Programme Structure

The first two semesters (September-May) are spent studying taught courses in Business Information Management. At the same time research skills are developed as a preparation for the MSc project. Exams take place at the end of each semester.

In the third semester (May-August) students undertake a specialist project and write it up as a dissertation. The project enables further development and consolidation of skills introduced in taught courses, applying them to a challenging practical problem in this subject area.

The project is carried out under the supervision of an individual academic who is an expert in the field. In some cases the project can be carried out in collaboration with an outside industrial or academic organisation.

The table shows essential and optional courses in the first 2 semesters. Full time students study 4 courses each semester.

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Semester 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Essential:</strong></td>
<td><strong>Essential:</strong></td>
</tr>
<tr>
<td>F21DF Database and Information Systems</td>
<td>F21DE Digital and Knowledge Economy</td>
</tr>
<tr>
<td>F21IF Information Systems Methodologies</td>
<td>F21RP Research Methods and Project Planning</td>
</tr>
<tr>
<td><strong>Optional:</strong></td>
<td><strong>Optional:</strong></td>
</tr>
<tr>
<td>C11CS Competitive Strategy</td>
<td>F21AD Advanced Interaction Design</td>
</tr>
<tr>
<td>F21DO Design for Online Learning</td>
<td>F21BD Big Data Management</td>
</tr>
<tr>
<td>F21SF Software Engineering Foundations</td>
<td>F21EC e-Commerce Technology</td>
</tr>
<tr>
<td>C11OH Work, Culture and Organisations</td>
<td>C11PA Project Management</td>
</tr>
</tbody>
</table>

Aim of Programme

This MSc or PG Diploma programme aims to impart understanding and skills in information management and IT with a focus on business. It covers the organisation and development of businesses, information systems and IT. It also addresses management and design issues for them. Students can specialise in areas like data management, e-commerce, online learning and IT project management. The programme studies IT, but does not require students to design programs or write software.

Duration of Programme

The full-time MSc programme starts in mid September and lasts 1 year. The Postgraduate Diploma starts at the same time but only lasts 8 months. Students completing the PG Diploma at MSc level may transfer to the MSc.

Part-time study for the MSc over 2 years is also possible by special arrangement with the programme director.
SEMESTER 1 COURSES

C11CS Competitive Strategy
- To integrate business concepts and ideas to understand how companies compete.
- To explore strategic management models and how they help companies operate.
- To develop critical understanding of competitive advantage and its environment.
- To develop skills in using business case studies to enhance business planning skills and strategic thinking.

F21DF Database and Information Systems
- To explore the methodologies for analysing, specifying and designing databases and information systems.
- To explore the relationships among organisations, human activities and information systems, and between the latter and software development life cycles, and use them in systems design.
- To give practical experience in designing, building, deploying and using databases and information systems via programming.

F21DO Design for Online Learning
- To give a critical understanding of the issues of open and online learning.
- To develop detailed and specialist knowledge and understanding of the principles of online course development.
- To support the development of design and implementation skills relating to technical and pedagogical requirements.

F21IF Information Systems Methodologies
- To explore a range of issues concerning advanced methodological approaches to information systems development.
- To develop critical faculties and techniques in selecting and applying these methodological approaches.

F21SF Software Engineering Foundations
- To impart the object oriented paradigm and the object oriented design process in Java.
- To carry out object oriented design from specification, document the design using appropriate techniques, implement the design in Java and evaluate the results.
- To develop an understanding of window-based systems and their development.

C11OH Work, Culture and Organisations
- To explore and study contemporary issues in organisational studies.
- To examine the relationships between organisations and their environment and how they adapt to changes in it.
- To explore internal factors like power, politics, leadership, cultural management, ethics and social responsibility.
- To examine management techniques like HRM, performance management, reward management, work/job design and team-working.

SEMESTER 2 COURSES

F21AD Advanced Interaction Design
- To develop extensive, detailed and critical knowledge of requirements gathering, design and evaluation techniques in interaction design.
- To develop awareness of current research and emerging issues in the field of interaction design.
- To impart a range of specialised skills, and research methods involved in working with users.

F21BD Big Data Management
- To review principal abstractions, methods and techniques for the management of large and complex data sets (“Big Data”).
- To develop an understanding of the foundations and tools of the Semantic Web.
- To impart ability to appreciate critically a range of data integration solutions.

F21DE Digital and Knowledge Economy
- To consider the impact of deploying new technologies and emerging knowledge in developed economies.
- To discuss e-Business, as a modern business model that leverages technical advancements to create economic growth.
- To introduce relevant models, analytical techniques, technologies and methodologies including business, organisational, knowledge and technology based issues.
- To facilitate the dialogue between business and computing personnel, and translate business requirements to computing ones and vice versa.

F21EC e-Commerce Technology
- To impart understanding of e-Commerce technology and of how Information Systems shape it.
- To put e-Commerce technologies in a structural framework, show how they support e-Commerce operations, provide technical know-how for implementing e-Commerce platforms and analytical skills to examine the technical aspects of e-Commerce.
- To show how marketing strategies in e-Commerce enable effective B2C relationships.

C11PA Project Management
- To develop an appreciation of the knowledge and skills of a professional project manager.
- To develop competence in using a generic set of quantitative and qualitative project planning and control tools and techniques.
- To enable recognition of the limitations and appropriateness of approaches to project management.
- To study project progression from strategy formulation to execution.
- To define the role and current issues faced by project managers in the context of project control.

F21RP Research Methods and Project Planning
- To enable students to develop skills in critical thinking, research planning, academic writing and experimental design appropriate for a postgraduate programme.
- To enable students to gain skills in project planning and an awareness of legal, ethical, social and professional issues relevant for computing practitioners.
- To enhance students’ employability by development of job seeking and career planning skills.

We may alter the courses offered at any time. Some courses may not run every year. Not every course combination may be possible to take. Students must satisfy each course’s prerequisites and their course choice must be agreed with the programme’s director.
Entry Requirements

Applicants require a first or second class honours degree or its overseas equivalent showing evidence of numeracy. Graduates with a little less than this may sometimes be admitted to the Postgraduate Diploma programme. If their exam and coursework performance is MSc level by May, they may then be recommended for transfer to the MSc.

Non-native English speakers must also satisfy the university’s requirements for competency in English. This can be done with an IELTS score of 6.5, EDEXCEL London Tests of English level 5, UCLES Certificate in Advanced English (CPE) grade C, level B in academic English from our own English language teachers or by proving they have studied wholly in English at university level. A full range of English language training courses can be taken at Heriot-Watt University before starting a programme.

How to apply

Apply online or using the printed form at www.postgraduate.hw.ac.uk/apply

Supporting documents including 2 academic reference letters, copies of degree certificates, transcripts of marks and English test results can be sent to us by post or as colour scanned documents attached to an email.

Career Prospects

Graduates from the programme can expect to be able to get employment as IT consultants, IT systems integrators, web developers, IT analysts, IT entrepreneurs, IT business analysts, information officers, e-business consultants, IT project managers and as research associates or research students within universities.

Scholarships and Awards

International students can apply for a variety of scholarships from the Scottish executive, other bodies and our school. Please visit www.macs.hw.ac.uk/cs/pgcourses/finance.htm#international

Scottish and EU citizens can apply for SAAS loans. Please visit www.macs.hw.ac.uk/cs/pgcourses/finance.htm#soed

Other scholarships may be available from the university. Please visit www.hw.ac.uk/student-life/scholarships/postgraduate-taught.htm

Employment

First destinations of some of our recent MSc graduates:
- System Analyst, Sage
- Research Associate, Heriot-Watt University
- Software Consultant, Absoft
- Web Developer, Rubaidh
- Consultant Developer, Veltlo
- Innovation Manager, United Biscuits
- IT Consultant, Sirma-E
- R & D Engineer, Alenty
- IT Manager, NCS
- IT Support Technician, Sykes
- IT Engineer, Shin-Etsu
- Technical Support Agent, Hellas
- Online
- Multimedia Developer, Amaze
- Managing Director, Dream Home
- Furniture
- Application Developer, Atos Origin

Cost

The Scots/other UK/EU fee for this one year full time MSc programme at Heriot-Watt university in Edinburgh starting in September 2017 is £5200. The overseas fee is £17570. The cost of living during one year of study in Edinburgh is estimated at £9000.

Post-Study Work Opportunities in Scotland

Good opportunities exist for students who graduate in a specialism in demand in the Scottish economy to get employment here. The Scottish government is keen to help talented individuals from around the world come to study, work and live here. More information can be found at www.talentscotland.com

Contact Information

Postgraduate Admissions
Room 1.24
Earl Mountbatten Building
School of Mathematical & Computer Sciences
Heriot-Watt University, Riccarton
Edinburgh EH14 4AS
SCOTLAND

+44 (0) 131 451 8444
+44 (0) 131 451 3327
pgenquiries@macs.hw.ac.uk

www.macs.hw.ac.uk/cs/pgcourses