CENTRE FOR INTERDISCIPLINARY METHODOLOGIES

Postgraduate Programmes 2018/19
MA Digital Media and Culture
MSc/PG Dip/PG Cert Big Data and Digital Futures
MSc Urban Informatics and Analytics
Our wide-ranging postgraduate courses give you the perfect platform to approach 21st century concerns: What are the opportunities and challenges of big data? How do digital sensors offer new ways to shape smart cities? How can social media help us get a grip on world-changing events?

Our three postgraduate courses offer the opportunity to develop your skills and knowledge in new and exciting ways – whatever your background. Our diverse cohort of students come from disciplines such as sociology, mathematics, geography, communications, animation and the theatrical arts. We embrace this broad mix of expertise, and allow you to tailor your studies around your own ambitions and research interests through our equally broad range of research and research-led teaching. You’ll find a range of the modules we have on offer at CIM throughout this brochure, but our offering is constantly evolving to reflect the needs of our students and the world around us.

As the world continues to be transformed by data, analytics, media and digital processes, there is an ever-increasing demand for interdisciplinary skills and knowledge. Our societies, cultures, institutions and cities are increasingly networked, and 21st century careers require both joined-up thinking and the ability to develop innovative solutions. At the Centre for Interdisciplinary Methodologies (CIM), we nurture creative and critical approaches that will help you open doors to a variety of emerging career paths.

IT’S NOT WHAT YOU KNOW, OR WHO YOU KNOW, BUT ‘HOW YOU KNOW’ THAT MATTERS.

At CIM, you won’t be an anonymous student in a large department. Our close-knit community will offer you regular and direct access to teaching staff, as well as opportunities to work closely on projects with your fellow Master’s students, PhDs and faculty. Our teaching team includes experts in areas ranging from computer science and sociology, to media studies, design, architecture and anthropology. With regular computer lab sessions for many modules, whether you’re already an advanced programmer or you’re just starting out, you’ll have plenty of opportunities to develop and strengthen your practical skills. You’ll also develop leadership and team-building skills through group projects and interactive tasks, which have previously included a ‘Data Dive’ at the Shard in London, data sketching workshops, or an analytics boot camp, depending on your chosen course.

IT’S NOT WHAT YOU KNOW, OR WHO YOU KNOW, BUT ‘HOW YOU KNOW’ THAT MATTERS.
DEVELOP THE SKILLS AND KNOWLEDGE YOU NEED

Across our three programmes, you’ll find an array of optional modules* to either deepen your knowledge from your core study, or add further breadth to an already diverse year of study. Many of our modules are available to students across more than one of our programmes. But with so much to choose from, how do you decide what to study?

To help get you thinking about the areas that could be most relevant to you, take a look at some of the optional modules our students have studied recently.

**Urban Resilience, Disasters and Data**

This five day intensive module is aimed at introducing the topics of disaster risks and urban resilience with emphasis on the use of innovative digital technologies to gather and analyse urban data for improving disaster resilience. It approaches, theoretically and practically, the main issues involved in disaster resilience and the way in which social, media, mobile technologies and the web are related to our collective experience of disasters and crisis events.

By means of a practical project and fieldwork conducted in the city of Coventry, you’ll learn how to collect urban data using open-source mobile data collection software, process and analyse this data with Geographic Information Systems (GIS) applications and produce an interactive digital map to visualise urban aspects related to disaster resilience.

**User Interface Cultures: Design, Method and Critique**

This module focuses on graphical user interfaces for web and mobile apps to critically explore the economic, technical, aesthetic and political dimensions of contemporary interface cultures. Your studies will foster and explore critical and technical knowledge of interfaces through a number of experimental methods for interface research and criticism that form practical investigations of not only what an interface is, but also how it is designed. You’ll be introduced to a number of commercial interface design methods, with the aim of developing an understanding of the ‘interface industry’, and equally with the aim of ‘repurposing’ methods that form practical investigations of not only what an interface is, but also how it is designed. You’ll be introduced to a number of commercial interface design methods, with the aim of developing an understanding of the ‘interface industry’, and equally with the aim of developing an understanding of the ‘interface industry’, and equally with the aim of repurposing methods that form practical investigations of not only what an interface is, but also how it is designed. You’ll be introduced to a number of commercial interface design methods, with the aim of developing an understanding of the ‘interface industry’, and equally with the aim of repurposing methods that form practical investigations of not only what an interface is, but also how it is designed. You’ll be introduced to a number of commercial interface design methods, with the aim of developing an understanding of the ‘interface industry’, and equally with the aim of repurposing methods that form practical investigations of not only what an interface is, but also how it is designed. You’ll be introduced to a number of commercial interface design methods, with the aim of developing an understanding of the ‘interface industry’, and equally with the aim of repurposing methods that form practical investigations of not only what an interface is, but also how it is designed. You’ll be introduced to a number of commercial interface design methods, with the aim of developing an understanding of the ‘interface industry’, and equally with the aim of repurposing methods that form practical investigations of not only what an interface is, but also how it is designed.

**Digital Cities**

This module explores the potential and challenges for digital technologies, big data and urban analytics within “smart city” projects. The module is based on seven guest lectures from researchers and practitioners from external industry, government and academic organisations, as well as from expertise drawn from the University of Warwick. The lectures touch upon the role of Smart Urban Governance and Citizen Participation, to Wellbeing, Health and Social Inequalities, in order to understand different disciplinary perspectives and methods in research on cities and the current challenges faced by cities across the world.

**Visualisation**

Data visualisations have become an everyday means to make sense of data, and are becoming a fundamental currency for exchanging information. In this module you’ll examine the highly interdisciplinary subject of visualisation from a wide variety of perspectives such as cartography, statistics, architecture, information design, and science and technology studies. Through lectures, coding labs and other practical lab sessions, you will investigate how encoding data and information within graphics alters how we receive and process information, and the relationships we develop with that information.

Through the module you will develop the analytical skills and knowledge to think critically about how visualisations support, alter or intervene in our relationships with information and the world that the visualisations explicitly or implicitly represent. At the same time you will learn how to create visualisations (using the programming language ‘R’, or through data directions) and understand the limits of visualisation as a set of methods.

**Digital Sociology**

In this module, you’ll study how digital innovation is enabling new ways of knowing people in terms of online surveillance, behavioural analytics and real-time research. What are the implications of this for the relations between social science, computing and society? You’ll examine new forms of computational social science in the first half of the course, and the intense debates they have sparked in recent years. Do the sensational claims for a new computational science of society hold up? Do we really need new methods in order to study digital societies? What are the implications of the rise of computational sociology for the relations between social research and social life? During the second half of the course you will revisit these questions in hands-on seminars and lab sessions where you will experiment with digital methods in order to imagine new ways of practising sociology with technology.

*Many of the core modules for our courses are also available as optional modules for other courses. Please see our website, warwick.ac.uk/cim, for a full list of available modules across the department.*
MSC URBAN INFORMATICS AND ANALYTICS
With the Department of Computer Science

For the first time in history, more than half of the world's population lives in urban areas - towns and cities that are increasingly connected and influenced by "smart" technologies. Urban Informatics andAnalytics is an emerging interdisciplinary approach to addressing the urban challenges arising from these developments.

Our unique MSc develops the practical skills needed – such as data analytics and visualisation techniques – to tackle these challenges, combining practice with cutting-edge theoretical and methodological understanding of urban systems. Our course offers you:

- Deep understanding of urban science and digital cities
- Practical and analytical skills to explore, visualise and make sense of city-scale spatial data
- Interdisciplinary methodological skills to design solutions to the world's urban challenges – capitalising on emerging developments in big data analytics and digital technologies

WHAT WILL I STUDY?
Through your core modules – Spatial Methods and Practice in Urban Science; Urban Data – Theory and Methodology; and a Dissertation – you’ll gain a broad foundation of knowledge and skills to approach the world’s urban challenges.

Across your core modules, you’ll cover topics ranging from the foundations of urban theory, to advanced use of spatial methods and geographic information systems, while exploring at a deep level the limits of various data and methodologies. Beyond this, you’ll be free to choose from a wide range of optional modules, many of which will directly give you opportunities to develop the skills you’ll have been learning in your core modules.

WHAT OPTIONAL MODULES MIGHT BE RELEVANT?
In Foundations of Data Analytics, for example, you will develop foundational skills in data analytics using a variety of tools including ‘R’, the programming language that is taught in a variety of modules across CIM. This module is taught by the Department of Computer Science and develops your technical skills so that you can go from raw data to a deeper understanding of the patterns and structures within the data, to support making predictions and decision making. Starting with examples of analytics work at Google, Netflix, Kaggle and Facebook, you’ll cover topics such as data ethics and data sharing alongside core statistical skills including regression, classification and clustering.

IS THIS COURSE FOR ME?
Unlike most existing courses that focus exclusively on data practices and tools, our interdisciplinary course combines training in theoretical approaches to urban life with practice-based methodological skills. Across the course, you’ll develop an understanding of social theories and their application, learning to make informed decisions supported by urban data analytics.

Our students have come from disciplines including urban planning, computer science, sociology and politics, to name a few. Most importantly, our students share an ambition to learn how to apply urban data science to real-life urban environments. We also welcome applications from professionals related to city management or planning.

WHERE WILL IT TAKE ME?
The MSc in Urban Informatics and Analytics equips you for future opportunities within business, government, NGOs and the third sector, where expertise in using analytics and data science to solve urban problems is increasingly essential.

The MSc can also be a springboard to a range of careers where you can apply your data analytics and visualisation skills, such as Data Journalism, Finance, Health Care, and Business Analytics. A number of our students have chosen to continue their academic studies through an MPhil/PhD in Urban Science, Interdisciplinary Studies and other relevant disciplines.

"For me, the most interesting part of the course is applying what I’ve learned in creating maps with QGIS. Learning how to improve interfaces and visualise data has been really helpful throughout the year. No-one tells you what is going to be best or look best. You try different things, and it’s helpful to open your mind and be more artistic, so you can show different information."

Francisco Contreras Marroquín, MSc Urban Informatics and Analytics
PUTTING THEORY INTO PRACTICE

Learning to apply the theoretical skills you’ll learn at CIM is at the heart of our MSc Urban Informatics and Analytics programme. That’s why each year, if you’re studying this programme, you’ll be invited to join a “Data Dive” at the Shard in London.

Working with other students from Warwick, King’s College London and New York’s Center for Urban Science and Progress (CUSP) over the course of four days, this is your chance to tackle a real-life urban issue, using a wide range of live data sources. Recent events have included looking into London’s evening and night-time economy, with students investigating and discussing the possibility of policies which could help improve evenings and nights in London for everyone, based on a huge range of data.

As part of the event, you’ll have access to a wide range of data relevant to the theme of the Data Dive. Previous events have seen students given access to live data from Westminster City Council and across the Greater London area – from local footfall and licences, to tweets and tube journeys. You’ll work in mixed groups alongside students with diverse backgrounds, finding new and intriguing ways to interpret data: from analysing the sentiment of thousands of tweets, to creating innovative visual ways of presenting consumer spending and transport patterns.

Previous events have culminated in visits from representatives of local London Councillors and others, all of whom are always very interested to discuss and engage with the research students have undertaken. One local Councillor and chairman at Westminster City Council even commented that a recent Data Dive – on air pollution in the capital – had made an important contribution to policy change in the capital.

Events like the Data Dive provide an unparalleled opportunity to put theoretical skills into practice, and investigate potential solutions to real world problems. The MSc Urban Informatics and Analytics course will ensure you benefit from regular hands-on experience like this throughout the year, such as gathering and finding positive applications for data in the local area, and a number of diverse individual and group projects. Our wide-ranging collaborative links at CIM make opportunities like this possible.

“I’ve learned something every day on this Data Dive. All the partners and other members of my group are such experts in data analysis. They’ve all got more experience than me, and I’m even working directly with my teachers.

I’ve felt involved in the whole week. It’s been challenging but really fun. I really appreciate having this opportunity to do something so relevant to what I’ve been studying. I’d definitely recommend it for future students thinking about courses. I came here to learn more, and have contact with experts, and I’ve definitely done that.”

Haokun Fu
MSc Urban Informatics and Analytics
“The uniqueness of this program was the main factor that attracted me to the MSc at Warwick. This degree program is different compared to other Big Data courses offered in the market. Its aim is not focused solely on teaching students what tools to use to analyse Big Data, but it rather teaches concepts and methodologies that question the essence of using specific data to find new insights and answer particular questions. Thus, this degree prepares you for the future with the long-term view in mind rather than focusing what is only temporary and short-term.

After finishing my Master’s, my long-term career aspiration would be opening my own consulting company, which would specialise in Big Data.”

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MSc Big Data and Digital Futures

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After my undergraduate degree, I worked as a practising digital artist for a few years before the realisation that I wanted to get more involved in work that lived in the cross-section between education, digital accessibility and creative practices. The research I undertook within the modules in CIM led me onto my dissertation topic which has in turn informed my PhD research question, so it has been quite a natural progression to where I am now, currently working on a PhD project as part of the Seeing Data network at the University of Leeds.

One of the most important skills I learned on the course was in terms of research design. I came from a more practice-based background so I found the work around initiating, designing and undertaking a research project to be invaluable going forward.

Arran Ridley
MA Digital Media and Culture

IS THIS COURSE FOR ME?

This course is aimed at students from a range of disciplinary backgrounds who want to learn more about the emerging field of digital culture and media. Although no specific background is required, your application must demonstrate an ability to work creatively and independently as well as an interest in contemporary developments in digital media and culture.

WHERE WILL IT TAKE ME?

This degree equips you to follow a professional career in knowledge-based workplaces, whether these are museums or marketing agencies, businesses or charities, new media production companies, editing and copywriting companies, or public relations firms and think-tanks. It also provides you with an excellent academic background to pursue issues in digital media at the doctoral level.

WHAT OPTIONAL MODULES MIGHT BE RELEVANT?

In Ethnography, Knowledge and Practice, for example, you’ll have the chance to carry out detailed studies of ethnography as a method of study, writing and theory with a focus on knowledge production. How are architectural designs defined? How is medical knowledge enacted in diagnosis and treatment? How are the documents of international agreements made? How are facts created in a laboratory? During the module’s seminars you’ll examine how participant observation provides a method that accounts for the complexities and particularities of the sites where knowledge is produced.

Or you might consider Playful Media: Ludification in the Digital Age, a six-day intensive module that immerses you in the evolving field of game and play studies, with a particular focus on the changing role of play in contemporary media culture. You’ll learn how concepts of play have developed, how play relates to culture and how ideologies and power become embedded in games. Using a variety of activities – such as iterative game design – you’ll explore methods of analysing and critiquing games and playful activities. During the module you will carry out group work, and even participate in a ‘Game Jam’ and a Minecraft field excursion!
There’s no set background for joining CIM, so it’s no surprise that our graduates aren’t restricted in their career paths either. Our courses focus on deep interdisciplinary skills that will help you excel in areas as diverse as urban and data science, digital media, publishing, local councils, international consultancy, charities, and further research at PhD level and beyond.

To give you a flavour of where CIM could take you, we spoke to recent graduate Isabella Calabreta about her experience at Warwick and beyond:

*Among all the universities I had considered, Warwick was the one that showed a clear intention behind its module choices. The website provided me with an exciting overview of the subjects, with reading suggestions that I found fascinating. I was looking for a university that would nurture me as a person, and also as a student, and the campus was the perfect location for that.

The most interesting aspect of the course for me was working as a researcher in group with my classmates. The laboratories and the lectures that would prepare us for the fieldwork were the most enjoyable moments, giving us the chance to engage with interactive tools and methods. Beyond that, I loved the opportunity to engage with literature in the digital age. I’ve always been interested in literature, but never had to study the medium that the book represents, most certainly not in its digital form. The modules at CIM gave me a much clearer idea of what I wanted to do with my life, and where my interests were.

What CIM has taught me first and foremost is how to conduct research and how to critically evaluate its result in light of our current political environment. Those who choose to study media are most likely people fascinated by the fluid reality of the internet, and will hopefully feel in CIM what I felt on my first day: that I had finally met my peers.

Since CIM, I’ve worked on a number of projects, including helping to curate the content of an Artificial Intelligence website, assisting with user experience testing and research platform, writing for a data journalism blog focused on Open Data news, and managing a varied number of blogs on movies, literature and sub-culture. I’ve worked as a Digital Publishing Intern at the Institute of Network Cultures, researching the disruption in the reading flow of the longform, and I am now lucky enough to cover a role that fulfils all my interests, as Online Publishing Assistant at Cambridge University Press.”

Isabella Calabreta studied MA Digital Media and Culture with CIM following her BA in Foreign Literature and Languages at the University of Catania.

ENTRY REQUIREMENTS

- We normally require a first or upper second class undergraduate degree. Please see our website for more information and international equivalents.
- If your first language is not English, we normally require a minimum score of 7.0 in IELTS or equivalent. Please see warwick.ac.uk/fac/cross_fac/cim/study for details.
- We are especially open to discussing applications from mature students who may have come to higher education through a range of diverse routes.
- We consider each application on its merits, so please get in touch with us to discuss course eligibility if you are unclear about entry requirements or have any questions.

FEES AND FINANCE

Fees for students on our full-time Master’s courses for 2018/19 are set at £9,440 for Home/EU students; for Overseas students fees are set at £20,160.

For full details on fees and finance, including the latest details on funding and scholarships, visit warwick.ac.uk/study/postgraduate/funding.

COURSE LAPTOPS

All students on CIM degrees require a laptop computer for their studies. This is provided by the department for students to use and keep, and the cost is included in course fees.

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