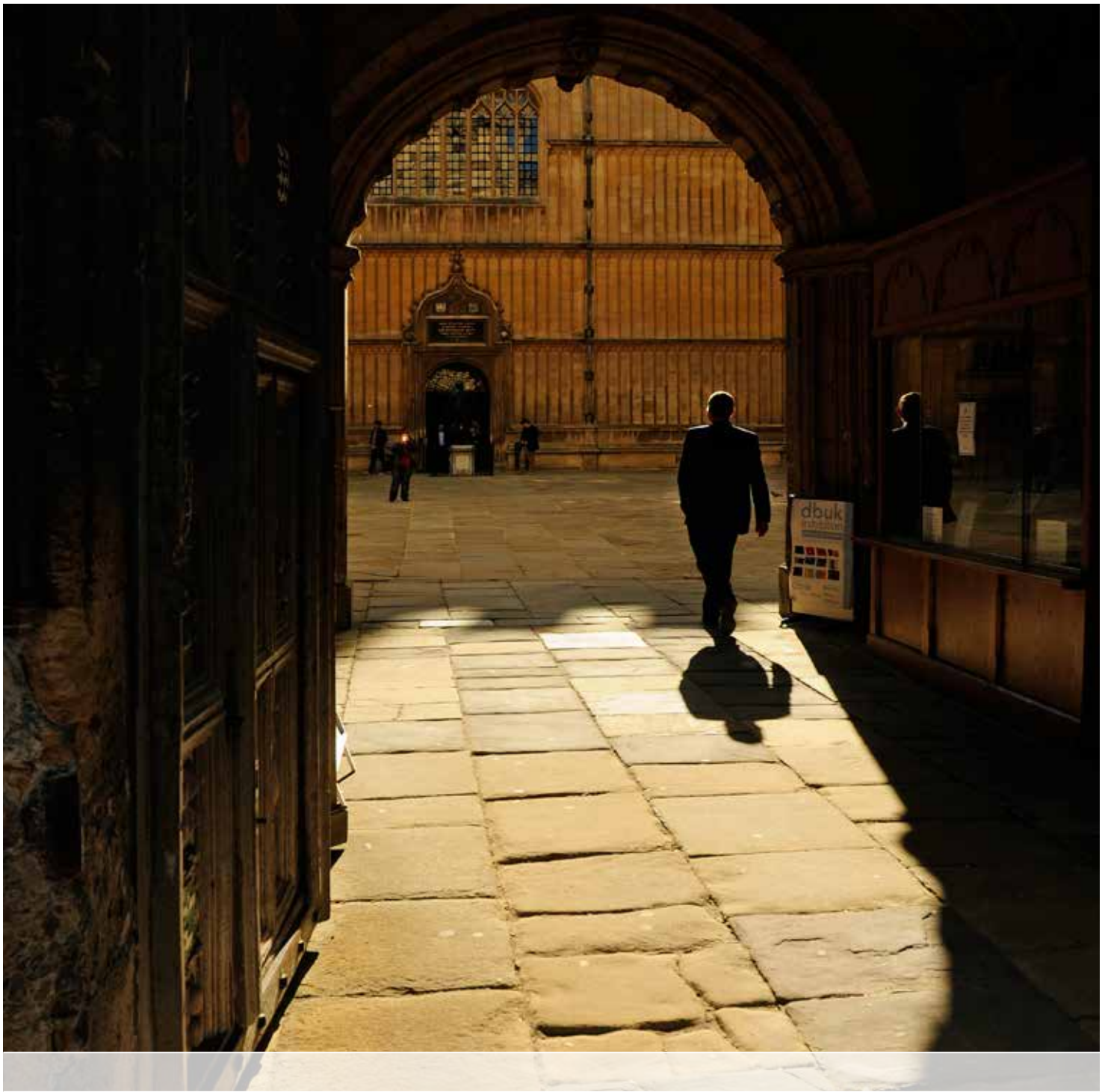
The seminar rooms are well-equipped, with additional rooms for smaller group work and a lecture theatre for occasional evening talks. Students may access the Library, Common Room, computer facilities and WiFi, and Graduate School facilities (postgraduate common-room). Lunch (three courses) and daytime refreshments are provided daily during Oxford-based modules, and students are invited to occasional drinks receptions and dinners with academic and management staff.

All students use a virtual learning platform (Weblearn) to extend and deepen their learning using online forums and to provide access to extensive resources.

College membership

All MSc and DPhil students join one of the University's colleges. College membership enables students to enjoy the unique social life of an Oxford college and to use a wide range of facilities.

While applicants may apply to any college that admits students registered on the MSc or DPhil programmes, Kellogg College pays particular attention to the intellectual, social, IT and welfare needs of part-time, mature graduate students. Kellogg College has seven fellows who teach on the course, including the programme director, course director and several module co-ordinators.



For information about application,
financial and funding options, please contact

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