This booklet is designed to give you an outline of our MSc degree courses. If you have any questions, please do not hesitate to contact us.

**Entry requirements for our MSc degree courses**

A first- or second-class undergraduate honours degree (Computing with Digital Media and Management of Information Technology).

A first- or upper second-class undergraduate honours degree (all other courses).

IELTS 6.5, with not less than 6.0 in each section.

Applications from prospective students with relevant work experience are welcomed and are considered on an individual basis.

Further information on entry requirements can be found at: www.sussex.ac.uk/study/pg
Informatics at Sussex

Informatics is the discipline of information – concerned with the art, science, technology and human dimension of computational systems, both natural and man-made.

Informatics is an essential part of 21st-century life, and is an exceptionally fast-moving subject that gives rise to a wide range of exciting and challenging problems.

The Department of Informatics at Sussex provides an intellectually stimulating environment in which to study, and we offer a range of taught postgraduate degrees that reflect our innovative and interdisciplinary approach to research and learning.

We are a leading centre for teaching and research across many aspects of computing, including core aspects of computer science and software systems, artificial intelligence, bio-inspired computing, cognitive science, digital economy, digital media technologies, and human-computer interaction.

Our cutting-edge courses are informed by outstanding research – in the latest UK-wide Research Excellence Framework (REF) evaluation, all aspects of our research environment were classified as either ‘world-leading’ or ‘internationally excellent’.

Our degree courses provide a firm foundation in the core topics while also reflecting our interdisciplinary strengths, drawing on insights from other subject areas such as engineering, management studies, mathematics, neuroscience, and psychology.

The Department has attractive, well-equipped computer laboratories with modern high-spec workstations, and specialist labs for robotics, digital video production and editing, and observational study of human behaviour.

Our strong links with industry, including a groundbreaking partnership with one of the world’s leading financial services companies, and an advisory board which assists in shaping course content, ensures Informatics graduates are highly employable at the end of their studies.
Overview
This MSc degree equips you to work with tomorrow’s computer systems. Platforms may be mobile, embedded, distributed or multi-core and require new techniques to make software efficient, correct and reliable. Networks may be wired or wireless, ad hoc or highly planned, high bandwidth or slow and unreliable – and overlaid with various applications and social connections.

Computers are becoming aware of their surroundings: who is using them, where they are, what interfaces are available, how much energy they consume and the semantics of the data they process. Together these advances lead to challenges of a scale that dwarf the problems computer science has solved up to now.

Your options
Our degrees allow you to tailor the course to your interests with a range of optional modules alongside core modules. Please be aware that not all permutations of options are always available.

Your future
The degree equips you with the skills required to pursue a career in software and systems design, including roles requiring cutting-edge specialisation such as in mobile computing, or leadership in complex problem solving. Graduates have gone on to work for major companies such as Accenture, Google and Toyota. The degree is also an ideal route into research in academia or industry.

Applicants
Applicants should have an academic background in computer science or a closely related discipline. Applicants with a science, mathematics or engineering background with significant computing experience will also be considered, as will those with relevant industrial experience.
### MSc in Advanced Computer Science

**One year full time (two years part time)**

#### Course structure

<table>
<thead>
<tr>
<th>Autumn term</th>
<th>Spring term</th>
<th>Summer</th>
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<tbody>
<tr>
<td><strong>FULL TIME • 1 YEAR</strong></td>
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<tr>
<td>Advanced Software Engineering</td>
<td>Web Applications and Services</td>
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<tr>
<td>Topics in Computer Science</td>
<td>Option</td>
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<td>Option</td>
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<td></td>
<td></td>
<td>Advanced Computer Science Project</td>
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</tbody>
</table>

#### Autumn options

Select two options from the list below:

- Cryptography
- E-Business and E-Commerce Systems
- Human-Computer Interaction
- Web Computing

#### Spring options

Select three options from the list below:

- Adaptive Systems
- Advanced Digital Communications
- Image Processing
- Machine Learning
- Mobile 3D Applications
- Multimedia Design and Applications
- Technology-Enhanced Learning Environments

For the part time course structure go to:  
[www.sussex.ac.uk/ei/internal/coursesandmodules/informatics/pgcourses](http://www.sussex.ac.uk/ei/internal/coursesandmodules/informatics/pgcourses)
Overview
This MSc focuses on building distributed multimedia applications, computer generated animations and virtual environments, emphasising a human-centred approach.

The degree has two main strands; addressing (1) the underpinning technologies in graphics, multimedia and programming, and (2) the principled design of effective digital media for entertainment, communication, training and education. It provides experience in the generation of animations, virtual environments and multimedia applications, and gives students the opportunity to build a high quality portfolio of completed digital media work by the end of the degree.

Your options
Our degrees allow you to tailor the course to your interests with a range of optional modules alongside core modules. Please be aware that not all permutations of options are always available.

Your future
The degree is excellent preparation for the multimedia and digital systems industries; graduates have gone on to pursue careers in web development, e-learning production, games programming and 3D modelling. This MSc is also ideal preparation for doctoral research in the field of digital media.

Applicants
Applicants should have a background in computer science, mathematics, the natural sciences or practical media.
MSc in Computing with Digital Media
One year full time (two years part time)

Course structure

<table>
<thead>
<tr>
<th>Autumn term</th>
<th>Spring term</th>
<th>Summer</th>
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<tbody>
<tr>
<td>3D Animation</td>
<td>Interactive 3D Programming</td>
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<tr>
<td>3D Modelling and Rendering</td>
<td>Mobile 3D Applications</td>
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<tr>
<td>Human-Computer Interaction</td>
<td>Multimedia Design and Applications</td>
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<tr>
<td>Option</td>
<td>Option</td>
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<tr>
<td></td>
<td>Computing with Digital Media Project</td>
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</tbody>
</table>

Autumn options

Select one option from the list below:
- Advanced Software Engineering
- Object Oriented Programming

Spring options

Select one option from the list below:
- Generative Creativity
- Live Video Production
- Technology-Enhanced Learning Environments

For the part time course structure go to:
www.sussex.ac.uk/ei/internal/coursesandmodules/informatics/pgcourses
Overview
This MSc provides a solid grounding in the major themes of the area, including biologically-inspired computation, dynamical systems approaches to cognition, evolutionary systems and evolutionary computing, and natural and artificial neural systems.

There are many opportunities for students to interact with leading researchers in related disciplines at Sussex. Students have access to specialist facilities including robotics labs.

Your options
Our degrees allow you to tailor the course to your interests with a range of optional modules alongside core modules. Please be aware that not all permutations of options are always available.

Your future
The degree is excellent preparation for research in artificial intelligence, cognitive science, and computational biology, and for careers in the software, entertainment and financial sectors. Graduates have gone on to work for major companies such as Capgemini, IBM, Logica, Microsoft, NaturalMotion and Sega, as well as successfully setting up their own businesses. Many have gone on to doctoral study and now work in academic or industrial research.

Applicants
Applicants should have an academic background in a discipline that requires either numeracy or computer literacy.
## Course structure

<table>
<thead>
<tr>
<th>Autumn term</th>
<th>Spring term</th>
<th>Summer</th>
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<tbody>
<tr>
<td>Artificial Life</td>
<td>Adaptive Systems</td>
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<tr>
<td>Intelligence in Animals and Machines</td>
<td>Neural Networks</td>
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<tr>
<td>Mathematics and Computational Methods for Complex Systems</td>
<td>Option</td>
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<td>Option</td>
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<tr>
<td>Evolutionary and Adaptive Systems Project</td>
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</tbody>
</table>

### Autumn options

- Select one option from the list below:
  - Advanced Software Engineering
  - Applied Natural Language Processing
  - Intelligent Systems Techniques
  - Object Oriented Programming

### Spring options

- Select two options from the list below:
  - Advanced Natural Language Engineering
  - Computational Neuroscience
  - Generative Creativity
  - Image Processing
  - Machine Learning
  - Neuroscience of Consciousness
Overview
This MSc provides multi-disciplinary training to develop technical and analytical skills, an understanding of human-computer interaction, and human-centred approaches to software design and deployment.

A distinctive feature of the degree is the focus on the application of cognitive psychology to technology design, and the seeking of a balance between the interdisciplinarity of cognitive science and the technical skills needed for building systems. Students gain direct experience of a range of methodologies for the design and evaluation of interactive computer systems.

Your options
Our degrees allow you to tailor the course to your interests with a range of optional modules alongside core modules. Please be aware that not all permutations of options are always available.

Your future
The degree is excellent preparation for research and development into harnessing computing technology (construed broadly) to fulfill users’ needs. Graduates work for a diverse range of organisations from small companies to multinationals such as American Express, the BBC, Eurotherm, HP, Kineo and Stream Media. Others have set up web design, human factors consultancy and new media businesses. Some graduates have continued with doctoral study leading to research and academic careers.

Applicants
Applicants should have an interest in computing systems from a human perspective, and have an academic background in computing or psychology, or another discipline with substantial computing or social science content.
### Course structure

<table>
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<tr>
<th>Autumn term</th>
<th>Spring term</th>
<th>Summer</th>
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<tbody>
<tr>
<td>Human-Computer Interaction</td>
<td>HCI Advanced Topics</td>
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<tr>
<td>Real-World Cognition</td>
<td>Psychological Methods for System Evaluation</td>
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<td>Option</td>
<td>Technology-Enhanced Learning Environments</td>
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<td>Option</td>
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<tr>
<td>Option</td>
<td>Human Computer Interaction Project</td>
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</tbody>
</table>

#### Autumn options

Select one option from the list below:
- Advanced Software Engineering
- Object Oriented Programming

Select one option from the list below:
- Applied Natural Language Processing
- E-Business and E-Commerce Systems

#### Spring options

Select one option from the list below:
- Advanced Natural Language Engineering
- Generative Creativity
- Multimedia Design and Applications

For the part time course structure go to:
[www.sussex.ac.uk/ei/internal/coursesandmodules/informatics/pgcourses](http://www.sussex.ac.uk/ei/internal/coursesandmodules/informatics/pgcourses)
Overview
This MSc develops practical skills in IT with application to business and commerce, and analytical skills in the area of technology and innovation management.

You can choose to structure your studies into standard pathways: e-business/e-commerce systems, human systems, or managing technology innovation; or you can devise your own combination of modules according to your personal interests.

Your options
Our degrees allow you to tailor the course to your interests with a range of optional modules alongside core modules. Please be aware that not all permutations of options are always available.

Your future
Successful graduates will have acquired analytical and practical skills that are in high demand in all sectors of the IT industry. Some have established careers in banking and energy sectors, while others have gone on to pursue careers as IT consultants, project managers and software professionals. Employers of our graduates include American Express, HSBC, Bangkok Bank, KPMG, G4 Analytics and RDF Group.

Applicants
Applicants should have a background in computing, information technology, or engineering with some computer programming content.
MSc in Information Technology with Business and Management
One year full time (two years part time)

Course structure

<table>
<thead>
<tr>
<th>Autumn term</th>
<th>Spring term</th>
<th>Summer</th>
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<tbody>
<tr>
<td>E-Business and E-Commerce Systems</td>
<td>Managing Complex Projects, Products and Systems</td>
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<tr>
<td>Web Computing</td>
<td>Web Applications and Services</td>
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<td>Option</td>
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<tr>
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<tr>
<td>Information Technology with Business and Management Project</td>
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</tbody>
</table>

**Autumn options**

Select one option from the list below:
- Business and Project Management
- Change and Leadership
- Human-Computer Interaction
- Intelligent Systems Techniques
- Management, Innovation and Organisational Performance

Select one option from the list below:
- Advanced Software Engineering
- Object Oriented Programming
  *(Students with prior accredited learning in Object Orientated Programming may instead take an option from the first list)*

**Spring options**

Select two options from the list below:
- The Business Context in East Asia/Europe
- HCI Advanced Topics
- Information and Communication Technology Policy and Strategy
- Machine Learning
- Multimedia Design and Applications
- Strategic Management

For the part time course structure go to:
www.sussex.ac.uk/ei/internal/coursesandmodules/informatics/pgcourses
Overview

This MSc covers both fundamental techniques in artificial intelligence as well as practical techniques for the design and implementation of intelligent systems.

The degree introduces core topics in artificial intelligence and computer science, and allows students to specialise in areas including creative systems, computational neuroscience, adaptive systems, and cognitive science.

Your options

Our degrees allow you to tailor the course to your interests with a range of optional modules alongside core modules. Please be aware that not all permutations of options are always available.

Your future

The degree is excellent preparation for doctoral research in artificial intelligence, applied research into intelligent systems, and the design and development of computer systems that exhibit intelligent behaviour. Employers of our graduates include BT Group, Expedia, Siemens, Sony and Yahoo!; graduates have also gone on to senior positions in industrial research labs, and academic posts at universities around the world.

Applicants

While most students on this MSc have a background in computing or cognitive subjects such as psychology or philosophy, the degree is suitable for anyone with an academic background in a discipline with some computing content.
MSc in Intelligent Systems
One year full time (two years part time)

Course structure

<table>
<thead>
<tr>
<th>Autumn term</th>
<th>Spring term</th>
<th>Summer</th>
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<tbody>
<tr>
<td>Applied Natural Language Processing</td>
<td>Image Processing</td>
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<tr>
<td>Intelligent Systems Techniques</td>
<td>Machine Learning</td>
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<tr>
<td></td>
<td>Intelligent Systems Project</td>
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</tr>
</tbody>
</table>

Autumn options

Select one option from the list below:

- Artificial Life
- Intelligence in Animals and Machines
- Mathematics and Computational Methods for Complex Systems
- Real-World Cognition
- Web Computing

Select one option from the list below:

- Advanced Software Engineering
- Object Oriented Programming

Spring options

Select two options from the list below:

- Adaptive Systems
- Advanced Natural Language Engineering
- Computational Neuroscience
- Generative Creativity
- Neural Networks
- Neuroscience of Consciousness
- Technology-Enhanced Learning Environments

For the part time course structure go to:
www.sussex.ac.uk/ei/internal/coursesandmodules/informatics/pgcourses
Overview
This MSc will equip you with the skills to analyse information technology needs and to devise innovative solutions in companies and other organisations with complex and demanding information technology (IT) system requirements.

You will learn how to design, evaluate and apply information technology systems in a business setting – taking account of human, organisational and strategic factors. You will learn about the concepts and principles of IT systems and their interfaces, and the theories and techniques relating to the management of IT as an innovative and strategic resource in an organisation.

Your options
Our degrees allow you to tailor the course to your interests with a range of optional modules alongside core modules. Please be aware that not all permutations of options are always available.

Your future
There is a global shortage of IT professionals. This course provides a strong theoretical and practical preparation for a career in this area.

You will be suited to roles requiring an integrated understanding of the internal and external business context, the factors influencing successful IT innovation, the opportunities presented by new kinds of information technology in business, and the successful planning and deployment of IT systems.

Applicants
Applicants with a range of academic backgrounds are encouraged to apply.
### MSc in Management of Information Technology

**One year full time (two years part time)**

#### Course structure

<table>
<thead>
<tr>
<th>Autumn term</th>
<th>Spring term</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change and Leadership</td>
<td>HCI Advanced Topics</td>
<td></td>
</tr>
<tr>
<td>E-Business and E-Commerce Systems</td>
<td>Managing Complex Projects, Products and Systems</td>
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<tr>
<td>Human-Computer Interaction</td>
<td>Strategic Management</td>
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<tr>
<td>Management, Innovation and Organisational Performance</td>
<td>Option</td>
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<tr>
<td></td>
<td>Management of Information Technology Project</td>
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<tr>
<td>Personal and Professional Development <strong>(This module is taken throughout the year)</strong></td>
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#### Spring options

Select one option from the list below:

- The Business Context in East Asia
- The Business Context in Emerging Economies
- The Business Context in Europe

For the part time course structure go to:  
[www.sussex.ac.uk/ei/internal/coursesandmodules/informatics/pgcourses](http://www.sussex.ac.uk/ei/internal/coursesandmodules/informatics/pgcourses)
Location

The University of Sussex is located on the outskirts of the city of Brighton & Hove

Cultured
A wealth of theatres, cinemas, music venues, galleries, and internationally renowned arts festivals

Stylish
The best shopping south of London, with specialist boutiques and mainstream stores

Delicious
An abundance of restaurants, cafés, pubs and clubs... and all this is just one hour away from London

A city by the sea
Lively and cosmopolitan with a diverse cultural scene
Scholarships
A range of University Scholarships are available to applicants with the highest academic ability and potential.

We offer further, named scholarships to students on the MScs in Advanced Computer Science, Evolutionary & Adaptive Systems and Intelligent Systems, funded by philanthropic donations from companies and alumni.

For details of these and other awards, bursaries and scholarships, visit www.sussex.ac.uk/funding

How to apply
You can apply for Masters degree courses in Informatics at any time, for entry at the start of the next academic year in September. However, early application (preferably by May) is advised, particularly if you will need a visa to come and study in the UK. If you are applying for a scholarship from Sussex, you must first submit an application for a place on a degree course.

To submit your application, you can use our convenient online system, at www.sussex.ac.uk/study/pg/applying

Further information
For more information on our courses, entry requirements, fees, scholarships, and how to apply, visit www.sussex.ac.uk/informatics/pgstudy

You can also contact us with any general or course enquiries. For our contact details, see the back cover of this brochure.

Disclaimer
The information presented in this booklet is correct at the time of going to print (January 2016) but modules running in future academic years may be subject to change. The reason for this is that Informatics is a constantly developing area and so we regularly review and update our modules and options to reflect this and give you the best student experience. Please refer to our web pages for the most up to date information on courses and modules: www.sussex.ac.uk/informatics/pgstudy