

## Course Information Sheet for entry in 2022-23: MSc in Applied Digital Health



### About the course

The MSc in Applied Digital Health is a one-year, full-time course, designed to teach the interdisciplinary knowledge and skills needed to drive innovation in the fast-growing area of digital health.

The MSc is led by the Nuffield Department of Primary Care Health Sciences (NDPCHS), capitalising on the existing breadth of internationally leading digital health research in the department. In addition, the course draws on the expertise of faculty from across the University to create an interdisciplinary learning experience, spanning medicine, social science, engineering, artificial intelligence and data science.

Aimed at early- or mid-career professionals, entrants to the Applied Digital Health MSc will come from a wide range of backgrounds, including clinical medicine, public health, medical sociology, psychology, statistics, computer science and engineering. While no pre-existing knowledge is assumed, applicants must have an interest in both the social and technical aspects of digital health.

Upon successful completion of the course graduates will be able to:

- discuss the drivers, enablers, barriers and challenges to digital health innovation, using real-world examples
- summarise the state-of-the-art in digital health tools – including digital therapeutics, digital diagnostics, artificial intelligence, learning health systems and those that facilitate automated care pathways or improved patient (self)management – and both explain and critically evaluate the theories and techniques that underlie them
- identify and formulate a response to the ethical, policy, regulatory and practice challenges facing digital health
- explain in detail the need for user-focused development, meaningful evaluation and successful implementation of digital health tools, and propose appropriate methods, actions and processes to meet these requirements
- describe and apply key qualitative and quantitative research methods used study of digital health care and the evaluation of digital tools, as well as identify the strengths and weaknesses of those research methods.

### Course outline

This course will consist of eight compulsory modules, each spanning a two-week block, and a dissertation. The academic year is split into three terms of eight weeks, however, assignments are not restricted to term time only.

Each module focuses on different ways in which digital health can be used to address the challenges facing twenty-first century healthcare. These solutions include clinical informatics for better surveillance of care quality and public health; harnessing electronic health data to improve diagnosis and prognosis; improving outcomes via remote patient monitoring and digital diagnostics; using digital tools to facilitate physical and cognitive behaviour change; implementing more efficient and effective models of primary care; reducing the cost of care.

Module titles:

1. Foundations of Digital Health
2. Clinical Informatics for Trials and Health Surveillance
3. Harnessing Big Data to Improve Care
4. Remote Monitoring and Digital Diagnostics
5. Supporting Health Behaviour Change using Digital Tools
6. Digital Transformation of Primary Care
7. Economics of Digital Health
8. User Focused Design and the Lifecycle of Digital Health Innovation

There are a number of cross-cutting themes that run throughout the modules. These themes include artificial intelligence and machine learning, behavioural science, challenges facing health systems, electronic health records, ethics, implementation, policy, programming for data analysis, regulation and law, sociotechnical processes, statistics and study design for the evaluation of digital tools.

The teaching is delivered via a range of methods, including lectures, seminars, workshops, presentations, self-directed learning and study, with all theoretical learning underpinned by real world case-studies. Learning will be further supported by a guest

lecture series, a journal club and enrichment activities related to more commercial aspects of digital health not addressed by the academic course content.

In the third term students undertake an original research project, culminating in a research dissertation and a poster display. Students are supported in the selection of a research topic, although the department welcomes students to propose a topic of their choosing (subject to conditions).

### **Supervision**

The allocation of graduate supervision for this course is the responsibility of the Nuffield Department of Primary Care Health Sciences and it is not always possible to accommodate the preferences of incoming graduate students to work with a particular member of staff. A supervisor may be found outside the Nuffield Department of Primary Care Health Sciences. Students will be assigned an academic advisor for the entirety of the course, in addition to their dissertation supervisor.

### **Assessment**

During the first two terms there are a series of formative assessments designed to enable teaching staff to monitor student progress. All students are provided with detailed feedback that will enable them to improve their learning by helping them identify their strengths and weaknesses.

There are also eight summative assessments in the first two terms, one per module. Each of these summative assessments account for 8.75% of the final mark. The assessments vary according to the content of the module but include essays, sets of exercises and presentations.

The dissertation in the third term is worth 30% of the final mark.

### **Changes to courses**

The University will seek to deliver this course in accordance with the description set out above. However, there may be situations in which it is desirable or necessary for the University to make changes in course provision, either before or after registration. These may include significant changes made necessary by a pandemic (including Covid-19), epidemic or local health emergency. For further information, please see the University's Terms and Conditions (<http://www.graduate.ox.ac.uk/terms>) and our page on changes to courses (<http://www.graduate.ox.ac.uk/coursechanges>).

### **Expected length of course**

	<b>Full Time</b>
<b>Expected length</b>	12 months

## Costs

### Annual fees for entry in 2022-23

Fee status	Annual Course fees
Home	£36,370
Overseas	£36,370

Further details about fee status eligibility can be found on the fee status webpage (<http://www.graduate.ox.ac.uk/feestatus>).

Course fees are payable each year, for the duration of your fee liability (your fee liability is the length of time for which you are required to pay course fees). For courses lasting longer than one year, please be aware that fees will usually increase annually. Information about how much fees and other costs may increase is set out in the University's Terms and Conditions (<http://www.graduate.ox.ac.uk/terms>).

Course fees cover your teaching as well as other academic services and facilities provided to support your studies. Unless specified in the additional cost information (below), course fees do not cover your accommodation, residential costs or other living costs. They also don't cover any additional costs and charges that are outlined in the additional cost information.

### Additional cost information

Please note that this course requires that you attend in Oxford for teaching, and you may incur additional travel and accommodation expenses for this. Further, as part of your course requirements, you will need to choose a dissertation, a project or a thesis topic. Depending on your choice of topic and the research required to complete it, you may incur additional expenses, such as travel expenses, research expenses, and field trips. You will need to meet these additional costs, although you may be able to apply for small grants from your department and/or college to help you cover some of these expenses.

## Living costs

In addition to your course fees, you will need to ensure that you have adequate funds to support your living costs for the duration of your course.

The likely living costs for 2022-23 are published below. These costs are based on a single, full-time graduate student, with no dependants, living in Oxford. We provide the cost per month so you can multiply up by the number of months you expect to live in Oxford.

Likely living costs

	Likely living costs for 1 month		Likely living costs for 9 months		Likely living costs for 12 months	
	Lower range	Upper range	Lower range	Upper range	Lower range	Upper range
<b>Food</b>	£290	£410	£2,610	£3,690	£3,480	£4,920
<b>Accommodation</b>	£680	£810	£6,120	£7,290	£8,160	£9,720
<b>Personal items</b>	£135	£260	£1,215	£2,340	£1,620	£3,120
<b>Social activities</b>	£45	£120	£405	£1,080	£540	£1,440
<b>Study costs</b>	£45	£100	£405	£900	£540	£1,200
<b>Other</b>	£20	£55	£180	£495	£240	£660
<b>Total</b>	£1,215	£1,755	£10,935	£15,795	£14,580	£21,060

When planning your finances for any future years of study at Oxford beyond 2022-23, you should allow for an estimated increase in living expenses of 3% each year.

More information about how these figures have been calculated is available at [www.graduate.ox.ac.uk/livingcosts](http://www.graduate.ox.ac.uk/livingcosts).

## Document accessibility

If you require an accessible version of the document please contact Graduate Admissions and Recruitment by email ([graduate.admissions@admin.ox.ac.uk](mailto:graduate.admissions@admin.ox.ac.uk)) or via the online form (<http://www.graduate.ox.ac.uk/ask>).