




HERIOT-WATT  
UNIVERSITY  
EDINBURGH

guide to  
POSTGRADUATE  
STUDY AND RESEARCH  
94-95 & 95-96



# HERIOT-WATT UNIVERSITY EDINBURGH

## UNIVERSITY ADDRESSES

### **Faculties of Science, Engineering, Economic and Social Studies:**

Heriot-Watt University,  
Riccarton, Edinburgh EH14 4AS  
Telephone: 031-449 5111 Fax: 031-449 5153

### **Faculties of Environmental Studies, Art and Design**

Edinburgh College of Art,  
Lauriston Place, Edinburgh EH3 9DF  
Telephone: 031-221 6000 Fax: 031-221 6001

### **Faculty of Textiles**

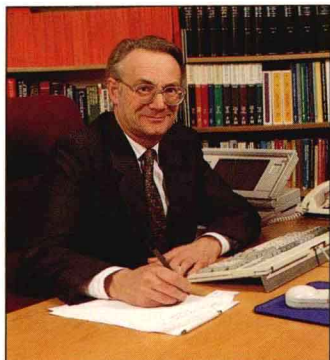
The Scottish College of Textiles,  
Netherdale, Galashiels, Selkirkshire TD1 3HF  
Telephone: 0896-3351 Fax: 0896-58965

### **Institute of Education**

Moray House College,  
Holyrood Road, Edinburgh EH8 8AQ  
Telephone: 031-556 8455 Fax: 031-557 3459

g u i d e t o  
**POSTGRADUATE  
STUDY AND RESEARCH**  
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Research is an essential activity in a modern university, and working for a postgraduate degree is a unique opportunity to develop skills and a depth of understanding which will be of benefit throughout the whole of one's future professional career. The challenges and demands of postgraduate work are very different from those posed by an undergraduate course and require a rather different preparation and attitude of mind. For many people, the most rewarding aspects of research arise from the close and sustained interaction which they have with their supervisors, with other researchers and, indeed, with the international community of research workers.

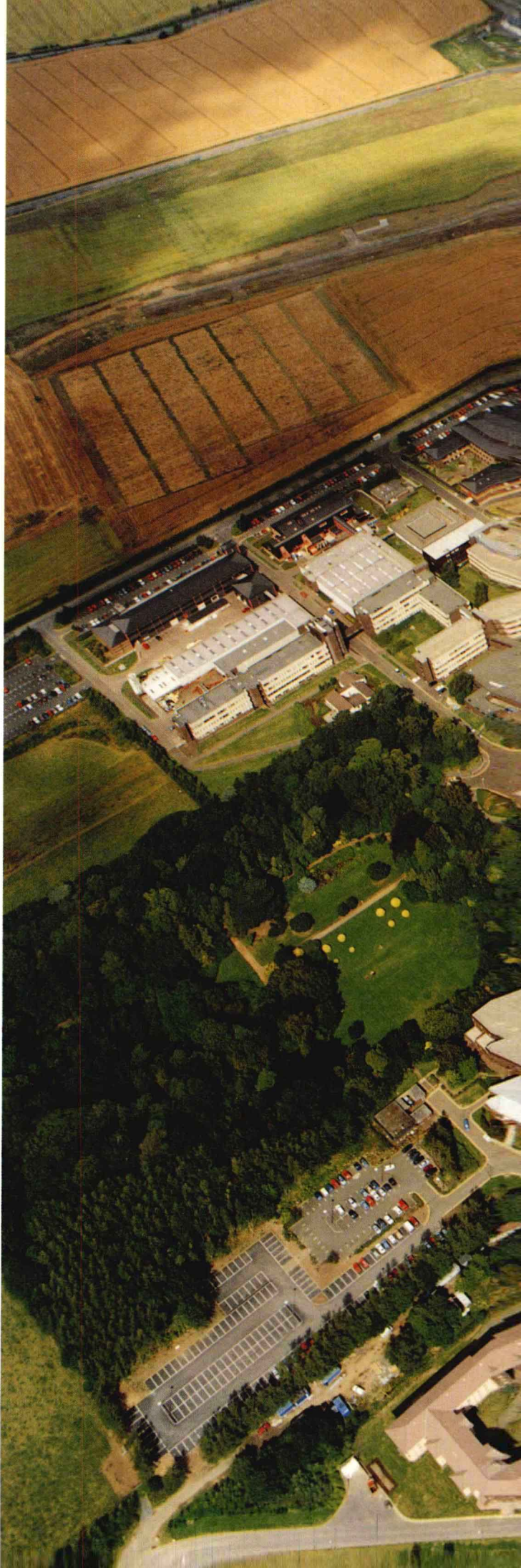
This prospectus sets out the wide range of opportunities which is available in Heriot-Watt University for postgraduate study in the shape of diploma, master's and doctoral courses. It shows the distinctive position which we occupy as a technological university. Work in economics, finance and management in the Heriot-Watt Business School complements our scientific and technological work, while our associated colleges open up a further range of professional, vocational and creative studies to an advanced level.

Distinctive to Heriot-Watt is that its vigorously developing science park is integral to its campus. With a much closer involvement with the University's academic and social structure than exists in any other British university, enterprises on Heriot-Watt Research Park enjoy ready access not only to the University's libraries and specialised equipment, but also to its excellent catering, sports and recreational facilities. This leads to ongoing informal contacts which, in the case of this University, are genuinely and highly beneficial to both research and teaching.

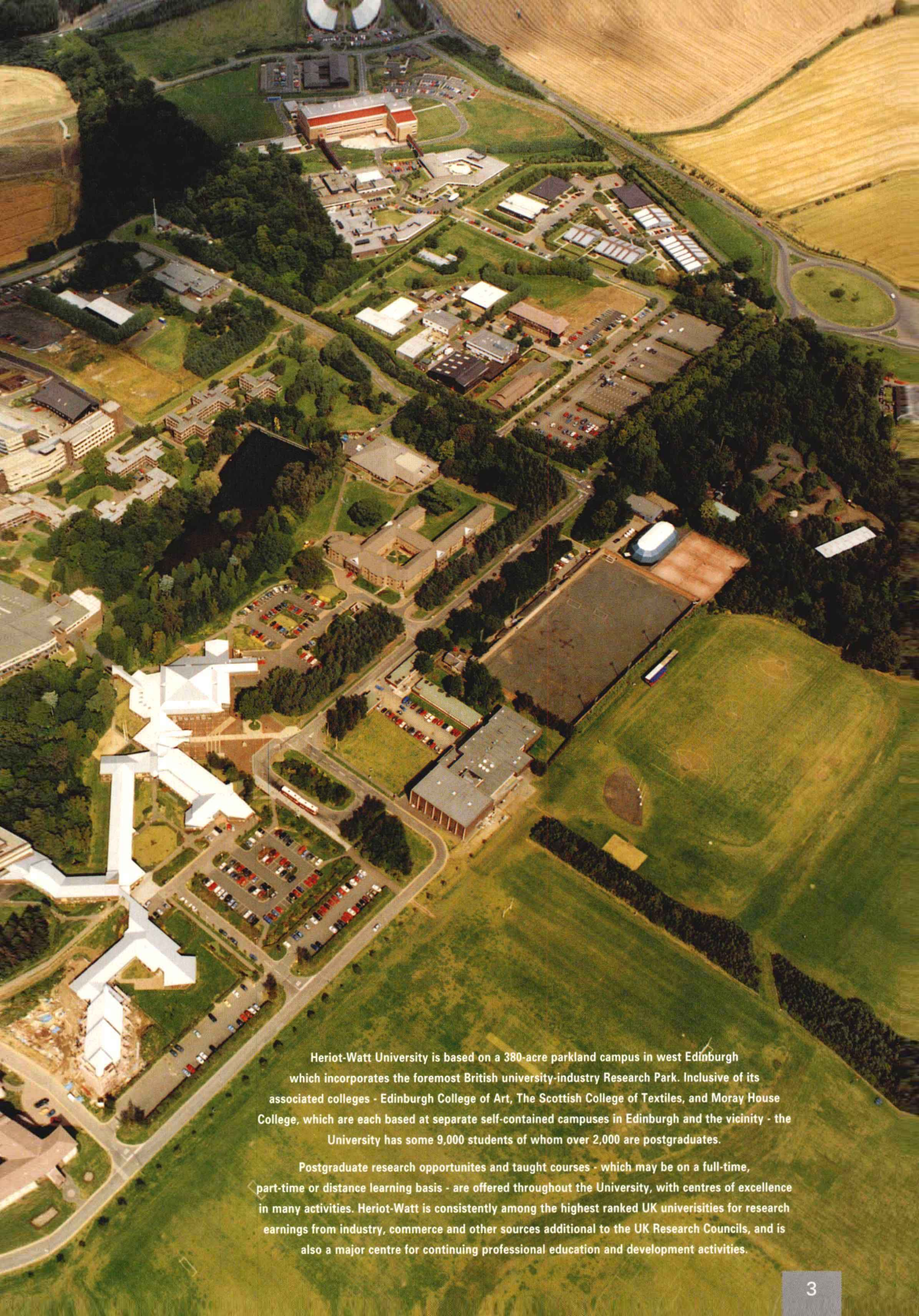
Our future as a nation depends on the continued production of trained graduates and postgraduates of the highest calibre. As science and technology, communication and commerce continue to develop, there is an increasing need for the highly trained postgraduate. We also appreciate to the full that work at this level is much more than an investment for a future professional career; research can be a most exciting and rewarding activity in its own right.

I very much hope that you will find in these pages much of interest, and something to challenge you in selecting the next step in your career.

Professor A G J MacFarlane, CBE, ScD, FIEE, FRSE, FEng, FRS  
Principal and Vice-Chancellor







Heriot-Watt University is based on a 380-acre parkland campus in west Edinburgh which incorporates the foremost British university-industry Research Park. Inclusive of its associated colleges - Edinburgh College of Art, The Scottish College of Textiles, and Moray House College, which are each based at separate self-contained campuses in Edinburgh and the vicinity - the University has some 9,000 students of whom over 2,000 are postgraduates.

Postgraduate research opportunities and taught courses - which may be on a full-time, part-time or distance learning basis - are offered throughout the University, with centres of excellence in many activities. Heriot-Watt is consistently among the highest ranked UK universities for research earnings from industry, commerce and other sources additional to the UK Research Councils, and is also a major centre for continuing professional education and development activities.



# Postgraduate Taught Courses

Name of Course	Department	Award	Mode(s) of Study (FT = Full-time, PT = Part-time)	Page
<b>SCIENCE - ENGINEERING - TECHNOLOGY</b>				
<b>Acoustics, Vibration and Noise Control</b>	Building Engineering & Surveying	MSc/Dip	PT - 2 years/18 months PT - Distance Learning	34
<b>Actuarial Science</b>	Actuarial Mathematics & Statistics	Dip	FT - 9 months	20
<b>Biotechnology</b>	Biological Sciences	MSc/Dip	FT - 12/9 months	22
<b>Brewing and Distilling</b>	Biological Sciences	MSc/Dip	FT - 12/9 months	22
<b>Building and Project Management</b>	Building Engineering & Surveying	Dip		36
<b>Building Services Engineering</b>	Building Engineering & Surveying	MSc/Dip	FT - 12/9 months PT - 2-3 years PT - Distance Learning	35
<b>Building Services Engineering Management</b>	Building Engineering & Surveying	MSc/Dip	FT - 12/9 months PT - 2-3 years PT - Distance Learning	35
<b>Colour Science</b>	Textiles	MSc/Dip	FT - 12/9 months PT - 2 years	81
<b>Construction Management (Contracting Management, Project Management, Corporate Strategy, Value Management)</b>	Building Engineering & Surveying	MSc/Dip	FT - 12 months PT - 2-3 years PT - Distance Learning	36
<b>Digital Systems Engineering</b>	Computing & Electrical Engineering	MSc/Dip	FT - 12/9 months PT - 2 years	44
<b>Drives &amp; Power Engineering</b>	Computing & Electrical Engineering	MSc/Dip	FT - 12 months	46
<b>Environmental Pollution Control Management</b>	Chemical & Process Engineering/Biological Sciences	MSc/Dip	FT - 12/9 months	38
<b>Facilities Management and Asset Maintenance</b>	Building Engineering & Surveying	MSc/Dip	FT - 12/9 months PT - 2 years PT - Distance Learning	36
<b>Geotechnical Engineering</b>	Civil & Offshore Engineering	MSc/Dip	FT - 12 months PT - 2 years	41
<b>Human-Computer Interaction</b>	Computer Science	MSc/Dip	FT - 12 months PT - 2 years	46
<b>Information Technology (Conversion course)</b>	Computing & Electrical Engineering	MSc/Dip	FT - 12/9 months	45
<b>Knowledge Based Systems</b>	Computing & Electrical Engineering	MSc/Dip	FT - 12 months PT - 2 years	45
<b>Laser Engineering and Applications</b>	Physics	MSc/Dip	FT - 12 months	31
<b>Marine Resource Development and Protection</b>	Institute of Offshore Engineering/Biological Sciences	MSc/Dip	FT - 12/9 months PT - 2 years	56
<b>Marine Resource Management</b>	Building Engineering & Surveying/ Institute of Offshore Engineering	MSc/Dip	FT - 12/9 months PT - 2 years	57
<b>Mathematics</b>	Mathematics	Certificate	FT - 9 months	28
<b>Mathematics of Nonlinear Models</b>	Mathematics	MSc/Dip	FT - 12 months	28
<b>Offshore Processing</b>	Chemical & Process Engineering	MSc/Dip	FT - 12/9 months PT - 2 years	38
<b>Optoelectronic and Laser Devices</b>	Physics	MSc/Dip	FT - 12 months PT - 3 years	30
<b>Petroleum Engineering</b>	Petroleum Engineering	MEng	FT - 12 months PT - 2 years	52
<b>Property Asset Management</b>	Building Engineering & Surveying	MSc/Dip	PT - Distance Learning only - 2 years	37
<b>Reliability Engineering and Safety Management</b>	Civil & Offshore Engineering	MSc/Dip	FT - 12/9 months	40
<b>Reservoir Engineering and Management</b>	Petroleum Engineering	MSc	FT - 12 month PT - 2 years	52
<b>Structural Engineering</b>	Civil & Offshore Engineering	MSc/Dip	FT - 12 months PT - 2 years	41
<b>Structural Engineering Computational Technology</b>	Civil & Offshore Engineering	MSc/Dip	FT - 12/9 months PT - 2-3 years	40
<b>Subsea Engineering</b>	Civil & Offshore Engineering Integrated Graduate Development Scheme	MSc/Dip MSc	FT - 12/9 months PT - 2 years	41 59
<b>Technology Management</b>	Integrated Graduate Development Scheme	Master of Technology Management (MTM)	PT - 3 years min.	60
<b>Water Resources Management &amp; Engineering</b>	Civil & Offshore Engineering	MSc/Dip	FT - 12 months PT - 2 years	41

**BUSINESS, MANAGEMENT, FINANCE**

<b>Business Administration</b>	MBA	FT - 12 months PT - 2 - 4 years Distance Learning	61 61 62
<b>International Banking and Financial Studies</b>	MSc/Dip	FT - 12 months	68
<b>Management</b>	SCOTVEC Diploma	FT - 9 months	84

**LANGUAGES**

<b>Arabic - English Translation and Interpreting</b>	MSc/Dip	FT - 12 months PT - 3-4 years	69
<b>Interpreting and Translation</b>	MSc/Dip	FT - 12/9 months	69

**ENVIRONMENTAL STUDIES**

<b>Architecture</b>	Architecture	Dip MArch	FT - 9 months FT - 15 months or 9 months FT plus 1 year PT	70
<b>Architectural Conservation</b>	Architecture	MSc/Dip	FT - 15/9 months PT - 3 years	71
<b>Housing</b>	Planning & Housing	Dip	FT - 2 years	76
<b>Housing Studies</b>	Planning & Housing	Dip	PT - 3 years	77
<b>Landscape Architecture</b>	Landscape Architecture	Dip MLA	FT - 9 months PT - 21 months min. FT - 15 months PT - 33 months min.	72
<b>Landscape Resources</b>	Landscape Architecture	Dip MSc	FT - 9 months PT - 21 months min. FT - 15 months PT - 33 months min.	72
<b>Planning Studies (Developing Countries)</b>	Planning & Housing	Dip	FT - 9 months	76
<b>Town and Country Planning</b>	Planning & Housing	Dip	FT - 2 years PT - 3 years	75
<b>Urban Design</b>	Architecture	MSc/Dip	FT - 15/9 months PT - 3 years	71
<b>Urban and Regional Planning</b>	Planning & Housing	MURP	FT - 2 years	76

**ART AND DESIGN**

<b>Design</b> (Applied Arts - Ceramics, Glass, Jewellery, Silversmithing; Applied Design - Furniture/Interior, Fashion/Costume, Printed Textiles; Visual Communications - Animation, Film/TV, Illustration, Graphic, Photography)	Design	MDes/Dip	FT - 15/9 months PT or PT & FT also available	78
<b>Painting/Printmaking/Tapestry</b>	Drawing & Painting	MFA/Dip (Master of Fine Art)	FT - 2 years/9 months	79
<b>Sculpture</b>	Sculpture	MFA/Dip (Master of Fine Art)	FT - 2 years/9 months	79

**TEXTILES**

<b>Clothing Management</b>	MSc/Dip	FT - 12/9 months PT - 2 years	81
<b>Colour Science</b>	MSc/Dip	FT - 12/9 months PT - 2 years	81
<b>Textile Design with Computer Applications</b>	MDes/Dip	FT - 12/9 months PT - 2 years	82
<b>Textiles</b>	MSc/Dip	FT - 12/9 months PT - 2 years	80

**EDUCATION**

<b>Postgraduate Certificate in Education (Primary)</b>	PGCE(Primary)	FT - 9 months	92
<b>Postgraduate Certificate in Education (Secondary)</b>	PGCE(Secondary)	FT - 9 months	93
<b>Cultural Policy and Management</b>	MSc/Dip	FT - 12/9 months	95
<b>Leisure Policy and Practice</b>	MA/Dip	FT - 12/9 months PT - 2 years	94
<b>Community Education</b>	Certificate	FT - 36 weeks	94
<b>Modular Masters Scheme - Teacher Education, Community Education, Social Work, Sport and Leisure, Arts Administration, TESOL</b>	MA/MEd/MSc/Dip/Certificate		85



# Heriot-Watt University, Edinburgh

**HERIOT-WATT UNIVERSITY, EDINBURGH, encompasses a great range of technological, professional and vocational studies and provides a stimulating environment for creative study to the highest level. As a modern technologically based University, it gives priority to areas of study of direct industrial, commercial and social relevance.**

The same impetus is evident throughout its history. Granted its Royal Charter as a University in 1966, Heriot-Watt traces its origins back to 1821 and the foundation of the Edinburgh School of Arts, at that time a pioneering institute for the advanced education of working people in the applied arts and sciences. Subsequently becoming the Watt Institution and School of Arts and, from 1885, Heriot-Watt College, its record is of longstanding, close and effective collaboration with industry in education, training and innovative research in the sciences,

engineering and management. Its successes are most readily exemplified by the continuing development of the University Research Park which is an integral part of Riccarton campus - the concept was pioneered in the UK (and Europe) by Heriot-Watt - where companies at the frontiers of technological innovation can work in co-operation with the academic life of the University.

The University's intriguing name commemorates James Watt (1736-1819), the developer of steam power and universally recognised

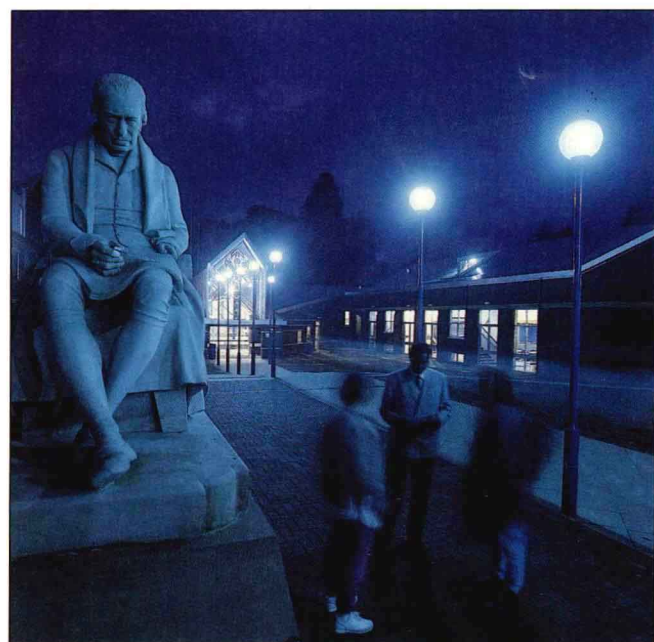
master technologist of the first industrial revolution, and George Heriot (1563-1623), businessman to King James VI of Scotland and I of England, who bequeathed a considerable fortune for educational purposes in his native Edinburgh. So, it can be said, the University links technology, business and communication.

## **Location (Maps inside back cover)**

The University is located on a single campus at Riccarton in west Edinburgh, about eight miles from the city centre. It is a modern development of sleek low-rise buildings, closely integrated into the existing environment which is a





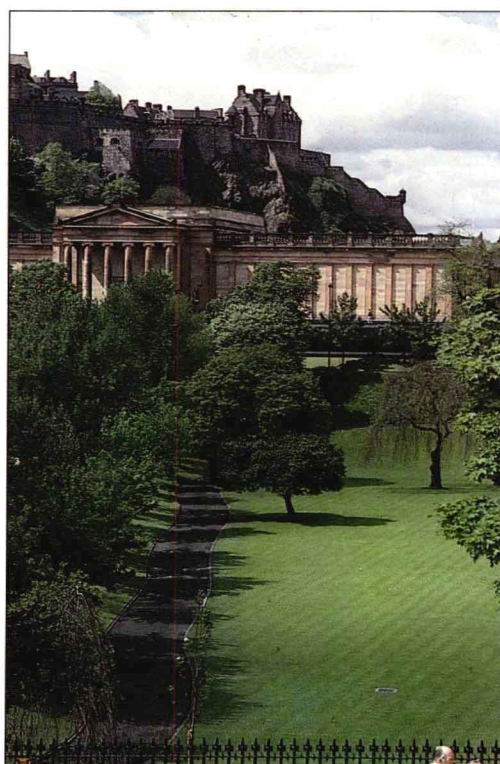


splendid old estate of parkland landscaped in the 18th century with abundant mature trees, spacious lawns, gardens and its own loch. The purpose-built and -equipped academic and amenity buildings and a comprehensive range of facilities are conveniently grouped and continuously interconnected, making this a tranquil self-contained place for study and research, while still very much a part of the Scottish capital city.

### The City of Edinburgh

Edinburgh, the capital of Scotland, perhaps needs little introduction, for visitors flock here from around the world. Edinburgh is well known for its spectacular location on and around jagged volcanic outcrops overlooking the sea, for its parks and gardens, and for the vivid historical atmosphere of its medieval 'Old Town' and elegant symmetries of its Georgian 'New Town'. It is of course synonymous with one of the world's premier international festivals of music, drama and art (and Festival Fringe), annual in August.

Few cities of circa 400,000 inhabitants can offer such a varied and cosmopolitan wealth of entertainments, leisure, recreation and cultural opportunities for every taste and pocket within such a compact and attractive environment. Within a day trip from the city there begin the great open spaces and rugged unspoilt beauties of the Scottish Highlands, opening up a further range of leisure pursuits.





Edinburgh College of Art



Edinburgh is well served by national and international road, rail and air communications (the airport is five minutes from the University's campus). It is not only a tourist attraction, but an administrative capital and a major centre of the financial services industry on a European scale.

It is also a hub of the 'Silicon Glen' phenomenon. Throughout the central belt of Scotland there has developed one of Europe's largest concentrations of microelectronics and related industries, representing both major international companies and a dynamic sector of smaller specialist enterprises. The University is strongly committed to relevant training and R&D and enjoys a high degree of involvement with many of these companies and a close integration with the successful development of this sector.

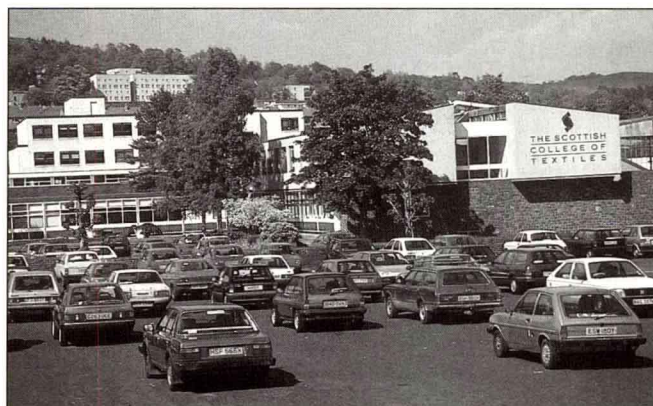
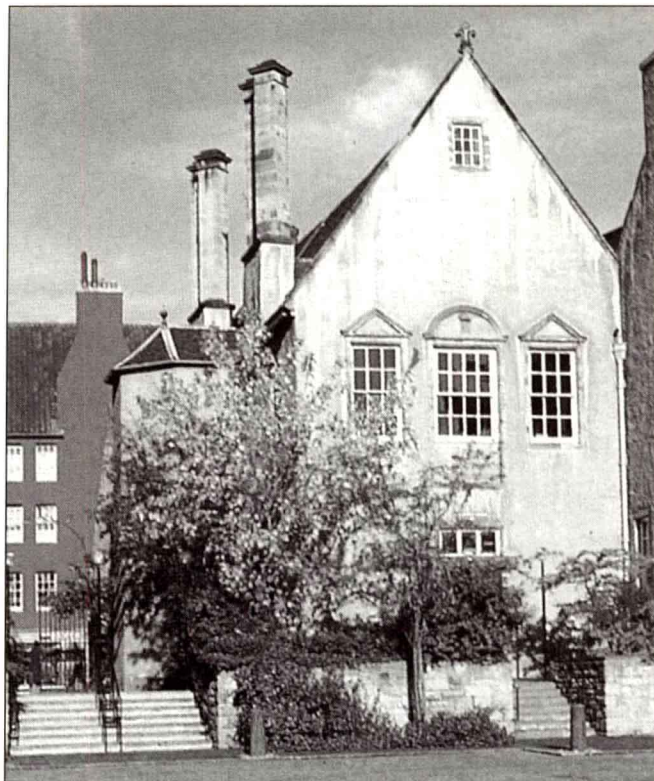
Heriot-Watt is also massively associated with Scotland's other great technology-based industry in the continuing development of offshore oil and gas reserves in the North Sea, a long-term and internationally recognised engagement of this University.

#### Associated Colleges

The three "associated colleges" of the University - Edinburgh College of Art, The Scottish College of Textiles, and Moray House College - enjoy distinguished histories in Scottish education and training, and notable achievements in their spheres, reaching back a century and more.

Edinburgh College of Art (the University's Faculties of Environmental Studies and Art & Design) and Moray House College (the Institute of Education) are principally located in central Edinburgh.

Moray House College



The Scottish College of Textiles (the University's Faculty of Textiles) is based on a modern campus in the Scottish Borders town of Galashiels, some 30 miles from Edinburgh.



# Academic Services

## Libraries

There are substantial libraries at each of the University's campuses, accounting in total for over 400,000 volumes. More important than size, the collections are cohesive and concentrated on current teaching and research interests at each site, thus enabling the provision to be correspondingly strong in depth. The libraries aim to provide quick and easy access from their own stock to a range of specialised literature in areas covered by the University. However, no single library can attempt to provide all the literature required for research and a university library is therefore an access point to a vast range of information sources, supported by librarians with specialist knowledge of the subjects and by largely automated systems. The libraries also provide a pleasant environment for study, a large number of study places, and

leisure-reading collections including national and international newspapers.

The University Library at Riccarton is a large modern open-plan building on several storeys. The management of stock is fully automated in an integrated online system. Access to the book and periodical collections and to various services is through terminals in the library or via any point on the campus-wide electronic network. Researchers will find an extensive range of information sources, such as abstracting and indexing periodicals. Many of these information sources are also available as computer-based databases or on CD-ROM, such as citation indices, and a range of databases is also available through JANET (the UK Joint Academic Network).

The volume of published literature makes it impossible for even the most highly specialised research workers to be aware of all that is published in their field. The University Library provides introductory guides and advice on the range of sources available and practical assistance in information searching is available individually or through group seminars. There is access to over 1,000 online databases and databanks in the UK, Europe and the USA. These can be searched for researchers at the beginning of their work to provide a comprehensive list of relevant publications and an automatic alerting service can be set up to supply details of new publications. These services are backed up by rapid inter-library lending and document supply services.

The Edinburgh College of Art library service comprises three distinct libraries: for Art and Design, for Planning and Housing, and for Architecture/Landscape Architecture. In addition to book, periodical, pamphlet, report, catalogue, and official publication collections, there are large non-book collections of slides, maps, reproductions and a variety of trade literature.

In the Institute of Education, relevant library services are provided at both Holyrood and Cramond campuses. The small library at The Scottish College of Textiles is naturally particularly strong in areas of textile technology, design and the textile industry.

Opening hours vary at each campus, but are typically in the range 9am-9pm term-time weekdays, 9am-5pm weekends and outside academic terms. As well as libraries within the University,







there is also ready access in Edinburgh to Edinburgh University Library, the National Library of Scotland (copyright library) incorporating the Scottish Science Library.

### Computing Services

The University has a well established Computing Services unit which is responsible for the provision, maintenance and support of central computing and local and wide area networking services.

PC and Unix workstations, terminals, and printing facilities are widely available. They are distributed across the institution, and linked via a network which extends to all the University's campuses. A Digital VAX cluster VMS service, and access to a Hewlett-Packard Series 700 compute node for computationally intensive work, are also provided via the network. These services complement those within the individual departments, to provide a comprehensive range of applications packages, programming languages, and system utilities, which is available to all members of the University.

The University is connected to the JANET network for data communication with all other UK higher education institutions. Access is provided to many specialised remote systems and services, eg supercomputers,

databases for the Library, etc. Heriot-Watt is also participating in the SuperJANET project, in which very high speed communication is being introduced between institutions. JANET is linked to various international networks, such as Internet. Thus, world-wide communication is available to and from computer systems throughout the University.

In order to assist users to exploit the technology as fully as possible, a wide range of support services is provided. These include a Help Desk, user documentation, advice, and technical seminars. These are provided online through the computer systems themselves, or via consultancy with Computing Services staff.

### Computer-Based Learning

Throughout education and training, computer-based techniques are winning increasing influence; the full potential impact of advanced computer technologies on the learning and teaching process will be yet more far-reaching. Heriot-Watt University continues to invest heavily in high specification facilities and the development of materials for CBL within the overarching framework of the 'Intensively Supportive Learning

Environment' (ISLE) programme, a major collaborative R&D programme based in the University. The University's Institute for Computer Based Learning provides a focus for this work, both for the promotion of computer-based teaching and learning opportunities at all levels in the University, and for teaching, training, research and development work in these areas.

### Multi-Media

The Television Centre, situated in purpose-built facilities on Riccarton campus, pursues related work in the development of multi-media teaching and learning facilities and packages, provides TV production facilities for a range of uses, including distance learning and training packages, and provides a live satellite 'feed' to the Riccarton campus. The Centre operates a 3-camera colour TV studio and mobile recording unit, both equipped to the highest standard, video-tape editing, digital video effects and a sophisticated specialised computer graphics facility, additional to the capacity of the University's A/V and Graphic Services unit.

### Careers Advice

Careers advisory services are provided at each of the University's campuses by professional staff who aim to inform and advise students, potential students and graduates about their career choices, course options and, ultimately, their potential employers.

Prospective postgraduate students are welcome to consult the Service and there is an ongoing Careers Education Programme available to all students. Postgraduate students have chosen a specialised field of studies, but do not always know the whole range of related career options. A discussions of these, related to existing skills and knowledge, can help form priorities for the next career step. Equally, postgraduates who may have moved directly from undergraduate studies and may not have applied for employment can be advised on employment interview techniques and application forms. Workshop on these topics are run.

The Graduate Recruitment Programme organised by the Service enables students to apply for posts offered by major national recruiters many of whom give preliminary interviews at Heriot-Watt.

A first class Careers Library is open throughout the year, providing information on occupation, employers and further study, in print, video and computer-based form. There are also regular bulletins of current vacancies of likely interest. In addition, there are two computer-aided careers guidance programmes - GradScope and PROSPECT (HE) - as well as a regularly updated employer database.



# Student Services and Facilities

## Accommodation and Domestic Facilities

Some 1,100 residential places are provided at Riccarton campus, almost half as many again in University-managed accommodation off-campus in various parts of Edinburgh, some 500 in the residences of the Institute of Education at a separate self-contained location in southern Edinburgh, and around 450 at The Scottish College of Textiles in Galashiels. Professional accommodation staff at each campus are responsible for allocating these and for advising and assisting students who cannot or choose not to be accommodated in University residences. The aim is to help all students find the accommodation which as far as possible suits their needs and their pocket. A separate booklet and application form is available.

The residences at Riccarton are pleasantly positioned, mainly around the central loch. They are



modern, comfortable, well appointed, well furnished and well maintained, and rents are reasonable. The residences comprise a number of units providing study-bedrooms (some twin, most single), where rent includes breakfast and evening meal provided in the central refectory, study-bedrooms with self-catering facilities in kitchens shared by groups of 4 or 5

students, and a number of 3-, 5- and 6-person apartments, each with bathroom, kitchen and dining area. Each unit also provides a lounge/TV room.

The University also keeps a register of accommodation which may be privately rented and makes every effort to ensure that facilities are of an acceptable standard. Advice and assistance are available, though the final arrangements are as negotiated between the student and landlord. Privately rented accommodation includes 'digs', usually either bed or bed & breakfast, 'bedsits' with cooking facilities, and privately rented flats and houses. The market for these in Edinburgh is quite competitive, especially for accommodation for couples with families: obtaining a private flat or house will generally necessitate spending some time in the city well before the start of term.







Meals at Riccarton are provided in a large central refectory, with smaller coffee bar adjoining. The nearby 'Microbyte' offers a wide range of good "fast food".

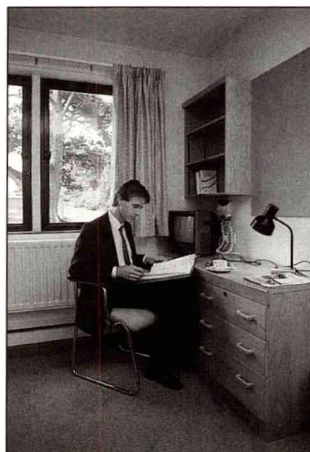
In the same central concourse of Riccarton campus is a whole range of commercial services - small supermarket, bookshop, bank, travel shop, hairdresser and deluxe restaurant and so forth.

A small nursery/creche is run at Riccarton campus for the very young children of students and staff.

### Welfare

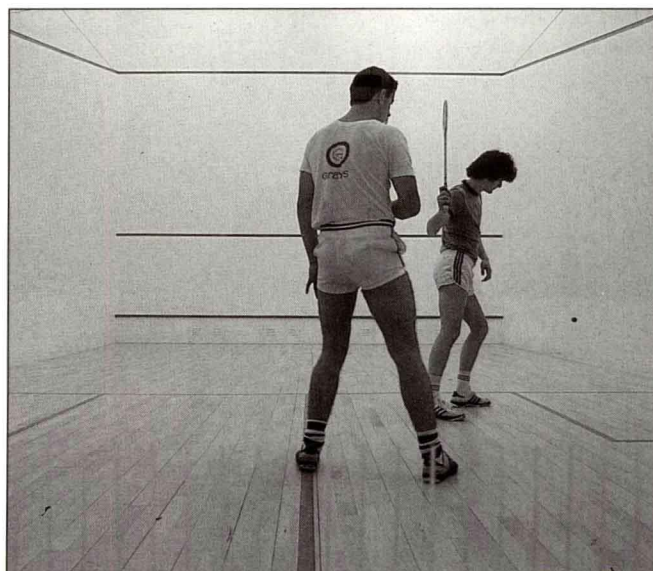
Confidential counselling is available for anyone experiencing problems, whether personal, emotional or practical, and the University administers various funds ('Access Funds') to help alleviate cases of particular financial hardship. In general, the University's approach is to encourage an unobtrusively *supportive network* which may call on the Student Counsellor and Student Welfare Services, personal academic departmental tutors, research supervisors, wardens of residences, health service doctors, University chaplains, or others, and this approach works well within the human scale of each of our campus communities.

There is a small Chaplaincy centre in a quiet corner of Riccarton campus. Separately, a prayer room is provided for Muslim students.



### Health Service

Students living away from home are entitled, and are well advised, to register with a doctor in their vicinity during the period of study. This may be with any doctor on the relevant Health Board list, or with the University Health Service at Riccarton, where the University provides facilities for medical consultation and treatment, full dental and nursing services. In addition to general medical







services, the University Medical Centre also makes available preventive medical care and provides an occupational health service.

### Sport and Recreation

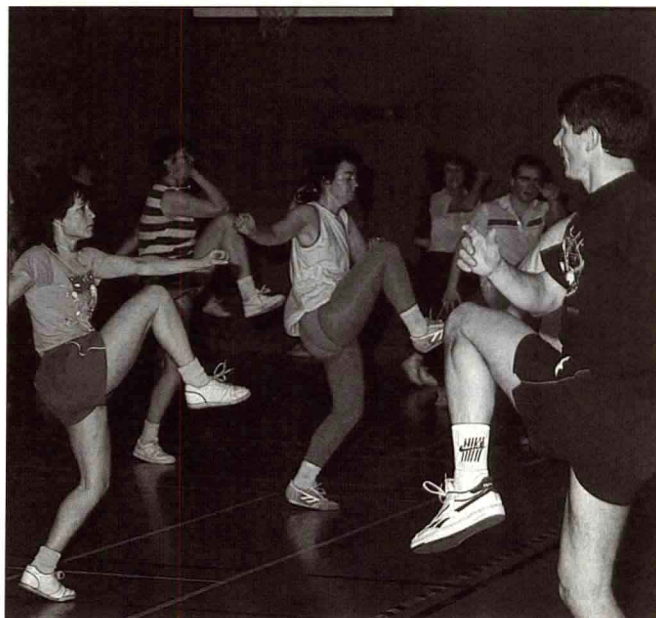
The University Sports Centre offers excellent indoor facilities for a great variety of sports in a large purpose-built centre and spacious outdoor playing fields, all an integral part of Riccarton campus. The Physical Recreation staff offer instructional classes in a wide range of sports and advanced training is available in some. Intra-mural and inter-departmental championships are organised, while talented sportsmen and -women may go on to represent the University or to play at Scottish or British Universities level. In recent

years, Heriot-Watt students have also represented their countries in the World Student Games, the Commonwealth Games and the Olympics. Students and staff who just choose to call in for a game of squash or badminton, or for the vastly popular 'Popmobility' keep-fit sessions, are equally welcome.

The Scottish Centre for Physical Recreation, Movement and Leisure Studies is a division of the University's Institute of Education at a separate campus in Edinburgh for specialised academic and professional training in sports education and related areas.

### Students Association and Union

The Students Association fulfils various representative functions and provides a range of services and facilities, most notably running the excellent Student Union on campus. Students of the University's associated colleges are also members of the Student Representative Council of their respective college.



The Students Union is a stylish new building (opened 1991) in the heart of the campus, providing an excellent venue for the lively entertainments programme and for private functions; other facilities include a bistro, bar and meeting rooms.





Operating from the Union, the Association represents students in the government of the University, provides a range of specific services and organises events and campaigns such as Womens Week, International Week, and Charities Week. *Watt's On* is the fortnightly student newspaper.

Dozens of clubs are affiliated to and supported by the Association - vocational societies, common to most departments, sporting clubs (within the Sports Union), all the political parties, national societies, for example Malaysian and Singaporean students or Norwegian students, music, drama, and so forth. There is a Postgraduate Students Society, concerning itself with views, interests, and activities of postgraduates.



### International Dimensions

The international character of the University is fully evident at the level of postgraduate study and research, *both* in the many international links, partners and sponsors in teaching and research programmes *and* in the student population.

The University's international connections include government agencies, major companies from the USA and many countries of Europe as well as the UK, a very significant level of support from European Union research, development and training programmes, ongoing involvement with many United Nations agencies, not to mention ties to a host of individual universities, research institutes and international scientific bodies worldwide.

Heriot-Watt enjoys a long tradition of welcoming students from overseas who on average make up 15% of our total student population, and a significantly higher number at the postgraduate level. Currently some 80 different nationalities are represented in the University. UK students at all levels in the University also enjoy opportunities for mobility through a number of exchange agreements.

Our experience is that students from overseas benefit most by being as far as possible integrated into the student body as a whole. Thus, overseas

students have the same academic tutors as other students, are looked after by the same accommodation, health and welfare staff and may receive help from the same careers advisory staff, and so forth. The University's International Office takes an overview to help ensure that an international student's stay at Heriot-Watt is as productive and enjoyable as possible.

**The Scottish Centre for International Education** is a division of the University's Institute of Education, internationally recognised for its specialist courses and consultancy in English language training, teacher training, educational administration and special education, with particular links throughout the Commonwealth.

As part of the University's Institutional Development Division, the International Office also has a role in establishing links and formal collaboration agreements with other institutions. General proposals for collaboration are usually dealt with by the Office. Enquiries from interested students abroad about any aspect of study in the University are welcomed and should be addressed to the Head of the International Office at the University's Riccarton address.



# Postgraduate Courses and Research



THE UNIVERSITY AWARDS A VARIETY OF HIGHER DEGREES AND POSTGRADUATE DIPLOMAS, some of which may be taken by following an advanced taught course, some by supervised research, and some with both components. The awards and their main patterns of provision are introduced below and the requirements of specific taught courses are more fully outlined in the individual entries of departments. A full statement of the regulations governing postgraduate study is available from the University's Postgraduate Office.

## Taught Courses

Advanced taught courses usually require attendance at lectures, course work, which is examined, and project/research work, which leads to the submission of a dissertation. In the most frequent pattern of postgraduate taught course in the University - the Master's degree with parallel postgraduate Diploma (eg MSc/Diploma) - the full-time Master's course is of 12 months' duration (October to October). The final months, following the

examinations and conditional on reaching the required standard, are occupied by a supervised research project which is written up in a dissertation. The 9-month full-time Diploma (October to June), based on the coursework examinations and possibly a lesser project, may be awarded to students who do not choose to proceed to the project/dissertation or who do not reach the required standard.

Many such courses may be taken part-time over a longer period, usually 2-3 years; a more limited number of courses is offered on a distance learning basis.

The entrance requirements for the Master's degree are commonly specified in terms of a good honours degree or equivalent in a relevant subject. The Diploma in many cases also offers a route for those with lesser qualifications to join the course with the possibility of subsequent transfer to the Master's.

In other cases, eg the Diploma in Actuarial Science or the Diploma in Housing, the Diploma is the prime award for a postgraduate taught course in the subject area.

In some cases, eg in the Faculty of Art and Design, the courses comprise a programme of supervised practical studio-based work, which is submitted for assessment.

Across the University, the minimum period of full-time study for a postgraduate taught course varies from 9 months to 2 years.

## Course Modules

Postgraduate courses in the University, particularly in the Faculty of Engineering, are commonly modular in structure, so allowing discrete modules to be offered as part of training programmes. Enquiries from interested individuals or employing organisations will be welcomed by the relevant department or by the Centre for Continuing Education.

The University also offers a programme whereby students who wish to specialise in one or more areas of postgraduate study not covered by any single course may accumulate relevant modules by part-time study towards the award of an MSc/Diploma, normally within 5 years. Details of this *Modular MSc* are available from the Postgraduate Office.

The credit accumulation-based *Modular Master's Scheme* in the Institute of Education is outlined in the Institute's entry in this Guide.





### Centre for Continuing Education

A theme of many current developments in the University is the concerted effort to increase productivity at the interface of education and training. At postgraduate level there is growing emphasis on opportunities for training - and retraining - in highly specialised and specific skills through our wide range of Master's courses, and this is explicit in our continuing education programme.

Through the IGDS - Integrated Graduate Development Scheme - programmes students can attend a series of short courses which are accredited at Master's degree level.

Heriot-Watt concentrates solely on vocational continuing education courses whose main clients are industrial, commercial and public sector organisation. Such courses may be customised to identified client needs and run in various locations both in the UK and overseas. Activity is closely integrated with the academic programme.

Courses are offered in engineering, applied sciences, business studies and languages. Further information is available from the Centre for Continuing Education.

### Research Degrees

Research degrees primarily involve an individual programme of work undertaken under the supervision of one or more members of staff and leading to the submission of a thesis. These opportunities are available in all areas of the

University and the general range of current research topics and facilities is outlined in the departmental entries in this Guide. Attendance at specified postgraduate classes may be directed in support of the programme.

The research degrees awarded by the University are MPhil, normally after 2 years full-time study (minimum 1 year) and PhD, normally after 3 years full-time study (minimum 2 years). There is also provision for part-time registration.

The University actively promotes a code of best practice regarding the supervision and progress of all postgraduate students following research-based degrees.