Faculty of Health and Medicine

The Faculty of Health and Medicine comprises Biomedical and Life Sciences, CETAD, Health Research, and Lancaster Medical School.

We provide a unique blend of biomedical, medical, and social science expertise, which underpins a portfolio of high quality, innovative and flexible postgraduate programmes. Our programmes provide opportunities for life scientists, social scientists, medically qualified graduates and professionals working in health and medicine to undertake postgraduate study at all stages of their career development.

During the last three years, the Faculty has attracted over £9m in research funding and benefitted from continued investment, including recently refurbished laboratories and equipment in Biomedical and Life Sciences and the Clinical Anatomy Learning Centre (Lancaster Medical School). The Faculty moved into its new location in the refurbished Furness Building in autumn 2012.

Research within the Faculty addresses fundamental issues in health and medicine from curiosity-led investigations generating new knowledge and tools through to developing applied interventions of practical use in everyday life. Major research topics include: end of life care, disability, health inequalities, health economics, mental health, ageing, neurodegenerative diseases, cancer biology, microbiology, parasitology, biostatistics and epidemiology.

Members of the Faculty work collaboratively with colleagues carrying out related research across the University and also have strong external links with NHS partners, health-related industries, government, and the voluntary sector, as well as many multidisciplinary research collaborations worldwide.

The Faculty is undergoing rapid growth and continues to expand its research portfolio. Potential applicants for postgraduate study are therefore strongly advised to consult our website for current information: www.lancaster.ac.uk/fhm

Key fact

In the most recent Research Assessment Exercise (2008), the research of our biomedical scientists was ranked joint first and our health researchers, 13th in the UK.
Biomedical and Life Sciences

Research carried out by Biomedical and Life Sciences is of a world class standard and was ranked in the top five per cent of its discipline in the latest Research Assessment Exercise (RAE).

Postgraduate students benefit from links with many NHS trusts and the division receives financial support from a broad range of grant-awarding bodies including UK Research Councils, the European Commission, charities, and industry.

Research within Biomedical and Life Sciences focuses on the study of molecular and cellular aspects of human health and disease, using a range of biochemical and cellular approaches to complement studies in model organisms.

Key areas of research include:

**Neurodegenerative Disease and Ageing**
Progressive degeneration of the nervous system features in many human diseases and can be characterised by impaired movement or cognition. Our research into the underlying processes of healthy ageing is complemented by studying those that lead to brain dysfunction and degeneration in conditions such as Alzheimer’s disease, Parkinson’s disease and hydrocephalus.

**Cancer Biology**
Our research investigates aspects of the molecular and cellular biology of cancer including: cellular effects of exposure to carcinogens and ultraviolet light, DNA repair mechanisms, cell cycle control, and the molecular events behind leukaemia and colorectal cancer.

**Microbiology and Parasitology**
Our research seeks to develop a better understanding of the cell biology of protozoan parasites and yeast, applicable not only to medical parasitology, but also exploiting microbial models for understanding human cellular function. We also undertake research into prokaryotic and eukaryotic micro-organisms.

**Medical Cell Biology**
Our research focuses on applying biochemical and structural techniques to understanding cellular function at its fundamental level, particularly: corneal transparency and dysfunction, proteoglycan structure and function, the developmental genetics of Drosofila, and ex vivo human gut tissue modelling.

Research degrees

**MPhil/PhD**

**Director of Studies**
Dr Paul McKean.

**Entry requirements**
An upper second class honours degree, or its equivalent, in Biology, Biochemistry, Molecular Biology or a related subject. Undergraduate MBChB students intercalating between 4th and 5th years of study require a top quartile outcome in MBChB finals.

**IELTS**
At least 6.5 overall (minimum element scores apply).

**Assessment**
Original research and thesis.

**Funding**
Research Councils, Lancaster University and Charities.

**Further information**
[www.lancaster.ac.uk/fhm/bls](http://www.lancaster.ac.uk/fhm/bls)

Applications are welcomed for PhD and MPhil degrees in any of our main areas of research.

Postgraduate research students are directly involved in the mainstream research of the Faculty. In addition to receiving specialised training relevant to your research topic and methodology, you’ll be encouraged to take part in the graduate training programme. This programme offers a range of more generic courses such as teaching skills, statistical methods, computing and languages. You will also be encouraged to attend and present lectures and posters at conferences overseas and within the UK.

**MSc (Research) in Biomedical Science**

**Director of Studies**
Dr Paul McKean.

**Duration**
12 months full-time, 24 months part-time.

**Entry requirements**
An upper second class honours degree, or its equivalent, in Biology, Biochemistry, Molecular Biology or a related subject. Undergraduate MBChB students intercalating between 4th and 5th years of study require a top quartile outcome in MBChB finals.

**IELTS**
At least 6.5 overall (minimum element scores apply).

**Assessment**
Original research and thesis.

**Funding**
Research Councils, Lancaster University and Charities.

**Further information**
[www.lancaster.ac.uk/fhm/bls](http://www.lancaster.ac.uk/fhm/bls)

This degree enables you to gain in-depth knowledge of a particular area of biomedical research while becoming familiar with general and specific research methods and laboratory practice.

The degree format includes nine months of full-time laboratory work as part of an established research group, direct learning of research methods through the graduate training programme, and a three month writing-up period, in which you will produce a dissertation. Your dissertation (which is also examined by a viva voce) is the means by which the degree is assessed.

**MD Biomedicine**

**Director of Studies**
Dr Paul McKean.

**Duration**
24 months full-time.

**Entry requirements**
Applicants must (i) hold a medical or dental qualification recognised by the UK General Medical/Dental Council, (ii) must have held this qualification for at least three years by the date of submission, and (iii) must be employed during their period of registration in appropriate clinical or scientific work in hospitals or institutions associated with the University) within the local NHS region.

**IELTS**
At least 6.5 overall (minimum element scores apply).

**Assessment**
Original research and thesis, viva voce.

**Funding**
Research Councils, Lancaster University and Charities.

**Further information**
[www.lancaster.ac.uk/fhm/bls](http://www.lancaster.ac.uk/fhm/bls)

Our links with the Lancaster Medical School and many NHS trusts provide a wide range of opportunities for medically related research. You will be supervised by a clinical supervisor and a member of academic staff in Biomedical and Life Sciences or the Medical School.

Research degrees
- MPhil/PhD
- MSc (Research) in Biomedical Science
- MD Biomedicine

Taught programmes
- MSc in Biomedical Science
- MSc in Medical Biotechnology and Leadership

Number of postgraduate students
50

Head of Division
Dr Jane Owen-Lynch

Postgraduate enquiries
Postgraduate Director: Dr Paul McKean
Tel: +44 (0)1524 593 936
Email: fhm-pg-admissions@lancaster.ac.uk
[www.lancaster.ac.uk/fhm/bls](http://www.lancaster.ac.uk/fhm/bls)
Our research interests

Neurodegenerative Disease and Ageing: our research aims to understand the probable link between protein accumulation and nerve cell damage. We are also working to develop improved methods for the early diagnosis and treatment of these diseases, including the development of biomarkers and protein aggregation inhibitors.

Specific research in Neurodegenerative Disease and Ageing includes: unusual protein deposits that accumulate in the brain in Alzheimer’s disease, Parkinson’s disease, and other neurodegenerative conditions; the role of copper and the protoxyletic processing of certain key proteins involved in the pathogenesis of neurodegenerative disease; disorders of brain development, for example hydrocephalus, and the role of cerebrospinal fluid in normal and abnormal development of the brain cortex; the basic mechanisms that cause ageing and the genetic and environmental factors determining lifespan; developing biological markers to monitor healthy ageing and age related diseases; the role of insulin/GF-like signalling in central nervous system ageing, with particular emphasis on age related cognitive health and lifespan; and, the manipulation of candidate genes to extend healthy lifespan.

Cancer Biology: a particular focus of our research is carcinogenesis induced by UV, ionising radiation and chemicals, and the molecular mechanisms of leukaemogenesis. Specific staff research projects include: the fundamental mechanisms of homologous recombination and base excision repair employed by human cells to repair DNA damage; how DNA is replicated in mammalian cells – since failure to regulate this process leads to mutation and chromosome abnormalities associated with cancer; the identification of differences between mechanisms regulating DNA replication in cancerous cells and normal tissues, leading to new therapeutic targets; cell cycle control and protein function in model organisms such as yeast and Xenopus cell free egg extract.

Other projects include cellular and molecular mechanisms of the cannabinoid system in gastrointestinal epithelium and the translational aspects of realising the therapeutic potential of cannabinoids in diseases such as Crohn’s disease, ulcerative colitis and colorectal cancer; understanding the mechanisms of intestinal epithelial cell (IEC) renewal and repair, focusing on the role of suppressor of cytokine signalling 3 (SOCS-3) in controlling IEC homeostasis; how bacterial signals may be linked to the dysregulation of IEC repair seen in inflammatory bowel disease and cancer; models of IEC barrier regulation in Drosophila in order to study age related changes in IEC function in vivo; and the role of a distintegrin and metalloproteinases (ADAMs) proteases in relation to cell proliferation and differentiation.

Microbiology and Parasitology: we host an expanding molecular parasitology group within Biomedical and Life Sciences.

Specific staff interests include: the haemoflagellate parasites responsible for the neglected tropical disease leishmaniasis, their insect vectors and the development of tools to control this spectrum of diseases; the interaction between Phlebotomine sand fly vectors and Leishmania parasites; the African trypanosome T. brucei, which is a pathogen of major veterinary and medical importance in Sub-Saharan Africa – and cell division processes in this flagellated protozoan parasite with the aim of identifying new chemotherapeutic approaches for controlling sleeping sickness.

Other projects include the interface between biology and chemistry and how to translate advances in basic biological knowledge into the development of novel drugs against these major pathogens; trypanosomatid parasites and how these organisms modulate metabolic activities in order to complete their complex life cycle within the nutritionally different environments encountered in the mammalian host and the insect vector; the role of non-tubercular mycobacteria in human disease and environmental routes through which humans are exposed to these bacterial pathogens – and the role of Mycobacterium avium subspecies paratuberculosis in Crohn’s disease, and possibly in irritable bowel syndrome; interactions between bacteria and protozoa (particularly amoeba); and the roles of ion transport proteins in fungal cell biology in order to further understand the contribution of plasma membrane ion channel proteins to cell growth and development.

Medical Cell Biology: our research interests include: the eye and improving treatment for corneal diseases and projects involving the ex vivo expansion and transplantation of corneal stem cells for clinical use; and, the structure and function of glycoproteins and proteoglycans in order to acquire a greater understanding of proteoglycan involvement in a variety of disease processes including the development of osteoarthritis, neurodegenerative disease and vision impairment.

The Drosophila group studies the developmental genetics of Drosophila melanogaster, with a particular interest in peptide hormone and neuropeptide metabolism; and, the role of angiotensin-converting enzyme homologues in spermatogenesis and in sleep regulation.

Other projects include: the dynamics of ageing in the cardiovascular system; non-invasive monitoring of blood flow and a detailed understanding of some of the components that contribute to this dynamic process; and, the physiology of the gastrointestinal epithelium, including experimental models of how the gut functions in health and disease and how drugs might impact on these functions.

For more information please go to www.lancaster.ac.uk
Taught programmes

**MSc in Biomedicine**

**Director of Studies**
Dr Nigel Fullwood.

**Duration**
12 months full-time.

**Entry requirements**
At least a second class honours degree, or its equivalent, in an appropriate subject.

**IELTS**
At least 6.5 overall (minimum element scores apply).

**Assessment**
Combination of coursework, presentations, examinations and dissertation.

**Further information**
www.lancaster.ac.uk/fhm/bls

The MSc in Biomedicine provides you with the opportunity to acquire a greater understanding of practical and theoretical biomedical science at a leading university in this field.

The course provides the knowledge and skills required for subsequent progression to PhD study, a career in biomedical or pharmaceutical research (industry or university-based) or hospital-based employment. Our scheme provides focus on, and training within, several ‘hot’ topics in biomedicine, while still retaining elements of flexibility and choice.

**Compulsory modules**
- Research Techniques
- Supervised Research Project (six months)

**Optional modules**
- Emerging Therapeutics in Immunology
- Drug Discovery and Development
- Models of Disease
- Immunology
- Microbes and Disease
- Molecular Basis of Cancer

In addition you can choose from a variety of other biomedical modules offered within Biology, Health, Physics and Maths.

**MSc in Medical Biotechnology and Leadership**

**Director of Studies**
Dr Nigel Fullwood.

**Duration**
12 months full-time.

**Entry requirements**
At least a second class honours degree, or its equivalent, in an appropriate subject.

**IELTS**
At least 6.5 overall (minimum element scores apply).

**Assessment**
Combination of coursework, presentations, examinations and dissertation.

**Further information**
www.lancaster.ac.uk/fhm/bls

This innovative and multidisciplinary MSc programme offers advanced knowledge of the biomedical technologies essential for the discovery and validation of the next generation of medicines, diagnostics and devices.

It is designed for students wanting to combine research skills and project management with an understanding of the commercial exploitation of research. Case studies from industrial and clinical experts – along with advanced topics in emerging therapeutics – will be applied to an extended research project. This project will include practical skills and the development of management and leadership competencies, which are important for careers in translational medicine.

The programme is collaboratively delivered by the Division of Biomedical and Life Sciences and CETAD.

**Compulsory modules**
- Research Techniques
- Drug Discovery and Development
- Leadership and Team Strategies
- Project Management
- Supervised Research Project (six months)

**Optional modules**
- One module from a range of biomedical-related options

**Key fact**
Since 2001, members of the Division have published over 200 peer-reviewed papers and won over £4m in competitive research grants from agencies such as research councils, The Wellcome Trust and other medical charities, the pharmaceutical industry and various other organisations.
**Centre for Education, Training and Development (CETAD)**

CETAD is a specialist work based learning centre within the Faculty of Health and Medicine. Since 1990 we’ve been providing high quality work based learning programmes for public, private and voluntary sectors.

We understand the needs of mature experienced learners, who may not have studied for a while, so we provide high levels of individual support and at every stage our ‘students’ are treated as valued customers.

We also offer Negotiated Work Based Learning. This is an exciting, new and innovative work based route to postgraduate qualifications for experienced professionals. It allows you to build your own programme based on your specific needs and the needs of your organisation. You negotiate your own programme with us and your employer based around projects at work. It is highly customised, relevant and flexible and enables you to: gain academic credits for professional experience, learning and achievement (Accreditation of Prior Learning); develop, by building your programme around specific objectives and projects at work; negotiate timescales, target qualifications (Postgraduate Certificate/Diploma, MAMSc) and ultimately apply postgraduate level learning directly to real work agendas.

**Taught programmes**

**MA in Developing Professional Practice**

**MA in Developing Professional Practice (Health Care)**

**Director of Studies**

Lesley Mayne.

**Duration**

24 months part-time.

**Entry requirements**

Completed application form, a 500 word statement and recommendation from your line manager. We may ask you to undertake a pre-entry assessment. We also offer accreditation of prior learning (APL) for both certificated and experiential.

**IELTS**

At least 6.5 overall (minimum element scores apply).

**Assessment**

Coursework including learning contracts, project proposals, reports, reflective commentary and oral presentation.

**Further information**

[www.lancaster.ac.uk/fhm/cetad](http://www.lancaster.ac.uk/fhm/cetad)

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*As the MA was entirely work based it was extremely useful in planning a strategy to drive the firm forward and having an academic background to planning has made a big difference.*

Ed Fletcher, Solicitor
The aim of this programme is to enhance your understanding of leadership and management theories and to increase your ability to apply this knowledge to real work issues.

The programme is structured around eight taught modules: six in Year 1 and two in Year 2, including the written submission of a work based project. The programme uses online materials plus 19 sessions at Lancaster University (or your workplace for cohorts from the same organisation). Completion of part 1 can lead to a Postgraduate Certificate in Management, or can lead onto part 2.

**Work based projects**

Part 2 for all MA variants consists of two modules:
- Designing the work based project
- Implementing the work based project

Your work based project topic is decided with your employer via a learning contract. Following a module on how to design work based projects you will undertake the project itself. Because it has been developed in partnership between you, your employer and the University, your project will ensure that your own professional development needs, the organisational needs of your employer, and the requirements of the University are all met. Your project is written up in the form of a dissertation.

**Module (Work Based Research Methods)**

Equipping you with the knowledge and skills needed to design and carry out your work based project.

**Module (Work Based Project)**

You design and implement a work based investigative project with the aim to deliver improvements to patient services and experiences. This includes a statement of what the project is about, a rationale and contextualising information, details about the methods used and an analysis of the findings.

**Optional modules**

Optional topic modules in line with the GMC’s Leadership and Management for all Doctors 2012 are available.

**Further information**

[www.lancaster.ac.uk/fhm/cetad](http://www.lancaster.ac.uk/fhm/cetad)

The programme is designed to develop your knowledge, understanding and skills in line with the Medical Leadership Competency Framework. The course is interactive, participatory and work based requiring just six days attendance alongside on-line learning activities. The programme is structured to encourage personal leadership development and so can benefit doctors at every stage of their career.

The programme is for you if you are interested in improving patient experience and service delivery, demonstrating caring, compassionate and authentic leadership and developing your own leadership capacity in order to achieve and evidence medical and organisational impact.

Participants accommodate the programme alongside their other professional responsibilities. Individual modules are separately recognised and enrolled participants will be able to complete even if they relocate away from the area. Each module requires two separate days’ attendance, as well as associated reading and assignment work.

**Modules**

- Introduction to Medical Leadership
- Collaborative and Team Working
- The Role of Doctors in Health Service Change

If you wish to progress with your studies by completing a work based leadership project you have the opportunity to gain an MSc in Medical Leadership.
Taught programmes continued

PgCert in Applied Bioscience and Business Management

Director of Studies
Lesley Harper.

Duration
12 months part-time.

Entry requirements
Completed application form, a 500 word statement and recommendation from your line manager. We may ask you to undertake a pre-entry assessment. We also offer accreditation of prior learning (APL) both certificated and experiential.

IELTS
At least 6.5 overall (minimum element scores apply).

Assessment
Coursework, including learning contracts, project proposals, reports, reflective commentary, and oral presentation.

Further information
www.lancaster.ac.uk/fhm/cetad

This programme offers professional development to those in the Biomedical sector.

Newly qualified graduates in their first year of employment, especially those from a scientific background, may benefit from the more generic modules such as Management and Leadership. In addition, some of the modules may act as ‘conversion courses’ e.g. a Chemistry graduate may undertake a module in Molecular Biology.

This work-based scheme is also suitable for experienced mid-career professionals, including those without a first degree.

Modules are offered in three groups: Bioscience, Business and Management Skills, and Generic Skills. Students must achieve ten credits from Group A and ten credits from Group B. The remaining 40 credits can be accumulated by taking modules from any of the Groups – A, B or C to a total credit value of 60.

Bioscience (Group A)
- Applied Mathematics and Statistics for the Biomedical Sector
- Cell Biology Research Skills
- Diseases of the Brain
- Drug Discovery and Development
- Ethics Research Skills
- Immunology
- Laboratory Practice: Essential Practical Skills and Techniques
- Models of Disease
- Molecular Basis of Cancer
- Molecular Biology Research Skills
- The Biomedical Sector: Regulatory and Ethical Frameworks

Business and Management (Group B)
- Analysing Drivers for Change
- Entrepreneurial Skills
- Leading and Managing People
- Leading Others Through Change
- Leading Projects
- The Biomedical Sector in Context and Emerging Trends
- Leadership and Management
- The Commercial Business Environment – Strategic Perspectives
- Work Based Project (Action Research)

Core Skills (Group C)
- Communication and Presentation Skills
- Creative Thinking and Problem Solving
- Developing as an Independent Learner
- Personal Effectiveness and Team Working

PgCert in Business Management with Energy and Fuels from Waste

Director of Studies
Lesley Harper.

Duration
12 months.

Entry requirements
You will need work experience in the sector. We do not recognise prior learning and experience; there are no formal entry requirements.

IELTS
At least 6.5 overall (minimum element scores apply).

Assessment
Assessments are based on applying your learning to your work based activities.

Further information
www.lancaster.ac.uk/fhm/cetad

This programme will allow you to gain a thorough understanding of the waste to energy sector and to become familiar with all relevant UK and EU regulations underpinning waste management, renewable energy generation and biofuels. You will also acquire a comprehensive knowledge of available technologies for fuel production and energy generation from waste and will be equipped to design and implement environmental management systems and environmental monitoring programmes for waste to energy schemes.

You will combine this knowledge and understanding with that of business and people management and will be able to consider how best to develop and deploy staff in order to meet the changing needs of your business alongside developing the teamwork and communication skills necessary to enhance your business collaborations. You will also have the opportunity to select modules from a range of options related to business, management, leadership and energy and therefore tailor your programme to suit your needs.

PgCert in Organisational Change

PgCert in Organisational Change (Health Care)

Director of Studies
Jan Metcalfe.

Duration
12 months part-time.

Entry requirements
Completed application form, a 500 word statement and recommendation from your line manager. We may ask you to undertake a pre-entry assessment. We also offer accreditation of prior learning (APL) both certificated and experiential.

IELTS
At least 6.5 overall (minimum element scores apply).

Assessment
Coursework, including learning contracts, project proposals, reports, reflective commentary, and oral presentation.

Further information
www.lancaster.ac.uk/fhm/cetad

The course is structured around six taught modules

- Analysing Drivers for Change
- Learning Contract and Personal Development Planning
- Models for Planning and Managing Change
- Leading Others through Change
- Evaluating Change
- Developing as an Independent Learner

The programme is suitable for mid-career professionals responsible for influencing policy and/or practice within their own organisation. The aim is to enhance your understanding of change theories and to increase your ability to apply this knowledge to real work issues.

Completion of part 1 can lead to a Postgraduate Certificate in Organisational Change, a Postgraduate Certificate in Organisational Change (Health Care) year two of the MA in Developing Professional Practice, or the MA in Developing Professional Practice (Health Care).
Taught programmes continued

PgCert in Leadership and Management

Director of Studies
Jan Metcalfe.

Duration
12 months part-time.

Entry requirements
Completed application form, a 500 word statement and recommendation from your line manager. We may ask you to undertake a pre-entry assessment. We also offer accreditation of prior learning (APL) both certificated and experiential.

IELTS
At least 6.5 overall (minimum element scores apply).

Assessment
Coursework, including learning contracts, project proposals, reports, reflective commentary, and oral presentation.

Further information
www.lancaster.ac.uk/fhm/cetad

By enhancing your understanding of leadership and management theories and increasing your ability to apply this knowledge to real work issues, the course is suitable for those in management roles with sufficient autonomy and/or senior management support and access to resources to undertake projects impacting on your own and others' professional practice.

Completion of part 1 can lead to a Postgraduate Certificate in Leadership and Management; a Postgraduate Certificate in Leadership and Management (Health Care); year two of the MA in Developing Professional Practice in Management; or the MA in Developing Professional Practice in Management (Health Care).

The course is structured around six taught modules

- Understanding Leadership and Management
- Analysing Drivers for Change
- Action Research
- Leading and Managing People
- Collaborative and Team Working
- Developing as an Independent Learner

Assessment
Assessments are based on applying your learning to work based activities so they are highly relevant and useful, and there are no exams.

Further information
www.lancaster.ac.uk/fhm/cetad

This programme enables you to choose modules from a choice of options in line with your professional development needs. Modules are in subject areas such as leadership and management, developing and supporting others and self-development. Modules are ten credits so you will choose six modules in order to achieve the qualification. You can start by undertaking one module and return later to build into a qualification, or you can enrol for the qualification at the outset. The 'step-on, step-off' nature of the qualification means that you can pace your study to suit your own work/life balance.

Each module enables you to learn key concepts, ideas, tools and techniques to apply at work. The modules minimise time off work and provide a mix of face-to-face sessions and interactive web-based learning. Taught by supportive University staff with work based experience, you will also benefit by networking and learning from other professionals. Assessments are work based so are highly relevant and useful.

Progression routes to Postgraduate Diploma and Masters Degree are available via Negotiated Work Based Learning.

PgCert in Professional Practice via Negotiated Work Based Learning

Director of Studies
Lesley Harper.

Duration
Part-time with up to 60 months to complete.

Entry requirements
There are no formal entry requirements and we recognise prior learning and experience. We also offer accreditation of prior learning (APL) both certificated and experiential.

IELTS
At least 6.5 overall (minimum element scores apply).

Assessment
Coursework, including learning contracts, project proposals, reports, reflective commentary, and oral presentation.

Further information
www.lancaster.ac.uk/fhm/cetad

This programme comprises four components:

Module (Self Review and Programme Planning)
-Reflect and review your prior learning
-Further develop your work based learning and study skills
-Plan your future development

Agree a postgraduate programme taking account of your personal and professional needs and those of your organisation. This includes specifying any topic modules that you wish to undertake and outlining your work based project

If you wish to claim credit for prior learning and experience then alongside this module you prepare an accreditation of prior learning (APL) claim to be awarded towards a postgraduate qualification

Topic modules
Optional topic modules are available in a range of subject areas including:
- Leadership and Management
- Project Management
- Organisational Change
- Advanced Skills (communication, creative thinking and problem solving)

As well as modules from Groups A, B and C of the PG Certificate in Applied Bioscience and Business Management.

Module (Work Based Research Methods)
Equip you with the knowledge and skills needed to design and carry out your work based project

Module (Work Based Project)
Project modules vary in size depending on the target award, i.e. Postgraduate Certificate, Diploma, or Masters Degree. You produce a work based project and a project report (includes a statement of what the project is about, a rationale and contextualising information, details about the methods used and an analysis of the findings).

The course directly impacted on my work and as I progressed I could see a difference on a very practical level.

Debbie Atkinson, Centre Manager
Health Research

The Division of Health Research (DHR) conducts, represents and promotes health-related research at Lancaster University and works closely with external individuals and organisations involved in health research, development and implementation.

The Division exists to conduct high quality health-related research at Lancaster. In the most recent Research Assessment Exercise (2008), 95% of the Division's research was rated as being of international standing. It brings together over 50 academic and research staff whose research covers one or more of the following broad areas: ageing and palliative and end of life care, mental health and organisational well-being, public health, health equity, disability studies and health economics.

Our staff are committed to undertaking a wide range of scholarly, research and education activities that generate new knowledge, services and products in order to meet society's current and future needs. Our expertise and contribution lies specifically around improved health, well-being and safety for individuals, enhancing the skills of a wide range of people, both lay and professional, in providing services, and their wider environments. This leads more broadly to enhanced human capital either for individuals and/or organisations and services in the public and private sector.

Close links exist with other university departments addressing areas of health research, including: Sociology, Lancaster Environment Centre, Psychology, Linguistics, Management Science, Organisation, Work and Technology and the Centre for Gender and Women's Studies.

Research degrees

MPhil/PhD in Health Research
Director of Postgraduate Research Studies
Professor Carol Thomas.

Entry requirements
Applicants should hold an upper second class honours degree, or its equivalent, in an appropriate subject.

IELTS
At least 6.5 overall (minimum element scores apply).

Assessment
Module coursework (if appropriate). Original research and thesis.

Funding
Research Councils (see NWDTC page 12), Lancaster University, and Charities.

Further information
www.lancaster.ac.uk/fhm

Applications are welcomed for PhD and MPhil degrees, traditional or blended learning Doctoral degrees in any of our main research areas. As a research student, you will be directly involved in the mainstream research of the Faculty. You will receive specialised training relevant to your research topic and methodology. You will be encouraged to take part in a range of more generic courses such as teaching skills, statistical methods and computing.

You will also be encouraged to attend and present lectures and posters at conferences both within the UK and overseas; recent students have attended conferences in the USA and Australia as well as mainland Europe.

For an integrated degree (1+3) MRes/PhD study option, please see our listing for the NWDTC funded studentship in Health and Well-being.

My experience of undertaking a PhD programme in the Division of Health Research was a pleasant and enjoyable one – but of course a lot of hard work. The workload was however lightened by the invaluable help and support from the staff.

Dr Alfred Banya (PhD)
Doctoral degrees (blended learning; coursework and thesis)

Programme structure
The following PhD programmes comprise two years of taught modules, delivered predominantly by distance e-learning, alongside one residential week per year at Lancaster University. Years three and five are spent undertaking a research project and thesis (35,000 words) at your own location, with supervision from Lancaster.

PhD in Mental Health
Director of Studies
Dr Alyson Dodd.

Duration
48-84 months part-time.

Entry requirements
An upper second class honours degree, in an appropriate subject, and relevant work experience.

IELTS
At least 6.5 overall (minimum element scores apply).

Assessment
Combination of taught modules, original research and thesis.

Further information
www.lancaster.ac.uk/fhm

The PhD in Mental Health provides opportunities for professionals working within the field of mental health, in the UK and internationally, to gain a deeper and more critical insight into their practice, whether they are based within healthcare settings, local government, education, research or management.

This programme meets the needs of mental health professionals wishing to enhance their research skills, develop their understanding of theory, policy and practice, and make an original contribution to knowledge development within their field, while at the same time fulfilling their existing responsibilities.

The specialist taught modules include both the theory and practice of mental health (psychosocial models of psychological disorders, evidence-based interventions and current priorities for mental health).

PhD in Organisational Health and Well-Being
Director of Studies
Dr Alison Collins.

Duration
48-84 months part-time.

Entry requirements
An upper second class honours degree, in an appropriate subject, and relevant work experience.

IELTS
At least 6.5 overall (minimum element scores apply).

Assessment
Combination of taught modules, original research and thesis.

Further information
www.lancaster.ac.uk/fhm

The PhD in Organisational Health and Well-Being is suited to individuals currently working, or aspiring to work, in the area of organisational health and well-being, health and safety and occupational health. The programme develops your knowledge and understanding of the psychological, social and organisational aspects of the dynamic relationship between work and health.

It is aimed at individuals working across public, private and voluntary sectors interested in the promotion and creation of healthy work places including: human resource managers, occupational health practitioners, health care workers, health and safety representatives, applied organisational psychologists.

The specialist taught modules focus on the policy and practice of organisational change and development.

PhD in Palliative Care
Director of Studies
Dr Sarah Brearley.

Duration
48-84 months part-time.

Entry requirements
An upper second class honours degree, in an appropriate subject, and relevant work experience.

IELTS
At least 6.5 overall (minimum element scores apply).

Assessment
Combination of taught modules, original research and thesis.

Further information
www.lancaster.ac.uk/fhm

The PhD in Palliative Care provides opportunities for people working in palliative, hospice and end of life care, in the UK and internationally, to undertake advanced study. The aim is to create leaders in palliative care, promote the development of advanced knowledge and practice, develop critical understanding of policy and practice, and enhance scholarship and research skills.

The specialist taught modules focus on the policy and practice of palliative care nationally and globally.

PhD in Public Health
Director of Studies
Dr Paula Holland.

Duration
48-84 months part-time.

Entry requirements
An upper second class honours degree, in an appropriate subject, and relevant work experience.

IELTS
At least 6.5 overall (minimum element scores apply).

Assessment
Combination of taught modules, original research and thesis.

Further information
www.lancaster.ac.uk/fhm

The PhD in Public Health provides opportunities for professionals working within the field of public health, in the UK and internationally, to gain a deeper and more critical insight into their practice, whether they are based within healthcare settings, within local government, education, research or management.

This programme meets the needs of public health professionals wishing to enhance their research skills, develop their understanding of policy and practice, and make an original contribution to knowledge development within their field, while at the same time fulfilling their existing responsibilities.

The specialist taught modules include both the theory and practice of public health (health protection, health promotion and policy).
Our aim in training is to strike a balance between the interests of the individual trainee, formal professional training requirements, academic requirements appropriate for a doctoral level qualification, and the broader and developing needs of a clinical psychologist within the National Health Service.

Academic structure
The formal academic programme is organised on the basis of (at least) one full day teaching per week. In addition, trainees normally receive one full day per week for study and research time. There are nine curriculum strands which run through the three years of the programme: theory to practice, transferable clinician skills, personal development and reflection, physical and cognitive development across the lifespan, critical and community psychology, research, professional issues, assessment and quality assurance.

Clinical structure
Clinical placements are undertaken throughout the three years. Normally, all trainees undertake the same sequence of placements at the same time. It is anticipated that clinical training will start with a placement working with children and families, followed by work with adults, then older adults, and finally people with learning disabilities.

Each of the four placements lasts six months. In the third year, trainees undertake a longer placement of eight to nine months’ duration. Course staff visit each supervisor and trainee during placements to discuss progress.

Assessed work
Over the course of the three years trainees submit the following:

- Two professional issues assignments
- Two placement presentations and reports
- One critical review

Research
Trainees are required to submit a service-related project and a thesis. The thesis is undertaken throughout the second and third year of training and comprises:

- An ethics committee research proposal
- A literature review, written in academic journal format
- A research paper describing the study, written in academic journal format
- A critical appraisal of the research project

Trainees are encouraged to submit their work to appropriate academic journals.

Development and support
The course uses a number of complementary support systems to facilitate trainees’ personal and professional development. In addition to supervision while on placement (including visits from clinical tutors) and informal peer support, there are bi-annual trainee progress reviews held with each trainee’s research and clinical tutors. The review process provides an opportunity to discuss progress and your individual training needs. The support scheme also offers continuity of contact with two members of the course team over the three years of training. All trainees are invited to take advantage of a mentor system, in which all mentors are local clinical psychologists. There is also the opportunity to access a limited number of cognitive analytical developmental sessions.
Our research interests

Within Health Research we undertake research in the following areas: ageing and palliative and end of life care, mental health and organisational well-being, public health, health equity, disability studies and health economics.

Ageing research: The Centre for Ageing Research is an interdisciplinary centre of social scientists, scientists and biomedics. We work around the broad themes of: older people and new technologies, care of older people, health and their environment, mental health and mental well-being amongst older people, healthy ageing and understanding normal ageing processes.

Palliative and end of life care research: The International Observatory on End of Life Care was established in 2003. As a multidisciplinary team we conduct research on: patient and carer experiences; symptom management; evaluations of service configurations and models; public and professional engagement.

Mental health research: The Spectrum Centre for Mental Health Research, was established in February 2008. We conduct research to develop, test, disseminate and implement clinically effective psychosocial interventions for mental health problems. The Centre has a major focus on translational research into psychosocial interventions to improve clinical outcomes for people with bipolar disorder. Other research we undertake focuses on abnormal psychology, emotional and cognitive disorders.

Disability Studies: The Centre for Disability Research is a specialist research grouping that promotes and conducts high quality interdisciplinary research and research-led teaching about disability. We have specific foci around disability studies and learning disabilities.

Health Economics: our current research includes work on efficiency and productivity measurement; economic determinants of health; quality of life; health econometrics; economic evaluation of interventions; the economics of prevention, primary and public health; and health economics applied in less developed and middle income countries.

Integrated degrees (1+3)

MRes in Health and Well-Being/PhD in Health Research

Director of Studies
Professor Carol Thomas.

Duration
48 full-time.

Entry requirements
An upper second class honours degree, or its equivalent, in an appropriate subject.

IELTS
At least 6.5 overall (minimum element scores apply).

Assessment
MRes: Coursework and exam.
PhD: Original research and thesis.

Funding
Economic and Social Research Council (see NWTC page 12).

Further information
www.lancaster.ac.uk/fhm/dhr

If you are successful in applying to the NWCTC for a 1+3 PhD studentship, you will take an MRes in Health and Well-Being in Year 1 before progressing to three years study at PhD level. Please contact the Department for further information on this option.
Lancaster Medical School

Lancaster Medical School staff have a wide range of research interests including epidemiology, medical education as well as social science and biomedical science subjects applied to medicine.

While preserving traditional disciplinary strengths we bring together researchers from different disciplinary backgrounds. Modern approaches to health and medical research typically demand expertise from scientists with depth of knowledge in a specific discipline. They also demand interaction with other specialties. This broadens the background understanding, ensures the work is well targeted and develops transferable teamwork skills. Lancaster University has many areas of strength in research in health and medicine. The Lancaster Medical School acts as a catalyst to promote interactions and to enhance links, with the NHS Trusts and to develop translational research in the region.

Lancaster Medical School is the coordinating unit for all medical education activity across Lancaster University through its Centre for Medical Education, related research strengths are the sociology of medicine and medical education.

CHICAS (Combining Health Information, Computation and statistics) is a high profile research group with a focus on medical statistics and epidemiology, while the Development and Immunology group carries out translational and basic biomedical bench research in collaboration with NHS staff and staff in Biomedical and Life Sciences. The areas of strength include cancer research, reproductive pathology and toxicology, diseases of the skeleton and infectious diseases.

Research in the Lancaster Medical School is a lively, dynamic and growing aspect of our departmental activity. Our current postgraduate students are a vital part of our vibrant research culture and take part in seminars and postgraduate symposia. There is a caring framework for postgraduate training and supervision in the School which is aimed at a high on-time completion rate for studies.

Research degrees

MPhil/PhD in Medicine
Director of Studies
Professor Colin Ockleford.

Entry requirements
An upper second class honours degree, or its equivalent, in an appropriate subject and an interest in pursuing medical research at advanced level.

IELTS
At least 6.5 overall (minimum element scores apply).

Assessment
Original research and thesis.

Further information
www.lancaster.ac.uk/fhm/study
www.lancaster.ac.uk/fhm/med/research

A wide variety of medical and clinically applied research projects can be undertaken with the Lancaster Medical School. We offer a range of opportunities for advanced postgraduate study with experienced supervisors in areas including: medical education; epidemiology; reproductive pathology; social studies of science and technology in clinical practice; qualitative methods in health research; cellular responses to DNA damage; musculoskeletal medicine; degenerative conditions in bone and medical ethics.

Research degrees

- MPhil/PhD in Medicine
- MSc (Research) in Medical Sciences
- PhD in Statistics and Epidemiology
- Doctor of Medicine (MD)

Taught programmes

- PgCert in Clinical Research
- MSc in Clinical Research

Number of postgraduate students

10

Head of School

Professor Anne Garden

Postgraduate enquiries

Director of Postgraduate Studies:
Professor Colin Ockleford
Tel: +44 (0)1524 593 936
Email: fhm-pg-admissions@lancaster.ac.uk
www.lancaster.ac.uk/fhm/med

For more information please go to www.lancaster.ac.uk Faculty of Health and Medicine – Lancaster Medical School

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Research degrees

MPhil/PhD in Medicine
Director of Studies
Professor Colin Ockleford.

Entry requirements
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IELTS
At least 6.5 overall (minimum element scores apply).

Assessment
Original research and thesis.

Further information
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Research degrees

MPhil/PhD in Medicine
Director of Studies
Professor Colin Ockleford.

Entry requirements
An upper second class honours degree, or its equivalent, in an appropriate subject and an interest in pursuing medical research at advanced level.

IELTS
At least 6.5 overall (minimum element scores apply).

Assessment
Original research and thesis.

Further information
www.lancaster.ac.uk/fhm/study
www.lancaster.ac.uk/fhm/med/research

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Research degrees

- MPhil/PhD in Medicine
- MSc (Research) in Medical Sciences
- PhD in Statistics and Epidemiology
- Doctor of Medicine (MD)

Taught programmes

- PgCert in Clinical Research
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10

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Research degrees

MPhil/PhD in Medicine
Director of Studies
Professor Colin Ockleford.

Entry requirements
An upper second class honours degree, or its equivalent, in an appropriate subject and an interest in pursuing medical research at advanced level.

IELTS
At least 6.5 overall (minimum element scores apply).

Assessment
Original research and thesis.

Further information
www.lancaster.ac.uk/fhm/study
www.lancaster.ac.uk/fhm/med/research

A wide variety of medical and clinically applied research projects can be undertaken with the Lancaster Medical School. We offer a range of opportunities for advanced postgraduate study with experienced supervisors in areas including: medical education; epidemiology; reproductive pathology; social studies of science and technology in clinical practice; qualitative methods in health research; cellular responses to DNA damage; musculoskeletal medicine; degenerative conditions in bone and medical ethics.
Research degrees continued

MSc (Research) in Medical Sciences

Director of Studies
Professor Colin Ockleford.

Duration
12 months full-time, 24 months part-time. Undergraduate medical students who are intercalating will start on 1st September and submit their thesis by 27th August; other applicants may take advantage of greater timetable flexibility.

Entry requirements
Undergraduate medical students intercalating between 4th and 5th years of study require a top quartile outcome in MScNB final exams. Other applicants must hold an upper second class honours degree, or its equivalent, in a relevant subject area. Candidates with a lower second class degree may be invited to interview to assess suitability.

IELTS
At least 6.5 overall (minimum element scores apply).

Assessment
Original research and thesis.

Further information
www.lancaster.ac.uk/fhm/med/research and www.lancaster.ac.uk/fhm/study

PHD Statistics and Epidemiology

Director of Studies
Professor Peter Diggle.

Entry requirements
At least an upper second class honours degree or its equivalent, with a substantial statistical and/or epidemiological component.

IELTS
At least 6.5 overall (minimum element scores apply).

Assessment
Original research and thesis, viva voce.

Further information
www.lancaster.ac.uk/fhm/med/research and www.lancaster.ac.uk/fhm/study

CHICAS (www.lancaster.ac.uk/fhm/med/chicas) conducts research in medical science, epidemiology, and public health and medical education, and international research partners.

In the medical school, our current research interests include:
- Spatial and longitudinal data analysis
- Environmental and tropical disease
- Environmental determinants of disease
- Early detection of incipient kidney failure in primary care patients
- Development of the costa and ankle in dystrophic muscle
- The risk of childhood cancer from living near high voltage power lines and the effects on soldiers of taking part in chemical weapons tests
- Disease risk-mapping for the African Programme for Onchocerciasis Control (APOC)
- The role of the innate immune system's CD56-positive NK cells in recurrent miscarriage
- The allo-epi-endothelium of the human placenta, and the pathology of pre-eclampsia
- The integration of statistical models with geographical information systems for real-time epidemiological applications

Doctor of Medicine (MD)

Director of Studies
Professor Colin Ockleford.

Duration
24 months full-time.

Entry requirements
Applicants must (i) hold a medical or dental qualification recognised by the UK General Medical/Dental Council, (ii) have held this qualification for at least three years by the date of submission, and (iii) must be employed during their period of registration in appropriate clinical or scientific work in hospitals or institutions (associated with the University) within the local NHS region.

IELTS
At least 6.5 overall (minimum element scores apply).

Assessment
Original research and thesis, viva voce.

Further information
www.lancaster.ac.uk/fhm/med/research and www.lancaster.ac.uk/fhm/study

The Doctor of Medicine degree scheme provides opportunities for clinically qualified candidates to undertake a two year full-time Doctoral level research project at Lancaster (or part-time pro-rata). Our links with many NHS trusts provide a wide range of opportunities for medically related research. You will be supervised by a clinical supervisor and a member of academic staff in Biomedical and Life Sciences or the Medical School.

Our research interests
Research in the School spans medical education, social science, medical science, epidemiology, and statistics. Research is undertaken in collaboration with the Divisions of Health Research and Biomedical and Life Sciences, other Lancaster departments, and a range of national and international research partners.

Within the medical education area, our research interests include:
- Diagnosis of arthritis in the knee
- Development of the costa and ankle in dystrophic muscle
- Health and social consequences of 2011 UK foot and mouth epidemic (acquired and archived by ESRC as a ‘classic study’), understanding expertise in anaesthesia, and the social construction of evaluation in telemedicine and telehealth care.

In social science, studies we focus on medical ethics, science and technology in clinical practice, disaster and recovery, health policy and politics, and the use of qualitative methods in health research. Recent projects include an interdisciplinary evaluation of the natural and societal effectiveness of containment strategies for animal diseases, the health and social consequences of the 2001 UK foot and mouth epidemic, the role of the innate immune system's CD56-positive NK cells in recurrent miscarriage, and the pathology of pre-eclampsia.

Our current biostatistical and epidemiological research topics include:
- Spatial and longitudinal data analysis
- Environmental and tropical disease
- Environmental determinants of disease
- Early detection of incipient kidney failure in primary care patients
- The integration of statistical models with geographical information systems for real-time epidemiological applications

Recent projects include:
- The role of the innate immune system’s CD56-positive NK cells in recurrent miscarriage
- The allo-epi-endothelium of the human placenta, and the pathology of pre-eclampsia
- The integration of statistical models with geographical information systems for real-time epidemiological applications
The programme builds on the introduction to clinical research in the Postgraduate Certificate, developing and undertaking applied clinical research within an NHS organisational context. The programme:

- Addresses the complete cycle of clinical research, from identifying research questions, and designing and managing research studies, through to translating research findings into professional practice
- Enables health professionals to lead the development, delivery and translation of clinical research, supporting the processes of discovery and innovation at an organisational level
- Draws upon the breadth of interdisciplinary research skills and internationally-recognised research expertise housed within the Faculty of Health and Medicine, complemented by specialist knowledge and practical experience from NHS Partner organisations and research networks

Successful completion of the programme will enable professionals to:

- Lead research projects, innovations and new developments in order to advance local and national evidence-based clinical research practice
- Contribute to organisational development of NHS infrastructural research capability
- Contribute to the translation of research knowledge and skills to inform and develop the quality of evidence-based professional practice

The programme is delivered through blended learning with nine face-to-face contact days over the first year and the remainder undertaken through distance learning. The scheme is modular, with a tiered-exit design providing Postgraduate Certificate and Postgraduate Diploma awards as appropriate for participants who do not complete all modules for the MSc.

During the MSc you will gain key research knowledge and skills, transferred into practical topics applied within your own professional environment, culminating in a 12 month research project, designed, delivered and submitted as a dissertation. This will prepare you for original work in your professional career and advanced level clinical research positions with the NHS, government, industry and healthcare organisations.

The overall programme comprises eight modules as follows:

- Essential Tools for Clinical Research
- Governance and Management of Clinical Research
- Turning Research Evidence into Healthcare Policy and Practice
- Principles of Evidence-Based Practice
- Quantitative Data Analysis
- Analysing Qualitative Data
- Coursework and practice-based dissertation
- Literature Review
- Research Ethics
- Research Management

The MSc in Clinical Research has been designed, in consultation with NHS Partners, to meet the needs of practitioners and staff working in the NHS to ensure its relevance and value to NHS health professionals.

Further information
www.lancaster.ac.uk/fhm/med/prospective_students

For more information please go to www.lancs.ac.uk