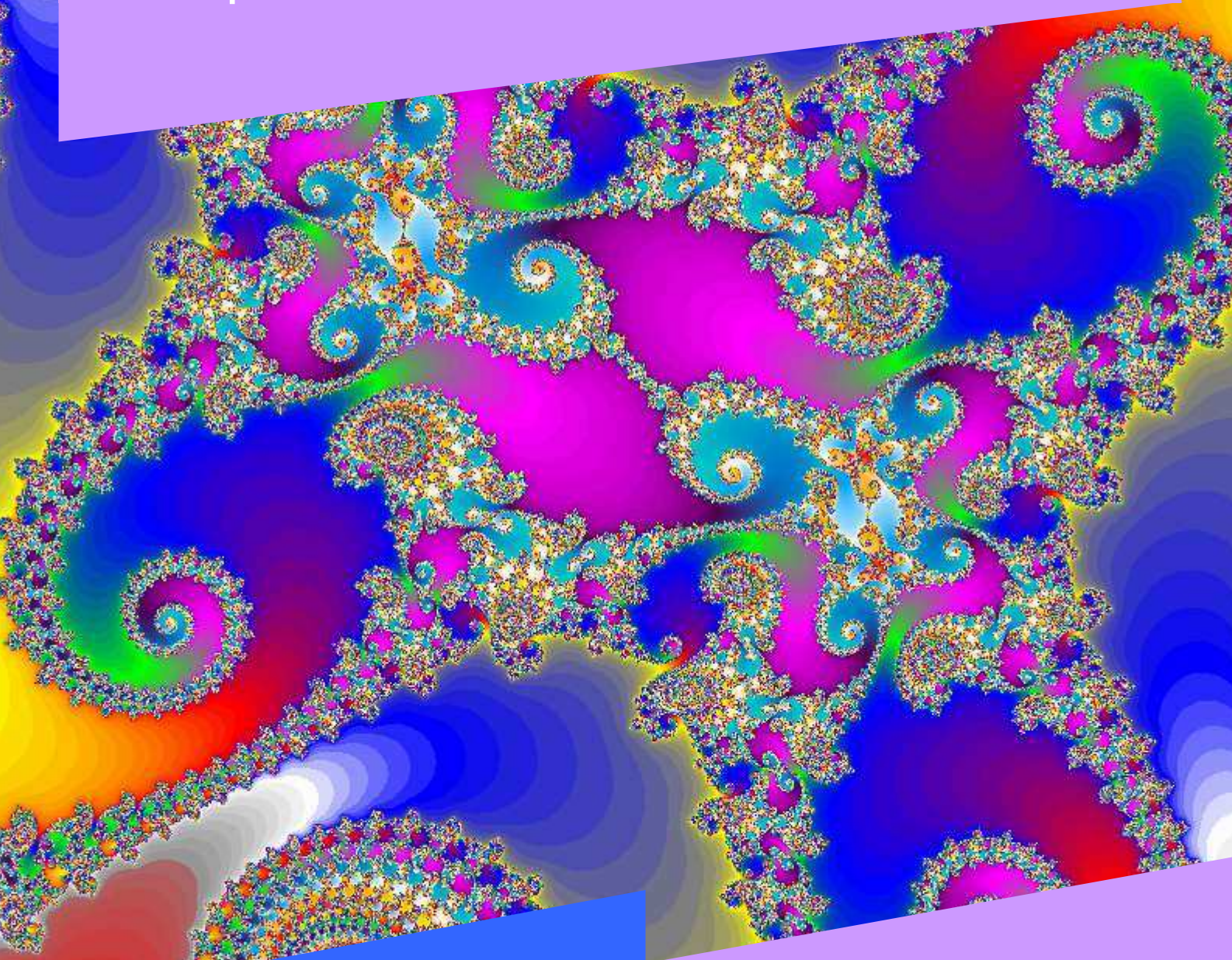


School of
Mathematical and
Computer Sciences



Full-Time / Part-Time

INFORMATION TECHNOLOGY
(BUSINESS)
MSc / PG Diploma

Distinctly Ambitious
www.hw.ac.uk

Heriot-Watt University offers a superb environment for postgraduate study. We are one of the UK's leading universities, recognized internationally for excellent teaching and research in our specialist areas of science, engineering, business management, languages and textile design.

Heriot-Watt became a university in 1966 and its origins go back to the foundation of the School of Arts in Edinburgh in 1821. We are Scotland's most international university. Over 30% of our students come from outside the UK .

We introduced the first Computer Science degree in Scotland in 1966 and are part of the world class SICSA research cluster that aims to sustain and expand Scotland's research excellence in Informatics and Computer Science.

Aim of Programme

The aim of this MSc and Postgraduate Diploma programme is to impart skills and understanding in key IT and business management subjects at Masters level.

The programme covers the design and development of IT systems, the management of IT, starting and developing businesses, and e-commerce.

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.

Programme Structure

The first two semesters (September-May) are spent studying taught courses in IT and business. At the same time research skills are developed as a preliminary for work on an MSc project. Exams take place at the end of each semester.

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

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

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



Semester 1	Semester 2
Essential: C11OH Work, Culture & Organisations	Essential: F21EC e-Commerce Technology F21RP Research Methods & Project Planning
Optional: F21DF Databases & Information Systems F21DO Design for Online Learning F21IF Information Systems Methodologies F21SF Software Engineering Foundations C11SP Strategic Project Management	Optional: F21AS Advanced Software Engineering F21IL Integrated Online Learning Environments F21NA Network Applications C11PA Project Management

SEMESTER 1 COURSES

F21DF Databases & Information Systems

- To develop understanding of the processes and methodologies required for analysing, specifying and designing databases and information systems.
- To develop understanding of the relationships among organisations, human activity systems and information systems, and between the information systems and software development life cycles, and to use it in systems design.
- To give practical experience in designing, building and using databases and information systems, simple database programming and developing and deploying databases and information systems in organisations.

F21DO Design for Online Learning

- To give a critical understanding of the issues of open and online learning.
- To give knowledge & understanding of principles of online course development.
- To support the development of design 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 understanding of the object oriented paradigm and the process of object oriented design.
- To support the development of object oriented programs in Java.
- To carry out object oriented design from specification, document the design using apt techniques, implement the design in Java and evaluate the results.
- To impart understanding of window-based systems and their development.

C11SP Strategic Project Management

- To develop the ability to translate among business strategy, its implementation and project management.
- To examine the relationship between the pipeline of requirements for business expansion and its relation to the portfolio of strategic projects.
- To explore the current base of knowledge of leadership through projects and management by projects to add more precision to the term so it can become a valuable component of business management science.
- To involve business leaders so that the techniques and methodologies can be practically validated.
- To apply strategic planning tools.

C11OH Work, Culture & 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

F21AS Advanced Software Engineering

- To consolidate proficiency in imperative software development.
- To develop further object oriented programming and design methods.
- To introduce concurrent programming techniques.
- To instil understanding of the concepts and benefits of advanced software engineering methods.
- To develop use of UML and patterns in software engineering.
- To give practical experience of developing a substantial software engineering team project.

F21EC e-Commerce Technology

- To review the IT issues raised by electronic business and commerce.
- To survey the techniques and technologies available for designing and implementing e-commerce applications.
- To provide first hand experience of Web-based tools and services to help design e-commerce solutions.

F21IL Integrated Online Learning Environments

- To provide an understanding of the communications, support and management aspects of online learning environments.
- To develop knowledge & understanding of the components of a virtual learning environment and their integration.
- To develop evaluation skills and knowledge for online resources and learning environments.

F21NA Network Applications

- To impart knowledge and understanding of the theories, principles and protocols underlying network applications on Internet.
- To develop skills in a range of network technologies, enable a grasp of design and practical issues and apply relevant techniques.
- To give experience of creatively developing in teams a network application involving web and application server technologies.

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 demonstrate the progression from strategy formulation to the execution of projects.
- 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 post-graduate programme.
- To enable students to gain skills in project planning and an awareness of legal, social and professional issues relevant for IT professionals.
- 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.

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/Students.aspx

Career Prospects


Graduates from the programme would be suitable for employment with IT companies, company R+D divisions, financial services organisations, defence contractors or government IT agencies or could register for a PhD.

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 grants covering most of the fees. Please visit

 www.macs.hw.ac.uk/cs/pgcourses/finance.htm#soed

Other scholarships may be available from the university. Please visit

 www.scholarships.hw.ac.uk/postgraduate.jsp

Employment

First destinations of some of our recent MSc graduates:

Software Engineer, Graham Technology

Software Developer, Deutsche Borse Systems AG

PhD Computer Science, Heriot-Watt University

IT Specialist, IBM Helix SA

Database Administrator, Pension Fund Commission

System Specialist, UBS AG (Bank)

IT Consultant, Logica

Systems Engineer, GEC Marconi Avionics

Graduate Software Engineering, Thomson Marconi Sonar Ltd

Computer Programmer, Bull Europe

Cost

The Home/EU fee for this one year full time MSc programme at Heriot-Watt university in Edinburgh starting in September 2011 is £4100. The overseas fee is £13280. The cost of living during one year of study in Edinburgh is estimated at £8000.


Entry Requirements

Applicants require a first or second class honours degree or its overseas equivalent showing evidence of numeracy. Candidate not holding first or second class honours degrees may, under certain circumstances, be admitted to the Postgraduate Diploma programme. If their examination performance is satisfactory, they may then be recommended for transfer to the MSc.

Non-native English speakers must also satisfy the university requirements for competency in English. This can be done in several ways including achieving a TOEFL score of either 80 (Internet based) or 213 (computer based) or 550 (paper based), IELTS at grade 6.0, Cambridge Proficiency Certificate of English at grade C, level C 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 postgraduate 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.

Contact information

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