

MANCHESTER  
1824

The University of Manchester



# GEOGRAPHY

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POSTGRADUATE PROSPECTUS - 2017 ENTRY

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[WWW.SEED.MANCHESTER.AC.UK](http://WWW.SEED.MANCHESTER.AC.UK)

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WITH A **WINNING  
HERITAGE,**  
WORLD CLASS  
RESEARCH AND  
OVER **25** NOBEL  
PRIZE WINNERS,  
STUDENTS AT  
THE UNIVERSITY  
OF MANCHESTER...

**PREPARE TO MAKE  
A DIFFERENCE**



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**TOM BARKER**

**MSc Geographical Information Science**

*"Without my master's, I would never have had the opportunity to work in the geospatial area and pursue a career that I am."*

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# A WORLD CLASS REPUTATION FOR PIONEERING TEACHING INFORMED BY THE LATEST GEOGRAPHICAL RESEARCH.

BRAND NEW STATE-OF-THE-ART  
PHYSICAL GEOGRAPHY  
LABORATORIES AND WORLDWIDE  
FIELDWORK OPPORTUNITIES.  
OUR GRADUATES GO ON TO SHAPE  
ENVIRONMENTAL POLICY THROUGH  
POSITIONS IN NGOS AND IN THE  
PUBLIC AND PRIVATE SECTOR.

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A collage of images is arranged around a central green area. At the top, a mountain lake with evergreen trees and mountains in the background. On the left, a close-up of wind turbines against a blue sky. At the bottom left, a person's eye looking through a microscope. At the bottom right, a person in a green jacket using a surveying instrument in a rocky, outdoor setting.

“

Our problem-based approach to learning will inspire you to think critically and creatively, cultivating your independence and making you more attractive to recruiters.

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# DID YOU KNOW?

Our city's marriage of the historic with the modern – Manchester was voted the best city in the UK to live in, in the 2016 Global Liveability Survey

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# THE UNIVERSITY OF MANCHESTER

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is ranked...

6<sup>th</sup> IN THE UK  
& 11<sup>th</sup>  
IN THE WORLD  
FOR GEOGRAPHY  
\*QS World University Rankings 2016

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£1 billion

investment to create a world-class campus

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83% of our research defined as **“world-leading”** or **“internationally excellent”** in the most recent Research Excellence Framework (REF 2014)

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# INTRODUCING MANCHESTER

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## WELCOME TO MANCHESTER

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Manchester's unique character comes from its pioneering past – this is the place where the Industrial Revolution really took hold. The city grew dramatically in the 19th century on the wealth created by cotton, and its amazing Victorian civic buildings, mills and factories shout: 'This is Manchester. We've arrived.'

But it is not all about industry. Manchester nurtures creativity and hosts international sporting events. Never content to live on past glories, this is a place that looks to the future with a passion for progress.

With events, facilities and attractions to suit every lifestyle, Manchester is lively, culturally diverse and easy to enjoy on a student budget. In fact, about a quarter of our students love it here so much they make it their home after they've finished their studies.

## ART AND CULTURE

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From artistic masterpieces to the history of football, Manchester has an impressive range of museums and galleries, many of which are free. The Museum of Science and Industry brings innovation to life in the world's oldest railway station, while the Imperial War Museum North asks how war shapes people's lives. Manchester is also home to the National Football Museum and the People's History Museum.

Important classic and contemporary art is on show at the Manchester Art Gallery, while you can find a plethora of smaller galleries all over the city.

Manchester attracts some of the world's biggest bands and DJs, at venues such as the MEN Arena and the Apollo. You can catch new acts and smaller shows at venues such as Soup Kitchen, Deaf Institute, Gorilla, and Band on the Wall.

The Hallé and BBC Philharmonic orchestras both perform at the Bridgewater Hall. Leading chamber orchestra Manchester Camerata can also be seen there, as well as at the Royal Northern College of Music, which stages a diverse programme of music.

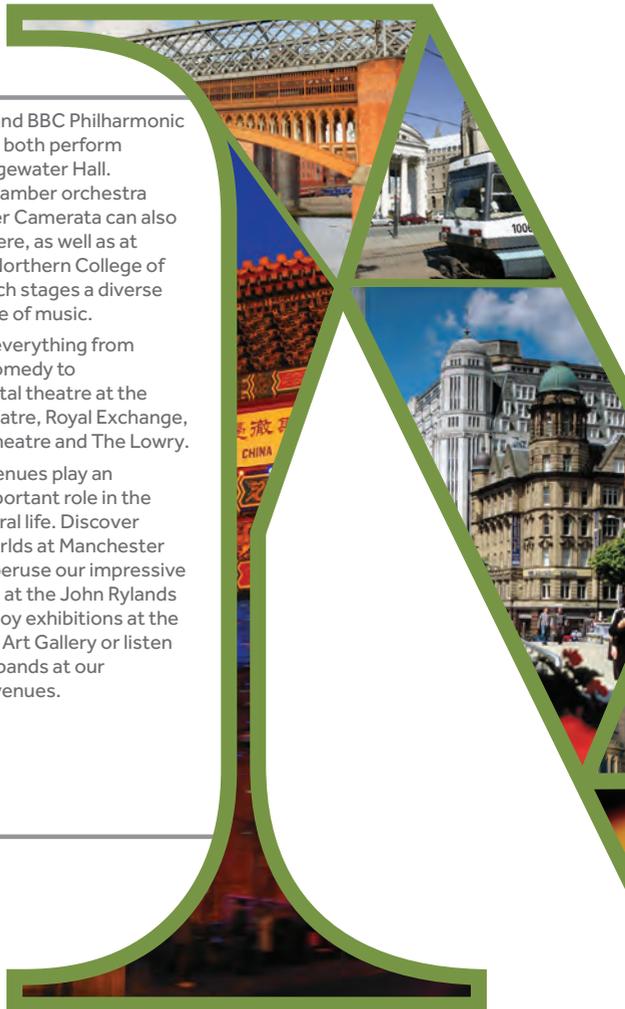
You'll find everything from opera to comedy to experimental theatre at the Palace Theatre, Royal Exchange, Contact Theatre and The Lowry.

Our own venues play an equally important role in the city's cultural life. Discover ancient worlds at Manchester Museum, peruse our impressive collections at the John Rylands Library, enjoy exhibitions at the Whitworth Art Gallery or listen to touring bands at our Academy venues.

## FIND OUT MORE

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[www.visitmanchester.com](http://www.visitmanchester.com)  
[www.timeout.com/manchester](http://www.timeout.com/manchester)  
[www.creativetourist.com](http://www.creativetourist.com)  
[www.manchesterconfidential.co.uk](http://www.manchesterconfidential.co.uk)  
[www.manchestersfinest.com](http://www.manchestersfinest.com)



## FOOD AND DRINK

With so many cultures rubbing shoulders with each other, it's no surprise that Manchester has a great reputation for food and drink. You'll find cuisine from practically every nation and to suit any budget, from high-class dining to top-notch takeaways.

Restaurants, bars and clubs can be found in most parts of the city centre, from the bustling Deansgate Locks and The Printworks to the upmarket Spinningfields and the bohemian Northern Quarter.

We have the UK's second biggest Chinatown, where you'll find Asian supermarkets and great restaurants, and the neon-lit 'Curry Mile' begins just a short walk from the University campus.

There's also plenty of choice near campus on Oxford Road and surrounding the student halls of Fallowfield. A little further afield, the neighbourhoods of West Didsbury and Chorlton offer an equally impressive range of places to eat and socialise.

## BUSINESS

A bustling commercial centre, Manchester works as hard as it plays. Creativity complements industry, and burgeoning entrepreneurs thrive alongside established multinational businesses.

More than 200 businesses are based at nearby MediaCityUK, which has become an important base for many BBC departments. The city is home to the largest chamber

of commerce in the UK, while there's a thriving digital sector, as well as well-regarded services and knowledge-based industries, and much more.

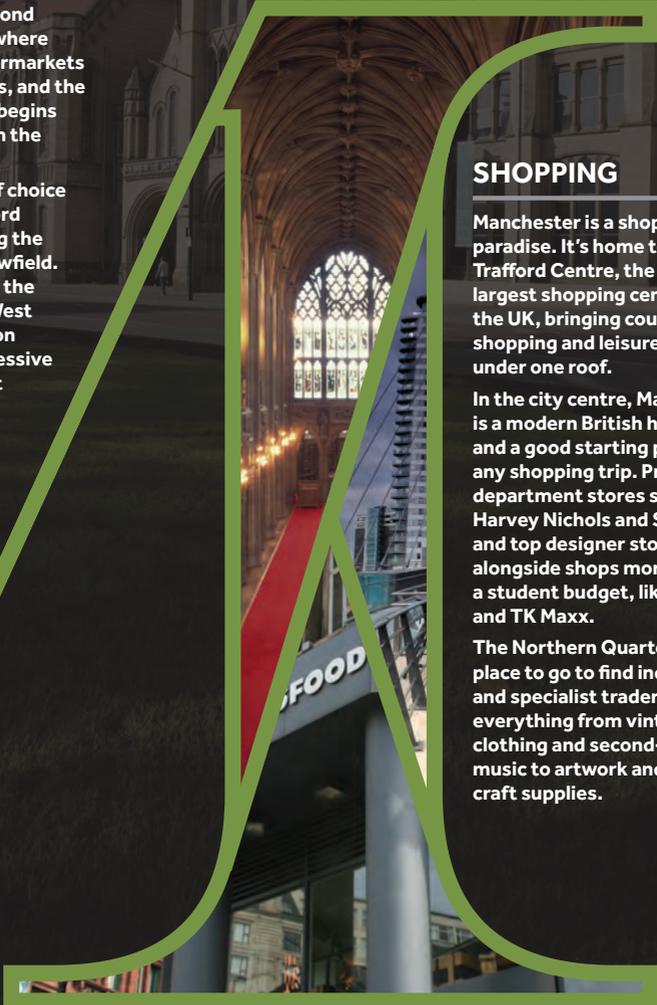
Manchester is the perfect spot for you to connect with potential future employers from all sectors, gaining an insight into possible careers. You may also have the chance to work with commercial giants on collaborative research opportunities.

## SHOPPING

Manchester is a shopper's paradise. It's home to the Trafford Centre, the second largest shopping centre in the UK, bringing countless shopping and leisure names under one roof.

In the city centre, Market Street is a modern British high street and a good starting point for any shopping trip. Premium department stores such as Harvey Nichols and Selfridges, and top designer stores sit alongside shops more suited to a student budget, like Primark and TK Maxx.

The Northern Quarter is the place to go to find independent and specialist traders, selling everything from vintage clothing and second-hand music to artwork and craft supplies.





# WELCOME

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## TO THE UNIVERSITY OF MANCHESTER

**At  
Manchester  
you'll reap  
the benefits  
of being  
better  
connected.**

**We work closely with organisations ranging from government bodies to global businesses, from local health services to registered charities.**

**These connections inform our taught courses and give our research programmes greater, more immediate impact.**

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### WE MAKE THINGS HAPPEN

We turn enthusiasm into achievement and groundbreaking theory into cutting-edge practice. That's why we're at the forefront of the search for solutions to some of the world's most pressing problems – from cancer to climate change, from poverty to sustainable energy.

We've been accomplishing feats of global significance for more than 180 years, from inventing the modern computer to splitting the atom, and from founding present-day economics to giving the world graphene – the two-dimensional 'wonder-material' that is one atom thick, but 200 times stronger than steel.

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### WE KNOW WHERE WE'RE GOING

Already ranked fifth in the UK for research power, we're on the way to achieving our target of becoming one of the world's top 25 universities, having risen 38 places in the last eight years.

Our plans are backed by the biggest investment programme ever seen in UK higher education – we've already invested £750 million in buildings and facilities since 2004 and now we're putting an additional £1 billion into further teaching and student facilities.

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### WE'VE GOT THE PEOPLE TO DO IT

We have more Nobel laureates on our staff than any other UK university, and count 25 Prize winners among our current and former staff and students.

Could you be number 26?



## **WE GIVE YOU EXCELLENT PROSPECTS**

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Whether you're a committed researcher wanting to further the human quest for knowledge, a career-focused professional seeking a specialist qualification, or an enquiring mind with a burning enthusiasm for higher learning and understanding, a postgraduate degree at The University of Manchester will help you to realise your ambitions.

Our problem-based approach to learning will inspire you to think critically and creatively, cultivating your independence and making you more attractive to recruiters. Our graduates are consistently among the most targeted in the UK by leading employers.

## **WE OFFER MUCH MORE THAN A DEGREE**

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At Manchester you'll find the broadest range of opportunities outside of your studies for developing your interests and broadening your experience.

These include outstanding sports facilities, community volunteering, skills-development programmes, mentoring and much more.

## **WE'D LOVE YOU TO JOIN US**

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Choose The University of Manchester and discover your own path to future success.

Above:  
Alan Gilbert Student Learning Commons and the Whitworth Building at The University

**Join our  
postgraduate  
community  
and begin  
a career of  
limitless  
possibilities.**

**Part of the prestigious  
Russell Group of  
universities, we enjoy an  
international reputation  
for our pioneering research  
and innovation.**

**We're influential and  
forward-thinking,  
down-to-earth and  
friendly, and we'll give  
you an amazing university  
experience that's rooted  
in a rich heritage.**



# WELCOME

## TO OUR CAMPUS

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**The University of Manchester is large, yet compact enough to give the best of both worlds: city life and a campus community. Getting around the campus is easy. Everything is within walking distance or connected via a free bus service.**

**Our campus occupies a large area close to the city centre, allowing students, staff, businesses and the wider public to come together, share ideas and collaborate.**

**It is dominated by grand Victorian buildings, alongside modern facilities, but also has quiet corners, landscaped gardens, cafés and common rooms where you can relax and spend time with friends.**

**Think of it as a village within a city.**

### MADE FOR STUDENTS, BY STUDENTS

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Our ultra-modern Alan Gilbert Learning Commons was designed in consultation with our students. This eye-catching £24 million building is home to the most up-to-date IT facilities, lots of flexible learning spaces and a host of student-centred services.

The Learning Commons is open all day and night, and can accommodate more than 1,000 students. There are 30 bookable rooms and a variety of pods and spaces, making it great for group study or independent learning.

The building is designed to the highest standards of sustainability – even the lighting adjusts automatically according to the level of natural light and the occupancy of the rooms.

### CULTURE ON CAMPUS

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We aim to inspire as well as educate, with cultural attractions open to students and the public alike.

- Manchester Museum: bringing ancient worlds to life and hosting a constantly rotating programme of exhibitions
- John Rylands Library: home to one of the world's finest collections of rare books and manuscripts
- Whitworth Art Gallery: one of the city's premier art spaces located in the nearby Whitworth Park
- The Martin Harris Centre for Music and Drama: a performance space for music, drama and other arts
- Jodrell Bank Discovery Centre: on the site of the iconic Lovell Telescope in the beautiful Cheshire countryside, the centre offers fun and engaging exhibitions and activities on astronomy and space physics

# LIBRARIES AND LEARNING FACILITIES

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## LIBRARIES

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The University of Manchester Library is one of the best-resourced academic libraries in the UK. Widely recognised as one of the world's great research libraries, the Library provides over 4 million printed books, more than 500,000 ebooks and access to 41,000 electronic journals and hundreds of online databases.

The needs of taught and research students are served by a dedicated team who provide specialist advice on such diverse topics as bibliometrics, impact analysis, research data management, open access publishing and literature reviews. The Library also offers a high-quality skills programme specifically aimed at researchers and their needs.

For those times you are unable to visit, the vast majority of our electronic resources can be used remotely online.

Across campus several specialist libraries offer subject-specific and tailored services. You can make use of the John Rylands Library, a magnificent neo-Gothic building housing one of the world's finest collections of rare books and manuscripts, which is also a thriving visitor attraction, with exhibitions and events taking place throughout the year.

[www.manchester.ac.uk/library](http://www.manchester.ac.uk/library)

## IT SERVICES

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The University's teaching and research activities are supported by extensive IT services. The fact that we've got the largest server farm in the north-west of England should give you an idea of the breadth and scale of our technologies. Our facilities and services include:

- more than 3,200 student PCs accessing a huge range of software, academic data and resources from across the world
- extensive Wi-Fi coverage across campus, including access to the international eduroam network
- fully networked University halls of residence, providing high-speed Internet access from your room
- 24/7 access to computers at the Alan Gilbert Learning Commons and in the Owens Park halls of residence
- a University email account and a personal file storage area
- specialist research support services for academics and researchers, offering access to national datasets, visualisation and high-performance computing
- dedicated IT Service Desk support, including a 24/7 telephone helpline
- downloadable iManchester smartphone app for mobile devices

Left above: Students discussing group work in the Manchester sunshine

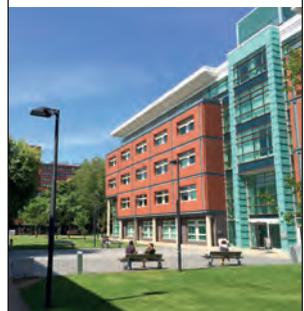
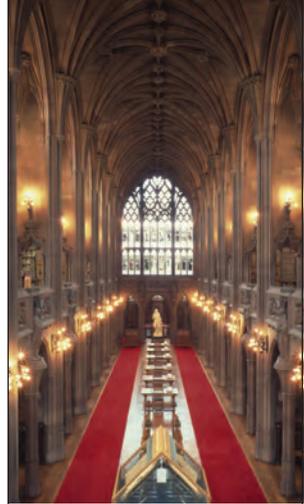
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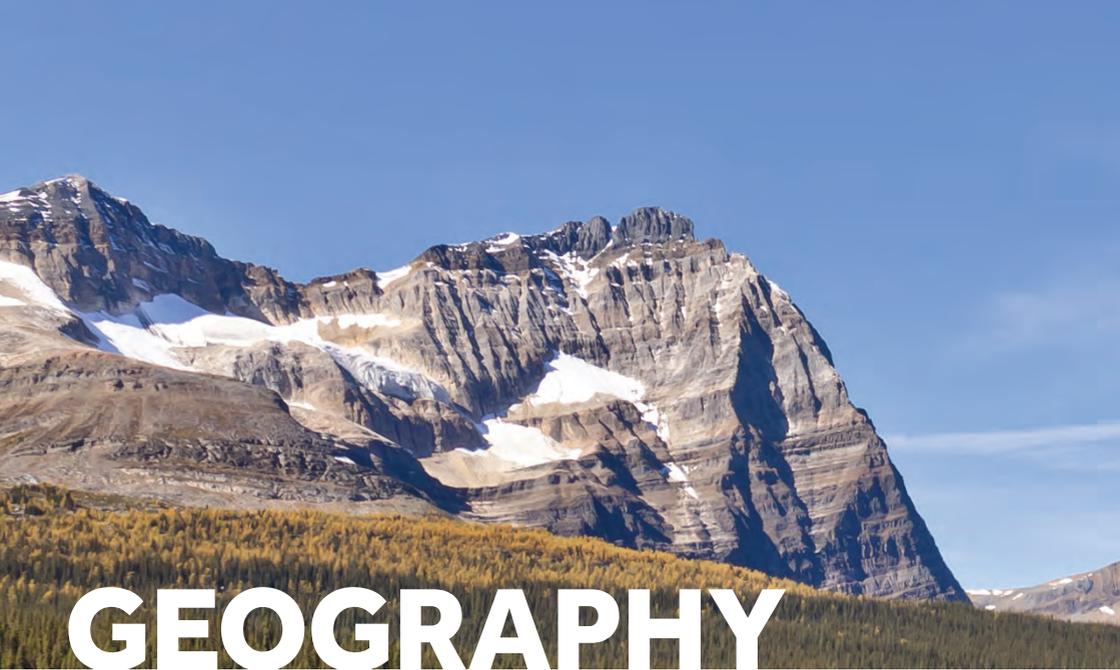
The John Rylands Library

Student studying in one of the world's great research libraries

University Place and the Whitworth Building at the University

Recently opened Arthur Lewis Building with state-of-the-art laboratories





# GEOGRAPHY

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## AT THE UNIVERSITY OF MANCHESTER

**Taught at Manchester for over a century, Geography today encompasses a wide range of teaching and research interests, and embraces a lively community of staff and undergraduate and postgraduate students.**

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### A FRUITFUL REGION

We are fortunate in being situated within a particularly interesting region of the UK. The focal point of the Industrial Revolution, Manchester is surrounded by a landscape that mixes industrial heritage with a huge diversity of scenery. Its history is associated with technical innovation, such as the first railways and the first computer, and with political innovation, through figures such as Emmeline Pankhurst and Friedrich Engels. The modern city has added to this international

reputation in the spheres of culture and sports. Such a richness of landscape, heritage and cultural vibrancy cannot help but inspire the geographical imagination of those who come to study here.

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### MULTIDISCIPLINARY TEACHING AND RESEARCH

Our postgraduate programmes (including taught master's and research PhDs) are integrated into our overall research ethos, which focuses on producing both theoretically and policy-relevant contributions to knowledge in both human and physical geography.

We build our taught master's degrees around broad themes, within which a number of geography staff are active researchers, which often combine with policy applications. On the human geography side, we have a strong reputation in the areas of economic geography, urban geography and social geography, while on the physical geography side we have a long tradition of research in environmental change, geomorphology and human-environment interactions.

At the same time, the variety in the content and methodological approaches across all our staff research interests affords a wide range of opportunities for you to undertake the more specialised research degree of PhD. The educational approach of the Geography postgraduate programme emphasises student-centred learning, in which our role is to guide, rather than to instruct.



**83% OF THE UNIVERSITY'S RESEARCH ACTIVITY WAS DEFINED AS "WORLD-LEADING" OR "INTERNATIONALLY EXCELLENT" IN THE MOST RECENT RESEARCH EXCELLENCE FRAMEWORK (REF 2014). THIS RESEARCH DIRECTLY INFORMS OUR TEACHING, SO YOU WILL LEARN AT THE CUTTING EDGE OF YOUR SUBJECT.**

In the taught components, we will lead you through the wide range of geographical theories and methods by providing a structure around which to read, together with seminar discussions on key areas of debate. We provide this structure through a set of compulsory methods and theory course units, comprising some formal presentation of material by staff, and class debates on pre-determined themes. You undertake tasks both in groups and individually and have to learn to use a range of different media to present your work.

### **OUTSTANDING FACILITIES**

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The University and geography department have excellent resources for postgraduates. Our library is acknowledged as one of the finest in the country, offering you a wide range of relevant publications and a unique map collection.

Laboratories for physical geographers are all housed within our Arthur Lewis Building, and include facilities for water chemical and sediment analyses, as well as advanced magnetic and optical microscopy facilities. We also have access to laboratory facilities in other related schools, such as the School of Earth, Atmospheric and Environmental Sciences.

We are housed in a spacious and well-equipped modern building complex, with a dedicated suite of computers for postgraduates that are networked into the University system and allow access to a wide range of applications,

including specialist software for the Geographical Information Sciences, such as image processing, GIS, GPS and cartographic representation.

### **SUPPORTIVE ENVIRONMENT**

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We pride ourselves on having a particularly friendly atmosphere. A weekly series of academic seminars and a weekly informal reading group not only form vital components of academic training, but also generate an ease of atmosphere in which you can feel comfortable.

We hold small parties at the beginning and end of semesters to welcome new postgraduates. Further social, sporting and academic events are organised by the student society, MUGS (Manchester University Geographical Society), whose activities include an annual charity ball, theatre trips, bowling, field trips and sport events such as mixed soccer, netball and hockey.

As part of the School of Environment, Education and Development (SEED), joining colleagues in Planning and Environmental Management, MARC (the Manchester Architectural Research Centre) and GDI (Global Development Institute), Geography can call upon an expanded and strengthened administrative team to support research, teaching programmes, and international partnerships. We also have strong links with other disciplines in the Faculty of Humanities, including Archaeology.

# TAUGHT MASTER'S COURSES

## PREPARE TO MAKE A DIFFERENCE

**Environmental  
Monitoring,  
Modelling and  
Reconstruction  
MSc**

**Environmental  
Governance MSc**

**Geographical  
Information  
Science MSc**

FT: 12 months  
PT: 27 months\*

\*Part-time study is not organised on a day-release basis; however, we try as far as possible to ensure that most or all taught classes are timetabled to require attendance on one day per week. Be aware that there can be occasional instances where classes are scheduled at different times. You should also be aware that private study is likely to involve work at various times of the week, sometimes in a group context. It is therefore important that you recognise the need for some flexibility with regard to the timetabling and management of your study.



# MSc IN ENVIRONMENTAL MONITORING, MODELLING AND RECONSTRUCTION

**Duration:**

**Full-time:** 12 months, **Part-time:** 27 months

## This master's course focuses on the analysis of dynamic environments: past, present and future.

**Concerns over human impacts on the environment have stimulated demand from governments and industry for the monitoring, analysis and modelling of natural processes in environmental systems. This is essential if we are to improve understanding of the interrelation of environmental variables in order to predict and manage their responses to anthropogenic perturbations.**

### **You will gain:**

- Advanced theoretical knowledge and practical expertise in order to collect, interpret, and analyse contemporary and past environmental .
- Modelling skills, in order to investigate the interrelationships between environmental variables, and to predict their responses to changing internal and external conditions.
- Intellectual and practical skills, in order to design and undertake field and/or laboratory experiments in contemporary environmental process-monitoring, or palaeoenvironmental reconstruction, and to design and test appropriate environmental models with the data you collect.



These skills are highly relevant if you wish to pursue a career in environmental management, or consultancy, and also provide a firm grounding for research in the environmental sciences.

Dr Claire Goulsbra directs the course, with input from other physical geographers working on a wide variety of aspects of environmental change. Current research includes:

- Biogeography
- Palaeoecology
- Environmental pollution
- Upland geomorphology
- Remote sensing for environmental management
- Hydrology
- Water resource management
- Fire management

We also make use of the proximity of Manchester to the upland areas of the Peak District; several past MSc students completed dissertation work in close collaboration with various organisations responsible for land management in the Peak District, giving their work direct policy relevance.

## COURSE CONTENT

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Teaching focuses on training in theory, concepts and research skills in the first semester, and practical applications and research experience in the second semester.

We teach course units in small-group interactive styles with a mix of lectures, tutorials, seminars, practicals and presentations. A range of physical geographers provides training in their specialised fields, covering both content and practical research methods.

In a typical week, expect to spend time in the library, preparing for seminars; in the laboratory, completing practicals; in the dedicated postgraduate computer laboratory, or writing reports; and in the classroom.

The second semester in particular gives you increased opportunities to go out into the field, both for practicals and to gain research experience by doing field research with members of staff. We maintain an intensively monitored catchment on the moors near the Snake Pass in the Peak District and this is the focus of several practical exercises, as well as a source for data to support dissertation work.

Field and laboratory research are essential to your learning process in environmental monitoring, and these form integrated parts of both the taught units and dissertation work.

## CORE COURSE UNITS

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These typically cover:

- Environmental Change and Reconstruction
- Environmental Monitoring and Modelling Concepts
- Environmental Monitoring and Modelling Practice
- Dissertation Support

## OPTIONAL COURSE UNITS

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Choose from the following (total of four):

- Applied Study Unit
- Climate Change, Disasters and Responses
- Digital Image Processing and Data Analysis
- Environmental Impact Assessment
- Environmental Remote Sensing
- GIS and Environmental Applications
- Issues in Environmental Policy
- Planning for Environmental Change
- GIS and the Web

Availability of course units may vary from year to year.

## LEVEL 4 OPTIONS

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You are also allowed to take up to 2 of the following level 4 options:

- Managing the Uplands
- Climate Change and Carbon Cycling
- Coastal Processes
- Dryland Environments: Past, Present, Future
- British Uplands: Science, Policy, and Practice
- Mediterranean Quaternary Landscape
- Using and Adapting GIS

Typical course units comprise a minimum of a one-hour lecture per week, or seminar supported by supervised laboratory time. The exact balance varies, depending on the requirements of particular units. Additional contact time is arranged on an ad hoc basis by students to discuss assignments and other matters.

By the end of the course, you will have advanced experience in:

- Field/laboratory monitoring techniques for analysis of environmental processes.
- Advanced techniques for analysis of environmental materials field and laboratory techniques for palaeoenvironmental reconstruction based on stratigraphical studies of sediment cores, including microfossil and pollen analysis.
- GIS and remote sensing and advanced statistical methods.
- Designing, planning, funding and executing research projects in environmental monitoring, modelling or palaeoenvironmental reconstruction.
- Processing/analysing results logically, using objective statistical methods and/or mathematical modelling techniques objective, unbiased, and impartial reporting of analytical results and their interpretation, both oral and written, particularly scientific report writing.

Normally taken full-time, the course is also well suited to part-time study over two years.

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# MSc IN ENVIRONMENTAL MONITORING, MODELLING AND RECONSTRUCTION

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## ASSESSMENT

Taught units comprise two-thirds of the course and are assessed by a wide range of project work, essays and presentations. There are no formal examinations. The remainder of your course consists of the dissertation.

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## CAREER OPPORTUNITIES

In the second semester, various speakers from environmental employers visit the department to give a flavour of their work and advice on employment.

The MSc in Environmental Monitoring, Modelling and Reconstruction has an excellent track record in providing a springboard for students to go on to careers in environmental industries, consultancies and government agencies, or to further research for higher degrees.

Recent graduates have found employment in agencies such as the UK Atomic Energy Authority, The Environment Agency, Natural England, and a range of environmental consultancies. Others have moved on to undertake full-time research for a PhD.

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## ENTRY REQUIREMENTS

You should hold an Upper Second class Honours degree, or its equivalent, in Earth Sciences, Environmental Sciences, or Geography. Graduates in Chemistry, Biological Sciences, Mathematics, Engineering, or a cognate discipline are also welcome. We particularly welcome applications from geographers already working in research or policy-related fields.

Students whose first language or language of instruction is not English may be asked to provide evidence of fluency in English as follows:

- IELTS 6.5 overall, 6.5 in writing, no sub-section below 6.0

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## FEES

**UK/EU students (per annum):** £9,000 full-time.

**International students (per annum):** £17,000 full-time.

Part-time fees are equivalent to 50% of the full-time fee, per annum.





Image of research conducted in our School into climate change in the developing world

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## MSc IN ENVIRONMENTAL GOVERNANCE

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**Duration:**

**Full-time:** 12 months, **Part-time:** 27 months

**The MSc in Environmental Governance is taught by world leading experts on environmental governance and political ecology. Teaching staff include: Stefan Bouzarovski, Noel Castree, James Evans, Maria Kaika, Saska Petrova and Erik Swyngedouw.**



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### COURSE AIMS AND OBJECTIVES

Climate change, over-fishing, energy crises, famines, water shortages, organic food, the loss of rare animal species, fair trade coffee, deforestation, geopolitical struggles over oil and gas supplies, and desertification: these are among the signature issues of our time. They raise important questions about how we currently – and should in future – organise the relationships between societies and the natural resources and environments upon which they depend.

This course addresses these questions, providing training in the principles and practices of environmental governance. It is targeted at three audiences: those wishing to pursue a career in environmental regulation and management; those wishing to conduct further research on these topics; and environmental professionals wishing to deepen their knowledge.

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### OUR MSc IS DISTINCTIVE IN FIVE WAYS:

- 1** We consider the whole spectrum of approaches to regulating human use of the non-human world, from market-based to non-market approaches.
- 2** We cover environmental resource questions using case studies from the 'first', 'second' and 'third' worlds.
- 3** We make the connections between the different social spheres where environmental governance occurs, such as production, distribution and consumption.

- 4 The course is highly interdisciplinary, exposing you to ideas and practices developed in a range of subject areas, rather than one alone.
- 5 Our range of 'real world' practitioners gives you the opportunity to liaise with external organisations on live policy problems and enhance your employability.

We teach the course in such a way that you develop a wide range of generic, practical and subject-specific skills.

The master's draws upon the expertise of the internationally renowned Society-Environment Research Group (SERG). This group involves more than ten researchers from the School of Environment, Education and Development and the School of Social Sciences, with distinguished records of theoretical, empirical and applied research in a range of geographical and environmental settings. This includes work on: mining in the South Pacific and French Guyana; on land rights in southern Africa; on bio-prospecting in central America; on conservation projects in central Africa; on GMOs in Britain; and on water management in Ecuador and Spain – to name but a few.

### COURSE CONTENT

Governance is a broad concept that refers to the principles and techniques – as well as the actors and institutions – involved in managing a sphere of human activity (e.g., the economy). Our syllabus covers theories and practices of environmental governance and offers you a comprehensive introduction to how humans use of the non-human world is organised, and what the effects of this are. We combine training in theory and concepts with practical and applied elements.

The MSc in Environmental Governance is a highly flexible course, with three compulsory taught units and five optional taught units. This flexibility allows you to pursue particular research interests throughout the course and tailor the master's to your needs.

### CORE COURSE UNITS

These typically include:

- Key Debates in Environmental Governance – Introduces the main (and often competing) approaches to environmental governance in play today, ranging from 'free market environmentalism', environmental modernisation and ecological

economics, to the 'risk society' perspective and green governmentality.

- Issues in Environmental Policy – Links theory and practice by focusing on different types of environmental policy measures (their logic, operation and outcomes), and is taught by way of real world case studies drawn from the research literature and the work of policy practitioners locally, nationally and globally.
- Doing Environmental Research – Provides advanced research skills and encourages you to plan and design your dissertation/research review projects.

The course introduces you to a range of both research and career options including: planning and budgeting research projects; writing research proposals; preparing a detailed proposal for dissertation/research review.

### OPTIONAL COURSE UNITS

You can choose four from a very broad range of course units offered across the Faculty of Humanities to study as your options for the MSc in Environmental Governance. Examples of the most popular course units are:

- Doing Geographical Research 1 and 2 – Introduces the basics of research design and leads into your summer dissertation.
- Environment and Democracy – Explores issues and mechanisms in ensuring democratic decision-making about the use of the environment.
- Valuing the Environment – Takes a wide-ranging look at the ways the non-human world is and can be valued, covering economic and non-economic modes of valuation, plus cognitive, aesthetic and ethical issues.
- An Introduction to Environmental Economics – Explains and critically assesses the principles and practices of market-led approaches to environmental governance.
- Environment and Development – Examines the role that particular resources and environments can play in the contested process of 'development' in poorer countries worldwide.
- Concepts in Environmental Law – Introduces you to the main legal frameworks employed in environmental governance.
- International Environmental Politics – Examines the challenges, factors and agreements involved in transnational environmental governance.

Availability of course units may vary from year to year.

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# MSc IN ENVIRONMENTAL GOVERNANCE

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**We combine academic rigour with practical relevance, and provide a range of opportunities for you to develop ideas and enhance your employability through dialogue with professionals working at the cutting edge of policy and practice.**

This can include professional seminars, workshops tackling 'live' policy problems, and the possibility for developing dissertation research in collaboration with local and regional organisations.

Highlights from previous years include: work placements with Natural England's Low Carbon Economy initiative; a policy workshop with academics and professionals on the value of the environment in the North West; a debate on environmental justice in the UK with the head of the Environment Agency's Social Policy unit; and a walking tour of environmental regeneration in the Hulme area of Manchester.

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## ASSESSMENT

Eight taught units comprise two-thirds of the course. The remainder consists of a 12,000 word dissertation on an approved topic. Typical course units comprise two hours a week of seminar or small-group work. Together, these units involve a range of formative and summative assessments, including individual and group work, oral presentations and long essays, project work and reports. Coursework is designed to allow you to pursue your particular areas of interest.

In the summer semester, you work independently to undertake dissertation work based on primary and/or secondary data, or else a more philosophical/theoretical dissertation. We encourage you to develop research in collaboration with members of the Society and Environment Research Group and external organisations.

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## CAREER OPPORTUNITIES

The course responds to a growing need for social, economic and political experts in the environmental field, and our graduates are highly employable in what is an expanding sector. Graduates of this course possess theoretical knowledge, political understanding and practical research skills, preparing you for careers in either the public, private or voluntary environmental sectors, or for further research on environmental governance within a university or think-tank environment.

You will be equipped to work for organisations like the Environment Agency, the United Nations Environment Programme, the Soil Association, and the Department of Environment Food and Agriculture, among many others. Our students have been particularly successful in obtaining funded PhD places and gaining employment with private consultancies and international NGOs.

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## ENTRY REQUIREMENTS

You are expected to have an Upper Second class Honours degree or above (or its international equivalent).

We welcome applicants from a range of degree backgrounds, especially Geography, Politics, Anthropology, Sociology and Philosophy. You may need to undertake additional study on your own if you do not understand basic knowledge presupposed in some of the taught units. Students whose first language or language of instruction is not English may be asked to provide evidence of fluency in English as follows:

- IELTS 6.5 overall, 6.5 in writing, no sub-section below 6.0

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## FEES

**UK/EU students (per annum):** £9,000 full-time.

**International students (per annum):** £17,000 full-time.

Part-time fees are equivalent to 50% of the full-time fee, per annum.



**Duration:**

**Full-time:** 12 months, **Part-time:** 27 months

**This master's degree focuses on the multidisciplinary science concerned with the development and application of geographical information technologies.**

Geographical information (GI) technologies are increasingly applied in everyday life, with, for example, the introduction of the Global Positioning System (GPS) and Google Earth.

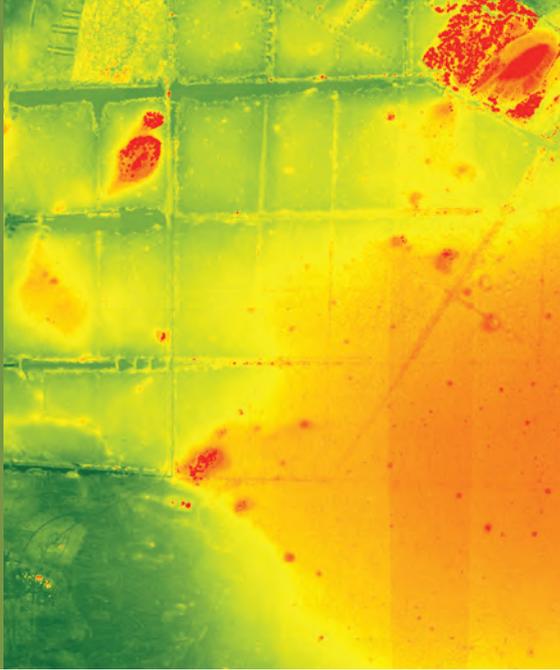
Core GI technologies, including geographical information systems (GIS) and remote sensing (RS), have had a long history of application in industries such as planning, agriculture, forestry, utilities, transportation, and various government and private sector environmental agencies.

The application areas for GI technologies are very widespread, but our course in Manchester focuses particularly on environmental applications in areas covered by current staff research interests.

This course will provide you with the theoretical foundation and practical skills that are relevant for pursuing a career in a GI Science related field.

You will develop an advanced knowledge of and practical experience in:

- GIS and remote sensing theory and practice
- Advanced techniques for GIS development and image processing
- Spatial analysis
- Computer modelling
- Computer mapping
- Scientific communication of analytical results and their interpretation



## COURSE CONTENT

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The dissertation, based on an original research project of your own design, accounts for 60 credits. Dissertation topics can focus on any aspect of GI Science. The remaining 120 credits are based on eight 15-credit course units, (four in each semester). Both semesters include two core course units.

## COMPULSORY UNITS

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- Environmental Remote Sensing
- GIS and Environmental Applications
- Digital Image Processing and Analysis
- Dissertation Support

## OPTIONAL UNITS

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- Analysis and Monitoring of Spatial Policy
- Applied Study Unit
- Environmental Monitoring and Modelling in Practice
- Environmental Monitoring and Modelling Concepts
- Fundamentals of Information and Information Systems
- Information Communication Technologies in Practice
- Introduction to Software Development in Java (online learning)
- Neighbourhood Planning
- The Frozen Planet: Satellites and Climate Change

Please note that availability of options may vary from year to year.

## ASSESSMENT

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Assessment is primarily coursework-based and includes a variety of project work, essays and presentations. This enables you to gain a significant amount of hands-on experience of applying GI Science skills to real world environmental applications.

You select your remaining four course units from a wide range of options offered by Geography, Planning and Environmental Management, and the Institute for Development Policy and Management (IDPM), all within the School of Environment, Education and Development. These optional course units enable you to tailor the course to your unique interests and can provide the foundation for dissertation research.

## CAREER OPPORTUNITIES

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You will have the opportunity to learn from staff with advanced and practical understanding of GI Science. The taught component of the course, together with the experience of carrying out a postgraduate-level dissertation project, provides you with an excellent foundation for PhD research in numerous fields that involve geospatial data analysis, including physical and human geography, planning, development, and the environmental and earth sciences. There is a high demand worldwide for individuals with these skills.

We provide you with the background knowledge and experience needed for employment in many sectors, especially GIS consultancies, environment agencies, financial services, marketing, the oil and gas sector, agriculture and forestry, water authorities, health authorities, and retail.

## ENTRY REQUIREMENTS

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You should have a Upper Second class Honours degree (or its international equivalent).

We welcome applicants from a range of degree backgrounds, especially Geography and Environmental Sciences. Graduates in biological sciences, mathematics, engineering, or a cognate discipline are also welcome.

Students whose first language or language of instruction is not English may be asked to provide evidence of fluency in English as follows:

- IELTS 6.5 overall, 6.5 in writing, no sub-section below 6.0

## FEES

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**UK/EU students (per annum):** £9,000 full-time.

**International students (per annum):** £17,000 full-time.

Part-time fees are equivalent to 50% of the full-time fee, per annum.



# APPLYING

## PREPARE TO MAKE A DIFFERENCE

**Environmental Monitoring, Modelling and Reconstruction MSc**

**Environmental Governance MSc**

**Geographical Information Science MSc**

## TAUGHT COURSE APPLICATIONS – HOW TO APPLY

### We advise you to apply early.

Typically, prospective postgraduate students will apply between ten and twelve months before they intend to take up their place.

Therefore, although applications for September entry are open until the last week of August, do not leave applying to the last minute.

It is also important to consider how you will finance your graduate studies at the same time as you make your application.

### APPLY ONLINE

[www.manchester.ac.uk/study/masters/admissions/apply](http://www.manchester.ac.uk/study/masters/admissions/apply)

Here, you will also find more information on alternative application methods, and will be able to download the relevant documents.



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Your applications should include the following, in either digital or hard copy format:

- Completed application form
- Two references, one of which should be familiar with your academic work, on headed paper from the institution, signed, dated and stamped
- Copy of degree certificate for completed bachelor's degree
- Copy of academic transcript for any academic qualification in progress
- Brief personal statement (maximum 500 words) outlining your reasons for pursuing the course and what benefits you hope to derive from it
- Curriculum Vitae

Once your application has been received, our admissions team will contact you. We may ask you to submit additional information, if necessary.

Ensure that you enclose all the necessary documents, as the delay caused in having to seek any missing documents from you might adversely prejudice your application.

You should provide all documents in the original language. Documents in languages other than English must be accompanied by certified translations into English.

If you decide to accept your offer, when you arrive in Manchester you will be required to show to us the original documents which demonstrate your academic qualifications and your English language ability.



# FUNDING

There is less funding available for master's courses than for either undergraduate degrees or PhD programmes. In order to fund your studies, you will need to undertake careful research. More information about funding options can be found on [www.manchester.ac.uk/study/masters/funding](http://www.manchester.ac.uk/study/masters/funding)

## UK/EU STUDENTS

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If you are a prospective master's student from the UK or EU, there are potential sources of funding available.

## POSTGRADUATE LOANS (PGL)

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Postgraduate loans of up to £10,000 will be available for eligible students commencing taught and research master's courses in the 2017/18 academic year.

## PROFESSIONAL AND CAREER DEVELOPMENT LOANS

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Some students finance their studies by applying for a Professional and Career Development Loan. These are different from undergraduate loans in that they are bank loans with stricter payment conditions. You can take out between £300 and £10,000. Loans are usually offered at a reduced rate and the government pays interest while you study.



## INTERNATIONAL STUDENTS

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A good way for you to start exploring your master's funding options is to ask staff in your subject area for advice on how previous international students have financed their studies.

You should also contact the ministry of education or education department along with the British Council office in your own country. The location of your nearest British Council office can be found on the British Council website.

Before you start your search for funding you should consider the following:

- Funding opportunities are very competitive and are generally given to students that have achieved outstanding academic results and submitted high-quality applications.
- The application process for funding opportunities can start very early in the admissions cycle, so you should start looking for funding opportunities 12 to 18 months before you intend studying.
- If you need a visa to study in the UK you will need to prove to the immigration officer that you are able to meet both the tuition and living costs which may take the form of bank account information and/or a letter confirming sponsorship.

## BURSARIES AND SCHOLARSHIPS

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### **Manchester Alumni Scholarship Scheme**

If you are a current undergraduate at The University of Manchester and plan to start a master's course in the Faculty of Humanities from September 2017, you may be eligible for Manchester Alumni Scholarship Scheme. Alumni who graduated within the past three years may also be eligible.

For more information about scholarships and bursaries available to UK, EU and international students, please visit

**[www.manchester.ac.uk/study/masters/funding](http://www.manchester.ac.uk/study/masters/funding)**

# RESEARCH PROGRAMMES

Geography at Manchester has risen to become one of the top tier institutions for its size, with our staff widely recognised for the quality of their contributions to the international research community.



## HUMAN GEOGRAPHY

There are three research groups specialising in Human Geography at The University of Manchester. You will be supervised by world leading academics with very strong reputations for research quality. Staff members also hold editorial positions with leading research publications, including major journals such as *Antipode*, *Area*, *Geography Compass*, *Geoforum*, *International Journal of Urban and Regional Research*, and *Progress in Human Geography*.

### KEY RESEARCH AREAS AND PRIMARY OPPORTUNITIES:

The **Cities, Politics and Economies** group's research focuses on theorising critically and substantiating empirically the socio-political and cultural processes that produce urbanity and transform cities over time and across different geographical territories.

It develops innovative ways of theorising and understanding urban change.

The **Social and Cultural Geography** group's research is at the heart international advances in social and cultural geography. Contributing to critical geographies of feminist, Marxist, post-colonial, post-structural and more-than-representational theory they individually work on a range of diverse topics.

The **Society and Environments** research group works with a range of partners, including: policy and government; local authorities and regional councils; businesses; NGOs; and grass roots and community organisations. It is committed to creating academic and societal impact through research.

## PhD in Human Geography

## PhD in Physical Geography

FT: 36 months

PT: 72 months

\*Part-time study is not organised on a day-release basis; however, we try as far as possible to ensure that most or all taught classes are timetabled to require attendance on one day per week. Be aware that there can be occasional instances where classes are scheduled at different times. You should also be aware that private study is likely to involve work at various times of the week, sometimes in a group context. It is therefore important that you recognise the need for some flexibility with regard to the timetabling and management of your study.



## PHYSICAL GEOGRAPHY

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There are two research groups specialising in Physical Geography at The University of Manchester. Research is done at a variety of timescales, from the present day to the Pleistocene ice ages. Themes include future prediction and modelling, present-day observation, monitoring and modelling, and also reconstruction of past environments and environmental changes.

### KEY RESEARCH AREAS AND PRIMARY OPPORTUNITIES:

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The **Environmental Processes** research group's work includes the analysis of environmental processes at a range of spatial scales and geographical locations, but particularly in upland and urban environments. Fundamental and applied

research is supported by the Research Councils (particularly NERC and EPSRC) and a range of government and non-government agencies (DEFRA, DTI, UKCIP, Environment Agency, Natural England and Moors for the Future).

The **Quaternary Environments and Geoarchaeology** research group is particularly interested in the analysis of the response of geomorphological systems and ecosystems to global climate change. This includes the study of glaciers, rivers, lakes, deserts and high mountain terrains as well as palaeoecology, geochemistry and a range of geochronological applications. The group also has interest in geoarchaeology.

## FIND OUT MORE

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For more information on the work of our human geography research groups and research opportunities, visit our website:

[www.seed.manchester.ac.uk/subjects/geography/research/research-groups](http://www.seed.manchester.ac.uk/subjects/geography/research/research-groups)



## FIND OUT MORE ONLINE

Further details can be found on the School's website:

[www.seed.manchester.ac.uk](http://www.seed.manchester.ac.uk)

### Disclaimer:

This brochure is prepared well in advance of the academic year to which it relates.

Consequently, details of courses may vary with staff changes. The University therefore reserves the right to make such alterations to programmes as are found to be necessary. If the University makes an offer of a place, it is essential that you are aware of the current terms on which the offer is based. If you are in any doubt, please feel free to ask for confirmation of the precise position for the year in question, before you accept the offer.

### ACCOMMODATION

Discover your potential new home:

[www.manchester.ac.uk/accommodation](http://www.manchester.ac.uk/accommodation)

### ADMISSIONS AND APPLICATIONS

Everything you need to apply to Manchester:

[www.manchester.ac.uk/pgapplication](http://www.manchester.ac.uk/pgapplication)

### ALAN GILBERT LEARNING COMMONS

Our brand new, ultra-modern student learning environment:

[www.manchester.ac.uk/library/learningcommons](http://www.manchester.ac.uk/library/learningcommons)

### CAREERS

Many major recruiters target our postgraduates; find out why:

[www.manchester.ac.uk/careers](http://www.manchester.ac.uk/careers)

### CHILDCARE

Support for students who are also parents:

[www.studentsupport.manchester.ac.uk/who-can-i-talk-to/student-carers-and-parents/](http://www.studentsupport.manchester.ac.uk/who-can-i-talk-to/student-carers-and-parents/)

### DISABILITY SUPPORT

For any additional support needs you may have:

[www.manchester.ac.uk/dso](http://www.manchester.ac.uk/dso)

### FUNDING AND FINANCE

Fees, scholarships, bursaries and more:

[www.manchester.ac.uk/study/postgraduate//fees](http://www.manchester.ac.uk/study/postgraduate//fees)

[www.manchester.ac.uk/study/postgraduate//funding](http://www.manchester.ac.uk/study/postgraduate//funding)

### INTERNATIONAL STUDENTS

Discover what we offer our multinational community:

[www.manchester.ac.uk/study/international](http://www.manchester.ac.uk/study/international)



### **IT SERVICES**

Online learning, computer access, IT support and more:

**[www.manchester.ac.uk/itservices](http://www.manchester.ac.uk/itservices)**

### **LIBRARY**

One of the UK's largest and best-resourced university libraries:

**[www.manchester.ac.uk/library](http://www.manchester.ac.uk/library)**

### **MANCHESTER**

Britain's 'original modern' city is right on your doorstep:

**[www.visitmanchester.com](http://www.visitmanchester.com)**

### **MAPS**

Visualise our campus, city and University accommodation:

**[www.manchester.ac.uk/discover/maps](http://www.manchester.ac.uk/discover/maps)**

### **PROSPECTUS**

Access online or order a copy of our 2017 prospectus:

**[www.manchester.ac.uk/study/masters/prospectus](http://www.manchester.ac.uk/study/masters/prospectus)**

### **SPORT**

Clubs, leagues, classes, facilities and more:

**[www.manchester.ac.uk/sport](http://www.manchester.ac.uk/sport)**

### **SUPPORT**

Dedicated academic, personal financial and admin assistance:

**[my.manchester.ac.uk/guest](http://my.manchester.ac.uk/guest)**

### **STUDENTS' UNION**

Societies, events, peer support, campaigns and more:

**[www.manchesterstudentsunion.com](http://www.manchesterstudentsunion.com)**

### **VIDEOS**

See and hear more about our University:

**[www.youtube.com/user/universitymanchester](http://www.youtube.com/user/universitymanchester)**

## **WANT TO TALK THROUGH YOUR DECISION?**

**We welcome enquiries  
regarding the admissions  
process.**

**Please direct them to:**

**Recruitment and  
Admissions Office**  
School of Environment,  
Education and Development  
Arthur Lewis Building  
The University of Manchester  
Oxford Road  
Manchester  
M13 9PL  
United Kingdom

**+44 (0)161 275 0969**

**[seed.admissions@  
manchester.ac.uk](mailto:seed.admissions@manchester.ac.uk)**

School of Environment, Education and Development  
The University of Manchester  
Arthur Lewis Building, Oxford Road  
Manchester, M13 9PL, United Kingdom

**Tel: +44(0)161 275 0969**

**Email: [seed.admissions@manchester.ac.uk](mailto:seed.admissions@manchester.ac.uk)**

**[www.seed.manchester.ac.uk](http://www.seed.manchester.ac.uk)**

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