## School of Energy, Geoscience, Infrastructure and Society

<table>
<thead>
<tr>
<th>No.</th>
<th>Programme</th>
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<tbody>
<tr>
<td>42</td>
<td>Architectural Engineering</td>
</tr>
<tr>
<td>44</td>
<td>Architectural Engineering MEng/BEng (Hons)</td>
</tr>
<tr>
<td>45</td>
<td>Architectural Engineering with International Studies MEng</td>
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<th>No.</th>
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<tbody>
<tr>
<td>46</td>
<td>Biology</td>
</tr>
<tr>
<td>48</td>
<td>Biological Sciences BSc (Hons)</td>
</tr>
<tr>
<td>48</td>
<td>Biological Sciences (Cell and Molecular Biology) BSc (Hons)</td>
</tr>
<tr>
<td>49</td>
<td>Biological Sciences (Human Health) BSc (Hons)</td>
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<tr>
<td>50</td>
<td>Biological Sciences (Microbiology) BSc (Hons)</td>
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<tr>
<td>50</td>
<td>Marine Biology BSc (Hons)</td>
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<tr>
<td>52</td>
<td>Civil and Structural Engineering</td>
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<tr>
<td>54</td>
<td>Civil Engineering MEng/BEng (Hons)</td>
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<td>54</td>
<td>Civil Engineering with International Studies MEng</td>
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<td>55</td>
<td>Structural Engineering MEng/BEng (Hons)</td>
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<td>56</td>
<td>Structural Engineering with Architectural Design MEng/BEng (Hons)</td>
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<td>56</td>
<td>Structural Engineering with International Studies MEng</td>
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<th>Programme</th>
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<tr>
<td>58</td>
<td>Construction Project Management and Quantity Surveying</td>
</tr>
<tr>
<td>60</td>
<td>Civil Engineering Construction Management BEng (Hons)</td>
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<tr>
<td>61</td>
<td>Construction Project Management BSc (Hons)</td>
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<td>61</td>
<td>Quantity Surveying BSc (Hons)</td>
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<tr>
<td>62</td>
<td>Geography and Urban Studies</td>
</tr>
<tr>
<td>64</td>
<td>Geography BSc (Hons)</td>
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<tr>
<td>64</td>
<td>Geography, Society and Environment MA (Hons)</td>
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<tr>
<td>65</td>
<td>Urban Planning and Property Development BSc (Hons)</td>
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## School of Engineering and Physical Sciences

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<tbody>
<tr>
<td>68</td>
<td>Engineering</td>
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<tr>
<td>69</td>
<td>Engineering BEng (Hons)</td>
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<tr>
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<td>Physics</td>
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<tr>
<td>72</td>
<td>Physics MPhys/BSc (Hons)</td>
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<td>72</td>
<td>Chemical Physics MPhys/BSc (Hons)</td>
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<td>73</td>
<td>Engineering Physics MPhys/BSc (Hons)</td>
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<td>73</td>
<td>Mathematical Physics MPhys/BSc (Hons)</td>
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<tbody>
<tr>
<td>74</td>
<td>Chemistry</td>
</tr>
<tr>
<td>76</td>
<td>Chemistry MChem/BSc (Hons)</td>
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<tr>
<td>76</td>
<td>Chemistry with Biochemistry MChem/BSc (Hons)</td>
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<tr>
<td>77</td>
<td>Chemistry with Computational Chemistry MChem/BSc (Hons)</td>
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<td>78</td>
<td>Chemistry with Industrial Experience MChem</td>
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<td>78</td>
<td>Chemistry with Materials BSc (Hons)</td>
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<tr>
<td>79</td>
<td>Chemistry with Materials and Nanoscience MChem</td>
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<td>79</td>
<td>Chemistry with Pharmaceutical Chemistry MChem/BSc (Hons)</td>
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<td>Chemistry with a European Language MChem</td>
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<td>80</td>
<td>Chemistry with a Year in Australia MChem/BSc (Hons)</td>
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<td>Chemistry with a Year in North America MChem</td>
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<td>Chemistry with a Year in Europe MChem</td>
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<tr>
<td>82</td>
<td>Chemical Engineering</td>
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<td>84</td>
<td>Chemical Engineering MEng/BEng (Hons)</td>
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<td>84</td>
<td>Chemical Engineering and Diploma in Industrial Training (DIT) MEng/BEng (Hons)</td>
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<td>86</td>
<td>Chemical Engineering with Energy Engineering MEng/with DIT MEng</td>
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<td>86</td>
<td>Chemical Engineering with Oil and Gas Technology MEng/with DIT MEng</td>
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<td>87</td>
<td>Brewing and Distilling BSc (Hons)</td>
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<td>Electrical and Electronic Engineering MEng</td>
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<td>Electrical and Electronic Engineering BEng (Hons)</td>
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<td>Computing and Electronics MEng</td>
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<td>Computing and Electronics BEng (Hons)</td>
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<td>93</td>
<td>Robotics, Autonomous and Interactive Systems MEng/BEng (Hons)</td>
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<tr>
<td>94</td>
<td>Mechanical Engineering</td>
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<td>96</td>
<td>Mechanical Engineering MEng/BEng (Hons)</td>
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<tr>
<td>96</td>
<td>Mechanical Engineering and Energy Engineering MEng/BEng (Hons)</td>
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<th>Programme</th>
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<tbody>
<tr>
<td>98</td>
<td>STEM Teacher Training</td>
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<tr>
<td>98</td>
<td>Engineering Technologies and Professional Education BSc (Hons)</td>
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<tr>
<td>99</td>
<td>Professional Education (Primary) with specialism in Primary Science (STEM) BSc (Hons)</td>
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<tr>
<td>99</td>
<td>Chemistry and Professional Education BSc (Hons)</td>
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<tr>
<td>99</td>
<td>Physics and Professional Education BSc (Hons)</td>
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School of Social Sciences

102 Accountancy and Finance
104 Accountancy and Finance MA (Hons)
106 Business and Finance MA (Hons)

108 Business Management
110 International Business Management MA (Hons)
110 International Business Management with Economics MA (Hons)
111 International Business Management with Enterprise MA (Hons)
111 International Business Management with Human Resource Management MA (Hons)
112 International Business Management with Marketing MA (Hons)
112 International Business Management with Operations Management MA (Hons)
112 International Business Management with a Year Abroad MA (Hons)
113 Bachelor of Business Administration BBA (Hons)

114 Economics
116 Economics MA (Hons)
116 Economics and Accountancy MA (Hons)
118 Economics and Finance MA (Hons)
118 Economics and Business Management MA (Hons)
119 Economics and Marketing MA (Hons)

120 Languages and Intercultural Studies
122 Languages (Interpreting and Translating) (LINT) MA (Hons)
122 Applied Languages and Translating (ALT) MA (Hons)

123 British Sign Language (Interpreting, Translating and Applied Language Studies) MA (Hons)
124 French/German/Spanish and Applied Language Studies MA (Hons)
125 International Business Management and Languages (IBML) MA (Hons)

126 Psychology
128 Psychology BSc (Hons)
128 Psychology with Management BSc (Hons)

School of Textiles and Design

132 Textiles and Design
134 Design for Textiles (Fashion, Interior, Art) BA (Hons)
135 Fashion BA (Hons)
136 Fashion Communication BA (Hons)
137 Fashion Marketing and Retailing BA (Hons)
138 Fashion Technology BSc (Hons)
139 Interior Design (Top Up) BA (Hons)

School of Mathematical and Computer Sciences

142 Actuarial Mathematics and Statistics
144 Actuarial Science BSc (Hons)
144 Actuarial Science and Diploma in Industrial Training BSc (Hons)
145 Financial Mathematics BSc (Hons)
145 Statistical Data Science BSc (Hons)

146 Computer Science
148 Computer Science BSc (Hons)
148 Computer Science (Artificial Intelligence) BSc (Hons)
148 Computer Science (Games Programming) BSc (Hons)
148 Computer Science (Data Science) BSc (Hons)
148 Computer Science and Diploma in Industrial Training BSc (Hons)
150 Computer Systems BSc (Hons)
150 Computer Systems (Games Programming) BSc (Hons)
151 Information Systems BSc (Hons)
151 Information Systems (Interaction Design) BSc (Hons)
151 Information Systems (Internet Systems) BSc (Hons)
151 Information Systems (Management) BSc (Hons)
151 Information Systems and Diploma in Industrial Training BSc (Hons)
152 Software Engineering MEng

154 Mathematics
156 Mathematics BSc (Hons)
156 Mathematics MMath
158 Mathematical, Statistical and Actuarial Sciences BSc (Hons)
158 Mathematical, Statistical and Actuarial Sciences and Diploma in Industrial Training BSc (Hons)
160 Mathematics with/and Computer Science BSc (Hons)
161 Mathematics with Finance BSc (Hons)
161 Mathematics with Finance and Diploma in Industrial Training BSc (Hons)
162 Mathematics with French/German/Spanish BSc (Hons)
163 Mathematics with Physics BSc (Hons)
163 Mathematics with Statistics BSc (Hons)

Combined Studies

166 Combined Studies BSc (Hons)
Welcome to Heriot-Watt

Selecting a university is one of the most important decisions in your life and I believe there are many reasons why you should choose Heriot-Watt University.

Heriot-Watt is valued for its pioneering research, informed by the global needs of business and industry, with a rich heritage stretching back to 1821. Since that time we have established a reputation for innovative education, enterprise and ground-breaking research. Highly regarded for the professional relevance of our degrees and the employability of our graduates, we are pleased to say we have achieved high rankings across a number of key university league tables.

We are a truly global University – with a lively and vibrant academic community of around 29,000 students from more than 130 countries studying for degrees worldwide. Working with leading academics, our students learn and thrive in our friendly campus communities, with our partners and online. I am delighted that the Times and Sunday Times recognised our global status in their Good University Guide 2018 as the first ever institution to be named International University of the Year.

Our Edinburgh Campus is situated on a beautiful, purpose-built parkland site just outside the historic capital of Scotland. Alternatively you could study in the Scottish Borders, home to the School of Textiles and Design. Of course you could also choose our campus at the global hub of commerce and trade that is Dubai, where we recently celebrated 13 years of successful delivery. Or, study at our lakeside campus in Putrajaya, Malaysia, a short distance from Kuala Lumpur. Why not join our global student programme, taking advantage of our international network of campuses and partners to create your own unique experience? Find out more on pages 22–23.

Wherever you choose to study with us, whether on campus, or online with one of our Learning Partners, Heriot-Watt offers a proven learning environment combined with excellent facilities to deliver the same high quality education. This reflects our goal to share knowledge across the world, enriching the people and countries in which we work.

For the sporting-minded, Oriam, Scotland’s Sports Performance Centre, is located on our Edinburgh Campus. This cutting-edge facility is the Scottish training hub for the national football, rugby, squash and handball squads and is also used by the Scottish netball and basketball national teams.

Choosing a university is about more than numbers and an academic education. At Heriot-Watt learning is underpinned by a strong emphasis on values and development of you as an individual, with scope to get involved in sport, music, enterprise and community. We believe in providing you with an exceptional student experience where you will flourish and build lifelong friendships and be on the fast track to a genuinely world-class professional career. We aim to develop opportunities where you can achieve your highest aspirations and become confident leaders in your careers ahead.

Professor Richard A. Williams OBE, FEng, FRSE, FTSE
Principal and Vice-Chancellor
Why Choose Heriot-Watt

Heriot-Watt is valued for its pioneering research, informed by the global needs of business and industry. With a rich heritage stretching back to 1821, we are a truly global university bringing together scholars who are leaders in ideas and solutions delivering innovation, educational excellence and ground-breaking research.

Having graduated in 2017, my first few months involved getting a better understanding of the work that actuaries do within the pensions industry. I really enjoy this field of work as no two clients have the same needs. There is always an element of variety and the role is very fulfilling. My degree has given me many invaluable transferable skills which I use every day in my job.

Sarah Stamper
BSc (Hons) Mathematics
Actuarial Analyst, Buck

1st
IN SCOTLAND

GRADUATE SALARIES
1ST IN SCOTLAND and 17TH IN THE UK six months after graduation.

Times/Sunday Times Good University Guide 2019

1st GRADUATE SALARIES
IN SCOTLAND
FROM TOP 10 RANKINGS TO OPPORTUNITIES TO STUDY ABROAD, THERE ARE MANY REASONS TO CHOOSE HERIOT-WATT. HERE ARE JUST A FEW OF THEM.

A RICH HERITAGE
We are proud that since our foundation in 1821 we have been outward-looking pioneers of education, in pursuit of knowledge to the benefit of society and the world.

GLOBAL REACH
We are a truly global university with around 29,000 students, five campuses and over 100 learning partners around the world. We are one of Scotland’s most international universities; around a third of Heriot-Watt students in Edinburgh are from outside the UK.

A WORLD-CLASS REPUTATION
We are world-renowned for excellence in teaching and research. We are ranked in the top 30 universities in the UK (The Guardian University League Table 2018) and in the top 10 in the UK and first in Scotland for research impact (REF 2014).

STRONG LINKS TO BUSINESS AND INDUSTRY
Our taught programmes and research are informed by the needs of business and industry. We actively facilitate collaborations and partnerships, building strategic alliances and promoting knowledge transfer.

GLOBALLY EMPLOYABLE GRADUATES
Global companies actively seek out our graduates as they are work-ready. Our programmes are designed to ensure that students receive a relevant, career-orientated education. As a result, more than 95% are in employment or further study six months after completing their programme.

OPPORTUNITIES TO STUDY ABROAD
When you join Heriot-Watt University you become part of a friendly, global community. We actively encourage our students to push geographical boundaries through opportunities to study abroad.

WORLD-CHANGING RESEARCH
Heriot-Watt is valued for its pioneering research, informed by the global needs of business and industry. Our research focuses on real-world issues and we are ranked in the top 10 in the UK for industry income. This is based on the value of industry research income per member of academic staff.

WORLDWIDE NETWORK
When you join Heriot-Watt you become part of a global family. We have around 123,000 alumni worldwide. The Watt Club was founded in 1854 and is the oldest graduate club in the UK. Lifetime membership is automatic upon graduation from Heriot-Watt and is free to all graduates of the University.
Reputation and Rankings

Heriot-Watt is valued for conducting ground-breaking research which is relevant to business and industry. We aim to find radical innovations and solutions to real-world challenges for the benefit of society.

STUDYING WITH US
We will bring you into contact with leading researchers who are working on some of the most important areas for twenty-first-century society. Over 80% of academic staff are currently engaged in research at internationally recognised levels, delivering research as diverse as providing greater equality for deaf people, helping to manage risk in the insurance industry and enhancing oil extraction from the North Sea. As part of our community you will benefit from an environment focused on making a real and lasting contribution to issues that matter, and discover opportunities to make your own impact.

WORLD-LEADING RESEARCH
We have excellent facilities, highly rated teaching and world-leading research activity which together provide an exceptional learning and teaching experience. As part of a bright, committed and imaginative community of undergraduates you will have the opportunity to realise your potential by gaining the knowledge and skills you need to achieve your career aspirations.

2nd
BEST PLACE TO LIVE
Edinburgh is ranked the 2nd best place to live in the world in Deutsche Bank’s global study of 47 cities.
Our Impact

TOP 10
RANKED IN TOP TEN
Building, General Engineering, Mechanical Engineering and Mathematics.
Times/Sunday Times Good University Guide 2019

TOP 10
RANKED IN TOP TEN

FIRST IN SCOTLAND

SECOND IN SCOTLAND
Accounting and Finance
Guardian University Guide 2019

9th/82%
WORLD-CLASS RESEARCH
The Research Excellence Framework (REF) 2014 ranked Heriot-Watt 9th university in the UK for impact with 82% of research ranked world-class.
Join Us
2019 Open Days

Open Days are a great opportunity for you to experience what life is really like at Heriot-Watt. Tour our modern, spacious campuses. See all aspects of student life. Find out more about subject choices. Bring along family and friends.

OPEN DAYS
Our Open Days provide you with an opportunity to learn more about what it’s like to be a student at Heriot-Watt. Staff will be on hand to discuss our teaching and research, and potential careers related to your programme choice. You can take a tour with a current student to find out more about life on campus and see our sports facilities and accommodation. You are welcome to bring your parents or guardians when you visit.

STUDENT RECRUITMENT SERVICE
If the dates of our Open Days are not convenient for you we can arrange an informal tour of the Campus and our facilities at a time that suits you. Our Student Recruitment team will be happy to talk to you and show you around. Our academic Schools also organise Offer Holder Days for students who have applied to the University.

INTERNATIONAL STUDENTS ON CAMPUS IN SCOTLAND
One third of our on-campus students studying in Scotland are from outside the UK, making Heriot-Watt one of the most internationally diversified of any UK university.

HISTORY
We are proud that since 1821, we have been outward-looking pioneers of education, in pursuit of knowledge to the benefit of society and the world. We are specialists in engineering, business and science and leaders in innovative global education for a future world.

TO FIND OUT MORE AND BOOK YOUR PLACE
www.hw.ac.uk/opendays
Students with disabilities and specific support needs are welcome to make individual arrangements through the University’s Disability Advisor.

To request undergraduate programme information in alternative formats please contact:

University Disability Advisor
T: 0131 451 3509
E: disability@hw.ac.uk
www.hw.ac.uk/disability

EXPLORE ONLINE
If you can’t make it to our campuses, explore them online with our virtual tours and Open Day video.
www.hw.ac.uk/virtualtours
www.hw.ac.uk/opendayvideo

UK Recruitment Team
T: 0131 451 3451
F: 0131 451 3630
E: studentrecruitment@hw.ac.uk

International Recruitment Office
T: +44 (0) 131 451 3707
F: +44 (0) 131 451 3630
E: studentrecruitment@hw.ac.uk
www.hw.ac.uk/international

Oriam
SCOTLAND’S SPORTS PERFORMANCE CENTRE

Our Edinburgh Campus is home to Scotland’s Sports Performance Centre.
A Global University

With our roots in Scotland, our ambition and reach are truly international. A leader in transnational education, wherever we are, Heriot-Watt is a powerful driver and engine of the economy. Together with our alumni, civic community and industry partners, we transform people, society and the world we live in.

Our global campuses are located in some of the world’s most inspiring locations close to the international cities of Edinburgh, Dubai and Kuala Lumpur.
Edinburgh

A FESTIVAL CITY WITH AN INTERNATIONAL OUTLOOK

Living in Edinburgh is exciting and fulfilling. Home to the Edinburgh International Festival and the Edinburgh Festival Fringe, it is a focal point for art, culture, comedy and drama. The Edinburgh Campus is an exceptional environment within easy reach of one of Europe’s most exciting cities. Outstanding teaching facilities and our close links with industry make our Edinburgh Campus a fulfilling and stimulating environment. Our Edinburgh Campus is truly international; around 10,500 students are based here, with around a third of them coming from outside the UK.

Find out more: www.hw.ac.uk/edinburgh

Dubai

WORLD-CLASS EDUCATION TAILORED TO UAE INDUSTRY NEEDS

With a further investment of £35 million our campus in the Dubai International Academic City is a modern, contemporary environment for around 3,400 students who are studying programmes tailored to meet the demands of the UAE and wider Middle Eastern and African economies and employment markets.

Find out more: www.hw.ac.uk/dubai

Scottish Borders

A WORLD-LEADING CENTRE FOR CREATIVITY

Our Scottish Borders Campus is located in the heart of the Scottish luxury textiles industry. This inspiring learning environment is a centre for excellence and an exceptional place for learning and living. A new Scottish Borders rail route opened in September 2015 giving students access to Edinburgh city centre in 50 minutes.

Find out more: www.hw.ac.uk/borders

Malaysia

AN INSPIRATIONAL PLACE TO STUDY

Our state-of-the-art, £35 million Malaysia Campus in a stunning lakeside location opened in September 2014, creating opportunities for up to 4,000 students to study a range of professionally relevant programmes tailored to the needs of the Malaysian and Asian economies and employment markets.

Find out more: www.hw.ac.uk/malaysia

Orkney

A ‘LIVING LABORATORY’ SUPPORTING THE GLOBAL MARINE INDUSTRY

The International Centre for Island Technology (ICIT) is a specialist arm of the School of Energy, Geoscience, Infrastructure and Society with strong international industry links and collaborations offering a range of MSc programmes that are truly global.

Find out more: www.hw.ac.uk/orkney
Your Career and Employability

Around 95% of our undergraduate students are in employment or further study within six months of graduating. Here's how we can help you achieve the same success.

CAREER-FOCUSED DEGREES
Our degrees are career-focused and relevant to the needs of business and industry. Employers actively seek out our graduates as our degrees are highly regarded for their relevance to the world of work. Many of our degrees are accredited by professional bodies.

LINKS TO EMPLOYERS
We have excellent links with business and industry, both in the UK and internationally. We help you meet some of the world’s top employers, who know the strengths our graduates bring to the workplace.

JOBS APPLICATIONS SUPPORT
Our Careers Service offers individual advice and group workshops on CVs, application forms, assessment centres, selection tests and interviews.

Heriot-Watt University has a reputation for producing pragmatic ‘can do’ graduates, many of whom have gone on to carve out a successful career with Shell. In recent years we have strengthened our ties with the University through funding the Shell Centre for Exploration Geoscience and by elevating Heriot-Watt to become one of our top target universities for recruitment.

Paul Garnham, Shell’s Campus Ambassador Lead for Heriot-Watt University, Aberdeen
Our Impact

95%
Around 95% of our undergraduates are in employment or further study six months after completing their programme and are actively sought by global industry.

CAREERS FAIRS
Each year we hold two university-wide recruitment fairs and seven industry-specific recruitment and networking events, giving you the chance to meet with graduate employers and find out about opportunities.

BESPOKE CAREER ADVICE
Each School has a dedicated careers advisor who collaborates with lecturers to integrate a programme of events into our degree programmes designed to equip you with the skills you will need to plan and implement your career choice.

WORK DURING YOUR STUDIES
Our Careers Service can help you to find opportunities for part-time jobs, summer work experience and internships, allowing you to gain invaluable experience during your studies.

217
EMPLOYERS ATTENDED EVENTS ON CAMPUS

120
SKILLS WORKSHOPS DELIVERED

138
IN-CLASS CAREERS TALKS

7,480
GRADUATE JOBS ADVERTISED BY THE CAREERS SERVICE

JOIN THE WATT CLUB
Founded in 1854, the Watt Club is the UK’s oldest Higher Education Alumni association with around 123,000 alumni worldwide. Becoming a graduate of Heriot-Watt University gives you access to this international network.

CONTINUED SUPPORT AFTER GRADUATION
The Careers Service will continue to offer support and guidance for up to two years after you graduate, helping with those all-important first steps into the world of employment following completion of your studies.

www.hw.ac.uk/students/careers.htm
Why Edinburgh

One of the world’s most beautiful cities with an exceptional quality of life, Edinburgh is Scotland’s capital and a great place to live and study. It’s a unique city with a dynamic outlook, renowned worldwide for its rich learning tradition and magnificent architecture.

MOST BEAUTIFUL CITY IN THE WORLD

Ranked the 4th most beautiful city in the world (Rough Guide, 2015), Edinburgh is a stunning city and everywhere you look is picture perfect, from the Old Town closes to the ancient volcano of Arthur’s Seat.

TOP HERITAGE ATTRACTION

EDINBURGH Castle has been named the top heritage attraction in the UK for the third year running (British Travel Awards 2018).
LIVING AND STUDYING IN OUR FESTIVAL CITY

The majority of our programmes are taught at our Edinburgh Campus, which is six miles from the city centre of Scotland’s capital. The Campus itself is set in 380 acres of beautiful parkland, offering students ample space to think, play and enjoy. Jump on one of the buses that frequently depart from the Campus and you can enjoy the city of Edinburgh and all it has to offer.

2nd
BEST CITY IN THE UK FOR STUDENTS

With Edinburgh ranked as 18th in the world and 2nd in the UK in QS Best Student Cities, it’s no surprise that students make up 12% of Edinburgh’s population.

39%
OF STUDENTS ARE INTERNATIONAL

39% of students at Edinburgh’s universities are international, providing cultural diversity and a welcoming atmosphere for international students.

A FESTIVAL CITY

Edinburgh is the world’s leading festival city with the Edinburgh Festivals attracting 4.5 million visitors each year. Over 25,000 performers take part in 3,000 events across a variety of festivals, including the Edinburgh Festival Fringe, Edinburgh’s Hogmanay, Edinburgh International Science Festival, Edinburgh International Film Festival and the Edinburgh International Festival.

HISTORY AND HERITAGE

In 1995, Edinburgh was accredited as a World Heritage Site by UNESCO. From the medieval Old Town and the Georgian New Town to Greyfriars Kirkyard and Blair Street Vaults, Edinburgh is packed with fascinating, and sometimes chilling, history.

INNOVATION

Edinburgh has proudly been the centre of discovery and learning for centuries. Alexander Graham Bell, who was born in Edinburgh in 1847, invented the telephone. Today the city is world-leading in technology, arts, medicine, science, engineering and business.

YOU’LL NEVER BE BORED

There’s a huge range of tourist attractions, from Edinburgh Castle to Edinburgh Zoo. Take to the outdoors to climb Arthur’s Seat or visit Portobello beach or stay indoors to tour the fantastic museums and galleries. Explore the hundreds of restaurants, cafés, pubs and clubs, some rooted in history and others chic and contemporary. Go to hear music at a stadium gig or watch a national sporting event.

WANT TO KNOW MORE?
WATCH KAYLEIGH’S VLOG TO SEE A DAY IN THE LIFE OF A HERIOT-WATT STUDENT AT THE EDINBURGH CAMPUS:
www.hw.ac.uk/video-kayleigh

www.hw.ac.uk/ug
Edinburgh Campus

A green, peaceful and stimulating environment for studying, relaxing and socialising, our Edinburgh Campus is a really friendly, welcoming community where it’s easy to get to know people. All our amenities are highly accessible and the attractions of the city are within easy reach.

Self-contained campus in beautiful 380-acre parkland
What appealed to you most about Heriot-Watt University?
The attitude towards its potential students. Heriot-Watt University was the only university which immediately replied to all of my questions before I applied and the answers were always personal rather than generic.

Do you feel your degree has prepared you well for a career?
I feel more prepared for industry than my friends who studied chemistry in continental Europe. Heriot-Watt offers a great deal of practical experience with technology that is only a theory in other places.

Has your degree programme helped you develop links with industry?
If I took Chemistry with a year in industry I would have better links I think. However, I have had two placements so far, and there are always lots of emails coming, if not from the department then from the Careers Service about jobs or placement opportunities, so I think it is possible with all degrees at Heriot-Watt.

A LIVELY PLACE TO WORK AND PLAY
Around 10,500 students are based on our Edinburgh Campus creating a lively environment for studying and socialising. It is designed to help you work and play and is full of high quality facilities to accommodate your needs, be they academic, social, sporting, cultural, religious, transport or health related.

FIRST-CLASS SUPPORT SERVICES
There are excellent services to ensure you feel fully supported while studying here, including our Student Wellbeing centre (including counselling and disability services), Global Student Office (international student advice, student funding and Go Global) and Accommodation Office, an award-winning Careers Service, a Health Centre and the Chaplaincy.

STUDENT EXPERIENCE
Investment spend of £27 million has been made to improve student study facilities and the overall student experience on the Edinburgh Campus. A new ground-breaking facility to advance global research, innovation and discovery, The GRID, will open during 2019, designed to excite tomorrow’s thinkers and challengers (see page 38 for the full story). With over £9 million invested in refurbishing the Library and Learning Commons areas, students can expect high quality, technology-enabled study spaces and plentiful access to textbooks and journals both paper-based and online.

GREAT ACCOMMODATION
We have around 2,000 residential self-catering places for students, 450 of which are in our new student residence developments.

SO MUCH TO DO
In between studying you’ll find the Campus a great place to unwind and relax with so much to do. You can wander the peaceful parkland or access some of Scotland’s state-of-the-art sports facilities at ORIAM (see pages 34–36 for full details), or socialise in our vibrant Student Union, or join one of our many student clubs and societies.

MOST POPULAR DESTINATION
Edinburgh is the most popular destination in Scotland for overseas visitors, and the second most popular in the UK as a whole.

The City of Edinburgh Council
Why Galashiels

Home to the Scottish Borders Campus, Galashiels is an ancient market town with strong traditions and a vibrant cultural calendar with local festivals such as Creative Coathanger and the Braw Lads Gathering. The town was developed in the nineteenth century to support the flourishing textiles industry, an industry that thrives today with the nearby mills such as Chanel and Johnstons of Elgin exporting luxury fabrics around the world.

Rich and Varied History

The Scottish Borders is a region with a rich and varied history. It’s characterised by rolling hills and rural calm. It offers an ideal backdrop for student life, with a strong sense of community and an active social scene, complemented with a range of bars, clubs and a cinema. The town also offers a wide range of shops from well-known high street names to independent retailers and 24-hour supermarkets. Set in beautiful countryside, the area offers you plenty of opportunities to enjoy fresh air, fine views and a range of related outdoor activities.

Rail Route to Edinburgh

The Scottish Borders rail route provides students at our Scottish Borders Campus access to Edinburgh city centre in 50 minutes.

"Galashiels is a brilliant town to be a student in. There is a real creative buzz here, great student nightlife with trains to Edinburgh every 30 minutes."

Caroline Duff, BA Fashion
Borders Campus

The School of Textiles and Design has the best facilities in the UK with Mary Portas describing them as a Willy Wonka Factory of Fashion.

AN INSPIRING PLACE TO LEARN
Our Scottish Borders Campus offers an inspiring learning environment. It’s home to our School of Textiles and Design, a leading education and research institution with specialist resources that are among the best in the world. There is state-of-the-art production equipment and the largest knit and weave studios in Europe.

DYNAMIC STUDENT VILLAGE
The refurbishment of the Campus and student residences has created a dynamic student village with all the amenities you would expect and a fantastic environment in which to live, learn and create.

AN INTERNATIONAL COMMUNITY
You’ll find the Campus a welcoming, friendly place with a diverse community – there are students from all over the world studying here, so there is a truly international feel.

EXCELLENT STUDENT SUPPORT
There’s a range of support services and a lively Students’ Association, which has strong links to its partner on our Edinburgh Campus. Plus, all the facilities you need to excel in your studies, including computer suites, specialised workshops, spacious studios, a library and a textile archive.
Why Dubai

Dubai is one of the most sophisticated, futuristic, connected and cosmopolitan cities in the world. Its residents come from more than 180 countries and 105 different nationalities study with us in Dubai.

2nd SAFEST COUNTRY IN THE WORLD – UAE

A SAFE CITY
Dubai is one of the safest cities in the world and the UAE is ranked the world’s 2nd safest country. Dubai is virtually crime-free as the Dubai police ensure safety and security.

INCREDEBLE INFRASTRUCTURE
Dubai has one of the highest standards of living that a city can offer and an ultra-modern infrastructure.

LOW COST OF LIVING
It may surprise you but Dubai has a lower cost of living than some other global cities. With sensible choices, it can be an affordable place to study.

GLOBAL KNOWLEDGE HUB
Dubai is an international knowledge hub giving students from around the world the opportunity to gain internationally recognised qualifications. As the first British university to open in Dubai International Academic City, Heriot-Watt is at the heart of this mission.

GLOBAL TOURISM AND ENTERTAINMENT HUB
Dubai is a booming tourist destination with a huge array of options for shopping, eating, socialising, and entertainment. Whether you prefer hiking, biking, swimming, desert safaris, jet skiing, skydiving or theme parks, there will be something for you.

INTEGRATED TRANSPORT
Dubai is a world transport hub connecting the east and west. Within the city it is easy to get around using the integrated public buses, water buses, trams and metro system. Taxis are also plentiful and good value.

GLOBAL BUSINESS HUB
Dubai is a centre of trade and commerce for the Middle East and the wider world. It hosts global corporations and some of the biggest business events in the world take place in Dubai.

A MODERN DESIGN CAPITAL
Dubai is the modern art and design capital of the Middle East and is host to Dubai Opera and Dubai Design District.

EMPLOYMENT
Dubai will play host to Expo 2020, a festival of human ingenuity, exploring what is possible when new ideas and people connect, creating many new job opportunities and careers in a variety of professions.
Dubai
Campus

Heriot-Watt University Dubai’s purpose-built campus offers a great experience for all its aspiring graduates.

WORLD-CLASS EDUCATION TAILORED TO UAE INDUSTRY NEEDS
Specialising in Built Environment, Computer Science, Engineering, Fashion, and Management, Heriot-Watt University Dubai offers degree programmes that are relevant to the UAE employment market as well as the wider economies of the Middle East. Our programmes are taught by almost 100 permanent Heriot-Watt academic staff and most are accredited by the same professional bodies as the degrees we offer in the UK.

Our purpose-built campus of 500,000 square feet in Dubai International Academic City provides a comprehensive environment in which you can study effectively, make lasting friendships and enjoy everything that one of the world’s greatest cities has to offer. From a 700-seater auditorium to small seminar rooms, from engineering laboratories to architecture and fashion studios, from quiet working provision to learning spaces for groups, we have it all.

When not studying, our students can be found eating in the food court, relaxing in the common room, working out in the gym or playing football, basketball or volleyball on multifunction sports courts.

Look out for our Dubai Study Option icon next to the available programmes.

GET IN TOUCH
Heriot-Watt University Dubai
Dubai International Academic City, PO Box 294345, Dubai, United Arab Emirates
T: +971 4 435 8700/1  F: +971 4 447 7350  E: dubainquiries@hw.ac.uk
www.hw.ac.uk/dubai

Want to study in Dubai as part of your degree? See pages 22–23 for information on opportunities to take part in an Inter-Campus Transfer to Dubai during your degree.
Why
Malaysia

Malaysia is a superb location and high quality environment for academic study. It consists of two areas of mainland, separated by the South China Sea, namely West Malaysia – more popularly known as Peninsular Malaysia – and East Malaysia.

**IDYLLIC LOCATION**
Home to some of the world’s most idyllic beaches and islands, Malaysia has over 4,600 km of coastline. Located on the equator’s belt, the country has 12 hours of sunlight every day, with an average temperature of 27 degrees Celsius.

**RANKED AS MOST AFFORDABLE**
Kuala Lumpur is ranked as the most affordable city to live in, according to QS University Rankings 2017.

**MINI ASIA**
Dubbed ‘Mini Asia’, Malaysia is a multi-racial and multi-ethnic country where the majority are Malays, Chinese and Indian.

**STRIKING CAMPUS**
The striking campus reveals itself within the landscape, from beneath a living grass roof. Located next to the Putrajaya lake, part of the administrative capital’s ‘green continuum’, the building is consciously designed with the environment in mind and is built to Green Building Index (GBI) standards.

**12TH IN TOP 20 COUNTRIES**
Ranked 12th in UNESCO’s Top 20 Countries for Student Destination.

For more information about the country and places of interest visit the Tourism Malaysia website: www.tourism.gov.my/en/my
This £35 million investment provides the first ‘green campus’ in the country and the first university in Putrajaya, the government capital of Malaysia, with capacity to support up to 4,000 students.

Offering an exceptional range of facilities for study and student life and a broad range of programmes, the Campus maximises the potential of our lakeside setting in Putrajaya. The creation of the Campus was architect-led, using educational design specialists to ensure it incorporates a range of modern learning spaces, including laboratories, lecture halls, a library and a wide range of learning studios with wi-fi throughout.

It not only serves students from across Malaysia but offers opportunities to students from all countries and together they form a vibrant and diverse community. This expansion of our global community is part of our commitment to making Heriot-Watt’s high quality education accessible to all.

The Campus is distinctive for its environmentally friendly, passive design features which include lighting powered by the maximum use of natural daylight, a rainwater harvesting system and optimised air-conditioning and thermal control systems. Its striking grass roof, the first of its kind in Malaysia, is 300 metres long and 30 metres wide. Accessible by a glass lift, the roof provides a unique vantage point to enjoy uninterrupted views across the 1,600-acre lake. It provides an exceptional environment for study and an inspiring place for a new generation of students.

Look out for our Malaysia Study Option icon next to the available programmes.

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**GET IN TOUCH**

Heriot-Watt University Malaysia  
No 1 Jalan Venna P5/2, Precinct 5, 62200 Putrajaya, Malaysia  
**T:** + 60 3 8894 3888  **F:** + 60 3 8894 3999  **E:** hwum@hw.ac.uk  
**[www.hw.ac.uk/malaysia](http://www.hw.ac.uk/malaysia)**
Go Global

At Heriot-Watt you have the opportunity to become a global student by taking part in an Inter-Campus Transfer, Erasmus+ or Exchange.
BECOME A GLOBAL STUDENT

Heriot-Watt provides you with the opportunity to become a global student both at our UK campuses and internationally.

On our Edinburgh Campus you’ll find that about one-third of our students are from countries outside the UK, bringing a real international flavour to our community. This mix of people provides a great opportunity to learn about other cultures and build friendships that stretch across the globe.

We also encourage students to take part in our global student programme, Go Global, by participating in an Inter-Campus Transfer, Exchange or Erasmus+ for a semester or year of their degree.

WHY GO GLOBAL?

• Broaden your horizons
• Experience new cultures
• Build your global network
• Enhance your career prospects.

Studying abroad is a great opportunity to meet people, discover new interests and develop your life skills. It can build your confidence, develop your adaptability and hone your resourcefulness, which are all important personal attributes valued by employers. In today’s world of globally connected business, the network, knowledge and experience you build up while studying abroad can give you a competitive edge, as well as bringing a new perspective on your life, aspirations and career options.

INTER-CAMPUS TRANSFERS

Take advantage of our international locations and transfer to our campuses in Dubai or Malaysia.

ERASMUS+

The Erasmus+ programme enables you to study in Europe as part of your degree programme.

EXCHANGE

The Exchange programme gives you the opportunity to study with one of our international exchange partners for part of your degree.

Visit www.hw.ac.uk/goglobal to find out more about Go Global.

Matthias Goldbeck

Matthias is a fourth year International Business Management student from Scotland/Germany. In his third year, he studied at both our Dubai and Malaysia Campuses as part of an Inter-Campus Transfer.

Why did you decide to take part in Go Global?

The opportunity to study in two vastly dissimilar cultures promised to both broaden my outlook and turbocharge my career prospects. The programme offered a sound platform to analyse the nature of business in large commercial capitals, all the while within the comfort of Heriot-Watt’s international campus network. In retrospect the year delivered beyond my highest expectations.

How did studying in Dubai and Malaysia differ from studying in the UK?

The study environment was similar to Edinburgh in certain respects. The course material is synchronised, with the lecturers overseas then tailoring their presentations to the local context. The classrooms are a little smaller, fostering lively classroom discussion.

What were the highlights from your global student experience?

My time as a volunteer primary teacher at a UNHCR school for refugees was perhaps the most poignant experience of the year. Travel also played a large part. I was very fortunate to visit the Abu Dhabi Grand Mosque, stunning Thai coasts and Singapore Gardens and also to attend the Hong Kong Rugby 7s.

How do you think being a global student will benefit your career after university?

My time abroad certainly gave me the vocabulary and knowledge to start really talking to employers about international business. I’ve hopefully gained a heightened understanding of the decisions businesses need to make before entering foreign markets. Latterly, I was fortunate to pick up an internship in Hong Kong which opened up doors to yet another global commercial epicentre.

www.hw.ac.uk/goglobal
Sheona Dorrian
BSc Psychology

What would you say to prospective students considering studying at Heriot-Watt?

Go for it – I’ve had an amazing few years here. You’re no longer in the hands of your parents – university is a new chapter in your life, where you can make your own decisions and decide what to do!

myHWU
YOUR CENTRAL HUB FOR UNIVERSITY LIFE

Everything you will ever need as a student is accessible on your smartphone or tablet from the App Store or Google Play or you can use it on your computer. Basically everything you’ll need as a student across all five campuses, myHWU aims to deliver a first-class student experience making you more global, innovative and connected wherever you choose to study.

Find out more:
www.hw.ac.uk/students/studies/myhwu.htm
As a student at Heriot-Watt, you automatically become a member of the Student Union, a uniquely diverse global community. And this is what is at the core of everything we do.

We know there is more to life at university than earning your degree, so we exist to empower and inspire and we work tirelessly to enhance the student experience. We celebrate our differences but support each other as one community.

We’re home to some of the UK’s best and most diverse societies. With over 70 clubs and societies you can explore a world of new possibilities! Whether you want to swing a sword with our Medieval Society, raise money for a cause close to your heart or learn something new with one of our many cultural and academic societies, we’ll help you find your calling.

As a democratic organisation, we’re led by students elected by their peers. This allows us to work with the University to ensure that you are at the heart of Learning, Teaching, Research and Innovation. We also campaign on national issues to make sure the voice of all Heriot-Watt students is heard across the UK.

We champion all of our students by celebrating and giving a voice to our minority communities including LGBTQ+, BAME (Black, Asian, and Minority Ethnicities), international, and disabled students, as well as those with dependants.

We became the first Union to be awarded the Scottish Student Association of the Year twice because we lead the way by empowering our students to be the change they want to see.

The Student Union runs Liberty’s Café, a chill space to start your morning right or relax and take a break from your studies, and Geordies Bar in Edinburgh and The Thread at Galashiels where you can unwind and socialise. The Advice Hub is a supportive service we also operate to help students with any hurdles they encounter, from housing issues to mental or sexual health.

For more information on who we are, what we do, and why we do it have a look at our website: [www.hwunion.com](http://www.hwunion.com)

You can also add us on Facebook or Twitter and have a look at what we do daily! @HWUnion

Rahul Singh
Student Union President
Scottish Campuses
Our Student Wellbeing team ensure you are supported every step of the way so you can make the best of your time at Heriot-Watt.

**PERSONAL SUPPORT**
Your time at Heriot-Watt will be fun, exciting and fulfilling but there may be times when you’ll need some help and advice. We have a range of support services with friendly, approachable staff who are there for you whenever you need them.

Along with the advice and information our Wellbeing Team can offer, our academic staff are also part of the student support system here. When you join the University you will be introduced to a member of the teaching team who will be your ‘Personal Tutor’ and who will always be on hand to provide general guidance and support.

**PRACTICAL ADVICE**
Student Wellbeing can provide practical advice and support on all kinds of issues including settling into university life, money, accommodation, disability and safety. We can also help if you get into difficulties by providing support and counselling to make sure you get the most out of your time at Heriot-Watt.

**HEALTH CARE**
At our Edinburgh Campus you are encouraged to join and make use of our on-campus Health Centre, which provides top quality medical, nursing, dental and ancillary health care, including physiotherapy. Any health worries that you may have will be dealt with confidentially and efficiently. If you are based at our Scottish Borders Campus you should register with one of the local general practices.

**DISABILITY SUPPORT**
Our Campuses are modern and well equipped for those of you who have a disability or special need. This includes learning difficulties such as dyslexia, physical disabilities and mental health problems. We are committed to providing you with appropriate information, professional advice and technical help throughout your time here. If you have extra support needs please contact the Disability Advisor in Student Wellbeing. It would be helpful if you could do this in advance so that we can assess your needs before you arrive and make any appropriate arrangements. At present we are only able to offer British Sign Language/English interpretation and, to a limited extent, International Sign/English interpretation to support teaching and learning at our UK campuses.

**SPIRITUAL WELLBEING**
Your spiritual wellbeing is also important and the Chaplaincy centre at our Edinburgh Campus is not only for people who are religious – it is open to everyone. During term-time you can relax in the lounge, and play snooker or even the piano! Separate prayer rooms are provided for Muslim worship.

Heriot-Watt is committed to promoting equality in all its activities and providing an environment free from discrimination and unfair treatment.
Kenzheyev Magzhan
BEng Chemical Engineering

What appealed to you most about Heriot-Watt University?
After deciding that I wanted to study chemical engineering, I reviewed universities and found that Heriot-Watt was one of the top for chemical engineering in the UK. It also has good links with companies like Shell and ExxonMobil and a 95% graduate employment rate. So without further ado I chose Heriot-Watt University.

Do you feel your degree has prepared you well for a career?
I feel that my degree is constantly preparing me for my future career. The format in which the subjects and laboratories are held prepares us for jobs in industry.

Has your degree programme helped you develop links with industry?
There are many Careers Fairs during the year which allow me to talk to different companies, learn their functions and requirements and ask any questions. We are also able to find out about internships and summer placements, which gives us a great opportunity to get real-life experience directly from industry.

What would you say to prospective students considering studying at Heriot-Watt?
Heriot-Watt is located just outside of Edinburgh, therefore the students here experience both the beautiful calm environment on the Campus and the busy active city. The University is easily accessible by public transport; the buses leave every ten minutes from the Campus. There are a variety of sports clubs and societies that students can easily join. There is a Student Union located on the Campus and it often holds different events such as disco nights, talent shows and pet therapy. I am really happy to be part of the big community of Heriot-Watt University.
Accommodation

A multi-million-pound investment programme has seen excellent student accommodation on both our Edinburgh and Scottish Borders Campuses. All new entrants are guaranteed an offer of accommodation, either on or off campus.*

Learning and Socialising Space

At the Edinburgh Campus the six new self-catered blocks offer large, modern study bedrooms, spacious kitchens with dining space and more learning and socialising space throughout the buildings. Landscaped central courtyards act as a hub for students to mix and relax.

All of the Borders Campus accommodation is self-catered, providing spacious kitchens with a dining area and learning and socialising space throughout the buildings. Some spectacular views of the stunning Borders countryside complete the experience!

*As long as you will be at Heriot-Watt University for the full academic year and apply by our deadlines. The University reserves the right to change this policy and priorities in response to changing demands. Some of our accommodation is in the City of Edinburgh.

Easy Access to All Facilities

At the Edinburgh and Scottish Borders Campuses, our student accommodation is within easy reach of the teaching buildings, sports facilities and the Student Union. The accommodation has been designed to complement all your learning needs, and provide you with a comfortable home while you are studying on campus.
A hub for relaxation
HERIOT-WATT UNIVERSITY

GREAT PLACE TO LIVE AND LEARN

Our new residences are part of the University’s commitment to providing our students with the best possible environment for living and learning. We involved our students in the process of design, gathering their views and opinions to ensure the residences would be tailored to students’ needs and priorities. We also ensured they were built to the highest standards in sustainable design and energy use.

TOP QUALITY FACILITIES

You will have your own study bedroom, the majority of which have en-suite bathrooms, and access to home comforts – a well-equipped shared kitchen, a communal lounge, a laundry, fast 100 MBPS speed broadband with wi-fi throughout the buildings. Each hall also has a warden who is there to help you settle in and sort out any problems you might encounter.

CATERING TO SUIT EVERYONE

At the Edinburgh Campus there is a range of catering venues, depending on the time of day and type of food you want. These include Elements, Central and Cafe Brio. Our experienced chefs are always responsive to special dietary needs and will ensure that if you are vegetarian or vegan or require gluten-free or Halal meals, you will be well catered for.
HERIOT-WATT UNIVERSITY ACCOMMODATION

For further information check out our website:
www.hw.ac.uk/accommodation-ed
www.hw.ac.uk/accommodation-sbc
E: halls@hw.ac.uk
E: bordershalls@hw.ac.uk

www.hw.ac.uk/ug
Join our vibrant music community and get involved with the musical activity that takes place across the Campus and beyond.

CREATING MUSICAL CONNECTIONS

‘Music @ Heriot-Watt’ has achieved growing success and recognition amongst the universities and communities in Scotland as a platform for students, staff and the local community to excel in making and performing music together, in keeping with a spirit of dynamism and constant improvement.

An enjoyment of music, as both performer and audience, contributes to the very special atmosphere at Heriot-Watt. Dr Steve King is Director of Music, and acts as a vital focus for musical activity throughout the University. Heriot-Watt musicians have performed the length and breadth of the country – from Orkney to Knoydart and from Skye to the Borders – delighting audiences, raising the University’s profile and developing musical skills and connections.

OPEN TO EVERYONE

Both the orchestra and the choir are open to current music scholars and previous members: prospective members can contact the Director of Music to arrange a meeting before or during Freshers’ Week. Traditionally, there has been a healthy membership of UK and international students in all of the above groups.

THE PIPE BAND

The pipe band was founded in 1994 by staff members and students who wanted to create a group to perform at University functions and events. As well as providing an active on-campus social calendar, the group has appeared at festivals in Europe and is frequently invited to perform at University and local functions. The band provides an opportunity for students to continue playing their instruments whilst studying at the University.

BROAD MUSICAL INTERESTS

The wide range of musical interests includes a chamber choir; chamber music; the Inchcolm New Music Ensemble – the University contemporary music group; a pipe band; and the University Orchestra and University Choir, both of which give regular concerts on campus and at St Giles Cathedral and Greyfriars Kirk in the centre of Edinburgh.

CONTACT

Steve King, Director of Music
T: 0131 451 3705
E: s.king@hw.ac.uk
www.hw.ac.uk/uk/edinburgh/music.htm
www.facebook.com/HeriotWattMusic
From a student point of view being part of any ensemble at Heriot-Watt is a fantastic experience and a great place to make friends from varying backgrounds and ages.

Megan Leggett, Graduate of the School of Engineering and Physical Sciences
Our Edinburgh Campus is home to Oriam, Scotland’s Sports Performance Centre. This cutting-edge facility is now the training hub for Scottish Rugby, Scottish Football, Basketball Scotland, Scottish Squash, Netball Scotland and Scottish Handball. Housed in a stunning £33 million purpose-built sports facility, Oriam is truly state-of-the-art in its design.

TOP-CLASS FACILITIES OPEN TO ALL

Oriam aims to be a collaborative environment to support Scotland’s up-and-coming sports men and women, their coaches and volunteers, to train and prepare for competition at the highest levels. The centre also welcomes the local community, local sports groups and our staff and students.

By inspiring and developing our athletes to go further, the new centre is designed to grow the nation through sport to elevate Scotland’s standing on the global stage. Oriam will act as a springboard to success, driving Scotland to become a dominating force in world sport.

BECOMING THE BEST

To be the best in sport you need the best facilities and the best thinking. That’s why you’ll find a wide range of high quality pitches, a sports hall and a fitness suite all on one site.

Oriam adds to Heriot-Watt’s well-established sports facilities which are already some of the best in the country. The new multi-purpose development will support you to develop your full potential as an athlete, making our Edinburgh Campus a vibrant place of high-level sport.
ORIAM’S WORLD-CLASS FACILITIES
- A Hampden standard grass pitch with 200 seats
- An outdoor synthetic pitch with 200 seats
- 4 outdoor natural grass football pitches
- 2 rugby pitches
- A 12-court sports hall
- A 3G indoor pitch with 500 seats
- A 120-station fitness suite
- World-class facilities for sports science and medicine
- A 4-court sports hall with climbing wall
- 2 newly developed exercise studios
- 8 squash courts, including Scotland’s only glass back show court
- Video analysis facilities as the home of Scottish squash
- A 60 m x 40 m indoor 3G synthetic pitch
- The Heart of Midlothian Football Academy
- Jogging course
- Bike Bothy for bike hire and servicing.

TALENT DEVELOPMENT PROGRAMME
Building on over 20 years of success in delivering a sports scholarship programme, our Talent Development Programme (TDP) works across a range of levels to provide support to students who choose to study at our Edinburgh Campus.

For further information on the programme including how to apply: [www.hw.ac.uk/talentdevelopment](http://www.hw.ac.uk/talentdevelopment)
HEALTH AND FITNESS
Oriam incorporates a state-of-the-art fitness suite with Life Fitness gym equipment. Our two exercise studios deliver an eclectic selection of fitness classes throughout the week as well as a range of consultations from gym programmes to sports-specific physiological testing. Oriam has also developed excellent working relationships with several departments within the University to deliver support programmes for those that need a little extra help and encouragement to be active.

FITNESS SUITE
Oriam can support you with a wide range of equipment and space to cater for your health and fitness needs. Areas include strength and conditioning equipment, CV machines, and matted areas for stretching and other activities.

FITNESS CLASSES
We have a wide variety of fitness classes throughout the week, from Body Attack to Circuits, Cycle-Fit to Yoga. Our classes are designed to be fun and to help you achieve your fitness goals. All classes are taught by highly qualified instructors. Classes are held in either of our two brand new refurbished studios. Oriam has six Les Mills programmes on the timetable, including GRIT, Body Combat and Body Pump.

FITNESS SUPPORT SERVICE
This service provides members with support in the gym to ensure that they are getting the best out of their training. We provide gym inductions for those who need some information regarding use of the machines. Gym programme sessions are ideal for those looking for some one-to-one guidance from a highly qualified instructor. They will help you achieve your goals by creating an individually tailored programme. We also offer personal training which is a series of one-to-one sessions with an instructor.

Health and fitness underpins everything Oriam has to offer with individual support every step of the way.
Sports Union

Sport is part of our DNA at Heriot-Watt. The Sports Union is run by students for students. We encourage everyone to get involved. There really is something for everyone at every level.

SPORTS UNION (SU)
The SU is the student organisation responsible for Heriot-Watt’s sporting needs. Headed by a Sabbatical President and an elected Student Executive Committee, sport is run for students, by students with support from Oriam. The SU is based on a foundation of volunteers, from club officials to SU Executive Officers, and is the perfect opportunity to get involved, make a difference and have fun!

CLUB ACTIVITY
The SU offers a variety of different sports to try out while at University, for students, staff and the community, ranging from casual participation to excellence.

LIST OF SPORTS
Aikido; American Football; Archery; Athletics; Badminton; Basketball; Boxing; Cheerleading; Dance; Equestrian; Fencing; Football; Gaelic Football; Golf; Hockey; Jiu Jitsu; Kayaking; Mountain Biking; Mountaineering; Netball; Rowing; Rugby; Snow Sports; Squash; Swimming; Tae Kwon Do; Tennis; Ultimate Frisbee; Volleyball.

RECREATIONAL SPORT
In addition to our club activity, the SU also has a recreational sport programme. This is a fantastic way to get involved in sport with no commitment. Delivered by volunteers, the recreational sport programme promises to make sport fun and easy.

SOCIAL EVENTS
Increase your social life by meeting with your team mates before, during and after training and games or through one of our organised events. Highlights of the SU calendar are the annual Ceilidh, the SU Ball and the Blues and Volunteer Awards Ceremony.

VOLUNTEERING
Being a member of the SU provides an opportunity to become a volunteer, whether that be organising a club dinner or helping with the day-to-day running of a club. This effort is recognised by the SU at our annual Blues and Volunteer Awards Ceremony.

ORIAM STUDENT MEMBERSHIP
Oriam offers three levels of memberships from £105 per year.

For more and to join please visit www.oriamscotland.com/memberships

CONTACT
Sports Union President
T: 0131 451 8435
E: SUPresident@hw.ac.uk

Heriot Watt Sports Union
www.hw.ac.uk/sportsunion

www.hw.ac.uk/ug
The **GRID** at Heriot-Watt

*Create tomorrow’s world; immerse your curiosity*

If you’re joining us in September 2019 you’ll be among the first students to experience the **GRID**.

The **GRID** is a new ground-breaking facility to advance our global research, innovation and discovery. It has been designed to create cohesion between academic disciplines, industry partners and the global community, providing an innovative teaching and learning environment for mathematics, engineering, physical sciences and computer science students and staff.

The **GRID** is designed to excite tomorrow’s thinkers and challengers. It’s a globally networked space where students can learn, tackle problems and indulge their curiosity and intellectual passions. Create and experiment with ideas that could help to solve real-world challenges. Featuring the very latest in technological innovation, including Augmented Reality, Virtual Reality and Gaming studios, the **GRID** will have the capability to connect with global industry partners and our other university campuses around the world. Open 24/7, it will give you the opportunity to work on real-world problems, working across disciplines to deliver practical solutions with global impact.

The **GRID** also houses our Enterprise Hub which will support business innovation, showcase emerging technology and inventions, and encourage staff and students to pursue the commercial potential of their creative ideas.
Schools and Programmes

40/ School of Energy, Geoscience, Infrastructure and Society
66/ School of Engineering and Physical Sciences
100/ School of Social Sciences
130/ School of Textiles and Design
140/ School of Mathematical and Computer Sciences
164/ Combined Studies
The School of Energy, Geoscience, Infrastructure and Society offers broad undergraduate education in five distinct areas:

- Architectural Engineering
- Biology
- Civil and Structural Engineering
- Construction Project Management and Quantity Surveying
- Geography and Urban Studies.

These programmes represent some of the most important subjects in the economic development and protection of the built and natural environment. They range from the highly technical engineering subjects required to provide modern society with its infrastructure and resource needs through to public health, biology and geography. Society has become increasingly aware of the need to adopt a sustainable approach to resources such as energy, water and the human and natural environment and hence the theme of sustainability runs through all of the School’s programmes. The knowledge students acquire during their studies will prepare them for a career at the forefront of the provision of a sustainable future.

In keeping with the heritage of Heriot-Watt University, we offer high quality academic programmes underpinned by significant practical and laboratory experience. Strong links with industry ensure all of our programmes offer up-to-date content and relevance to industry needs leading to excellent employment prospects for students.

The multi-disciplinary nature of the School provides students with a broad professional perspective and enhances their educational experience. Through participation in combined subject design activities, site visits and field trips, our undergraduates obtain a comprehensive understanding of all of the professional disciplines that contribute to the planning, design, construction, maintenance and functioning of an effective and sustainable built and natural environment.

Our international links with prestigious educational institutions abroad result in an exciting cosmopolitan mix of undergraduates and help to broaden the horizons of our students.

**Number of academic staff**

150–160

**Professional recognition and exemptions**

Most of our degree programmes hold the appropriate accreditation from the relevant professional bodies and meet all relevant academic requirements.

**Opportunities abroad**

The School has a number of exchange agreements with universities in the Czech Republic, Italy, Iceland, Canada, Australia and the USA. Eligible students also have the opportunity to study one or two semesters at Heriot-Watt’s Dubai or Malaysia Campuses provided their programme is delivered there.

**Combined Studies**

Courses offered across the School can normally be taken as part of a Combined Studies degree programme.

Heriot-Watt came 2nd in the UK in Architecture, Built Environment and Planning in the 2014 Research Excellence Framework in a joint submission with the University of Edinburgh.

The *Guardian* University League Table 2019 ranked Heriot-Watt in the Top 10 in the UK for Building, Town and Country Planning, Landscape and General Engineering.

Keep connected with EGIS at Heriot-Watt:

[Facebook](https://www.facebook.com/hwu.egis)
[Twitter](https://twitter.com/HWU_EGIS)
Ruvimbo Hungwe from Zimbabwe
BSc Microbiology

What appealed to you most about Heriot-Watt University?

James Watt was the founding father of industrial revolution. The name Watt in itself represents energy that has become part of our day-to-day life, which made me eager to be part of an institution named after him. Heriot-Watt University ranked 9th in the whole of the UK by the Research Excellence Framework in 2014, which was about the time I enrolled. Heriot-Watt was awarded for having the most impact in research, with 82% of the research ranked world-class. At the time I applied the University was working on a 3D printer with the use of stem cells in order to print organs and stop animal testing, how cool is that?!

What would you say to a prospective student considering Heriot-Watt as their first choice of university?

If you are already considering Heriot-Watt you are on the right path. It is in the heart of Edinburgh, which is the most culturally rich city in the UK. The campus itself is beautiful and breathtaking, with green everywhere you look, it’s like a garden on its own – a perfect environment for any student. The one thing that I noticed and I think any student will be happy to know is that the lecturers go above and beyond to make sure concepts or assignments are understood or where extra help is needed. The teaching is research-based making it more practical and less theoretical. University for most of us is a place where we grow and discover ourselves and Heriot-Watt is the place for this because of its nice community atmosphere. I’m happy to say you won’t be disappointed if you pick Heriot-Watt University to be your home away from home.
Architectural Engineering

Contact Dr Mehreen Gul
T: 0131 451 3451 E: studywithus@hw.ac.uk
www.hw.ac.uk/ug-archeng

Employment prospects for Architectural Engineering graduates are excellent. There are many exciting opportunities for students to play a professional role in shaping the built environment of the future.

Our highly rated, international-standard research is globally recognised and integrated into all of our teaching programmes.

Heriot-Watt is one of four UK Centres of Excellence in Sustainable Building Design in partnership with the Royal Academy of Engineering.

Introduction
The construction industry is faced with a growing need to provide society with modern buildings that are sustainable, energy efficient and green. They must also create environments that positively influence the behaviour and wellbeing of the people who use them. Architectural engineers have a responsibility to make use of the interaction between engineering services, building design and human behaviour to design appropriate low energy indoor environments for buildings.

Throughout the last decade there has been a consistent shortfall in graduates entering the architectural engineering profession who have the necessary skills in these areas. Therefore, employment prospects for Architectural Engineering graduates are extremely good, and there are many exciting opportunities for young professionals who want to play a role in helping to shape the built environment of the future.

The Architectural Engineering discipline offers the BEng and MEng Architectural Engineering qualifications, as well as the MEng Architectural Engineering with International Studies. The main aims of the programmes are to produce graduates with the knowledge and skills required for the specification, design and management of the engineering services required in the built environment, including lighting, heating and cooling, with the emphasis on sustainable solutions.

The programmes benefit from the guidance and advice of an Industrial Advisory Panel, which consists of members of local built environment practices who have national expertise and links, and represent all major disciplines. Their role ensures our curriculum delivers exactly what the industry needs so students leave work-ready.

Architectural Engineering facilities
The School of Energy, Geoscience, Infrastructure and Society (EGIS) has a suite of built environment facilities used by our undergraduate students throughout their studies. Facilities include: Drainage Lab, Anechoic Chamber, Reverberant Chambers, a Sun Emulator Heliodon and a Thermodynamics Lab. To see some of our campus facilities visit our virtual tours at: www.hw.ac.uk/virtualtours

Teaching and assessment
Teaching and learning methods include: lectures, seminars, small group tutorials, projects and field trips. Assessment is by a combination of coursework and examination. In the final year, coursework – carried out through projects and research dissertations – accounts for 50% of the final assessment.

Professional recognition and exemptions
Programmes are accredited by the Chartered Institution of Building Services Engineers (CIBSE) and the Energy Institute (EI). The MEng degrees are recognised as fulfilling
all the educational requirements of a Chartered Engineer while those with a BEng need to complete a ‘further learning’ section after graduating. Full chartered status can then be achieved following an appropriate period and level of responsibility in professional practice.

Open Days
The Edinburgh Campus Open Days will take place on Friday 7 June and Saturday 26 October 2019. See Heriot-Watt Open Days or contact the Student Recruitment Service for more information.
T: +44 (0) 131 451 3451
E: studentrecruitment@hw.ac.uk
www.hw.ac.uk/opendays

The School’s Offer Holder Days are held in February, March and April. All UCAS applicants receiving an offer of a place are invited to attend the Offer Holder Days. However, visitors are welcome at any time.

Opportunities abroad
Architectural Engineering students have the opportunity to study at our Dubai Campus through Heriot-Watt’s Go Global programme. For full details see pages 22–23.
www.hw.ac.uk/goglobal

Programmes available within Architectural Engineering

<table>
<thead>
<tr>
<th>Programme</th>
<th>Duration</th>
<th>Award</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architectural Engineering K131</td>
<td>4 years</td>
<td>BEng (Hons)</td>
</tr>
<tr>
<td>Architectural Engineering K132</td>
<td>5 years</td>
<td>MEng</td>
</tr>
<tr>
<td>Architectural Engineering with International Studies 4T5G</td>
<td>5 years</td>
<td>MEng</td>
</tr>
</tbody>
</table>

Susan Jennifer Traill
MEng Architectural Engineering
Graduate Electrical Engineer, Arup

What appealed to you most about Heriot-Watt University when you made the decision to come here?
The University’s fantastic reputation in the engineering sector and the high graduate employment rate for the engineering disciplines.

How has your degree programme prepared you for a career?
My degree programme was very specific, so it prepared me well. For example, in our fourth year we had a design project which involved working with structural and civil engineers, quantity surveyors and planners, as well as architects from Edinburgh College of Art, to design a group of buildings. It was a really great experience that provided us with an insight into the politics and pressures involved in working in the construction industry.

What would you say to prospective students considering Heriot-Watt as their first choice of university?
Heriot-Watt has really good links with many different industries and often you are given the opportunity to undertake an industrial placement as part of your degree course. It prepares you for your career, no matter what field you study in. It’s also an amazing place to meet a LOT of really great people.
Architectural Engineering Entry Requirements

Level 1
Standard
Highers AABB/BBBBC (including Mathematics at B)
A-Levels BBC (including Mathematics at B)
IB 31 points (with Higher Level Mathematics at 5)
BTEC DMM (in relevant engineering course)
HNC B in graded unit (in relevant HNC, Level 6 Mathematics)

Minimum*
Highers BBBC (including Mathematics at B)
A-Levels BCC (including Mathematics at B)

Level 2
Standard
Advanced Highers BB (including Mathematics plus Highers AABB/BBBBC)
A-Levels ABB (including Mathematics)
IB 35 points (with Mathematics at Higher Level 6)
HNC A in graded unit (in relevant HNC, Level 6 Maths)
HND BB in graded units (in relevant HND, at least Level 6 Mathematics)
BTEC DDM in relevant engineering course

Level 3
Standard
HND AB in graded units (in relevant HND, Maths SCQF Level 7/NQF Level 4)

*Minimum: We operate contextual admissions defined by our Fair Access Policy which may mean entry requirements are flexible. Please see page 171 for eligibility details.

If you do not see your qualifications here please contact us at studywithus@hw.ac.uk

University-wide National 5/GCSE (or equivalent) Maths and English requirements are on page 170.

If English is not your first language, please refer to page 179 for our English language requirements.

MEng / BEng (Hons) Architectural Engineering

UCAS code K132 / K131
Duration 5 years MEng / 4 years BEng (Hons)
Number of places 40 across all programmes

The programme
The BEng (Hons) / MEng programme aims to provide a broad education across the principal engineering disciplines and give students an appropriate depth of technical knowledge and understanding of the key engineering topics within architectural engineering. Students will also be provided with an awareness of managerial issues within the built environment and will gain an understanding of the framework in which architectural engineers function.

Level 1
The majority of courses studied by Level 1 students are common across the discipline, and provide an introduction to the main themes of the programme. Subjects include: Construction Technology; Mechanics; Introduction to the Environment and Mathematics for Engineers and Scientists; Building Services Technology; and Introduction to Design. Students also have multiple construction site visits, and guest lectures from professional engineers.

Level 2
Covers a range of courses in greater depth. Students work together on a design project and, in addition to five core courses (Acoustics and Architectural Design; Construction Technology 2; eConstruction; Environment and Behaviour; and Statistics for Science), students select two courses from topics such as Surveying and Monitoring in the Built Environment, and Hydraulics and Hydrology. Students have the option to take part in a week-long field course, Constructionarium, that gives hands-on experience working with industry professionals.

Level 3
More specialist topics are covered, such as: Critical Architectural Studies; Electrical and Lighting Services for Buildings; Design Software Applications; Energy and Buildings; Thermal Performance Studies; and Design Issues. Students can also go on a field trip to Berlin to see the city’s incredible architecture.

Level 4
Students complete a dissertation, undertake a week-long cross-discipline collaborative design project, complete a lab project and engage in two core courses: Sustainable and Intelligent Buildings, and Innovations in Construction Practice.

Level 5 (MEng only)
Students complete a 12-week industrial placement using skills learned throughout the degree and preparing them for employment at the end of their studies. In addition, students will complete three mandatory courses: Architectural Acoustics; Thermofluids; Design of Low Carbon Buildings; and will select three courses from: Climate Change, Sustainability and Adaptation; Water Supply and Drainage for Buildings; Social Sustainability; Demand Management and Energy Storage; and Foundations of Energy.

Career prospects for all programmes
We actively prepare students for work as professionals with our Industrial Advisory Panel who guide us on employer needs. We also run a semester-long Industrial Placement course in Level 5. This focus has helped our graduates secure employment with leading organisations such as Arup, AECOM, Cundalls, DSSR Consulting Engineers, KJ Tait and Laing O’Rourke.

92% of our MEng Architectural Engineering students were satisfied overall with their course.

95% of our Architectural Engineering graduates go on to work or study six months after graduating.
MEng
Architectural Engineering
with International Studies

UCAS code 4T5G
Duration 5 years MEng
Number of places 40 across all programmes

The programme
This MEng programme aims to provide a broad education across the principal engineering disciplines and give students an appropriate depth of technical knowledge and understanding of the key engineering topics within architectural engineering. Students will also be provided with an awareness of managerial issues within the built environment and will gain an understanding of the framework in which architectural engineers function. The international dimension of the MEng programme aims to encourage awareness of the global engineering industry and allows students to foster international links and networks.

Level 1
Students study the same courses as Level 1 Architectural Engineering students.

Level 2
Students study the same courses as Level 2 Architectural Engineering students.

Level 3
Students study the same courses as Level 3 Architectural Engineering students.

Level 4
Students have the opportunity to apply to study at a host institution in North America as part of an exchange programme. The core content of study will include the design and technical components covered in year 4 of the Architectural Engineering course.

Level 5
Students complete a 12-week industrial placement using skills learned throughout the degree and preparing them for employment at the end of their studies. In addition, students will complete an individual research dissertation, and two mandatory courses: Architectural Acoustics; Thermofluids; and will select two courses from seven options including: Water Supply and Drainage for Buildings; Contracts and Procurement; Carbon Footprint and Design of Low Carbon Buildings.
The suite of Biology degree programmes sits within the Institute of Life and Earth Sciences. Each degree comprises one or more key compulsory courses with a choice of optional courses that allows it to be fashioned to an individual student’s interests, within the constraints of the programme of study.

We offer five courses within the Biology subject area, allowing students to gain a firm foundation and then specialise in their preferred field.

An average of 90% of all our Biology students are working or in further study six months after graduating.

Introduction

Biology is the study of living things, encompassing all aspects of their activity, behaviour and survival. The subject may be subdivided with respect to organisms studied – animals, plants, microorganisms – while different disciplines are concerned with specific areas such as proteins and enzymes, genome structure or interactions with the environment.

Studying Biology at Heriot-Watt provides a thorough grounding in cell and molecular biology, microbiology, marine and environmental biology, toxicology and biotechnology. Emphasis is placed on the applied aspects of each discipline, so that knowledge may be used for the benefit of society.

Heriot-Watt provides access to a range of career opportunities in the pharmaceutical, medical, food and water industries and public sector organisations. Our graduates are highly sought after by employers in the sector and are paid comparable salaries to those taking similar programmes elsewhere in the UK.

The student experience

After Level 2, our classes tend to be smaller, informal and yet academically demanding. Traditional lectures, informal tutorials, laboratory classes, project work and field courses are included within the curriculum. We also provide support and advice through our academic tutoring system and opportunities to develop the interpersonal skills which are important in establishing future career aspirations.

Teaching and assessment

Learning methods include: lectures and tutorials; computer and project-based learning; laboratory-based teaching; fieldwork and site visits; and presentations by visitors from industry.

Programme flexibility

Our degree programmes share courses at Level 1 while in later Levels they comprise a mixture of compulsory and optional courses that reflect the specialist subject. Transfer between degrees is, therefore, straightforward at Levels 1 and 2, and is also possible in some cases during Levels 3 and 4.

Combined Studies

Some courses offered across the School can be taken as part of a Combined Studies degree programme.

Industry networks

Heriot-Watt’s Biology Society arranges for various industry professionals and alumni to attend throughout the programme giving lectures, presentations and talks.
Graduate destinations
Our degrees address issues of key importance in the modern world and our Biology graduates have a strong record of employment in fields ranging from marine biology to natural and social science, the food industry and business management.

Graduates are well prepared to enter careers in the health care, industrial, food or environmental sectors, or to undertake postgraduate study before embarking on a scientific career.

The applied nature of our degrees is particularly relevant to employers, and the skills our graduates possess are well suited to the pursuit of non-scientific career paths.

Open Days
The Edinburgh Campus Open Days will take place on Friday 7 June and Saturday 26 October 2019. See Heriot-Watt Open Days or contact the Student Recruitment Service for more information.

T: +44 (0) 131 451 3451
E: studentrecruitment@hw.ac.uk
www.hw.ac.uk/opendays

The School’s Offer Holder Days are held in March and April. All UCAS applicants receiving an offer of a place are invited to attend the Offer Holder Days. However, visitors are welcome at any time.

Programmes available within Biology

<table>
<thead>
<tr>
<th>Programme</th>
<th>Duration</th>
<th>Award</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biological Sciences C120</td>
<td>4 years</td>
<td>BSc (Hons)</td>
</tr>
<tr>
<td>Biological Sciences (Cell and Molecular Biology) CC17</td>
<td>4 years</td>
<td>BSc (Hons)</td>
</tr>
<tr>
<td>Biological Sciences (Human Health) CB99</td>
<td>4 years</td>
<td>BSc (Hons)</td>
</tr>
<tr>
<td>Biological Sciences (Microbiology) C500</td>
<td>4 years</td>
<td>BSc (Hons)</td>
</tr>
<tr>
<td>Marine Biology C160</td>
<td>4 years</td>
<td>BSc (Hons)</td>
</tr>
</tbody>
</table>

Thomas Guest
BSc (Hons) Biological Sciences

What appealed to you most about Heriot-Watt University?
I liked the unique campus life available at Heriot-Watt. Guaranteed accommodation for first year meant that I could live on campus and have everything within easy reach. The international outlook also appealed as I could meet people from all over the world. The broad subject field in biology was also a deciding factor.

Do you feel your degree prepared you well for a career?
Yes, there was advice about different career options and class projects had real-world applications. The University’s Careers Service was really helpful and runs programme-specific Careers Fairs. Fieldwork, such as shore surveys, relates well to the work many marine biologists do after graduating so you know you are learning skills that are useful. Even if you don’t go on to be a marine biologist, the related lab work is good practice for any bioscience career.

What aspects of your programme really appealed to you?
I thought it was great and it allowed me to explore different areas of biology such as plant science and food security before deciding what to specialise in. I am interested in molecular biology and applied microbiology.
Biology Entry Requirements

Level 1
Standard
Highers ABB/ABBBB (including a science subject)
A-Levels BBC (including a science subject)
IB 27 points (including a science subject at Higher Level 5)
BTEC DMM (in relevant subject)
HNC C in graded unit (in relevant HNC)

Minimum*
Highers BBBC (including a science subject at B)
A-Levels BCC (including a science subject)

Additional Information
Suitable science subjects are Biology, Chemistry, Environmental Sciences, Human Biology, Mathematics and Physics.

Level 2
Standard
Advanced Highers BB (including Biology or Human Biology plus Highers ABB/ABBBB)
A-Levels ABB (including Biology or Human Biology)
IB 32 points (with Biology at Higher Level 6)
HNC B in graded unit (in relevant HNC)
HND BB in graded units (in relevant HND)
BTEC DDM (in relevant subject)

Level 3
Standard
HND AB in graded units (in relevant HND)

*Minimum: We operate contextual admissions defined by our Fair Access Policy which may mean entry requirements are flexible. Please see page 171 for eligibility details.

If you do not see your qualifications here please contact us at studywithus@hw.ac.uk

University-wide National 5/GCSE (or equivalent) Maths and English requirements are on page 170.

If English is not your first language, please refer to page 179 for our English language requirements.

BSc (Hons) Biological Sciences

UCAS code C120
Duration 4 years BSc (Hons)
Number of places 30

The programme
This is a broad-based Biology programme with the opportunity in Levels 3 and 4 to select from a diversity of courses ranging from molecular biology and genomics to marine and environmental topics, according to your interests. There is laboratory work throughout where you will learn technical and practical skills. We aim to provide a flexible package of knowledge and practical skills in the biological sciences that will allow you to maximise your potential in your future career be it in academia, industry or commerce.

Level 1
Students study general Biology courses which provide a grounding for the topics taught in later Levels. Courses in practical skills and study skills are introduced as well as courses in Mathematics for Scientists and Chemistry for Life Sciences.

Level 2
As well as studying four core courses that introduce Metabolism, Microbiology, and Cell and Molecular Biology, students will select four optional courses from a list of eight subjects covering Animal and Plant Biology; Human Systemic Physiology and Anatomy; and The Biosphere.

Level 3
Study one core course (Research Studies in Biology) and choose from the full range of 13 subject areas to create a course that is right for you. Subjects include: Pathobiology of Human Disease; Applied Studies in Human Health; Marine Biodiversity; Medical Microbiology; and Applied Systems Human Physiology.

Level 4
Students complete an individual research dissertation and study six courses that expand on cell and molecular biology. Courses include: Receptor Signalling in Health and Disease; Molecular Toxicology; Genomics and Proteomics in Disease; Immunology.

Career prospects
The majority of our graduates find employment in industry or undertake further study in molecular sciences and related subjects while some go on to take positions in patent law and management consultancy.

BSc (Hons) Biological Sciences (Cell and Molecular Biology)

UCAS code CC17
Duration 4 years BSc (Hons)
Number of places 30

The programme
Cell and Molecular Biology (Biochemistry) is the basic science underpinning our understanding of all life processes. In this programme, we cover cell and molecular biological aspects of animals and plants, and provide the broad understanding necessary for a career in the biomedical/pharmaceutical, food and biotechnological industries as well as providing a sound foundation for further research.

Level 1
Students study the same courses as Level 1 Biological Sciences students.

Level 2
Students study the same courses as Level 2 Biological Sciences students.

Level 3
Students will study courses specialising in cell and molecular biology such as Introduction to Food Microbiology, Pathobiology of Human Disease, and Biotechnology while getting the opportunity to choose from seven related subjects including: Applied Sciences in Human Health; Marine Biodiversity; Medical Microbiology; and Applied Systems Human Physiology.

Level 4
Students complete an individual research dissertation and study six courses that expand on cell and molecular biology. Courses include: Receptor Signalling in Health and Disease; Molecular Toxicology; Genomics and Proteomics in Disease; Immunology.

Career prospects
The majority of our graduates find employment in industry or undertake further study in molecular sciences and related subjects while some go on to take positions in patent law and management consultancy.
BSc (Hons) Biological Sciences (Human Health)

UCAS code CB99
Duration 4 years BSc (Hons)
Number of places 30

The programme
This programme comprises a core of biology with an additional emphasis on the study of topics central to human health and wellbeing, such as nutrition and exercise science and physiology. These themes are developed together throughout the programme, with some flexibility in programme structure and design, according to your interests or career aspirations.

Level 1 Students study the same courses as Level 1 Biological Sciences students.

Level 2 Students study the same courses as Level 2 Biological Sciences students with an additional core course in Human Systemic Physiology and Anatomy.

Level 3 This Level looks at courses in: Pathobiology of Human Disease; Molecular Biology; Applied Studies in Human Health; and Applied Systems Human Physiology. Students also get the opportunity to choose three courses from five subject options including: Medical Microbiology; Biotechnology; and Concepts in Beverage and Food Science.

Level 4 Students complete an individual research dissertation and study six advanced-level courses such as: Receptor Signalling in Health and Disease; Molecular Toxicology; Immunology; and The Environment and Health.

Career prospects
Graduates in Biological Sciences (Human Health) are well placed to enter a career in health care and promotion, or in the biomedical, pharmaceutical or food industries, as well as having a range of options for postgraduate study.
School of Energy, Geoscience, Infrastructure and Society  Biology

**Biology Entry Requirements**

**Level 1**

**Standard**
- Highers ABBB (including a science subject)
- A-Levels ABB (including a science subject)
- IB 27 points (including a science subject at Higher Level 5)
- BTEC DMM (in relevant subject)
- HNC C in graded unit (in relevant HNC)

**Minimum***
- Highers BBBC (including a science subject at B)
- A-Levels BCC (including a science subject)

**Additional Information**
Suitable science subjects are Biology, Chemistry, Environmental Sciences, Human Biology, Mathematics and Physics.

**Level 2**

**Standard**
- Advanced Highers BB (including Biology or Human Biology plus Highers ABBB/ABBBB)
- A-Levels ABB (including Biology or Human Biology)
- IB 32 points (with Biology at Higher Level 6)
- HNC B in graded unit (in relevant HNC)
- HND BB in graded units (in relevant HND)
- BTEC DDM (in relevant subject)

**Level 3**

**Standard**
- HND AB in graded units (in relevant HND)

*Minimum: We operate contextual admissions defined by our Fair Access Policy which may mean entry requirements are flexible. Please see page 171 for eligibility details.

If you do not see your qualifications here please contact us at studywithus@hw.ac.uk

University-wide National 5/GCSE (or equivalent) Maths and English requirements are on page 170.

If English is not your first language, please refer to page 179 for our English language requirements.

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**BSc (Hons) Biological Sciences (Microbiology)**

**UCAS code** C500

**Duration** 4 years BSc (Hons)

**Number of places** 30

**The programme**
This programme provides a thorough general training in the physiology, ecology and biotechnological applications of microorganisms. We focus particularly on microbes as producers, as spoilage agents of food, as components of the environment, and as agents of disease, with emphasis on new and emerging diseases. The programme aims to provide knowledge and understanding of the microbiological sciences, and sufficient training in scientific methods and procedures to advance to a career in relevant industries, postgraduate training or other spheres of research.

**Level 1** Students study the same courses as Level 1 Biological Sciences students.

**Level 2** Students study the same courses as Level 2 Biological Sciences students.

**Level 3** Students study the same courses as Level 3 Biological Sciences (Cell and Molecular Biology) students with one core course change to Medical Microbiology. Students can also select three courses from seven related subjects including: Applied Studies in Human Health; Marine Biodiversity; Pathobiology of Human Disease; and Applied Systems Human Physiology.

**Career prospects**
Graduates of degrees specialising in Microbiology are well equipped to enter employment with focused functions such as microbiological analysis, quality assurance or research and development.

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**BSc (Hons) Marine Biology**

**UCAS code** C160

**Duration** 4 years BSc (Hons)

**Number of places** 30

**The programme**
Levels 1 and 2 provide a foundation in biology, including: Ecology; Pollution Biology; and Man’s Impact on the Environment. Level 3 gives a thorough grounding in many aspects of Marine Biology and Level 4 explores the applications of Marine Biology to Marine Resource Development and Marine Environmental Protection. Fieldwork plays an important part in the programme. The programme aims to produce good marine biologists with a training in applied aspects of marine resource exploitation and protection. Breadth in the curriculum is provided by options including Molecular Biology and Microbiology.

**Level 1** Students study the same courses as Level 1 Biological Sciences students.

**Level 2** Students study similar courses as Level 2 Biological Sciences students with a bigger emphasis on plant and animal biology subjects.

**Level 3** Core courses focus on Marine Biodiversity and Environmental Biology, with four courses selected from eight options including: Medical Microbiology; Pathobiology of Human Disease; Food Microbiology; and Applied Studies in Human Health. Students take a week-long field trip to Scotland’s West Coast, participating in sampling methods and marine surveying techniques.

**Level 4** Students complete an individual research dissertation as well as six courses in advanced Marine Biology; Scientific Management of Marine Environments; Marine Biological Survey and Analysis; Stressors and Sustainability; Management of Marine Developments and Protected Areas; Fish Ecophysiology and Aquatic Toxicology. Students will also have the opportunity to go on a field trip to St Abbs to learn about mapping of the foreshore.

**Career prospects**
The programme is designed to allow graduates to find employment in many areas of modern biology. Specialist destinations include environmental consultancies, the water industry, conservation bodies, aquaculture companies and government research organisations.
Civil and Structural Engineering

Contact Professor Ian G Smith
T: 0131 451 3451 E: studywithus@hw.ac.uk
www.hw.ac.uk/ug-civil

Introduction
Throughout the world, civil and structural engineers provide the infrastructure which underpins economic development and ensures a better quality of life. As the world’s population increases, demand grows for improved infrastructure and more efficient and sustainable ways of living. As a consequence, the opportunities for qualified civil and structural engineers are rewarding, numerous and varied.

Studying Civil Engineering at Heriot-Watt covers the main disciplines of Structures and Geotechnics as well as Water and Transportation Engineering. Studying Structural Engineering at Heriot-Watt covers the same main disciplines while cultivating skills for the creative development of designs for construction projects. Both subject areas focus on understanding the scientific principles, knowledge of materials and the art of analysis and synthesis. Our courses have a strong emphasis on gaining skills in team working, leadership and personal development. Students follow a common syllabus for the first three years with flexibility to change between courses.

Teaching and assessment
Teaching involves a mix of lectures, tutorials, guided study, group projects and practical activities, including design studio and laboratory work, computing, fieldwork and site visits. In Level 5 MEng students have the opportunity to go on a field trip to a major European city viewing some of the world’s most iconic structures. Assessment methods include end-of-course examinations, continuous assessment and coursework assignments.

Professional recognition and exemptions
The MEng variants of our degrees are accredited as fully satisfying the educational base for a Chartered Engineer (CEng) and no Further Learning will be required. The BEng variants are accredited as partially satisfying the educational base for a Chartered Engineer (CEng). In common with other BEng accredited degrees, a programme of accredited Further Learning will be required to complete the educational base for CEng. All our Civil and Structural Engineering programmes are accredited on behalf of the Engineering Council by the Institution of Civil Engineers, the Institution of Structural Engineers, the Chartered Institution of Highways and Transportation and the Institute of Highway Engineers, which together represent some 100,000 of the world’s leading professional engineers. For more information, visit www.jbm.org.uk

Opportunities abroad
Students have the opportunity to apply to study at a host institution abroad in either Europe, North America or Australia as part of an exchange programme. Students spend the entire year at an overseas university, where courses are taught in English and are selected to complement the ones at Heriot-Watt.

Students also have the opportunity to transfer to our Dubai and Malaysia campuses as part of our Go Global programme. See pages 22–23 to find out more. www.hw.ac.uk/goglobal
Industrial links
All courses are supported by the Civil Engineering Industry Advisory Committee involving representatives from major multinational employers. The committee ensures our curriculum delivers exactly what the industry needs and that our students are work-ready.

Civil and Structural Engineering facilities
The School of Energy, Geoscience, Infrastructure and Society (EGIS) has a suite of built environment facilities used by our undergraduate students throughout their studies. Facilities include a wave basin, a structures lab, a hydraulics lab, a geotechnics lab and a building services lab. To see some of our campus facilities visit our virtual tours at:
www.hw.ac.uk/virtualtours

Open Days
The Edinburgh Campus Open Days will take place on Friday 7 June and Saturday 26 October 2019. See Heriot-Watt Open Days or contact the Student Recruitment Service for more information.
T: +44 (0) 131 451 3451
E: studentrecruitment@hw.ac.uk
www.hw.ac.uk/opendays

The School’s Offer Holder Days are held in February, March and April. All UCAS applicants receiving an offer of a place are invited to attend the Offer Holder Days. However, visitors are welcome at any time.

Programmes available within Civil and Structural Engineering

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Ryan Traynor MEng Structural Engineering with Architectural Design Graduated 2016
Graduate Structural Engineer for AECOM’s Buildings and Places Team

What appealed to you most about studying at Heriot-Watt?
The enthusiasm and energy from the faculty about their respective subjects was particularly refreshing compared to other institutions I visited.

What areas of your degree programme helped prepare you for your career?
The material design courses gave practical experience for day-to-day design work and the Masters year’s project was invaluable for knowing how to tackle new challenges which you have very little prior knowledge on.

How did Heriot-Watt help you get to where you are today?
Heriot-Watt provided me with a degree which is tailored towards gearing you up for life as a practising engineer, as opposed to over-emphasising the ‘academic’ aspect of the studies. The courses were comprehensive and practical and I still find myself referencing my notes day to day in the office.

What is your lasting impression of Heriot-Watt?
Heriot-Watt has given me the foundation for a career that I don’t believe I would have received elsewhere. The faculty at Heriot-Watt play a large part in this with their ability to motivate and influence.
Civil and Structural Engineering Entry Requirements

Level 1
Standard
Highers AAB/AABBB (including Mathematics)
A-Levels BCB (including Mathematics at B)
IB 31 points (with Mathematics at Higher Level 5)
BTEC DDD (in relevant engineering course)
Minimum*
Highers BBBC (including Mathematics at B)
A-Levels BCC (including Mathematics at B)

Level 2
Standard
Advanced Highers BB (including Mathematics plus AABBB at Higher)
A-Levels ABB (including Mathematics)
IB 35 points (with Mathematics at Higher Level 6)
HNC Civil Engineering A in graded unit (with at least SCQF Level 7 or NQF Level 4 in a relevant Mathematics course)
BTEC DDD (in relevant engineering course)

Level 3
Standard
HND Civil Engineering AB in graded units (with A in final graded unit and at least SCQF Level 7 or NQF Level 4 in a relevant Mathematics course)

*Minimum: We operate contextual admissions defined by our Fair Access Policy which may mean entry requirements are flexible. Please see page 171 for eligibility details.

If you do not see your qualifications here please contact us at studywithus@hw.ac.uk

University-wide National 5/GCSE (or equivalent) Maths and English requirements are on page 170.

If English is not your first language, please refer to page 179 for our English language requirements.

MEng / BEng (Hons) Civil Engineering

UCAS code H201 / H200
Duration 5 years MEng / 4 years BEng (Hons)
Number of places 100 across all programmes

The programme
The programme covers the main civil engineering disciplines of Transport Engineering, Water Engineering, Geotechnics, Materials and Structural Design, and provides students with the key skills and knowledge required to become Chartered Civil Engineers. The curriculum initially concentrates on analysis and materials behaviour, with increasing focus on design and management in the specialisation years. Throughout, there is an emphasis on personal development within a professional environment.

Level 1 Students study courses that are common across the discipline including: Mechanics; Civil Engineering Applications; Mathematics for Engineers and Scientists; Introduction to Materials; and Introduction to Engineering Design. There are also multiple construction site visits and guest lectures from professional engineers throughout the year.

Level 2 Expands on the topics from Level 1 with subjects such as Analysis of Determinate Structures; Hydraulics and Hydrology A; Surveying and Monitoring in the Built and Natural Environment; Civil Engineering Materials; Stress Analysis and Element Strength; and Design Studies. Students also have the opportunity to get hands-on experience through the week-long field course, Constructionarium, working with industry professionals.

Level 3 Focus is on engineering principles, including: Design of Steel Elements; Transportation Engineering; Indeterminate Structures; Geology and Soil Properties; Geotechnics – Introduction to Soil Mechanics; Environmental Engineering; Hydraulics and Hydrology B; and Design of Concrete Elements.

Level 4 Students complete an individual research dissertation, undertake a week-long multi-discipline collaborative design project and, in addition to two core subjects, students select three subjects from a list of nine options including: Structural Element Design, Water and Wastewater Treatment, and Urban Drainage and Water Supply.

Level 5 (MEng only) Students complete a professional design project and select six courses from 17 specialist options, including: Computer Simulation of River Flows; Project Management Theory and Practice; Stability and Dynamics; Environmental Hydrology and Water Resources; and Environmental Planning. Students have the opportunity to go on a field trip to a major European city viewing some of the world’s most iconic structures.

MEng Civil Engineering with International Studies

UCAS code H2L2
Duration 5 years MEng
Number of places 100 across all programmes

The programme
The programme initially mirrors the Civil Engineering programme, covering the main civil engineering disciplines of Transport Engineering, Water Engineering, Geotechnics, Materials and Structural Design. Accordingly, it provides students with the key skills and knowledge required to become Chartered Civil Engineers. The international dimension aims to encourage awareness of the global engineering industry and allows students to foster links abroad.

Level 1 Students study the same courses as Level 1 Civil Engineering students.
Level 2 Students study the same courses as Level 2 Civil Engineering students.
Level 3 Students study the same courses as Level 3 Civil Engineering students.
Level 4 Students have the opportunity to apply to study at a host institution abroad in either Europe, North America or Australia as part of an exchange programme. The core content of study will include the design and technical components covered in Level 4 of the Civil Engineering course.
Level 5 Students complete an individual research dissertation, undertake a week-long cross-discipline collaborative design project and will select four courses from 17 specialist options, including: Computer Simulation of River Flows; Project Management; Stability and Dynamics; Environmental Hydrology and Water Resources; Statistical Modelling of the Environment; and Structural Dynamics and Earthquake Engineering.

Career prospects
Graduates from our Civil Engineering programmes have excellent employment prospects. Following graduation, they work for engineering consultants, contractors or government at management level, designing and overseeing projects such as urban drainage systems, roads, bridges, and airports.
MEng / BEng (Hons)
Structural Engineering

UCAS code H241 / H210
Duration 5 years MEng / 4 years BEng (Hons)
Number of places 100 across all programmes

The programme
The programme offers a thorough grounding in the major branches of civil engineering, with a focus on aspects most relevant to structural engineering. The curriculum initially mirrors the Civil Engineering programme, with a stronger emphasis on the skills and knowledge appropriate to creative structural engineering design in the specialisation years.

Level 1 Students study the same courses as Level 1 Civil Engineering students.
Level 2 Students study the same courses as Level 2 Civil Engineering students.
Level 3 Students study the same courses as Level 3 Civil Engineering students.
Level 4 Students complete an individual research dissertation, undertake a week-long multi-disciplinary collaborative design project, and engage in structural engineering subjects in more depth, including: Geotechnics – Soil Strength; Foundation Engineering; and Structural Element Design.
Level 5 (MEng only) Students complete a professional design project and, in addition to two core subjects (Finite Element Method: Non Linear Analysis, and Safety, Risk and Reliability), select four courses from 10 options including: Structural Dynamics and Earthquake Engineering; Construction Financial Management; Project Management Strategic Issues; Human Factors; Stability and Dynamics; and Structural Materials. Students have the opportunity to go on a field trip to a major European city viewing some of the world’s most iconic structures.

Career prospects
Our graduates have excellent employment prospects. Following graduation, they work for engineering consultants, contractors or government at management level, contributing to the design of large or complex infrastructure such as bridges, sports stadiums, high-rise structures and power stations.
Civil and Structural Engineering Entry Requirements

Level 1
Standard
Highers AABB/ABBBB (including Mathematics)  
A-Levels BBC (including Mathematics)  
IB 31 points (with Mathematics at Higher Level 5)  
BTEC DDM (in relevant engineering course)

Minimum*
Highers BBBC (including Mathematics at B)  
A-Levels BCC (including Mathematics at B)

Level 2
Standard
Advanced Highers BB (including Mathematics plus AABB/ABBBB at Higher)  
A-Levels ABB (including Mathematics)  
IB 35 points (with Mathematics at Higher Level 6)  
HNC Civil Engineering A in graded unit (with at least SCQF Level 7 or NQF Level 4 in a relevant Mathematics course)  
BTEC DDD (in relevant engineering course)

Level 3
Standard
HND Civil Engineering AB in graded units (with A in final graded unit and at least SCQF Level 7 or NQF Level 4 in a relevant Mathematics course)

*Minimum: We operate contextual admissions defined by our Fair Access Policy which may mean entry requirements are flexible. Please see page 171 for eligibility details.

If you do not see your qualifications here please contact us at studywithus@hw.ac.uk

University-wide National 5/GCSE (or equivalent) Maths and English requirements are on page 170.

If English is not your first language, please refer to page 179 for our English language requirements.

MEng / BEng (Hons)
Structural Engineering with Architectural Design

UCAS code H2KC / H2K1
Duration 5 years MEng / 4 years BEng (Hons)
Number of places 100 across all programmes

The programme
The programme offers a thorough grounding in the major branches of civil engineering, with a focus on aspects most relevant to structural engineering and its interface with architectural design. The curriculum initially mirrors the Civil Engineering programme, with a stronger emphasis on the skills and knowledge appropriate to structural engineering and architectural design in the specialisation years.

Level 1 Students study the same courses as Level 1 Civil Engineering students.
Level 2 Students study the same courses as Level 1 Civil Engineering students.
Level 3 Students follow a similar syllabus to the Civil Engineering Course, with an emphasis on subjects at the interface between Structural Engineering and Architectural Design such as Critical Architectural Studies and Design of Place.
Level 4 Students complete an individual research dissertation, undertake a week-long cross-discipline collaborative design project and engage in structural engineering subjects in more depth, studying subjects including: Geotechnics – Soil Mechanics; Plastic Analysis of Structures; Finite Element Method Linear Analysis; Foundation Engineering; and Structural Element Design.
Level 5 (MEng only) Students complete a professional design project and, in addition to two core subjects (Finite Element Method: Non Linear Analysis, and Safety, Risk and Reliability), select three subjects from 11 options including: Ground Engineering; Structural Dynamics and Earthquake Engineering; Construction Financial Management; Project Management Strategic Issues; and Structural Materials. Students have the opportunity to go on a field trip to a major European city viewing some of the world’s most iconic structures.

Career prospects
Our graduates have excellent employment prospects. Following graduation, they work for engineering consultants, contractors or government at management level, contributing to the design of large or complex infrastructure such as bridges, sports stadiums, high-rise structures and power stations.

MEng
Structural Engineering with International Studies

UCAS code H211
Duration 5 years MEng
Number of places 100 across all programmes

The programme
The programme offers a thorough grounding in the major branches of civil engineering, with a focus on aspects most relevant to structural engineering. The curriculum initially mirrors the Civil Engineering programme, with a stronger emphasis on the skills and knowledge appropriate to creative structural engineering design in the specialisation years. The international dimension aims to encourage awareness of the global engineering industry and allows students to foster links abroad.

Level 1 Students study the same courses as Level 1 Civil Engineering students.
Level 2 Students study the same courses as Level 2 Civil Engineering students.
Level 3 Students study the same courses as Level 3 Civil Engineering students.
Level 4 Students have the opportunity to apply to study at a host institution abroad in either Europe, North America or Australia as part of an exchange programme. The core content of study will include the design and technical components covered in Level 4 of the Structural Engineering course.
Level 5 Students complete an individual research dissertation, a professional design project and, in addition to one core subject (Safety, Risk and Reliability), select three subjects from 11 options including: Ground Engineering; Structural Dynamics and Earthquake Engineering; Construction Financial Management; Project Management Strategic Issues; and Structural Materials. Students have the opportunity to go on a field trip to a major European city viewing some of the world’s most iconic structures.

Career prospects
Our graduates have excellent employment prospects. Following graduation, they work for engineering consultants, contractors or government at management level, contributing to the design of large or complex infrastructure such as bridges, sports stadiums, high-rise structures and power stations.
Heriot-Watt is ranked 1st in Scotland for Building programmes by the Guardian University League Table 2019 and 2nd in UK by The Complete University Guide 2018.

95% of our Construction and 100% of our Surveying graduates are in work or in further study six months after graduating.

Introduction
The construction industry is thriving and shows no sign of stopping. According to the report Global Construction 2030, the volume of construction output is forecast to grow by 85% by 2030 with the UK being a stand-out growth market in Europe.

Our programmes are internationally recognised for the quality of their research and teaching with our graduates working for some of the largest construction and surveying companies in the world.

Studying Civil Engineering Construction Management at Heriot-Watt will allow you to develop a comprehensive understanding of civil engineering and infrastructure projects, and develop advanced skills relating to the design, supervision and management of civil engineering projects.

Studying Construction Project Management at Heriot-Watt gives our students the vital skills and versatility required by an increasingly dynamic industry. Our programme aims to provide students with the knowledge, leadership and management skills necessary for the effective delivery of construction projects from inception to occupation.

Studying Quantity Surveying at Heriot-Watt will give our students all the skills and knowledge necessary to become a successful quantity surveyor by first learning the fundamental elements of building before focusing on QS practice and learning how to manage the cost, legal and economic elements.

Industry links
In 2010 the CEMENT (Culture of External MENToring) programme was introduced to link third year undergraduate students with professionals in practice, many of whom are former students who have established successful careers in industry. This allows students to discuss the relevance of course content, approaches to study and career aspirations with a professional who can draw upon their own experiences. CEMENT has so far proved highly successful, with students gaining access to work placements, site visits and graduate employment opportunities through the scheme. Such interaction between students and industry is imperative in moving the profession forward and supporting the next generation of built environment professionals.

Teaching and assessment
Teaching involves a mix of lectures, tutorials, site visits and practical work. Assessment is by a combination of coursework and examination. Levels 1 and 2 are mainly examinations, with project assignments. By Level 4, coursework assessment, principally through the design project and research dissertations, accounts for 50% of the final assessment.
Construction and Surveying facilities

The School of Energy, Geoscience, Infrastructure and Society (EGIS) has a suite of built environment facilities used by our undergraduate students throughout their studies. Facilities include: a light structures lab, a Denison machine, an immersive virtual reality system, Autodesk Revit software and Synchro 4D virtual construction software to create simulations. To see some of our campus facilities visit our virtual tours at: www.hw.ac.uk/virtualtours

Opportunities abroad

Construction Project Management and Quantity Surveying students have the opportunity to study at our Dubai Campus through Heriot-Watt’s Go Global programme. For full details see pages 22–23. www.hw.ac.uk/goglobal

Professional recognition and exemptions

All established programmes are recognised by the appropriate professional organisations, including the Chartered Institute of Building (CIOB) and the Royal Institution of Chartered Surveyors (RICS). As a new programme for 2019/20, accreditation for Civil Engineering Construction Management is pending.

Programmes available within Construction Project Management and Quantity Surveying

Civil Engineering Construction Management H2GA
4 years BEng (Hons)

Construction Project Management K221
4 years BSc (Hons)

Quantity Surveying K241
4 years BSc (Hons)

Open Days

The Edinburgh Campus Open Days will take place on Friday 7 June and Saturday 26 October 2019. See Heriot-Watt Open Days or contact the Student Recruitment Service for more information.
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E: studentrecruitment@hw.ac.uk
www.hw.ac.uk/opendays

The School’s Offer Holder Days are held in February, March and April. All UCAS applicants receiving an offer of a place are invited to attend the Offer Holder Days. However, visitors are welcome at any time.

Andrew James Ayres BSc (Hons)
Construction Project Management
Graduated 2017
Project Manager at Robertson

What appealed to you most about studying at Heriot-Watt?
The opportunity to study at one of the top ranked universities for construction-related disciplines, the post-degree employability prospects and the location.

What areas of your degree programme helped prepare you for your career?
The various cross-discipline design projects and group work and courses in Procurement and Contracts, Cost and Value Management.

How did Heriot-Watt help you get to where you are today?
Industry recognition of Heriot-Watt University as well as Careers Fairs and support. Also the opportunity to complete the final year of my degree on a part-time basis to combine and apply my university studies with practical industry experience.

What are you working on in your current role?
I am currently the Project Manager on three projects that are all at varying stages of the design phase that I will oversee through to completion. I am also working towards becoming a Chartered Member of the CIOB.
**Civil Engineering Construction Management Entry Requirements**

**Level 1**

**Standard**
- Highers AABB/BBBBC
- A-Levels BBC
- IB 29 points
- BTEC DMM (in relevant subject)
- HNC B in graded unit (in a relevant subject area)

**Minimum**
- Highers BBBC
- A-Levels BCC

**Level 2**

**Standard**
- Advanced Highers BC plus BBBBC at Higher (to include Mathematics at B)
- A-Levels ABB (to include Mathematics)
- IB 35 points (with Mathematics at Higher Level 5)
- HNC A in graded unit (with at least SCQF Level 7 or NOF Level 4 in a relevant Mathematics course)
- HND BB in graded units (with at least SCQF Level 7 or NOF Level 4 in a relevant Mathematics course)
- BTEC DDM (in relevant subject)

**Level 3**

**Standard**
- HND AB in graded units (with at least SCQF Level 7 or NOF Level 4 in a relevant Mathematics course)

Please note HNCs and HNDs in Civil Engineering, Built Environment or Construction Management are preferred.

*Minimum: We operate contextual admissions defined by our Fair Access Policy which may mean entry requirements are flexible. Please see page 171 for eligibility details.

If you do not see your qualifications here please contact us at studywithus@hw.ac.uk

University-wide National 5/GCSE (or equivalent) Maths and English requirements are on page 170.

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**BEng (Hons) Civil Engineering Construction Management**

**UCAS code** H2GA

**Duration** 4 years BEng (Hons)

**Number of places** 50 across all programmes

**The programme**

This unique programme draws on two established areas of specialism within the University, civil engineering and construction management, creating a vocationally focused degree to meet industry demand for graduates to work on the management of infrastructure projects.

**Level 1**

You are introduced to the themes of construction and engineering through core courses including Construction Modelling; Cost Control Principles; Civil Engineering Applications; and Introduction to Engineering Design. There are also multiple visits to a range of construction sites and guest lectures from professional engineers.

**Level 2**

Further develops the topics from Level 1 with courses including: Structural Mechanics, Hydraulics and Hydrology A; Cost Modelling and Measurement; and Construction Technology 2. The week-long field course, Constructionarium, gives experience of working with industry professionals.

**Level 3**

You gain knowledge in subjects such as Structural Analysis; Design of Steel Elements; Geology and Soil Properties; Procurement and Contracts; and Design for Construction. A European field trip and industry mentoring scheme, CEMENT, complement and embed studies.

**Level 4**

You complete an individual research dissertation; undertake a week-long collaborative design project working with students from across the different disciplines across the School and study four core courses: Cost and Value Management; Geotechnical Engineering; Civil Engineering Design Project; and Foundation Engineering.

**Career prospects**

The most likely professional destination for graduates of this programme is to become Incorporated Engineers via the Institution of Civil Engineers (ICE). The cross-disciplinary nature of the programme means that accreditation by the Chartered Institute of Building (CIOB) will also be possible. Dual accreditation provides alternative, but complementary, professional pathways for graduates. As this is a new programme in 2019/20, professional accreditation is pending.
Construction Project Management and Quantity Surveying

**Entry Requirements**

**Level 1**

**Standard**
- Highers AABB/BBBBC
- A-Levels BBC
- IB 29 points
- BTEC DMM (in a relevant subject)
- HNC B in graded unit (in a relevant subject area)

**Minimum**
- Highers BBBC
- A-Levels BCC

**Level 2**

**Standard**
- Advanced Highers BC plus BBBBB at Higher
- A-Levels ABB
- IB 34 points
- HNC A in graded unit (in a relevant subject area)
- HND BB in graded units (in a relevant subject area)
- BTEC DDM in a relevant subject

**Level 3**

**Standard**
- HND AB in graded units (in a relevant subject area)

*Minimum: We operate contextual admissions defined by our Fair Access Policy which may mean entry requirements are flexible. Please see page 171 for eligibility details.

If you do not see your qualifications here please contact us at studywithus@hw.ac.uk

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**BSc (Hons) Construction Project Management**

**UCAS code** K221
**Duration** 4 years BSc (Hons)
**Number of places** 60 across both programmes

**The programme**

Construction projects are becoming more complex. The need for graduates equipped to manage projects from inception and design through to construction and occupation has never been greater. The programme aims to provide students with the knowledge, leadership and managerial skills necessary for the effective delivery of construction projects in which feasibility, planning, design, construction and occupation are all phases to be considered and managed. Effective team leadership is fundamental to the role they play in the management of construction projects.

**Level 1** Students study the fundamental themes of building and the roles of the relevant professions. Topics include: Construction Modelling; Construction Technology; Introduction to Design; Cost Control Principles; The Built Environment; and Global Challenges 1.

**Level 2** Further developing the economical, legal and managerial course elements, core courses include: Commercial Law; Facilities Management Principles; and Cost Modelling and Measuring. The optional courses include various language courses as well as Principles of Property Valuation and Building Services Technology. The week-long field course, Constructionarium, introduces working with industry professionals.

**Level 3** Students will gain knowledge in subjects such as: Safety Management and Site Establishment; Procurement and Contract; and Design Cost Planning and Control, while selecting two courses to focus on career direction. A European field trip and industry mentoring scheme, CEMENT, complement and embed studies.

**Level 4** Students complete an individual research dissertation, undertake a week-long multi-discipline collaborative design project and study four core courses including: Cost and Value Management; Innovation in Construction Practice; and Construction Project Management.

**Career prospects**

Our graduates work for some of the largest construction and surveying firms worldwide, including BAM Nuttall, Morrison Construction, Balfour Beatty, Sir Robert McAlpine, Miller Construction, Davis Langdon, Morgan Sindall, Thomas & Adamson, Faithful+Gould and EC Harris, as well as with smaller developers and the public sector.

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**BSc (Hons) Quantity Surveying**

**UCAS code** K241
**Duration** 4 years BSc (Hons)
**Number of places** 60 across both programmes

**The programme**

Quantity Surveying provides clients of the construction industry with financial, contractual and technical advice ensuring they get value for money from the buildings they construct. The modern quantity surveyor is a construction professional who may be involved at all stages of the design and construction process, from providing business strategy advice and working with architects and design team consultants through to overseeing the on-site construction phase. The quantity surveyor has a sound understanding of construction technology, project cost planning and control and contractual issues.

**Level 1** Students study the same courses as Level 1 Construction Project Management. Both courses include a walking tour of Edinburgh viewing the architecture of the Old and New Town.

**Level 2** Students study the same courses as Level 2 Construction Project Management students.

**Level 3** Students will gain knowledge in subjects such as: Safety Management and Site Establishment; Procurement and Contract; and Design Cost Planning and Control, while selecting two courses from three options – Design Issues; Place and Place Making; and Energy and Buildings. A European field trip and industry mentoring scheme, CEMENT, complement and embed studies.

**Level 4** Students complete an individual research dissertation, undertake a week-long multi-discipline collaborative design project and study four core courses: Cost and Value Management; QS Practice; Innovation in Construction Practice; and Construction Information Management.

**Career prospects**

Our Quantity Surveying graduates go on to careers in private practice, contracting firms and the public sector, for example EC Harris, Knight Frank, Davis Langdon, Faithful+Gould and Interserve.
Introduction
Studying Urban Planning and Property Development at Heriot-Watt prepares you for a professional career in real estate investment, development, or urban planning and design. It brings together theoretical, practical and policy content from both spheres – town planning and real estate.

We are the only Scottish university to offer a degree jointly accredited by the Royal Institution of Chartered Surveyors (RICS) and the Royal Town Planning Institute (RTPI).

Studying Geography at Heriot-Watt covers human geography, physical geography, social policy, economics and modern studies. It combines theory and practical work drawn from these main subject areas to create an inherently interesting and broadly defined university degree.

Our Geography BSc focuses on physical geography, studying the processes that shape the natural environment, including hydrology, geology and geomorphology. It is a complement to our Geography, Society and Environment MA which looks at human geography, exploring the ways in which people shape and are shaped by the places and environments in which they live.

Heriot-Watt equips students with the specialist knowledge, skills and attitudes needed to contribute towards making better places and spaces in which to live, work and play.

Teaching and assessment
Learning methods include directed reading, lectures, seminars, small group tutorials, group projects with written, graphic and oral work and field trips, including one to Europe. Guest practitioners contribute to teaching. Assessment is a mix of projects, essays and exams. Students in the final Level will produce a research dissertation.

Mentoring
All students are supported by an academic mentor throughout their time at university, and in Level 1 students work with a tutor in small group tutorials. These regular meetings are designed to help students adjust to university life, to help them develop good study habits, and to catch any difficulties early on.

In addition to academic mentoring, in Level 3 all students are given the opportunity to take part in a professional mentoring scheme which matches them with local practitioners. Students are encouraged to make the most of this scheme to discuss careers, job prospects, internships and professional membership.

Professional recognition and exemptions
The Urban Planning and Property Development degree is accredited by both the Royal Town Planning Institute (RTPI) and the Royal Institution of Chartered Surveyors (RICS).
Graduate destinations
Graduates from our Urban Planning and Property Development programme have gone on to successful careers in the public and private sectors at national and international levels. Several of our most recent graduates are now employed by major investment institutions such as Scottish Widows and Aberdeen Standard, while others have secured roles in planning and property consultancies such as Jones Lang LaSalle and CBRE.

Our Geography programmes are new and are still within the first cohort of students. As they cover the fundamentals in both physical and human geography they complement each other to ensure our students become flexible and creative graduates, able to apply their skills and knowledge in a range of careers.

Open Days
The Edinburgh Campus Open Days will take place on Friday 7 June and Saturday 26 October 2019. See Heriot-Watt Open Days or contact the Student Recruitment Service for more information.

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E: studentrecruitment@hw.ac.uk
www.hw.ac.uk/opendays

Programmes available within Geography and Urban Studies

Geography 3K30
4 years BSc (Hons)

Geography, Society and Environment 3K3W
4 years MA (Hons)

Urban Planning and Property Development K490
4 years BSc (Hons)

Rebekah Donaldson
BSc (Hons) Urban Planning and Property Development with Sandwich Year
Graduated 2017
Graduate Surveyor for Allsop

What appealed to you most about studying at Heriot-Watt?
The course I studied was dual accredited by the RICS and RTPI so offered various career routes. The University was recognised as a global hub with experience in built environment courses.

What areas of your degree programme helped prepare you for your career?
In my current position various courses taught me a basis to develop on, including valuation, law and investment. Group work throughout university helped improve my team-building skills and deadlines taught me good time management. During my final year I undertook a group project which incorporated different courses across built environment and created a real-life scenario of different groups of people working together, and this was a good way of experiencing working with different professionals in the property industry.

How did Heriot-Watt help you get to where you are today?
Heriot-Watt offers a great careers service and student support which I turned to often. The lecturers are caring and were always happy to help. The University encouraged me to get work experience and that has landed me the job I have today, experience is key!
Geography and Urban Studies
Entry Requirements

**Level 1**

**Standard**
- Highers AABB/BBBBC
- A-Levels BBC
- IB 29 points
- BTEC DMM (in a relevant subject)
- HNC B in graded unit (in relevant HNC)

**Minimum**
- Highers BBBC
- A-Levels BCC

**Level 2**

**Standard**
- Advanced Highers BB plus Highers AABB/BBBBC
- A-Levels ABB
- IB 34 points
- HNC A in graded unit (in a relevant subject area)
- HND BB in graded units (in a relevant subject area)
- BTEC DDM (in a relevant subject)

*Minimum: We operate contextual admissions defined by our Fair Access Policy which may mean entry requirements are flexible. Please see page 171 for eligibility details.

If you do not see your qualifications here please contact us at studywithus@hw.ac.uk

University-wide National 5/GCSE (or equivalent) Maths and English requirements are on page 170.

If English is not your first language, please refer to page 179 for our English language requirements.

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**BSc (Hons) Geography**

**UCAS code** 3K30
**Duration** 4 years BSc (Hons)
**Number of places** 50 across all programmes

**The programme**

This programme will provide a broad-based geographical education, focusing on physical geography with a complementary grounding in human geography concepts. Students will receive a solid foundation on a range of topics and subject areas including surveying and mapping skills, quantitative analysis, environmental hazards and risks and policy evaluation.

**Level 1** Providing introductory theory on subjects relevant to real-world issues across the globe such as: Human and Urban Geography; Global Challenges 1; The Built Environment; Living Planet and Environmental Change; and Statistics, Data Analysis and GIS. Students also take part in a residential study tour of a major British city.

**Level 2** Introducing new laboratory and fieldwork skills in surveying and mapping, mandatory courses include: Urban Political Economy; Catchment Hydrology; Urban and Real Estate Economics; and Geomorphology, Landscapes and Society, with two optional courses from subjects covering various languages, Mathematics, Biology and Design.

**Level 3** Offers more critical understanding of key subjects including: Geology and Soil Properties; Transportation Engineering; Water Quality and Management Practices; Global Challenges; River and Estuarine Processes; and Environmental Engineering. A professional project offers a one-week European study trip.

**Level 4** Students complete an individual research dissertation, undertake a week-long multi-discipline collaborative design project and complete two core courses (Technical Networks and Urban Resilience; Environmental Planning) and a choice of four optional courses from subjects such as: Comparative Social and Cultural Issues; Heritage: International Perspectives; Urban Economy and Property Markets; UK and International Housing Markets; and Social Sustainability.

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**MA (Hons) Geography, Society and Environment**

**UCAS code** 3K3W
**Duration** 4 years MA (Hons)
**Number of places** 50 across all programmes

**The programme**

Geography, Society and Environment is designed for motivated individuals with a strong interest in studying global and local challenges in human geography, physical geography, and social and environmental policy. The programme combines theory and practical work with skills-based training in mapping techniques and their application to urban and environmental planning, management and engineering.

**Level 1** Students study the same courses as Level 1 BSc Geography students.

**Level 2** Students study the same courses as Level 2 BSc Geography students.

**Level 3** Offers more critical understanding of key subjects including Global Challenges, Urban Politics and Economics, Poverty and Housing. Courses include: Urban Theories, Place and Place-Making, Comparative Urban Development, and Transport. A professional project offers a one-week European study trip.

**Level 4** Students complete an individual research dissertation, undertake a week-long multi-discipline collaborative design project and complete two core courses (Technical Networks and Urban Resilience; Environmental Planning) and a choice of four optional courses from subjects such as: Comparative Social and Cultural Issues; Heritage: International Perspectives; Urban Economy and Property Markets; UK and International Housing Markets; and Social Sustainability.

**Career prospects**

The programme runs alongside a number of professionally accredited undergraduate programmes offered by the School that offer opportunities for students to transfer between programmes. These include postgraduate study where a range of accredited taught degrees is available, leading to careers in areas such as: real estate development; urban and regional planning; urban strategies and design; carbon management; environmental engineering; and water resource management.
BSc (Hons) Urban Planning and Property Development

UCAS code K490
Duration 4 years BSc (Hons)
Number of places 50 across all programmes

The programme
Urban Planning and Property Development combines real estate management, urban and regional planning and design. It aims to produce graduates who can work in the private, public and voluntary sectors of the planning, property development and management industry. The programme is professionally accredited by both the Royal Institution of Chartered Surveyors (RICS) and the Royal Town Planning Institute (RTPI). Successful completion of the degree and subsequent approved practical experience will enable students to apply to become chartered members of the RTPI and/or RICS.

Level 1 Students study the same courses as Level 1 Geography students.
Level 2 The focus is on planning and property development with courses such as: Commercial Law: Introduction to Design; Urban Political Economy; Urban and Real Estate Economics; City Life and Difference; and Environment and Behaviour.
Level 3 Advanced planning and property studies are combined in courses including: Real Estate Investment; Contemporary Appraisal; and Comparative Urban Development. A professional project offers a one-week European study trip.
Level 4 Students complete a dissertation, undertake a week-long multi-discipline collaborative design project and, in addition to two mandatory courses (Urban Economy and Property Markets; UK and International Housing Policy), students select two courses from eleven options including: Urban Design for Health and Wellbeing; Energy and Buildings; Real Estate Management and Sustainability; and Environmental Planning.

Career prospects
In the UK there is a shortage of qualified professionals, which is set to continue for the foreseeable future. Our graduates are much sought after by employers and can be found worldwide.
The School of Engineering and Physical Sciences embraces the subjects of:

- Physics
- Chemistry
- Chemical Engineering
- Brewing and Distilling
- Electrical, Electronic and Computer Engineering
- Mechanical Engineering
- STEM Teacher Training.

The School offers programmes in all of these subjects individually and with a range of specialist options, as well as innovative interdisciplinary programmes bringing together specialisations from different subjects.

The School enjoys an international reputation for its research and its close connection with the professional and industrial world of science, engineering and technology. This reflects the importance that the University attaches to the quality of its teaching, research and student support. Our graduates have always benefited from excellent employment prospects. Whilst many of them go on to careers in science and engineering, they are in great demand in other professions, for example in the financial sector and general management, because of their training and abilities in quantitative problem-solving and analytical skills.

**Degree structures**

Our degree programmes are based on a three-, four- or five-year structure. Entry is normally either at Level 1 or 2, depending on the wishes of the student and their qualifications. Good qualifications at Advanced Highers, A-Levels, HND or equivalent are appropriate for Level 2 entry. Students may graduate with an ordinary degree in Level 3; a BSc or BEng degree in Level 4; or an MChem, MPhys or MEng in Level 5. Progression to the higher Levels is dependent on performance. There is considerable flexibility for transfer between programmes.

**Flexibility**

The School offers students a high degree of choice and flexibility. Students can choose to specialise in a particular subject at the earliest level if they wish, or choose a programme that gives them the broadest range of options at the higher levels. Many of our students come to us with definite ideas about the type of programme they wish to follow, but it is not essential to choose, for example, between individual engineering disciplines in the early years, or even to make an immediate choice between science and engineering.

**Professional engineering and science**

It is a core value of the School that all of our degree programmes are accredited by the relevant professional institution or learned society, including the Institute of Electrical and Electronics Engineers, the Institution of Mechanical Engineers, the Institution of Chemical Engineers, the Institute of Physics and the Royal Society of Chemistry. Our programmes are recognised by the relevant bodies as being the first step to a career as a professional engineer or scientist and as the foundation to gaining chartered status. For example, an MEng degree offers a ‘fast track’ to becoming a Chartered Engineer. Graduates with a BEng will still be able to meet the Engineering Council academic requirements for CEng by completing an appropriate ‘Matching Section’. Our programmes also offer considerable flexibility in being able to transfer from BEng to MEng, or BSc to MChem or MPhys programmes, dependent on attainment. All our BEng and MEng programmes are designed to meet the requirements of the Engineering Council.

**Combined Studies**

Courses offered across the School can normally be taken as part of a Combined Studies degree programme. Combined Studies offers an interdisciplinary degree programme, which allows students the maximum choice of the subjects they study.

The Times/Sunday Times Good University Guide 2019 ranked our General Engineering and Mechanical Engineering in the UK Top 10, and 2nd in Scotland for Chemical Engineering.
Katie Joy
MEng Chemical Engineering with Energy Engineering

After graduating Katie became an Assistant Project Manager at MACE, an international consultancy and construction company, working on the Pharmaceutical and Technology team.

What appealed to you most about Heriot-Watt University?

Heriot-Watt has a great reputation within industry for Chemical Engineering which was an important influencing factor for me. I liked that the emphasis is on practical learning rather than just theoretical, with plenty of labs in the first few years to help you apply the knowledge that you get in lectures. The campus atmosphere of Heriot-Watt also appealed to me.

Do you feel your degree has prepared you well for a career?

I know that I could go into a job in any chemical engineering industry and be able to apply the fundamental principles that I have been taught. I definitely don’t know everything there is to know about chemical engineering but Heriot-Watt has laid the foundations I will need to continue learning.

Has your degree programme helped you develop links with industry?

I had three summer internships which were all great experiences. Within the University, there are always plenty of talks from industrial speakers. In fifth year we had an entire course filled with guest speakers from industry talking about chartership and professional accreditation. The Careers Fairs also give you the opportunity to talk to many different companies regarding their opportunities for internships and graduate jobs. The Careers Service at Heriot-Watt are fantastic and they’re always on hand to help with anything from CVs to practice interviews.
A one-year Engineering course offering maximum flexibility to each student.

**Introduction**

The BEng Engineering programme offers students the opportunity to study a range of subjects in the first year of their degree. At the end of first year, they will be able to focus on their chosen specialisms and work towards a Heriot-Watt Engineering degree. There is a diverse choice of subjects available. Students select eight courses which match their interests. Normally, students select courses from two or three subject areas. At the end of their first year, BEng Engineers transfer to the second year of their chosen degree.

Most students select courses in some form of design, whether electrical or civil or chemical engineering. There are also specialist courses to help develop research skills, report writing and presentation techniques. All of our programmes provide the professional skills required by professional bodies.

Our academic staff liaises with industry and commerce, whether it be consultancy or funded research. This ensures that Heriot-Watt University remains in touch with current industrial practice and concepts.

Our courses are taught in the following Schools:
- School of Energy, Geoscience, Infrastructure and Society
- School of Engineering and Physical Sciences
- School of Mathematical and Computer Sciences.

**Level 1**

The BEng Engineering Programme offers students the opportunity to study a range of subjects in the first year of their degree. From second year, students then focus on their chosen specialisms to work towards an Engineering degree.

**Programme flexibility**

The programme is based at the Edinburgh Campus, which has fully equipped labs and workshops. The range of courses available includes sciences through to management studies and foreign languages. It is a flexible programme enabling students to study on a full- or part-time basis. Students also have a Personal Tutor who will advise, offer support and guidance and ensure that courses chosen are relevant to interests and future goals.

The choice of Engineering-related subjects available is:
- Mechanical Engineering
- Civil Engineering
- Building Engineering
- Chemical Engineering
- Electrical and Electronic Engineering
- Mathematics
- Physics
- Computer Science
- Construction Project Management
- Robotics
- Urban Planning and Studies
- Information Systems.

**Professional recognition**

All of our Engineering programmes are accredited by relevant institutions:
- Institution of Civil Engineers
- Institute of Electrical and Electronics Engineers
- Institution of Chemical Engineers
- Institution of Mechanical Engineers.

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**Sean McGarry**

*Tell us about your experience at Heriot-Watt.*

I came to Heriot-Watt to study Mechanical Engineering and I graduated with an Upper Second. It’s been great. I have had all the support I needed – when I needed it – to make my choices. In my third year, I was busy as the President of the Heriot-Watt Red Cross Group. Between second and third year, I went to Costa Rica with Raleigh International. And before final year, I was an intern with Expro North Sea: a great opportunity to put all that engineering theory into practice.
Teaching and assessment
Teaching methods include lectures, tutorial classes and mentor sessions. Workshop and laboratory activities are supported by group and individual projects. Assessment is by examination, coursework and presentations.

Your future
Heriot-Watt University has the leading reputation in Scotland for industrial links and funding. We have very high employment levels for our graduates. Employment opportunities have included a range of fields including construction, manufacturing, emergent technologies and consultancy. The roles have included Process Engineer, Marine Engineer, Exploration Geologist and Field Engineer. The Edinburgh Campus is also home to an extensive research park with many companies involved in commercialisation of our research.

Scholarship opportunities
The School has a variety of academic and industrial scholarships, depending on personal background, intended degree programme and personal circumstances.

Open Days
The Edinburgh Campus Open Days will take place on Friday 7 June and Saturday 26 October 2019.

Applicants are invited to visit during a series of Offer Holder Days in the autumn and spring. Potential applicants, and their families, who wish to see the University and discuss the programme are welcome throughout the year.

www.hw.ac.uk/opendays

BEng Engineering Entry Requirements

Level 1
Standard
Highers AABB (including one science at A and Mathematics at B)
A-Levels BBC (including Mathematics and one relevant science)
IB 31 points (with Higher Level 5 in a relevant science and Mathematics)
BTEC DDM (in a relevant area)
HNC A in graded unit (in a relevant subject)

Minimum*
Highers BBBC (including a relevant science at B and Mathematics at B)
A-Levels BCC (including a relevant science at B and Mathematics at C)

Please note BEng Engineering is only available for Level 1 entry.

*Minimum: We operate contextual admissions defined by our Fair Access Policy which may mean entry requirements are flexible. Please see page 171 for eligibility details.

If you do not see your qualifications here please contact us at studywithus@hw.ac.uk

University-wide National 5/GCSE (or equivalent) Maths and English requirements are on page 170.

If English is not your first language, please refer to page 179 for our English language requirements.

BEng (Hons) Engineering
UCAS code H100
Duration 4 years BEng (Hons)
Number of places 20 across programme

The programme
The BEng Engineering Programme offers students the opportunity to study a range of subjects in the first year of their degree. From second year, students then focus on their chosen specialisms to work towards an Engineering degree. A diverse choice of subjects is available. Students select eight courses to match their interests, typically choosing from two or three subject areas. Most BEng Engineering students select courses in some form of industrial design, whether it’s Electrical, Civil or Chemical Engineering.

Support and advice
Each student is allocated to a Director of Studies, who assists in the design of an individualised programme.

Heriot-Watt came 1st in the UK in General Engineering in the 2014 Research Excellence Framework in a joint submission with the University of Edinburgh.
Physics

Contact Dr Dave Townsend
T: 0131 451 3451 E: studywithus@hw.ac.uk
www.hw.ac.uk/ug-physics

The National Student Survey 2018 ranked our Physics degrees as 3rd in the UK (based upon the average score across all questions, Unistats 2018).


Introduction
Physics impacts all aspects of our technological society, from high-speed fibre optic telecommunications and mobile computing to renewable energy, health care and nuclear power.

Physics considers fascinating ideas about the fundamental nature of the physical world, such as the very fabric of space and time as revealed by relativity, or the mysterious quantum world of subatomic particles. These concepts are not only philosophically intriguing but form the basis of modern technology.

The specialisms within our undergraduate programmes reflect our highly successful research in areas such as lasers, semiconductor optoelectronics, optical fibres, biophotonics, nanotechnology, medical physics and quantum communication and computation.

Our programmes reflect this exciting and diverse range of concepts and applications. They are designed with flexibility and choice so that you can explore the areas of most interest to you.

Our degrees are student-centric, with a focus on enabling each student to realise their full potential for both the degree and future career.

Teaching and assessment
In addition to lectures and small group tutorials we make extensive use of online computer-based learning materials for both delivery and assessment of courses. Our experimental laboratories are up-to-date and well equipped and our students benefit from a range of experiences including workshop activities, self-led experiments, and project work to help them develop their skills in investigative physics, critical analysis, and presentation of results.

Information for Level 2 entrants
Suitably qualified applicants may enter at Level 2, and will therefore complete their degree in three years (BSc) or four years (MPhys). See programme entry requirements for further details.

Programme flexibility
Up until the end of Level 3 it is normally possible to select a different degree within Physics.

Professional recognition
All Physics programmes are accredited by the Institute of Physics (IOP) except the Physics and Professional Education degree which is accredited by the General Teaching Council for Scotland. Our students are encouraged to become involved with and recognised by the IOP, which offers benefits including scientific trips, events, information on funding and careers and online access to Physics World publication.

Prizes and scholarships
A number of industry-sponsored and endowed prizes are awarded to students at various stages throughout the programme. For example, the Neil Forbes/Scottish Enterprise Prizes are awarded to the MPhys/BSc students with the most outstanding final year project. As we value deeply our Physics community here at Heriot-Watt, the Bryan Award is given each year to recognise one of our students who has shown courage, determination, willingness to assist others or who has made a significant contribution to the Department of Physics.
Research experience
Throughout your studies we will offer you a range of exciting opportunities to do research in our labs and elsewhere. Individual projects and some of the group projects are typically based in one of our research groups. As a Physics student at Heriot-Watt, you will also benefit from the many industrial collaborations and strategic partnerships that we have. In addition to that, there are opportunities to pursue summer internships in the UK and abroad. Previous students have successfully secured prestigious scholarships from the Saltire Foundation, the Carnegie Trust, the Ogden Trust, and the Institute of Photonics and Quantum Sciences and internally to the University. For example, one of our fourth year MPhys students has secured a Saltire Scholar internship in California, working for Coherent – one of the world’s largest manufacturers of lasers. Seizing these opportunities will provide you with a rich experience of working in leading-edge physics projects, something which employers find very valuable.

Open Days
The Edinburgh Campus Open Days will take place on Friday 7 June and Saturday 26 October 2019. Applicants are also invited to visit us during our series of dedicated Offer Holder Days where prospective students can find out more about studying Physics at Heriot-Watt University. Please contact the Admissions Tutor for dates and further information about our Physics Offer Holder Days. Parents or guardians are also very welcome to attend Open Days and Offer Holder Days. www.hw.ac.uk/opendays

Programmes available within Physics

**Physics F302 / F300**
5 years MPhys / 4 years BSc (Hons)

**Chemical Physics F322 / F320**
5 years MPhys / 4 years BSc (Hons)

**Engineering Physics F311 / F314**
5 years MPhys / 4 years BSc (Hons)

**Mathematical Physics F340 / F344**
5 years MPhys / 4 years BSc (Hons)

**Physics and Professional Education**
BSc (Hons) in Physics and Professional Education (see pages 98–99) is a programme delivered in collaboration with the University of Stirling. Students study at both institutions, with the scientific courses taught at Heriot-Watt University and the teaching courses studied at the University of Stirling. Interested parties should apply directly to the University of Stirling. For further information please contact Physics via studywithus@hw.ac.uk or visit us during one of our Campus Open Days.

Susan Chan
BSc Physics

What appealed to you most about Heriot-Watt University?
The staff-student ratio in Physics was a key factor influencing my decision to study here. From my time here, I have found that most lecturers in the department maintain an ‘open-door policy’ so help and support is never too far away. Also, both Heriot-Watt and the city of Edinburgh are very internationally diversified – I don’t have to move away from home to meet people from all over the world.

Do you feel your degree has prepared you well for a career?
Definitely! During my degree, I have had the opportunity to work with two research groups within the Institute of Photonics and Quantum Sciences here at Heriot-Watt. This has not only put my learning during the previous and upcoming semesters into perspective but has also developed my interpersonal skills, and abilities in experimental design and computational modelling. This prepared me for my BSc lab project and for a successful career ahead.

Has your degree programme helped you develop links with industry?
Yes, by establishing relationships with staff and graduates, I developed the links I needed. The University is a melting-pot of academic experts, many of whom have strong links with industry.
Physics Entry Requirements

**Level 1**

**Standard**
- Highers AAAB or ABBBB (including Physics or Mathematics at A)
- A-Levels BCC (including Physics and Mathematics BB)
- IB 29 points (with Higher Level Physics and Mathematics)
- BTEC DDM (in relevant subject)
- HNC B in graded unit (in relevant HNC)

**Minimum**
- Highers BBBC (including Physics and Mathematics BB)
- A-Levels BCC (including Physics and Mathematics)

**Level 2**

**Standard**
- Advanced Highers BB (Physics and Mathematics plus Highers AAAB/ABBBB)
- A-Levels AAB (including Physics and Mathematics AA)
- IB 32 points (with Higher Level Physics and Mathematics at 6)
- HNC A in graded unit (in relevant HNC)
- HND BB in graded units (in relevant HND)
- BTEC DDD (in relevant subject)

Please note that the Chemical Physics programme also requires a relevant Chemistry qualification appropriate to the Level (e.g. A-Levels or Highers at grade C for Level 1, A-Levels or Advanced Highers at grade B for Level 2)

*Minimum: We operate contextual admissions defined by our Fair Access Policy which may mean entry requirements are flexible. Please see page 171 for eligibility details.

If you do not see your qualifications here please contact us at studywithus@hw.ac.uk

University-wide National 5/GCSE (or equivalent) Maths and English requirements are on page 170.

If English is not your first language, please refer to page 179 for our English language requirements.

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**MPhys / BSc (Hons)**

**Physics**

**MPhys / BSc (Hons)**

**Chemical Physics**

**UCAS code** F302 / F300

**UCAS code** F322 / F320

**Duration** 5 years MPhys / 4 years BSc (Hons)

**Number of places** 65 across all programmes

**Number of places** up to 10

**The programme**

This Physics degree covers subjects including dynamics, electromagnetic fields and optics. These areas lead onto the quantum world of subatomic particles, the unique nature of laser light, and the philosophically challenging ideas of quantum physics and astrophysics.

Through research projects, you’ll be able to develop skills in experimental design and/or computational modelling, as well as practical abilities, initiative and teamwork. You’ll develop your creative problem-solving skills and logical thinking, preparing you for a wide variety of future careers.

**Level 1**

Provides foundations of physics and mathematics and gives the opportunity to look at wider aspects of physics through experimental study in investigative techniques. Also covered are fundamental skills in electronics and mechanics.

**Level 2**

Introduces important themes of physics through courses in Thermal Physics, Photonics and Optics and Electronics. Experimental, programming, and communication skills are developed through practical laboratory activities.

**Level 3**

Includes: Electromagnetism; Dynamics and Relativity; and Solid State Physics. Experimental and programming skills are further developed using in-depth laboratory studies.

**Level 4**

Includes: Advanced Electromagnetism; Laser Physics; Quantum Concepts; and Solid State Physics. Students can choose from specialist topics including Optical Sensing and Optoelectronics.

**Level 5 (MPhys only)**

A major part of the final year is the Research Project; this usually takes place in our state-of-the-art research laboratories alongside our research staff. Taught courses include Condensed Matter, Nanophotonics and Material Physics.

**Career prospects**

Physics graduates from Heriot-Watt have an excellent reputation with UK employers, and career prospects are very good. Our graduates gain employment in a wide range of research and industrial establishments, as well as in areas of banking and finance. Many of our students choose to continue their Physics career by studying towards a PhD research degree.

**UCAS code** F302 / F300

**UCAS code** F322 / F320

**Duration** 5 years MPhys / 4 years BSc (Hons)

**Number of places** 65 across all programmes

**The programme**

The Chemical Physics degree programme spans the interface between chemistry and physics. The programme incorporates all the core elements of a physics degree as well as key chemistry concepts relating to the structure and properties of atoms, molecules and materials. The interdisciplinary nature of the programme ensures students will develop a wide range of skills and expertise. In the final Level students will undertake a research project, working closely with a member of staff. Chemical Physics is well suited to students with interests in the atomic and molecular applications of physics and the more physical and mathematical aspects of chemistry.

**Level 1**

Topics studied will include Mechanics and Waves; Principles of Chemistry; Fields and Forces; Chemical Reactivity; Mathematics; Supporting programme of Laboratory Work.

**Level 2**

Topics studied will include Photonics and Optics; Electronics and Programming Skills; Chemical Kinetics; Thermodynamics; Atomic and Molecular Spectroscopy; Mathematics; Communication Skills; Physics and Chemistry Laboratory Work.

**Level 3**

Topics include Electromagnetism; Advanced Mathematics; Solid State Physics; Atomic Structure and Molecular Bonding; Quantum Theory; Spectroscopy; Classical Dynamics; Relativity; Supporting Laboratory Work.

**Level 4**

Topics will include Advanced Chemical Kinetics; Lasers; Numerical Modelling and Data Analysis; Large-Scale Chemical Systems; Nuclear and Particle Physics; Advanced Quantum Mechanics; Advanced Problem Solving; Chemical Physics BSc Research Project.

**Level 5 (MPhys only)**

Topics will include Advanced Optics; Advanced Physical Chemistry; Advanced Quantum Mechanics; Computer Modelling of Chemical Systems; Chemical Physics Research Project.

**Career prospects**

Chemical Physics graduates are extremely well equipped for a wide variety of scientific careers, including higher-level research, for example at PhD level. In addition, the general skills that Chemical Physics graduates will have developed are highly valued by potential employers well beyond the scientific domain.
MPhys / BSc (Hons)  
Engineering Physics

UCAS code F311/F314
Duration 5 years MPhys / 4 years BSc (Hons)
Number of places 65 across all programmes

The programme
Our Engineering Physics degree equips our students with the ability to work at the interface between physics and engineering. In the modern interdisciplinary world, there is a need for graduates that can work at the boundary between physics and areas as diverse as environmental monitoring, biology, advanced materials, energy, and communications. Our degree aims to help you develop a creative approach to solving engineering-related problems.

The course includes practical, theoretical and skill-based studies in Materials Science, Electronics, and Computer Interfaceing, Control, and Modelling.

Level 1 Provides foundations of physics and mathematics, and the opportunity to look at wider aspects through a series of courses in investigative techniques. Fundamental engineering skills in electronics and mechanics are covered in courses delivered by the engineering departments.

Level 2 Important themes of physics are introduced through courses in Photonics and Optics, Thermal Physics and Properties of Matter.

Level 3 Deals with more advanced treatments of core physics, such as: Electromagnetism; Dynamics and Quantum Concepts; and Solid State Physics. Experimental and programming skills are further developed using more in-depth experimental studies and simulations.

Level 4 Physics courses cover Quantum Concepts and Nuclear and Particle Physics. There is an increased emphasis on engineering including topics such as Electrical Energy Systems and Energy Studies.

Level 5 (MPhys only) In addition to core physics topics this programme includes specialist courses on Failure and Accident Analysis as well as a physics research project with an engineering theme.

Career prospects
This Engineering Physics degree will give you the knowledge and skills required by both industry and service sectors. You will also be well prepared for a career in research.

MPhys / BSc (Hons)  
Mathematical Physics

UCAS code F340/F344
Duration 5 years MPhys / 4 years BSc (Hons)
Number of places 65 across all programmes

The programme
This Mathematical Physics degree will give you a solid understanding in both mathematics and physics. The course offers a wide range of mathematical and physics topics, and also gives you the option to transfer between Mathematics and Physics at an early stage. Our Mathematical Physics degree will also give you an extensive range of computer modelling skills.

Level 1 Involves an even split between core mathematics and core physics and includes topics such as calculus, differential equations, classical mechanics and classical fields.

Level 2 Involves an even split between core mathematics and core physics and includes topics such as analysis and statistical mechanics. There will also be courses in experimental and computing techniques.

Level 3 Involves mathematics and physics including topics such as advanced differential equations, solid state and quantum physics. Practical work introduces an emphasis on mathematical modelling of systems.

Level 4 Advanced-level topics are introduced such as Optimisation, Partial Differential Equations (PDE) and Quantum Mechanics. Project work is designed to take advantage of additional mathematical and modelling skills developed in earlier years of study.

Level 5 (MPhys only) Includes advanced physics and advanced mathematics courses such as Mathematical Biology and Medicine or PDE Numerical Analysis. A major part of the year is the research project, in which the student is attached to a University research group and is enabled to perform original work on their own or as an integral part of the research team. Typically projects will be set to exploit student skills in mathematical subjects.

Career prospects
The demand for candidates with a strong mathematical background and an ability to appreciate the real world is becoming greater. Careers in Theoretical Physics, Mathematics, Engineering, Technology, Economics and Finance would potentially be open to graduates.
Chemistry

Contact Dr Arno Kraft
T: 0131 451 3451 E: studywithus@hw.ac.uk
www.hw.ac.uk/ug-chemistry

The National Student Survey ranked Heriot-Watt 1st in Scotland for Chemistry for the last six years.

Introduction
Chemistry holds the key to the solutions of many exciting and important challenges that face the world today, whether it is the development of new pharmaceuticals to treat disease, the synthesis of new ‘smart’ materials with high-tech applications, the development of new catalytic systems to improve the economic and environmental properties of manufacturing processes, the production of new fuels or a host of other areas. Thus there is a constant requirement for a supply of creative, enthusiastic Chemistry graduates to drive these developments and see them through to fruition.

The broad range of fundamental skills involved in a Chemistry degree means that Chemistry graduates are in high demand, not just in the chemical industry but also in a broad range of other employment sectors.

Chemistry and Professional Education
BSc (Hons) in Chemistry and Professional Education (see pages 98–99) is a programme delivered in collaboration with the University of Stirling. Students study at both institutions, with the scientific courses taught at Heriot-Watt University and the teaching courses studied at the University of Stirling. Interested parties should apply directly to the University of Stirling. For further information please contact Chemistry via studywithus@hw.ac.uk.

Teaching and assessment
We use lectures, laboratories, tutorials, and online materials to support learning. Small group tutorials are held weekly and hands-on practical work forms an important part of the curriculum. Courses are assessed by a combination of examination and continuous assessment.

Information for Level 2 entrants
Candidates with good Chemistry and Mathematics Advanced Highers or A-Levels, or an HND qualification may enter Level 2 of our programmes, allowing completion of a BSc (Hons) degree in three years, or an MChem in four years. The required minimum grades are indicated in the Entry Requirements sections.

Programme flexibility
Since the same core chemistry courses underpin all our chemistry degrees, movement between degrees is extremely flexible. Movement between BSc (Hons) and MChem degrees is possible up to the end of Level 3.

Professional recognition and exemptions
All of our MChem and BSc (Hons) degrees are accredited by the Royal Society of Chemistry (RSC). Graduates may thus join the RSC at the professional member level (MRSC) and, with appropriate postgraduate experience, move on to Chartered Chemist status.

Prizes and scholarships
The School offers scholarships to highly qualified applicants. A number of industrially sponsored and endowed prizes are also awarded to students at various stages throughout the programme.

Industrial placements/work experience
An industrial placement is an integral part of the MChem in Chemistry with Industrial Experience degree. The placement can involve working in an analytical lab, in quality control or an industrial research lab in Level 4 of the programme.
Study abroad
A number of our programmes provide the opportunity for study overseas, involving year-long stays at one of our partner universities in Australia, North America, Spain, Germany or France.

Skills gained
• Problem-solving skills
• Hands-on practical skills in chemistry
• Research methods through carrying out a major research project
• Collection and interpretation of experimental data
• Report writing involving the integration of written, graphic, spreadsheet and chemical modelling information into a scientific ‘paper’
• Oral presentation skills and enterprise skills.

Open Days
The Edinburgh Campus Open Days will take place on Friday 7 June and Saturday 26 October 2019.

Please contact the Admissions Tutor for information about our Chemistry Offer Holder Days in February and March. www.hw.ac.uk/opendays

Programmes available within Chemistry

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<th>Duration</th>
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<td>5 years MChem / 4 years BSc (Hons)</td>
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<td>Chemistry with Pharmaceutical Chemistry F151/F125</td>
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<tr>
<td>Chemistry with a European Language F1R9</td>
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<td>Chemistry with a Year in Australia F106/F107</td>
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<td>Chemistry with a Year in North America F105</td>
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<td>5 years MChem</td>
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Katya Moncrieff
MChem Chemistry with a European Language

What influenced your decision to choose Heriot-Watt?

What made Heriot-Watt stand out from many other universities is the variety of degrees they offer that combine Chemistry with another subject or a year abroad; the combination of science and language, which is certainly unusual, has allowed me to become proficient in French alongside pursuing a Masters in Chemistry. I also value how the Chemistry department is well linked with industry and encourages students to get as much practical experience as possible, whether through projects or by undertaking placements outwith the university as part of your programme. These aspects of my degree have greatly enhanced my career prospects and my employability as a graduate, and have opened up doors as to the countries in which I can apply for work.

What aspect of studying at Heriot-Watt has really made a difference to you?

What struck me most was the real sense of community in Chemistry, and I especially found the friendliness of the department hugely supportive throughout my Masters. Whenever I had difficulties with an assignment or had a question I always felt at ease to knock on my lecturers’ doors. Heriot-Watt also run a Personal Tutor scheme whereby each student is allocated a member of staff to whom they can go to for guidance, whether in an academic context or not. This scheme particularly thrives in the Chemistry department, and I speak from personal experience when I say that my tutor was invaluable to me when I was finding things tough!
Chemistry Entry Requirements

Level 1
Standard
Highers AABB (including Chemistry)
A-Levels BBC (including Chemistry B and Maths)
IB 30 points (with Higher Level Chemistry and Mathematics at 5)
BTEC DDM (in relevant subject)
HNC A in graded unit (in relevant HNC)

Minimum*
Highers BBBC (including Chemistry at B)
A-Levels BCC (including BC in Chemistry and Mathematics)

Level 2
Standard
Advanced Highers AB (including Chemistry and Mathematics plus Highers AAB)
A-Levels AAB (including Chemistry and Mathematics)
IB 36 points (with Higher Level 6 Chemistry and Mathematics)
HND BB in graded units (in relevant HND)
BTEC DDD (in relevant subject)

Level 3
Standard
HND AA in graded units (in relevant HND)

Chemistry with Computational Chemistry, Chemistry with Materials, Chemistry with Materials and Nanoscience require Chemistry, Maths and Physics. Chemistry with a European Language requires Chemistry and French, German or Spanish.

*Minimum: We operate contextual admissions defined by our Fair Access Policy which may mean entry requirements are flexible. Please see page 171 for eligibility details.

If you do not see your qualifications here please contact us at studywithus@hw.ac.uk

University-wide National 5/GCSE (or equivalent) Maths and English requirements are on page 170.

If English is not your first language, please refer to page 179 for our English language requirements.

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MChem / BSc (Hons) Chemistry

**UCAS code** F101 / F100
**Duration** 5 years MChem / 4 years BSc (Hons)
**Number of places** 80 across all programmes

**The programme**
The core chemistry courses (along with additional chemistry courses) ensure a strong basis in theory and laboratory practice. Communication and enterprise skills are an integral part of the programme. Students choose a research topic in Level 4 or 5. The programme aims to produce Chemistry graduates at the highest level of professional skill and knowledge, whilst at the same time allowing for a broad, flexible programme in the earlier years.

**Level 1** Students gain a good understanding of the fundamental principles of Chemistry and are introduced to laboratory skills illustrating various experimental techniques; students also study Mathematics and an optional subject.

**Level 2** Inorganic, Organic and Physical Chemistry lectures continue with emphasis on the interrelationship between theoretical principles and experimental measurements. Students choose an optional non-Chemistry subject (Biology, Physics, Maths/Statistics, a language).

**Level 3** Core Inorganic, Organic and Physical Chemistry continues and is joined by topics in Analytical and Materials Chemistry. Communication and teamwork skills are developed and laboratory work becomes more advanced.

**Level 4** Involves advanced topics in Inorganic, Organic and Physical Chemistry, together with special topics. BSc students undertake a 16-week research project. MChem students gain a deeper understanding of modern analytical techniques and then carry out two group-based mini projects.

**Level 5 (MChem only)** Involves an extensive 24-week research project within a research group plus specialist advanced Chemistry courses.

**Career prospects**
Chemistry graduates from Heriot-Watt have a very strong reputation with UK employers and career prospects are excellent. Firms particularly appreciate the practical abilities learnt in the labs and the good communication skills of our graduates.

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MChem / BSc (Hons) Chemistry with Biochemistry

**UCAS code** F1CR / F1C7
**Duration** 5 years MChem / 4 years BSc (Hons)
**Number of places** 80 across all programmes

**The programme**
Chemistry is at the heart of biological processes and this degree is attractive to students who want to work at the interface between Chemistry and Life Sciences. Animals and plants are composed of biological cells, which are complex entities whose functions and communications are controlled by messenger molecules. Graduates are fully qualified Chemistry professionals who have a specialism in Biosciences, cell biology and biological chemistry at an advanced level. The opportunity to transfer to Chemistry with Pharmaceutical Chemistry is available up to the beginning of Level 3.

**Level 1** Fundamentals of Chemistry, with Mathematics and Biology courses. Lab work plays a key role in the curriculum.

**Level 2** Core Organic, Inorganic and Physical Chemistry, with Cell Biology and Human Metabolism courses.

**Level 3** Core Inorganic, Organic and Physical Chemistry continues along with Molecular and Cell Biology.

**Level 4** Advanced Inorganic, Organic and Physical Chemistry, together with special topics. BSc students also undertake a 16-week research project in Biological Chemistry. MChem students undertake a special practical course.

**Level 5 (MChem only)** An extensive 24-week Biological Chemistry research project plus specialist Chemistry courses.

**Career prospects**
Career prospects for Chemistry with Biochemistry graduates are excellent within the pharmaceutical, biomedical, biochemical, health care, agriculture, and food, drink and water industries. Also, since the programme is founded in the same core chemistry as our other degrees, opportunities exist in the chemical, petroleum, electronic, aerospace and communications industries.
MChem / BSc (Hons) Chemistry with Computational Chemistry

UCAS code F1GL / F190  
Duration 5 years MChem / 4 years BSc (Hons)  
Number of places 80 across all programmes

The programme
This degree was instigated by the large number of academic staff in Chemistry who are involved in Computational Chemistry research. You will be a fully qualified Chemistry graduate who has taken the same core Chemistry courses as all our other graduates but who has specialised in the computer modelling of the structures and reactions of molecules. Computational Chemistry allows you to simulate entire chemical reactions (with emphasis on novel metal-catalysed reactions), design new and improved catalysts, predict the properties of unusual molecules, and understand the way photodynamic anti-cancer drugs work.

Level 1 to Level 2 The first two levels of this programme have the same structure as the Chemistry with Materials and the Chemistry with Materials and Nanoscience degree, with a strong emphasis on Chemistry, Physics and Mathematics.

Level 3 Core Chemistry courses with associated practical work in Inorganic, Organic and Physical Chemistry, plus Software Development (programming) courses.

Level 4 Advanced Inorganic, Organic and Physical Chemistry, along with specialist courses. Advanced practical techniques (MChem) or Research Project (BSc).

Level 5 (MChem only) Specialist Computational Chemistry course, plus a 24-week research project in Computational Chemistry.

Career prospects
Graduates with Computational Chemistry skills are highly sought after in the global chemical and pharmaceutical industries.
**Chemistry Entry Requirements**

**Level 1**

**Standard**
- Highers AABB (including Chemistry)
- A-Levels BBC (including Chemistry B and Maths)
- IB 30 points (with Higher Level Chemistry and Mathematics at 5)
- BTEC DDM (in relevant subject)
- HNC A in graded unit (in relevant HNC)

**Minimum**
- Highers BBBC (including Chemistry at B)
- A-Levels BCC (including BC in Chemistry and Mathematics)

**Level 2**

**Standard**
- Advanced Highers AB (including Chemistry and Mathematics plus Highers AABB)
- A-Levels AAB (including Chemistry and Mathematics)
- IB 36 points (with Higher Level 6 Chemistry and Mathematics)
- HND BB in graded units (in relevant HND)
- BTEC DDD (in relevant subject)

**Level 3**

**Standard**
- HND AA in graded units (in relevant HND)

Chemistry with Computational Chemistry, Chemistry with Materials, Chemistry with Materials and Nanoscience require Chemistry, Maths and Physics. Chemistry with a European Language requires Chemistry and French, German or Spanish.

*Minimum: We operate contextual admissions defined by our Fair Access Policy which may mean entry requirements are flexible. Please see page 171 for eligibility details.

If you do not see your qualifications here please contact us at studywithus@hw.ac.uk

University-wide National 5/GCSE (or equivalent) Maths and English requirements are on page 170.

If English is not your first language, please refer to page 179 for our English language requirements.

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**MChem Chemistry with Industrial Experience**

**UCAS code** F102

**Duration** 5 years MChem

**Number of places** 80 across all programmes

**The programme**

Chemistry graduates work both in the chemical industry, which is enormously important to the UK economy, and also outside the chemical industry. These large industries require highly qualified and motivated Chemistry graduates. The industrial placement enables students to develop their skills and for the company to get to know them. Students’ skills benefit from the staff training and assessment programmes of the company and they gain wide experience of the industrial sector.

**Level 1 to Level 3**

The first three levels of this programme have the same structure as our MChem Chemistry degree, allowing students to opt into or out of this particular programme.

**Level 4 (Year in Industry)**

Spent working in the laboratory of an approved company or organisation, where students can apply laboratory skills and theoretical knowledge in a real-life situation. Students prepare reports and present lectures on their work during this year and take two distance learning courses supported by email and online teaching material.

**Level 5**

Includes Advanced Inorganic, Organic and Physical Chemistry lectures, and a short research project with Inorganic, Organic and Physical Chemistry at the research level plus additional specialist courses.

**Career prospects**

Career prospects for Chemistry with Industrial Experience graduates are excellent. Graduates are highly qualified and mature chemists who have a proven independence, which, combined with the enhanced skills, is very popular with employers.

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**BSc (Hons) Chemistry with Materials**

**UCAS code** F114

**Duration** 4 years BSc (Hons)

**Number of places** 80 across all programmes

**The programme**

This programme is attractive to students with an interest in both chemistry and physics and their engineering applications. The development of new materials with special properties requires students to combine their newly learned knowledge of polymers and inorganic solid state materials with core Chemistry. Graduates are professional chemists with in-depth knowledge of the properties of modern materials. Microelectronics, communications, aerospace and other high-tech industries are dependent upon the chemist to develop and manufacture novel engineering materials.

**Level 1**

Students gain a good understanding of the fundamental principles of Inorganic, Organic and Physical Chemistry and are introduced to lab skills illustrating various experimental techniques. Mathematics and Physics are also studied.

**Level 2**

Inorganic, Organic and Physical Chemistry lectures continue with emphasis on the interrelationship between theoretical principles and experimental measurements. Mathematics is also studied to a higher level.

**Level 3**

Further core Inorganic, Organic and Physical Chemistry are joined by Materials Chemistry and Solid State Physics. Communication and teamwork skills are developed and laboratory work becomes more advanced.

**Level 4**

Students study advanced lectures in Inorganic, Organic and Physical Chemistry. Graduates are professional chemists with a European Language requires Chemistry and French, German or Spanish.

**Career prospects**

Materials science is where chemistry merges into communications, electronics, photonics, aerospace, renewable energy, bioengineering and IT subjects. These industries all require high quality Chemistry graduates.
### MChem Chemistry with Materials and Nanoscience

<table>
<thead>
<tr>
<th>UCAS code</th>
<th>F1M9</th>
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<tbody>
<tr>
<td>Duration</td>
<td>5 years MChem</td>
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<tr>
<td>Number of places</td>
<td>80 across all programmes</td>
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</tbody>
</table>

**The programme**
Nanoscience is a new science where Chemistry merges into the modern aspects of communications, electronics, photonics, aerospace, transport, pharmaceutical materials, bioengineering and IT.

This programme is attractive to students with an interdisciplinary interest in Chemistry, Physics and Mathematics, and their engineering applications. Microelectronics, communications, aerospace and other high-tech industries are dependent upon chemists to develop and manufacture novel engineering materials. You will be a Chemistry graduate who has specialised in, for example, the solid state chemistry of inorganic materials, high-performance polymers, or materials for renewable energy (e.g. thermoelectrics, fuel cells, supercapacitors). Please contact the Admissions Tutor for Mathematics entry requirements.

**Level 1 to Level 2** The first two levels of this programme have the same structure as the BSc Chemistry with Materials and the Chemistry with Computational Chemistry degree.

**Level 3** Inorganic, Organic and Physical Chemistry with their own labs, along with Materials Chemistry and Solid State Physics.

**Level 4** Advanced Inorganic, Organic and Physical Chemistry, along with specialist courses in Polymer Chemistry and Advanced Instrumental Techniques with mini projects in research labs.

**Level 5** An extensive 24-week research project in Nanoscience is at the centre of Level 5 along with specialist Materials, Nanophysics and Computational Chemistry courses.

**Career prospects**
Career prospects for Chemistry with Materials and Nanoscience graduates are excellent within a wide range of chemical, engineering and material science companies.

### MChem / BSc (Hons) Chemistry with Pharmaceutical Chemistry

<table>
<thead>
<tr>
<th>UCAS code</th>
<th>F151 / F125</th>
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<tbody>
<tr>
<td>Duration</td>
<td>5 years MChem / 4 years BSc (Hons)</td>
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<tr>
<td>Number of places</td>
<td>80 across all programmes</td>
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</tbody>
</table>

**The programme**
This programme is attractive to students who want to understand how both chemistry and biology can improve the health and wellbeing of people, animals and plants on a worldwide scale. Pharmaceutical or medicinal chemistry is the understanding of the molecular cause and treatment of diseases. The pharmaceutical industry is a major component of the chemical industry. Graduates will be chemists who have specialised in medicinal pharmaceutical chemistry and are familiar with fundamental biochemistry. Transfer to Chemistry with Biochemistry is available up to the beginning of Level 3.

**Level 1 to Level 2** The first two levels of this programme have the same structure as our Chemistry with Biochemistry degree.

**Level 3** Further core Inorganic, Organic and Physical Chemistry, with courses in Pharmaceutical Chemistry as well as Principles of Drug Discovery and Development.

**Level 4** Advanced lectures in Inorganic, Organic and Physical Chemistry, along with special topics in Pharmaceutical/Medicinal Chemistry. BSc (Hons) students undertake a 16-week Pharmaceutical/Medicinal Chemistry research project. MChem students undertake special practical courses to give deeper understanding of modern analytical practical techniques; these are underpinned with theoretical aspects.

**Level 5** (MChem only) Includes an extensive 24-week pharmaceutical/medicinal chemistry research project, in addition to specialist courses in Chemistry.

**Career prospects**
Career prospects for Chemistry with Pharmaceutical Chemistry graduates are excellent both in the UK and abroad. Careers are also available in related areas, such as hospitals, health care and drug standards monitoring.

### MChem Chemistry with a European Language

<table>
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<th>UCAS code</th>
<th>F1R9</th>
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<tbody>
<tr>
<td>Duration</td>
<td>5 years MChem</td>
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<tr>
<td>Number of places</td>
<td>80 across all programmes</td>
</tr>
</tbody>
</table>

**The programme**
Combine your favourite subjects of Chemistry and French, German, or Spanish. Your advanced language tuition is by the Language department of Heriot-Watt’s School of Social Sciences. Students study a language during the first three levels, alongside the same core Chemistry courses as all our other degrees. In Level 4, students carry out a research project at a Chemistry department within one of our partner universities in France, Germany or Spain (the project report being produced in the appropriate language). Graduates are chemists fluent in their chosen language with careers available in the global chemical industries either at home or abroad. Contact Admissions Tutor to discuss language requirements.

**Level 1** Students will gain a good understanding of the fundamental principles of Chemistry, and are introduced to lab skills illustrating various experimental techniques. Mathematics and language courses are also studied.

**Level 2** Inorganic, Organic and Physical Chemistry lectures continue with emphasis on the relationship between theoretical principles and experimental measurements. Specialist language courses are studied.

**Level 3** Core Inorganic, Organic and Physical Chemistry with advanced specialist language courses are studied. Communication and teamwork skills are developed and lab work becomes more advanced.

**Level 4 (Year abroad)** A year-long placement carrying out research in one of our partner Chemistry Departments in France, Germany or Spain, plus two distance learning courses are taken.

**Level 5** Includes a short research project along with lectures in advanced Inorganic, Organic and Physical Chemistry and specialist Chemistry courses.

**Career prospects**
Career prospects are excellent. Graduates are highly qualified chemists. Fluency in the chosen language is very popular with employers, as it enables them to operate more effectively abroad. Students will have demonstrated their independent spirit by studying in another country.
Chemistry Entry Requirements

### Level 1
**Standard**
- Highers AABB (including Chemistry)
- A-Levels BBC (including Chemistry B and Maths)
- IB 30 points (with Higher Level Chemistry and Mathematics at 5)
- BTEC DDM (in relevant subject)
- HNC A in graded unit (in relevant HNC)

**Minimum**
- Highers BBBC (including Chemistry at B)
- A-Levels BCC (including BC in Chemistry and Mathematics)

### Level 2
**Standard**
- Advanced Highers AB (including Chemistry and Mathematics plus Highers AABB)
- A-Levels AAB (including Chemistry and Mathematics)
- IB 36 points (with Higher Level 6 Chemistry and Mathematics)
- HND BB in graded units (in relevant HND)
- BTEC DDD (in relevant subject)

### Level 3
**Standard**
- HND AA in graded units (in relevant HND)

Chemistry with Computational Chemistry, Chemistry with Materials, Chemistry with Materials and Nanoscience and Chemistry with a European Language requires Chemistry and French, German or Spanish.

*Minimum: We operate contextual admissions defined by our Fair Access Policy which may mean entry requirements are flexible. Please see page 171 for eligibility details.*

If you do not see your qualifications here please contact us at studywithus@hw.ac.uk

University-wide National 5/GCSE (or equivalent) Maths and English requirements are on page 170.

If English is not your first language, please refer to page 179 for our English language requirements.

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### MChem / BSc (Hons)
#### Chemistry with a Year in Australia

**UCAS code** F106 / F107  
**Duration** 5 years MChem / 4 years BSc (Hons)  
**Number of places** 80 across all programmes

**The programme**
Students can experience the life and culture of Australia working at one of our partner institutions. Year 3 of the degree is spent in Australia taking Chemistry courses equivalent to those based in Edinburgh. There are no Australian tuition fees to pay and accommodation is arranged by the host university.

**Level 1 to Level 2** The first two levels of this programme have the same structure as our MChem Chemistry degree, allowing students to opt into or out of this particular programme.

**Level 3 (Year abroad)** Students study Chemistry at one of our partner universities in Australia, taking all lectures, tutorials, labs and exams abroad. Students have a local supervisor and are visited by Heriot-Watt Chemistry staff.

**Level 4** Students study Advanced Inorganic, Organic and Physical Chemistry, together with special topics. BSc (Hons) students undertake a 16-week chemistry research project. MChem students also undertake special practical courses designed to give a deeper understanding of modern analytical practical techniques; these are underpinned with theoretical aspects.

**Level 5 (MChem only)** Involves an extensive 24-week research project with Inorganic, Organic or Physical Chemistry at the research level, plus specialist Chemistry courses.

**Career prospects**
Career prospects are excellent as not only are graduates highly qualified chemists, but they have also demonstrated independent spirit by studying in another country.

### MChem Chemistry with a Year in North America

**UCAS code** F105

**Duration** 5 years MChem

**Number of places** 80 across all programmes

**The programme**
Students can experience at first hand US education, which is a system based upon the Scottish model, by spending the fourth year of the programme at one of our partner universities in the USA. Accommodation is guaranteed in the USA on safe and secure campuses. Students will be Chemistry graduates who have broadened their experience by being fully immersed in the US university system and culture for a year.

**Level 1 to Level 3** The first three levels of this programme have the same structure as our MChem Chemistry degree, allowing students to opt into or out of this particular programme.

**Level 4 (Year abroad)** Research is undertaken at a partner US Chemistry Department. Students have a local supervisor and are visited by Heriot-Watt Chemistry staff. There are no US tuition fees to pay. Written and oral reports are presented.

**Level 5** Courses are taken in advanced Inorganic, Organic and Physical Chemistry at the research level, plus specialist Chemistry courses and a short research project.

**Career prospects**
Career prospects are excellent as not only are graduates highly qualified chemists, but they have also demonstrated independent spirit by studying in another country.
MChem
Chemistry with a Year in Europe

UCAS code F103
Duration 5 years MChem
Number of places 80 across all programmes

The programme
If students have, or can acquire, sufficient ability in French, German or Spanish for day-to-day living, this is a great opportunity to spend Level 4 in a research group of one of our partner universities abroad. English will be used in the chosen research group. Students can also soak up the culture of the country for a year, learn research methods and improve their foreign language skills.

Level 1 to Level 3 The first three Levels of this programme have the same structure as our MChem Chemistry degree, allowing students to opt in or out of this particular programme. Optional language courses may be taken by the student if they wish.

Level 4 (Year abroad) Involves a year in Europe at an approved university, working in a research group. Two distance learning Chemistry courses are also studied.

Level 5 Advanced Inorganic, Organic and Physical Chemistry at the research level, plus specialist Chemistry courses and a short research project.

Career prospects
Career prospects are excellent as not only are graduates highly qualified chemists, but they have also demonstrated independent spirit by studying in another country. These abilities, combined with advanced research training and improved language expertise, are very popular attributes with employers.
Chemical Engineering

Contact (Chemical Engineering)
Dr Julian Goodwin
T: 0131 451 3451
E: studywithus@hw.ac.uk
www.hw.ac.uk/ug-chemeng

Contact (Brewing and Distilling)
Dr Alex Bell
T: 0131 451 3451
E: studywithus@hw.ac.uk
www.hw.ac.uk/ug-chemeng


Introduction
Engineers are very creative people – ‘Scientists discover the world that exists; engineers create the world that never was’. Science and mathematics are used by engineers to make the items we use every day. Products from the chemical and process industries ensure these are amongst the most successful and thriving types of business in the UK and around the globe. Chemical engineers play a vital role in achieving that success. Chemical engineering is about transforming raw materials into valuable and desirable products, creating durable products and services and producing the enabling technology and know-how for a sustainable future. Chemical and biochemical engineers’ input is valuable at every stage of a project – from the initial idea, through to the product emerging at the end of the line and even to the market. Chemical engineers are highly valued by employers for their all-round skills, and job prospects are excellent. Graduates are employed in many sectors, from fine chemicals and food products to utility suppliers, polymers and the oil industry. The range of programmes on offer is possible due to the extensive skills base and research interests of our staff.

Teaching and assessment
Teaching methods include lectures, problem-solving classes, laboratory classes, skills workshops, individual and group assignments, project work, and industrial visits. Assessment is by a combination of continuous assessment and examination.

Professional recognition and exemptions
All programmes are accredited by the Institution of Chemical Engineers. In addition, the Diploma in Industrial Training counts towards the required experience to gain Chartered Engineer status.

Prizes and scholarships
The School offers over 15 scholarships to well-qualified entrants, with some awards linked to sporting or musical potential. A number of companies sponsor prizes, along with a number of industrial scholarships specific to Chemical Engineering.

Opportunities abroad
Students wishing to study in Europe must have an appropriate qualification in a language.
Skills gained
- Understanding chemical and physical principles and underlying chemical engineering concepts
- Problem-solving and analysis skills
- An ability to apply skills to real, practical engineering problems
- Professional development skills in communication, team working and career management
- An ability to take an overview of a situation.

Open Days
The Edinburgh Campus Open Days will take place on Friday 7 June and Saturday 26 October 2019.

Chemical Engineering Offer Holder Days are held in March and April, but visitors are welcome at any time by appointment.
www.hw.ac.uk/opendays

Programmes available within Chemical Engineering

Chemical Engineering H801 / H800
5 years MEng / 4 years BEng (Hons)

Chemical Engineering and Diploma in Industrial Training H803 / H802
6 years MEng / 5 years BEng (Hons)

Chemical Engineering with Energy Engineering / with Diploma in Industrial Training H8H2 / H8HF
5 years MEng / 6 years MEng with DIT

Chemical Engineering with Oil and Gas Technology / with Diploma in Industrial Training H890 / H891
5 years MEng / 6 years MEng with DIT

Brewing and Distilling C980
4 years BSc (Hons)

Can you tell us about your current job?
I am on the Shell HSE Graduate scheme based in Aberdeen. I work in collaboration with onshore, offshore and project assets to deliver their Technical Safety needs while I build my own personal competences. The majority of my job is based in the offices delivering the required legislative reports and information to the Health and Safety Executive and/or DECC, managing risk for Major Accident Hazards and modelling fires, explosions and dispersions. I am also required to attend the sites (onshore and offshore) to assist in incident investigations.

How did you get your job?
I applied to a Shell Recruitment Day and was offered the job after successfully completing the application process. This involved an initial CV screening, verbal and numerical psychometric tests and a face-to-face Recruitment Day in Shell’s HQ in The Hague.

Did your degree programme prepare you for a career?
My degree programme was pivotal in helping me secure my job. The School of Engineering and Physical Sciences has a very strong working relationship with a number of major oil and gas companies. Because of this, I was able to complete my DIT with Shell at their NGL Processing Plant in Fife.
Chemical Engineering Entry Requirements

**Level 1**

**Standard**
- Highers AAAB (including Mathematics and Chemistry AA)
- A-Levels BBC (including Mathematics and Chemistry BB)
- IB 31 points (with Higher Level Mathematics and Chemistry)
- BTEC DDM (including Mathematics and Chemistry DD)
- HNC A in graded unit (in relevant HND)

**Minimum**
- Highers BBBC (including Mathematics and Chemistry BB)
- A-Levels BCC (including Mathematics and Chemistry BC)

**Level 2**

**Standard**
- Advanced Highers AAB (including Mathematics and Chemistry AA)
- A-Levels AAB (including Mathematics and Chemistry AA)
- IB 36 points (with Higher Level Mathematics at 7 and Higher Level Chemistry at 6)
- Appropriate HND AB in graded units (in relevant HND)

**Level 3**

**Standard**
- HND AA in graded units (in relevant HND)

This degree is also available through a Partnership Route at selected Scottish colleges. Please see page 174 for details.

*Minimum: We operate contextual admissions defined by our Fair Access Policy which may mean entry requirements are flexible. Please see page 171 for eligibility details.

If you do not see your qualifications here please contact us at studywithus@hw.ac.uk

University-wide National 5/GCSE (or equivalent) Maths and English requirements are on page 170.

If English is not your first language, please refer to page 179 for our English language requirements.

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**MEng/BEng (Hons) Chemical Engineering**

**UCAS code** H801 / H800

**Duration** 5 years MEng / 4 years BEng (Hons)

**Number of places** 70 across all programmes

**The programme**

The BEng programme shares the first three Levels with our advanced MEng programme. We aim to provide students with the sound understanding of chemical engineering fundamentals needed to become professional Chartered Engineers. In addition to a grounding in science, mathematics and engineering, our students acquire practical abilities that are highly sought after by industry.

**Level 1** Provides a general introduction to the subject, emphasising the role of basic mathematics and science. Courses introduce basic techniques and principles of chemical engineering including: Material Balances, Energy Balances and basic Thermodynamics. Underpinning science relevant to Chemical Engineering is provided through courses covering Physics and Biology. An awareness of professional and personal development forms a critical part of the teaching in this year.

**Level 2** Important themes focus on an understanding of the movement of fluids, heat transfer and how materials behave. Principal components include Fluid Mechatronics, Heat Transfer, Mass Transfer and Thermodynamics. A mini design project is also included.

**Level 3** Provides opportunities to analyse key operations in the industry, particularly the processing and separation of gases and liquids. In parallel, there are courses looking at chemical reactor theory, how processes are controlled and the prediction of physical behaviour. Material on Safety, Sustainability and Economics is consolidated in a group-based project.

**Level 4** A central theme is the advanced analysis of key processing operations and their control. Specialist topics include Energy Efficiency, Safety and Sustainability. A group-based design project is also undertaken.

**Level 5 (MEng only)** Specialist and core chemical engineering subjects are studied in this year, along with the extensive research project. A central theme is the enhanced design project, where students have the opportunity to demonstrate their skills in process design and commercial awareness.

**Career prospects**

Jobs range from research and development, through the design, commissioning and management of plant, to product marketing and technical services.

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**MEng/BEng (Hons) Chemical Engineering and Diploma in Industrial Training (DIT)**

**UCAS code** H803 / H802

**Duration** 6 years MEng / 5 years BEng (Hons)

**Number of places** 70 across all programmes

**The programme**

The Diploma in Industrial Training, which is available with all our Chemical Engineering programmes, allows students the chance to work in the chemical and process industry before completing their final year(s) of study. The programme structure is the same as followed by the MEng/BEng programme. Students need to apply and be accepted for a place in industry in order to qualify for the DIT award.

**Level 1** Provides a general introduction to the subject, emphasising the role of basic mathematics and science. Courses introduce basic techniques and principles of chemical engineering including Material Balances, Energy Balances and basic Thermodynamics. Underpinning science relevant to Chemical Engineering is provided through courses covering Physics and Biology.

**Level 2** Important themes are developed focusing on an understanding of the movement of material, heat and how materials behave. The principal components of this Level include Fluid Mechatronics, Heat Transfer, and Thermodynamics. A mini design project pulls together the key themes for this Level.

**Level 3** For standard BEng/MEng candidates this Level is identical to the BEng/MEng Chemical Engineering structure. Students can apply to companies offering industrial placements. Successful candidates will usually start their placement during the summer vacation.

**Level 4** (Year in Industry) Through the placement year, regular contact between the student and University takes place via progress reports and visits. Historically, placements have seen students take on responsible roles supporting their line manager and the company as a whole in its day-to-day operations.

**Levels 5 and 6** Content is identical to that in Levels 4 and 5 of the corresponding BEng/MEng programme.

**Career prospects**

Potential employers are keen to see students with industrial experience. Many students will find their industrial placement experience useful for deciding on their ultimate career path and to demonstrate their ability to work in industry.
**Chemical Engineering Entry Requirements**

**Level 1**

**Standard**
- Highers AAAB (including Mathematics and Chemistry AA)
- A-Levels BBC (including Mathematics and Chemistry BB)
- IB 31 points (with Higher Level Mathematics and Chemistry)
- BTEC DDM (including Mathematics and Chemistry DD)
- HNC A in graded unit (in relevant HNC)

**Minimum**
- Highers BBBC (including Mathematics and Chemistry BB)
- A-Levels BCC (including Mathematics and Chemistry BC)

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**Level 2**

**Standard**
- Advanced Highers AAB (including Mathematics and Chemistry AA plus Highers AAAB)
- A-Levels AAB (including Mathematics and Chemistry AA)
- IB 36 points (with Higher Level Mathematics at 7 and Higher Level Chemistry at 6)
- Appropriate HND AB in graded units (in relevant HND)

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**Level 3**

**Standard**
- HND AA in graded units (in relevant HND)

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This degree is also available through a Partnership Route at selected Scottish colleges. Please see page 174 for details.

*Minimum: We operate contextual admissions defined by our Fair Access Policy which may mean entry requirements are flexible. Please see page 171 for eligibility details.

If you do not see your qualifications here please contact us at studywithus@hw.ac.uk

University-wide National 5/GCSE (or equivalent) Maths and English requirements are on page 170.

If English is not your first language, please refer to page 179 for our English language requirements.

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**MEng Chemical Engineering with Energy Engineering / with DIT**

**UCAS code** H8H2 / H8HF

**Duration** 5 years MEng / 6 years MEng with DIT

**Number of places** 70 across all programmes

**The programme**

Meeting tomorrow’s energy requirements will need professional engineers with an in-depth knowledge of how energy resources are processed, how they are managed and the impact energy generation has on the environment. Fossil-based fuels such as gas and oil continue to play a significant role in today’s global energy market. In addition, environmental developments with alternative energy sources mean that the technological background of engineers working in the energy sector needs to become much broader. This degree encompasses a range of technologies from oil and gas production through to renewable resources.

**Level 1 to Level 3**

The first three Levels of this programme have the same structure as the core of our BEng Chemical Engineering (H800) degree, allowing students to opt into or out of this particular programme.

**Level 4**

Specialist topics include process intensification and understanding the nature of energy supply and management. These provide opportunities to study key issues affecting the use and supply of energy. A major design project is started in this year building on the skills attained in projects from the previous years.

**Level 5**

Together with key chemical engineering topics, further energy-related topics complete the taught part of the programme. A major design project pulls together knowledge and skills gained throughout the programme.

**Career prospects**

Ensuring consumption of expensive and scarce energy resources is minimised is paramount for businesses. As organisations develop renewable resources, there will be an urgent need for graduates with a keen interest in alternative technologies.

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**MEng Chemical Engineering with Oil and Gas Technology / with DIT**

**UCAS code** H890 / H891

**Duration** 5 years MEng / 6 years MEng with DIT

**Number of places** 70 across all programmes

**The programme**

Oil and gas play a significant role in today’s global energy market and will continue to do so for many years. Advances in technology to recover these valuable resources require contributions from all branches of science and engineering to ensure best practice, economic survival and protection of the environment. We have developed this programme to allow Chemical Engineering graduates to have key skills in petroleum engineering and related subjects. Graduates will be a valuable asset to energy companies developing oil and gas reserves by utilising their awareness of the petroleum industry coupled to the wider base in chemical engineering.

**Level 1 to Level 3**

The first three Levels of this programme have the same structure as the core of our BEng Chemical Engineering (H800) degree, allowing students to opt into or out of this particular programme.

**Level 4**

Key features are specialist topics dealing with the formation, development and production of oil and gas from reservoirs. These are delivered alongside advanced Chemical Engineering topics, which highlight practical issues in developing new products. A major project in design is started which continues to Level 5.

**Level 5**

Includes specialist oil and gas processing material, together with key chemical engineering topics. A major design project pulls together knowledge and skills gained throughout the programme.

**Career prospects**

Oil and gas production needs to meet a continuing global demand, and so job prospects for well-qualified graduates remain good. The broad skill base offered by Chemical Engineering coupled with specific topics offered by this degree will ensure that key positions are open to graduates from this programme.
BSc Brewing and Distilling

Level 1
Standard
Highers AABBC (including one Science and Mathematics at C)
A-Levels BBC (including two from Chemistry, Biology and Maths)
IB 27 points (with Higher Level Science at 5 and Higher Level Mathematics at 6)
BTEC DMM (in a relevant subject)
HNC A in graded unit (of an appropriate HNC)
Minimum*
Highers BBBC
A-Levels BCC

Level 2
Standard
Advanced Highers BB (plus Highers AABBB including Higher Mathematics at A)
A-Levels ABB (including Biology A and Mathematics B)
IB 32 points (with a science and Mathematics at Higher Level 6)
HND AA in graded units (in an appropriate HND)
BTEC DDD

Level 3
We only accept entrants to Year 3 with appropriate Associate Degrees

*Minimum: We operate contextual admissions defined by our Fair Access Policy which may mean entry requirements are flexible. Please see page 171 for eligibility details.

If you do not see your qualifications here please contact us at studywithus@hw.ac.uk

University-wide National 5/GCSE (or equivalent) Maths and English requirements are on page 170.

If English is not your first language, please refer to page 179 for our English language requirements.

BSc (Hons) Brewing and Distilling

UCAS code C980
Duration 4 years BSc (Hons)
Number of places 30

The programme
The programme is organised in co-operation with senior representatives of the brewing, malting and distilling industries who are members of the Industrial Advisory Board of the International Centre for Brewing and Distilling. It is designed to educate potential managers of the malting, brewing and distilling industries and to provide a full understanding of the science and technology of the processes involved from cereal farming to bottling and packaging. Successful completion allows exemption from the first professional examinations of the Institute of Brewing and Distilling.

Level 1 Introduces the necessary Biology, Chemistry, Engineering and related topics that are fundamental to Brewing and Distilling.
Level 2 Continues the study of Biological and Chemical Sciences and Engineering and Process Technologies central to Brewing and Distilling while introducing Business Study concepts.
Level 3 Brings specialist courses in Food and Beverage Process Technology and Biotechnology.
Level 4 Focuses on particular aspects of the industry, including: Cereal Technology; Yeast Biology and Fermentation; Beer Maturation; Quality; Packaging Technology; and Commercial Aspects of Brewing and Distilling. The School has a pilot plant brewery and distillery, which is used for teaching the practical aspects of the subject through project work. An independent research project pulls together knowledge and skills gained throughout the programme.

Career prospects
First appointments are likely to be in production or laboratory positions with brewing, malting or distilling companies. Through our extracurricular employability activities, students have the opportunity to undertake paid placements at each stage of their degree programme, developing broader skills and experience that are valued by today’s employers.
Electrical, Electronic and Computer Engineering

Contact Dr Alex Belyaev
T: 0131 451 3451 E: studywithus@hw.ac.uk
www.hw.ac.uk/ug-electrical

Introduction
The rapid worldwide expansion and development of electronic systems, techniques and devices provides the background for an exciting set of applications-based programmes in Electrical and Electronic Engineering, and in Computing and Electronics. Electronics is now an essential part of the products that affect our everyday life from the usefulness of the smartphone to the reliability of the power from our household sockets. As a consequence industry requires engineers to pioneer new developments, to undertake design and supervise production, to market and to install and operate equipment. During their careers, professional engineers are also called upon to organise and manage the work of others; therefore, they require not only technical and intellectual skills, but also an understanding of the economic and human issues involved. Our degrees provide an entry to opportunities that are both interesting and challenging in an exciting and expanding global industry.

Our programmes are aimed at those with a desire to study in the areas of electronics, communications, embedded system design and electrical power technology. They provide the theoretical basis, design methods, and skills for a broad-based education in each of these areas.

Career opportunities
A wide range of companies advertise openings for engineers with a degree in electrical, electronic and computer engineering. Our graduates are successful in gaining employment in Scotland, the UK and beyond. A recent development is the organisation of events by local technology companies keen to promote career opportunities. These are targeted at Level 3 students. In a wider context, non-engineering companies often see the benefit of employing engineering graduates because of their numeracy and problem-solving skills.

Teaching and assessment
Teaching methods include lectures, small group tutorials, problem-solving classes, laboratory classes, and individual and group projects. Assessment is by a combination of continuous assessment and examination. Our laboratory and project-based learning complements the formal material and is used to encourage investigation and deepen understanding. We see our project-based work as a particular strength of the programmes.

Professional recognition and exemptions
All BEng and MEng Electrical and Electronic Engineering and Computing and Electronics programmes are fully accredited by the Institution of Engineering and Technology (IET). Robotics, Autonomous and Interactive Systems is a recently introduced programme and its full accreditation by IET is expected soon. The British Computer Society (BCS) also accredits the Computing and Electronics programmes.
**Industrial placements/work experience**

An exciting aspect of our MEng degree programmes is that students work in industry for six months, engaged on a current company project that provides excellent real-life training to complement the work done in the University. Indeed, many students are offered jobs at their placement company while others find it to be a very attractive entry in their CV. In the past, we have sent students to both UK and overseas organisations, as well as to local Scottish companies.

**Open Days**
The Edinburgh Campus Open Days will take place on Friday 7 June and Saturday 26 October 2019.

Offer Holder Days are held in March and April for UCAS applicants. Visitors are welcome at any time by appointment. Please contact the Admissions Tutor for further information.

www.hw.ac.uk/opendays

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**Programmes available within Electrical, Electronic and Computer Engineering**

**Electrical and Electronic Engineering**
- H605 / H600
  - 5 years MEng / 4 years BEng (Hons)

**Computing and Electronics**
- GHK6 / GH46
  - 5 years MEng / 4 years BEng (Hons)

**Robotics, Autonomous and Interactive Systems**
- H671 / HP71
  - 5 years MEng / 4 years BEng (Hons)

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**What appealed to you most about Heriot-Watt?**
The biggest factor in choosing Heriot-Watt was its solid reputation as a leading university in the engineering disciplines. I decided to take the MEng Electrical and Electronic Engineering primarily because the wide range of subjects covered allowed me to find out what specific area I was interested in. Secondly, the opportunity to get a six-month placement in industry greatly enhanced my CV.

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**What was the best bit about your degree at Heriot-Watt?**
In terms of the programme, I enjoyed the practical work in electronics and programming most of all. The theory is important, but the practical aspects of the courses allowed me to get to grips with the new skills I was learning. As for being a student at Heriot-Watt, it was the friendliness and helpfulness of the staff that stood out above all else. There’s always someone willing to help – whether it’s with coursework, lab work or careers advice.
School of Engineering and Physical Sciences Electrical, Electronic and Computer Engineering

Electrical, Electronic and Computer Engineering Entry Requirements

**Level 1**

**Standard**
- Higher AAB (MEng) or BBBC (BEng) (to include Mathematics plus Physics, Technological Studies or Engineering Science)
- A-Levels BBC (including Mathematics and Physics BB)
- IB 29 (with Mathematics and Physics at Higher Level 5)
- BTEC DDM in relevant subject
- HNC A in graded unit in relevant HND with additional Mathematics

**Minimum**
- Higher BBBC (to include Mathematics plus Physics, Technological Studies or Engineering Science)
- A-Levels BCC (to include Mathematics and Physics)

**Level 2**

**Standard**
- Advanced Higher BB (Mathematics and Physics plus ABB Higher)
- A-Levels ABB (including Mathematics and Physics)
- HND AA in graded units in relevant HND with additional Mathematics
- BTEC DDD in relevant subject

This degree is also available through a Partnership Route at selected Scottish colleges. Please see page 174 for details.

*Minimum: We operate contextual admissions defined by our Fair Access Policy which may mean entry requirements are flexible. Please see page 171 for eligibility details.

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**MEng Electrical and Electronic Engineering**

**UCAS code** H605

**Duration** 5 years MEng

**Number of places** 60 across all programmes

**The programme**
The programmes for the MEng and BEng degrees are common until the end of Level 3. Candidates are then selected for the two-year MEng programme. Enhancements in Level 4 and Level 5 take two forms. Technical studies are advanced to a Masters level and the syllabus is greatly extended in the area of engineering management. A six-month industrial placement or an academic research project starts in the summer between Levels 4 and 5 and runs until the end of the first semester in Level 5.

**Level 1**
Circuit Theory, Digital Design, Mathematics, Computer Programming and Electronic Design form the core subjects. In addition, students choose an elective option from a list that includes Mechatronics and Physics.

**Level 2**
Further study of Electronic Design, Digital Design, Embedded Programming and Mathematics is complemented by introductions to Signals and Electromechanical Systems supported by appropriate lab and project work.

**Level 3**
Emphasis turns to design synthesis. Subjects include Energy Systems, Analogue Electronics, Electromagnetics, Physical Electronics and Communications. A quarter of the year is spent working on a large team-based project, incorporating Digital and Software Design, Mechatronics and Management.

**Level 4**
Students work on a group project during both semesters and select taught topics from a list that includes Embedded Systems, Sustainable Energy and Power Systems, Communications, Image Processing, RF Communications, Analogue Electronics and Microwave Techniques.

**Level 5**
A six-month industrial placement or an academic research project starts in the summer between Levels 4 and 5 and runs until the end of the first semester. During the second semester students choose from a range of advanced Electrical and Electronic Engineering topics.

**Career prospects**
All our programmes provide a broad education as well as an appropriate measure of specialisation in Advanced Electronic, Electrical and Computer Systems. Graduates enjoy excellent employment prospects throughout industry, financial organisations, government and the professions and are well qualified to join research teams.

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**BEng (Hons) Electrical and Electronic Engineering**

**UCAS code** H600

**Duration** 4 years BEng (Hons)

**Number of places** 60 across all programmes

**The programme**
Provides a broad-based education in electrical and electronic engineering. During the first three Levels students study topics from low current electronics to high power systems. In Level 4 students can choose from a set of specialist courses to complement their thesis topic selection.

**Level 1**
Circuit Theory, Digital Design, Mathematics, Computer Programming and Electronic Design form the core subjects. In addition, students choose an elective option from a list that includes Mechatronics and Physics.

**Level 2**
Further study of Electronic Design, Digital Design, Embedded Programming and Mathematics is complemented by introductions to Signals and Electromechanical Systems, supported by appropriate lab and project work.

**Level 3**
Emphasis turns to design synthesis. Subjects include Energy Systems, Analogue Electronics, Electromagnetics, Physical Electronics and Communications. A quarter of the year is spent working on a large team-based project, incorporating Digital and Software Design, Mechatronics and Management.

**Level 4**
Students work on an individual Honours project and select taught topics from a list that includes Embedded Systems, Sustainable Energy and Power Systems, Communications, Image Processing, RF Communications, Analogue Electronics and Microwave Techniques.

**Career prospects**
All our programmes provide a broad education as well as an appropriate measure of specialisation in Advanced Electronic, Electrical and Computer Systems. Graduates enjoy excellent employment prospects throughout industry, financial organisations, government and the professions and are well qualified to join research teams.
School of Engineering and Physical Sciences  Electrical, Electronic and Computer Engineering

Electrical, Electronic and Computer Engineering Entry Requirements

**MEng Computing and Electronics**

**UCAS code** GHK6  
**Duration** 5 years MEng  
**Number of places** 60 across all programmes

**The programme**
This programme involves an industrial placement, providing high-calibre firmware engineers with the additional management competencies appropriate for a range of industrial enterprises. It is run with the close co-operation of a variety of companies which provide opportunities for practical experience. The MEng programme is aimed at students who consistently maintain a high level of academic performance and who, by the end of Level 3, show the academic ability, flair and interest necessary to benefit from the enhanced programme.

**Level 1** is designed to bring together the analytic skills of the computer scientist and the development and design skills of the electronics engineer. Computing and Electronics takes a design-centred approach and focuses on Software Engineering and Digital and Electronic Design.

**Level 2** Students develop an understanding of the Design and Implementation of Algorithms for Manipulating Advanced Data Structures, which are advanced principles in Software Engineering and Circuit Analysis.

**Level 3** Teamwork, the issues faced by the qualified practitioner, specialist study of computation and information systems and digital and communication systems are covered.

**Level 4** As well as working on a thesis project, students choose from an extensive range of options including: Embedded Systems, Communications, Digital Signal Processing, Distributed Systems Programming, Mobile Communications and Programming, Robotics and Automation, Image Processing, and Network Applications. An individual project offers opportunities to demonstrate practical skills, organisational ability and initiative in a major piece of firmware development.

**Level 5** A six-month industrial placement or an academic research project starts in the summer between Levels 4 and 5 and runs until the end of the first semester. During the second semester students choose from a range of advanced Computing and Electronics topics.

**Career prospects**
All our programmes provide a broad education and specialisation in Advanced Electronic, Electrical and Computer Systems. Graduates enjoy excellent employment prospects throughout industry, financial organisations, government, the professions and research positions.

**BEng (Hons) Computing and Electronics**

**UCAS code** GH46  
**Duration** 4 years BEng (Hons)  
**Number of places** 60 across all programmes

**The programme**
The rapid development of electronic systems provides a background that requires engineers to pioneer new developments, and deliver systems that are robust, reliable and user friendly. As a result there is expected to be an intense demand for practitioners who are adept in the niche area referred to as firmware. Computing and Electronics contains the basic material in hardware and software that provides the essential grounding for the design and development of modern integrated systems. This is a joint programme between the Department of Electrical, Electronic and Computer Engineering and the Department of Computer Science.

**Level 1** Technical competence is developed in high-level language programming, basic methods for software engineering, operation of a simple digital computer, concepts of circuit theory and the ability to develop simple digital and logic designs.

**Level 2** Covers data structures and algorithm design, circuit analysis, signals, computer architecture, and internet communications.

**Level 3** Teamwork, the issues faced by the qualified practitioner, specialist study of computation and information systems, and digital and communication systems are covered. A quarter of your time will be spent on a team-based product development project incorporating electronic, mechatronic and computer aspects.

**Level 4** Students choose from an extensive range of options including: Embedded Systems, Communications, Digital Signal Processing, Distributed Systems Programming, Mobile Communications and Programming, Robotics and Automation, 3D Modelling and Animation, Image Processing, and Network Applications. An individual project and dissertation offers opportunities to demonstrate practical skills, organisational ability and initiative in a major piece of firmware development.

**Career prospects**
All our programmes provide a broad education, as well as an appropriate measure of specialisation in Advanced Electronic, Electrical and Computer Systems. Graduates enjoy excellent employment prospects throughout industry, financial organisations, government and the professions and are well qualified to join research teams.
MEng / BEng (Hons)  
Robotics, Autonomous and Interactive Systems

UCAS code H671/HP71  
Duration 5 years MEng / 4 years BEng (Hons)  
Number of places 60 across all programmes

The programme
Robotic and Autonomous Systems are playing an increasingly important part in society. As well as being applied to hazardous environments, such as space and subsea exploration, these systems are now used in areas such as autonomous vehicle guidance, driver assistance, health care, remote surgery, industrial manufacturing, and domestic assistance. You will study in a multi-disciplinary domain that brings together electronics, computer software, and mechatronics.

Level 1  Provides the basic mathematics, electronics, mechatronics and programming skills that form the core knowledge for later work.
Level 2  Builds on the core skills with more advanced electronic engineering, mechatronics and software topics. Concepts of robotics and autonomy are introduced through courses on robot kinematics-dynamics and autonomous vehicle control. This work is supported by practical activities.
Level 3  Includes more advanced specialisms, including signal processing, artificial intelligence, graphics and system design. There is a large team design project that builds on and integrates the taught material.
Level 4  Options allow the student to focus on particular areas of interest. Topics include: robotics and automation, embedded systems, signal and image processing, virtual worlds and interaction, and biologically inspired computing. A project covering the full year allows the student to investigate and solve a significant science or engineering problem.
Level 5 (MEng only) A six-month industry placement or an academic research project starts in the summer between Levels 4 and 5 and runs until the end of semester 1 of Level 5. In semester 2, advanced courses can be chosen for specialisation in robotics towards electronics design, programming, and/or mechatronics design for robotics.

Career prospects
Provides an ideal foundation for careers in the manufacturing, exploration and remote sensing, defence and security, automotive, and entertainment industries. Creates individuals with the knowledge to take leading roles in contributing to and managing interdisciplinary teams to solve the hardware and software problems of future robotic systems.
The 2018 National Student Survey rated our Mechanical Engineering programmes 2nd in Scotland.

**Introduction**
Modern society needs high quality Mechanical Engineering graduates for their professional mechanical engineering skills and expertise. Heriot-Watt University is proud that our graduates are constantly in demand for these skills. Mechanical engineers play key roles in all industrial sectors ranging from aerospace, oil and gas, through food and transport to manufacturing, chemical and entertainment industries. These challenges are clearest in the field of energy production where the long-term supply of energy continues to be an issue of major technical and political importance.

**Teaching and assessment**
Teaching methods range from lectures, tutorial classes and mentor sessions, to workshop and laboratory activities supported by group and individual projects. Assessment is by examination, coursework and presentations, the balance being appropriate to the different teaching methods used in the courses.

**Information for Level 2 entrants**
Direct entry to Level 2 is encouraged for suitably qualified applicants, e.g. three A-Levels (AAB) including Mathematics and Physics at Grade B; Advanced Highers (ABB) in Mathematics and Physics, Technological Studies or Engineering Science.

**Programme flexibility**
The proportion of common material in the group of Mechanical Engineering degree programmes means that most transfers are possible in Levels 1 and 2. Similarly, students originally registered on a BEng programme may transfer to an MEng programme, provided they meet the relevant progression requirements.

**Professional recognition and exemptions**
Degrees are accredited by the Institution of Mechanical Engineers and are approved stages on the route to Chartered Engineer status. The Mechanical and Energy Engineering degrees are accredited by the Institute of Energy and the Institution of Mechanical Engineers.

**Industrial placements/work experience**
Students wishing to obtain a Diploma in Industrial Training (DIT) linked to their degree will be assisted to find suitable placements, possibly abroad. The 10-month placement takes place before the final year of their programme and is monitored by Mechanical Engineering staff.
Skills gained
- The technical expertise and practical experience to work as a mechanical engineer
- Communication, reporting information orally, in writing and using visual aids
- Team working through group projects
- Technical design
- Problem formulation and analysis
- Computer skills by the use of generic and specialised IT packages.

Heriot-Watt Formula Student Team
The Heriot-Watt Formula Student Team has designed and built a single-seat racing car, which has competed against other universities from all over the world. The competition enables undergraduate engineers to gain experience through designing and building a complete car with the engineering outcomes affected by their decisions and their knowledge. Many employers hold the competition in high regard and participation in this event is looked upon very favourably.

Open Days
The Edinburgh Campus Open Days will take place on Friday 7 June and Saturday 26 October 2019.

Applicants are invited to visit during a series of Offer Holder Days in the spring.
www.hw.ac.uk/opendays

Programmes available within Mechanical Engineering
Mechanical Engineering H301 / H300
5 years MEng / 4 years BEng (Hons)

Mechanical Engineering and Energy Engineering HH38 / HH3V
5 years MEng / 4 years BEng (Hons)

Emma Hamilton
MEng Mechanical Engineering
Cost and Schedule Engineer at ExxonMobil Fawley

What was your experience of doing an undergraduate degree at Heriot-Watt University?
I loved my UG degree programme and it has given me a great engineering grounding. I also gained valuable technical ‘soft skills’ through the emphasis on group projects, which are vital for any career.

How did your experience here help you on your chosen career path?
I was able to secure summer placements in both third and fourth year; at Dana Petroleum working in Upstream design, and ExxonMobil Downstream focusing on an environmental improvement project in a gas turbine. I was offered a position as a result, and I now work in ExxonMobil Engineering as a Cost and Schedule Engineer on refinery projects >$20M around Europe.

What influenced your decision to choose Heriot-Watt?
The University has a number of industry links which provided early exposure to job roles, and also the opportunity to collaborate with a company on a group design project. I also liked the campus atmosphere, and the balance between student numbers and the engagement of the lecturers is definitely one of the secrets to its success.
Mechanical Engineering

Entry Requirements

Level 1

- Standard
  Highers AAAB (including Mathematics and Physics AB)
  A-Levels BBC (including Mathematics and Physics BB)
  IB 30 points (including Mathematics and Physics at Higher Level 5)
  BTEC DDM in Engineering
  HNC A in graded unit (in relevant HNC, Eng Mathematics 1 and Eng Mathematics 2)

- Minimum*
  Highers BBBC (including Mathematics and Physics BB)
  A-Levels BCC (including Mathematics and Physics BC)

Level 2

- Standard
  Advanced Highers ABB (including Mathematics and Physics plus excellent Highers)
  A-Levels AAB (including Mathematics and Physics)
  IB 36 points (including Mathematics and Physics at Higher Level 6)
  HNC A in graded unit (in relevant HNC, Eng Mathematics 2 and Eng Mathematics 3)

Level 3

- Standard
  HND AA in graded units (in relevant HND, Eng Mathematics 3 and Eng Mathematics 4)

This degree is also available through a Partnership Route at selected Scottish colleges. Please see page 174 for details.

*Minimum: We operate contextual admissions defined by our Fair Access Policy which may mean entry requirements are flexible. Please see page 171 for eligibility details.

If you do not see your qualifications here please contact us at studywithus@hw.ac.uk

University-wide National 5/GCSE (or equivalent) Maths and English requirements are on page 170.

If English is not your first language, please refer to page 179 for our English language requirements.

MEng / BEng (Hons) Mechanical Engineering

UCAS code H301 / H300
Duration 5 years MEng / 4 years BEng (Hons)
Number of places 100 across all programmes

The programme

Mechanical Engineering offers an exciting environment where many skills are brought together to create innovative products and the infrastructure and technology for manufacture. The first two Levels provide a grounding in the core disciplines of Mechanical Engineering, which allows students to make an informed choice of the subsequent options. An individual project forms part of Level 4.

Level 1 Emphasis is on developing basic mathematical, scientific and communication skills. Topics include Mechanical Engineering Science; Physics; Introduction to Electrical Engineering; and Foundation Mathematics.

Level 2 Subjects include Strength of Materials; Machine Dynamics; Applied Thermodynamics; Fluid Dynamics; Design and Manufacture; Electrical Machines; and Engineering Mathematics.

Level 3 Subjects include Strength of Materials; Machine Dynamics; Applied Thermodynamics; Fluid Dynamics; Design and Manufacture; Control Engineering; and Business Awareness.

Level 4 Students choose specialist subjects from Fluid Mechanics; Thermodynamics; Strength of Materials and Machine Dynamics Control Engineering. Mandatory courses include a year-long individual project plus Engineering Design and Manufacture that includes an industrial project. Other options such as Petroleum Engineering are available.

Level 5 (MEng only) Students may register from Level 1. Entry is offered to those whose performance at the end of Level 3 places them in the upper part of the class. Students study multi-disciplinary topics in Engineering and undertake a group project.

Career prospects

Graduates are in constant demand. Many engineers make their careers in established areas, perhaps in the infrastructure industries of energy and transportation or the design and manufacture of advanced equipment. Others find rewarding careers meeting the challenges of applying new materials and intelligent systems to products and manufacturing processes.

MEng / BEng (Hons) Mechanical Engineering and Energy Engineering

UCAS code HH38 / HH3V
Duration 5 years MEng / 4 years BEng (Hons)
Number of places 100 across all programmes

The programme

The programme is designed to equip students to tackle innovative and challenging professional tasks associated with energy provision and utilisation. Students will acquire skills to take responsibility for decision-making where energy and the environment are important issues. Building on a sound engineering foundation, students will be introduced to specialised energy topics, management and environmental impact assessment.

Level 1 Emphasis is on developing basic mathematical, scientific and communication skills. Topics include Mechanical Engineering Science; Physics; Introduction to Electrical Engineering; and Foundation Mathematics.

Level 2 Subjects include Strength of Materials; Machine Dynamics; Applied Thermodynamics; Fluid Dynamics; Design and Manufacture; Electrical Machines; and Engineering Mathematics.

Level 3 Subjects include Strength of Materials; Machine Dynamics; Applied Thermodynamics; Fluid Dynamics; Design and Manufacture; Control Engineering; and Business Awareness.

Level 4 Students have a limited choice as all topics relating to energy are mandatory, so a student must take Applied Thermodynamics and Petroleum Engineering as well as other mandatory courses including a year-long individual project related to the energy sector plus Engineering Design and Manufacture that includes an industrial project.

Level 5 (MEng only) Students may register from Level 1. Entry is offered to those whose performance at the end of Level 3 places them in the upper part of the class. Students study multi-disciplinary topics in Engineering and undertake a group project.

Career prospects

The energy industry includes multinational oil and electricity companies as well as small and medium sized enterprises developing devices or providing energy solutions. Reflecting the importance given to energy engineering, companies and organisations in the energy field are developing fast and new graduates are highly sought after.
STEM Teacher Training

Be part of the next generation of Science, Engineering and Technology (STEM) school teachers in this joint initiative between Heriot-Watt and the University of Stirling.

Introduction
In a move to address the shortage of teachers in STEM subjects Heriot-Watt University has joined forces with the University of Stirling to train the next generation of Science, Engineering and Technology school teachers. Set up with additional funding from the Scottish Government, the innovative programme will combine Stirling’s excellence in education with Heriot-Watt’s excellence in sciences.

If you want to be part of the next generation of STEM subject teachers please read on and visit our website for more information. Interested parties should apply directly to the University of Stirling.

Open Days
The Edinburgh Campus Open Days will take place on Friday 7 June and Saturday 26 October 2019.

BSc (Hons) Engineering Technologies and Professional Education

UCAS code F5X3
Duration Up to 4 years

The programme
The BSc (Hons) Engineering Technologies and Professional Education is a programme run in collaboration with the University of Stirling. It is designed to prepare candidates to teach subjects such as Graphic Communication, Design and Manufacture and Engineering Science in secondary schools. The programme includes courses from the Electrical, Electronic and Computer Engineering and Mechanical Engineering programmes at Heriot-Watt University in Edinburgh and Education programmes at the University of Stirling. The programme requires students to attend both institutions to receive tuition. Placements in schools, which are a part of the education training, can be arranged for any location in Scotland.

Accredited by the General Teaching Council. For more information please visit:

www.hw.ac.uk/ug-education

Contact:
Dr Stephen Houston

T: 0131 451 3451
E: studywithus@hw.ac.uk

www.hw.ac.uk/ug-education
**BSc (Hons) Professional Education (Primary) with specialism in Primary Science (STEM)**

**UCAS code** F4X3  
**Duration** Up to 4 years

**The programme**  
The BSc (Hons) in Professional Education (Primary) with specialism in Primary Science (STEM) is a four-year programme of study that is designed for students who wish to pursue a career in STEM teaching at primary school level. In collaboration with the University of Stirling, the programme combines core elements of Chemistry, Physics and Mathematics, as well as practical laboratories, alongside participation in a full Initial Teacher Education programme.  

Students on this programme follow the well-established Professional Education path at Stirling and attend Chemistry and Physics lectures and laboratories, as well as Maths classes, at Heriot-Watt’s Edinburgh Campus. This is an ideal option for students with aspirations of becoming a Primary School Teacher. The primary education degree will suit those who wish to study primary education alongside a specialism in three STEM subjects.

Accredited by the General Teaching Council with seven commendations, which include being student-centred and the high quality of our research-informed approaches.

For more information please visit:  
[www.hw.ac.uk/ug-education](http://www.hw.ac.uk/ug-education)

**Contact:**  
Dr Arno Kraft  
or  
Dr William MacPherson

**BSc (Hons) Chemistry and Professional Education**

**UCAS code** F1X3  
**Duration** Up to 4 years

**The programme**  
The BSc (Hons) in Chemistry and Professional Education is a four-year programme of study that is designed for students who wish to pursue a career in Chemistry teaching at secondary school level. In collaboration with the University of Stirling, the programme combines core elements of Chemistry, covering core Inorganic Chemistry, Organic Chemistry and Physical Chemistry subjects as well as practical labs, alongside participation in a full Initial Teacher Education programme.

Students on this programme attend Chemistry lectures and laboratories at Heriot-Watt’s Edinburgh Campus and follow the well-established Professional Education path at Stirling. This is an ideal option for students with aspirations of becoming a Secondary School Chemistry Teacher.

Accredited by the General Teaching Council of Scotland with seven commendations, which include being student-centred and the high quality of our research-informed approaches.

For more information please visit:  
[www.hw.ac.uk/ug-education](http://www.hw.ac.uk/ug-education)

**Contact:**  
Dr Arno Kraft

**BSc (Hons) Physics and Professional Education**

**UCAS code** F3X3  
**Duration** Up to 4 years

**The programme**  
The BSc (Hons) in Physics and Professional Education is a four-year programme of study that is designed for students who wish to pursue a career in Physics teaching at the secondary school level. In collaboration with the University of Stirling, the programme combines core elements of Physics, covering subjects such as Dynamics, Electromagnetic Fields and Optics, and the quantum world of Subatomic Particles, alongside participation in a full Initial Teacher Education programme.

Students on this programme follow the well-established Professional Education path at Stirling and attend Physics lectures and laboratories at Heriot-Watt’s Edinburgh Campus. This is an ideal option for students with aspirations of becoming a Secondary School Physics Teacher.

Accredited by the General Teaching Council of Scotland with seven commendations, which include being student-centred and the high quality of our research-informed approaches.

For more information please visit:  
[www.hw.ac.uk/ug-education](http://www.hw.ac.uk/ug-education)

**Contact:**  
Dr William MacPherson
At the School of Social Sciences we embrace a truly international outlook. Our degrees have a strong industry focus and produce career-ready graduates of the highest standard.

Teaching is delivered by leading academics and professionals with extensive industry experience. Our campus setting creates a supportive community environment and our flexible, student-centred approach to teaching develops expertise in:

- Accountancy and Finance
- Business Management
- Economics
- Languages and Intercultural Studies
- Psychology.

A truly global outlook
Everything we do at the School of Social Sciences has a truly global outlook. Many of our degrees are delivered at Heriot-Watt’s three main campuses in Edinburgh, Dubai and Malaysia, so we offer you the opportunity to transfer between these worldwide locations for one semester or more. This is our unique and hugely popular Go Global project.

Graduate success
Graduates from the School of Social Sciences can be found in significant leadership roles across the globe. We see our excellent track record in graduate employment as proof that our industry-focused, student-centred approach to learning will equip you with the skills employers want. Many of our programmes are accredited by professional bodies to help fast track the next stage of your career.

Specialist skills for the real world
We pride ourselves on developing specialist, creative and professional graduates who are globally employable. We blend research-led, theoretical learning with a focus on practical, professional skills for real-world success. Our degrees in Languages develop interpreting and translating skills and can be combined with business, whilst our specialist degrees in business and finance have an industry focus embedded throughout. Our Psychology degrees develop research skills in our specialist labs and teach students to find psychological solutions to real-world problems.

Teaching, research and scholarship
Each of our departments are internationally recognised for the quality of their teaching and research. As an undergraduate student, you will be taught by leading academics who, in many cases, have published research to shape your discipline and written textbooks which will guide your learning.

Our staff balance their teaching time with continued professional practice as translators, interpreters, practitioner psychologists, tax and finance specialists, entrepreneurs and management consultants. This brings real-world experience into the classroom.

The School has a vibrant research community which includes over 100 PhD students. In the final year of your degree you will produce a research project under the guidance of a supervisor, bringing you right up-to-date with the latest thinking and practice in your subject area and equipping you with valuable transferable skills.

League tables and student satisfaction
We take great pride in our student-centred approach to learning and receive positive feedback from the majority of students. In the National Student Survey 2018 our students ranked us as the number 1 university in Scotland for Languages, number 2 in Scotland for Economics and number 7 for Business Management in the whole of the UK. In the Guardian University Guide 2019 we are ranked as the 2nd best university in Scotland for Accountancy and Finance, and we achieved the best ranking for employability for Modern Languages degrees in Scotland.
Connor Mason
MA (Hons) Economics and Finance

What appealed to you most about Heriot-Watt University?
Heriot-Watt has a great reputation for research and the relatively small size of the university means there is a lot more contact time with staff compared to other institutions. Edinburgh is also an amazing city to live in whilst the University Campus is very picturesque.

What sort of experience have you had in making links with industry?
As President of Heriot-Watt’s Economics Society I made a great deal of connections with professional staff. Through hosting our flagship event, The Edinburgh Business Weekend, I met staff from corporate sponsors BP and EY, which eventually landed me a position as EY’s student brand ambassador on campus.

How has your degree programme prepared you for a career?
My programme has provided much in the way of career progression. Our third-year econometrics project provided me with the knowledge required to land an internship at Edrington Group as a data analyst last summer. This experience gave me a head start and helped me get an investment banking internship at Investec this summer before I start my Masters.

What would you say to prospective students considering Heriot-Watt?
There are a huge range of opportunities available at Heriot-Watt, but you have to put yourself out there to really make the most of it.
Accountancy and Finance

Contact Social Sciences Admissions
T: 0131 451 3451 E: studywithus@hw.ac.uk
www.hw.ac.uk/ug-accountancy

Heriot-Watt was ranked as the number 1 university for Accountancy and Finance in Scotland and number 8 in the whole of the UK in the Guardian University League Tables 2018.

Our graduates are employed across financial, commercial and industrial organisations and 85% of our most recent graduates who were in work six months after graduating were in a professional or managerial role. Source: Unistats 2018.

Edinburgh has a long history and well-established reputation in the world of finance, and Heriot-Watt University has excellent links to some of the industry’s most influential organisations.

Accountancy and Finance
Accountancy and finance have become more and more important to the decision-making processes and success of organisations across all sectors and industries. Operating in international markets requires an understanding of international accounting standards, interest rates, mergers and acquisitions, and corporate finance and exchange. The increasingly complex environment within which both finance and international business are conducted reinforces the need for advanced knowledge in these areas.

Accountancy and finance professionals work with executive and management teams to provide expert advice and at Heriot-Watt you will learn how to apply accounting and finance knowledge to a range of managerial, business and problem-solving situations. Our programmes allow you to combine the subjects which best suit your career aspirations. They build an essential knowledge across accountancy, economics, finance and business management in Year 1 and develop specialist expertise in Years 2 to 4.

Opportunities abroad
When our degrees are offered at another Heriot-Watt campus, as with MA (Hons) Business and Finance and MA (Hons) Accountancy and Finance, students can transfer for one semester or more through our Go Global project, taking advantage of our international campuses in Dubai and Malaysia.

Teaching and assessment
Teaching includes lectures, tutorials, workshops, group work and computer workshops, including the use of computer-assisted learning packages. Assessment is by a mixture of coursework and examination.

Professional recognition and exemptions
MA (Hons) Accountancy and Finance is accredited by ACCA (the Association of Chartered Certified Accountants), ICAS (the Institute of Chartered Accountants of Scotland), the Institute of Chartered Accountants in England and Wales (ICAEW), and CIMA (the Chartered Institute of Management Accountants). This accreditation lets graduates apply for maximum exemptions from professional accountancy exams.
Links to industry and Trading and Investment Club
We enjoy close links with professional bodies and industry. We often hold guest lectures and career events with companies such as Standard Life Aberdeen, Ernst and Young, Tesco Bank and Lloyds Banking Group, who actively seek our students for internships and graduate positions. Our thriving, student-run society, the Trading and Investment Club, runs a magazine, organises international trips and holds regular social, academic and networking events with industry. ICAS and KPMG also donate prizes annually to our top-performing students.

Skills gained
- Knowledge and understanding of key principles of accounting and finance
- Firm grounding in core subjects such as accounting to prepare you for employment
- Communication and presentation skills such as group work, debates, role-playing
- Effective use of IT to find practical business solutions.

Open Days
The Edinburgh Campus Open Days will take place on Friday 7 June and Saturday 26 October 2019.

Offer Holder Days are held in March and April and provide an opportunity to learn more about our programmes, and meet staff and students. All applicants who receive offers are invited to attend.

Programmes available within Accountancy and Finance

<table>
<thead>
<tr>
<th>Programme</th>
<th>Duration</th>
<th>Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accountancy and Finance NN34</td>
<td>4 years</td>
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</tr>
<tr>
<td>Business and Finance NN23</td>
<td>4 years</td>
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</tr>
<tr>
<td>Finance N300</td>
<td>4 years</td>
<td>MA (Hons)</td>
</tr>
</tbody>
</table>

Ross Mathison MA (Hons) Business and Finance
Investment Director, Standard Life Investments Ltd

What appealed to you most about Heriot-Watt University?
My programme allowed me to study many different courses including accounting, business management and investments before deciding which subjects to study in more depth. It appealed to me that I was presented with the opportunity to become familiar with a variety of topics from which I could later specialise, as I didn’t know which area of business I would like to focus on at the point of choosing my degree. The sports facilities on offer were also a big positive.

Can you tell us about your current role?
My current role is as a fund manager where I am responsible for managing a European Equity portfolio. My investments education began in a second year lecture where we were presented with the fundamentals of how the industry worked which led me to seek out a career in the industry. In my role we meet on a regular basis with the management teams of the biggest organisations in Europe and it is always interesting to hear them discuss their strategy and how they manage their organisations.

What would you say to prospective students considering studying at Heriot-Watt?
I would recommend looking for a programme which gives you exposure to a variety of topics in the first couple of years so you can work out which area to specialise in.
## Accountancy and Finance Entry Requirements

### Level 1

**Standard**
- Highers AAAB (over two sittings)
- A-Levels BBB
- IB 29 points
- BTEC DDM (Business/Accountancy/Finance preferred)
- HNC B in graded unit

**Minimum**
- Highers BBBC
- A-Levels BCC

### Level 2**

**Standard**
- Advanced Highers BB (including at least one of the following: Accountancy, Business, Economics, Maths) plus AAAB at Higher
- A-Levels ABB (including at least one of the following: Accountancy, Business, Economics, Maths)
- IB 34 points (including at least one of the following: Accountancy, Business, Economics, Maths at Higher Level 5)
- HNC A in graded unit (Accounting)
- HND BB in graded units (Accounting or Business)

### Level 3

**Standard**
- HND AA in graded units (Accounting)

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*Minimum: We operate contextual admissions defined by our Fair Access Policy which may mean entry requirements are flexible. Please see page 171 for eligibility details.

**Level 1 entry is required in order to gain maximum exemptions from accountancy bodies e.g. ACCA and ICAS

If you do not see your qualifications here please contact us at studywithus@hw.ac.uk

University-wide National 5/GCSE (or equivalent) Maths and English requirements are on page 170.

If English is not your first language, please refer to page 179 for our English language requirements.

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## MA (Hons) Accountancy and Finance

**UCAS code** NN34  
**Duration** 4 years MA (Hons)

### The programme

Our Accountancy and Finance programme is a specialist degree, particularly well suited to those seeking entry into the accountancy profession and careers in financial services or financial management.

**Level 1** Students will follow introductory courses in Accounting, Economics, Finance, and Business Management as well as taking optional courses that provide professional accreditation.


**Level 3** Accounting courses include Auditing, Management Accounting and Contemporary Issues in Financial Accounting. Research Methods is also taken as preparation for the dissertation in Level 4. Optional choices for Level 3 include Mergers and Acquisitions, Managing Corporate Value, and Accounting Information.

**Level 4** Students undertake a dissertation on an area of accounting or finance of particular interest to them. In addition, six optional courses are taken from a range of specialisms including: Accounting Theory, Auditing, International Accounting, Management Accounting, Agency Theory and Corporate Governance, Contemporary Issues in Finance, and Corporate Reporting.

### Career prospects

Many students enter training contracts with accounting firms, taking examinations for one of the professional accountancy bodies. However, many students also follow careers in banking, insurance, finance, law and management.

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## MA (Hons) Business and Finance

**UCAS code** NN23  
**Duration** 4 years MA (Hons)

### The programme

Our Business and Finance programme is a specialist joint degree with equal emphasis given to the subject areas of business and finance. The degree is particularly suited to students who wish to gain a firm grounding in business and management, but with an insight into the finance and financial operations of businesses and organisations.

**Level 1** Students follow introductory courses in Economics, Accounting, Finance, and Business Management as well as optional courses from a wide range of subjects including Information Skills and Modern Languages.

**Level 2** The main aspects of Business Management and Finance are developed. Management subjects include Organisational Behaviour. Finance subjects include Financial Markets Theory and Corporate Financial Theory. Quantitative Methods is taken as preparation for later study. Three elective courses are also taken.

**Level 3** Finance courses include Financial Derivatives, Mergers and Acquisitions, International Bond and Currency Markets, and Managing Corporate Value. Business Management courses include Strategic Management.

**Level 4** Students undertake a dissertation focusing on a business management or finance topic of interest to them as well as selecting optional courses in Business Management and Finance from the range available at Honours level.

### Career prospects

A joint degree such as Business and Finance provides a wide range of employment options and our graduates have an excellent reputation with employers. Successful careers pursued include business analyst, management consultant, public relations executive, international trade executive, and graduate planner.
Bloomberg Trading Room

We’ve just opened a Bloomberg Trading Room on our Edinburgh Campus with 12 state-of-the-art Bloomberg Terminals. The Terminals are equipped with industry standard software that provides live financial data and trading tools to the world’s leading banks and corporations.
MA (Hons) Finance

UCAS code N300
Duration 4 years MA (Hons)

The programme
Our Finance programme is a specialist degree responding to the rapid growth in global financial services. This programme is particularly suited to those seeking entry into the banking or investment management sectors, both nationally and internationally, covering a range of relevant specialist topics in finance.

Level 1
Students will follow introductory courses in Accounting, Economics, Finance, and Business Management as well as an introductory mathematics course. In addition, students may take an elective course from a wide range of subjects including Information Skills and Modern Languages.

Level 2
Students’ understanding of the theory of finance is developed in courses such as Financial Markets Theory and Corporate Financial Theory. These are complemented by intermediate-level courses in Economics, Accountancy and Quantitative Methods.

Level 3
Students take a core set of finance courses: Financial Derivatives, Mergers and Acquisitions, International Bond and Currency Markets, and Managing Corporate Value. Quantitative skills are developed, with the option to also further develop understanding of core economics and accountancy.

Level 4
Students undertake a dissertation on an area of finance of particular interest. Students also study Agency Theory, Contemporary Issues in Finance, Risk Management and Equity Markets, with two further options from finance, economics or accountancy.

Career prospects
Our MA in Finance is focused on the employability of the graduate for the financial sector in its broadest sense.
At Heriot-Watt we provide Business Management students with the skills and expertise they will need to thrive in the positions, organisations and industries of the future.

As the modern business world becomes increasingly dynamic, understanding the way in which businesses and organisations operate – how they develop their strategies, optimise operations and take key decisions – is vital.

Our students ranked us as the 7th best university in the UK for Business Management in the National Student Survey 2018. In the Guardian University Guide 2018 we were ranked as the 3rd best university in Scotland for Business, Management and Marketing.

**Business Management**

Our Business Management programmes help you to examine organisations and understand their workings. You will relate the theories taught in class to business practice and prepare yourself for the ‘real world’. Not only will you learn about strategy, marketing, human resources, and legal matters, you will apply what you learn to industry by working on real-world case studies from international and local companies.

**What makes us different?**

We regularly have guest speakers from industry and many of our teaching staff play key roles across global businesses. This relevance and practicality sets us apart from other universities and will equip you with the skills and knowledge that employers want.

The Professional Development Track is another distinctive feature of our undergraduate degree programmes. It is a set of practice-focused courses designed to ensure that all graduates are prepared to add real value to their future employers.

**International opportunities**

In Business Management you can take advantage of our international campus locations in Dubai and Malaysia through Go Global. Where a degree programme is offered at another campus, you can transfer for one semester or one academic year, subject to satisfactory academic progress.

Our programme International Business Management with a Year Abroad also includes a compulsory third year spent abroad at a partner institution, either in Europe or further afield. Both international options are taught in English and allow students without language skills to gain international experience.

**Teaching and assessment**

Our teaching is delivered through a dynamic mix of lectures, guest lectures, tutorials, interactive workshops and case studies. Assessment is conducted through coursework and exams.

**Professional recognition and exemptions**

Many of our Business Management degrees are recognised by the Chartered Institute of Marketing (CIM) for the purpose of gaining CIM qualifications.

**Prizes**

The School has close links with business and industry and many companies and professional associations sponsor prizes awarded to students each year.

**Skills gained**

- A strong foundation in the principles and practice of business management
- Ability to analyse complex issues, think critically and provide solutions
- Ability to carry out research projects
- Use of statistical techniques to test theories
- Effective communication of ideas, both verbal and written
- Practical management and team-working skills.
Open Days
The Edinburgh Campus Open Days will take place on Friday 7 June and Saturday 26 October 2019.

Offer Holder Days are held in March and April and provide an opportunity to learn more about our programmes, and meet staff and students. All applicants who receive offers are invited to attend.

www.hw.ac.uk/opendays

Programmes available within Business Management

<table>
<thead>
<tr>
<th>Programme</th>
<th>Duration</th>
<th>Degree</th>
</tr>
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<tbody>
<tr>
<td>International Business Management N202</td>
<td>4 years</td>
<td>MA (Hons)</td>
</tr>
<tr>
<td>International Business Management with Economics N2N7</td>
<td>4 years</td>
<td>MA (Hons)</td>
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<tr>
<td>International Business Management with Enterprise N2N1</td>
<td>4 years</td>
<td>MA (Hons)</td>
</tr>
<tr>
<td>International Business Management with Human Resource Management N2N6</td>
<td>4 years</td>
<td>MA (Hons)</td>
</tr>
<tr>
<td>International Business Management with Marketing N2N5</td>
<td>4 years</td>
<td>MA (Hons)</td>
</tr>
<tr>
<td>International Business Management with Operations Management N2N8</td>
<td>4 years</td>
<td>MA (Hons)</td>
</tr>
<tr>
<td>International Business Management with a Year Abroad N201</td>
<td>4 years</td>
<td>MA (Hons)</td>
</tr>
<tr>
<td>Bachelor of Business Administration N101</td>
<td>4 years</td>
<td>BBA (Hons)</td>
</tr>
</tbody>
</table>

Andy Wingrave MA (Hons) Business Management with Marketing
Campaign Manager (Asia Pacific), LinkedIn

What appealed to you most about studying at Heriot-Watt?
Unsure of where I wanted my career to go I did a self-assessment of what my skills and passions were, and decided that I wanted a career in marketing. From there I compared degree courses available and decided on Heriot-Watt as my first choice. It also helped that I knew someone in the year above who gave me their textbooks for free!

Did your experience here live up to your expectations?
My experience at Heriot-Watt more than exceeded my expectations. It was a great course, with great lecturers and tutors. On top of that I made some fantastic friends and developed my network.

What aspect of studying at Heriot-Watt has really made a difference to you?
The friends you make at university have the potential to shape your entire life. The friends I made at Heriot-Watt, through coursework and team exercises and in Edinburgh’s many pubs and clubs, have really shaped my life since. From having a ready-made network when I moved to London, to going to Poland for a friend’s wedding last year – Heriot-Watt gives you the opportunity to meet people from all walks of life and cultures.
Business Management Entry Requirements

Level 1

Standard
Highers AAAB (over two sittings)
A-Levels BBB
IB 29 points
BTEC DDM (Business preferred)
HNC B in graded unit (Business preferred)
HND B in graded unit (Business preferred)

Minimum*
Highers BBBC
A-Levels BCC

Level 2

Standard
Advanced Highers BB (including one of the following: Accounting, Business, Economics or Maths plus AAAB at Higher)
A-Levels ABB (including one of the following: Accountancy, Business, Economics, Maths)
IB 34 points (with Higher Level Business at 5)
HNC A in graded unit (Business)
HND BB in graded units (Business)
BTEC DDD (Business-related subjects preferred)

Level 3

Standard
HND AA in graded units (Business)

*Minimum: We operate contextual admissions defined by our Fair Access Policy which may mean entry requirements are flexible. Please see page 171 for eligibility details.

If you do not see your qualifications here please contact us at studywithus@hw.ac.uk

University-wide National 5/GCSE (or equivalent) Maths and English requirements are on page 170.

If English is not your first language, please refer to page 179 for our English language requirements.

MA (Hons) International Business Management

UCAS code N202
Duration 4 years MA (Hons)

The programme
At Level 1 students on all Business Management degrees follow a common programme which provides a strong grounding in the principles of modern business management. Level 2 introduces the more functional areas of business and management, including Marketing, HRM, and Operations Management. At Levels 3 and 4 students choose from a range of specialist business management courses which allow them to tailor their degree to meet their particular career needs.

Level 1 Students follow introductory courses in Business Management, Economics, Accounting, Finance, and Business Skills. Students also take elective courses with a wide range of subjects available including Modern Languages and Maths.

Level 2 Students study the functional areas of Business Management including Marketing, HRM, Operations Management, and Commercial Law. Optional/elective courses are also taken.

Level 3 Students study Strategic Management, Business Research Methods, and Business Analysis and Consulting plus optional/elective courses.

Level 4 Students have the opportunity to develop their specialist interests in Business Management by undertaking a dissertation. Students also take business management courses from a wide range of subjects including International Business Law, Retail Marketing, Logistics, Diversity Management, Marketing Sustainability, and Company Law.

Career prospects
Business Management degrees provide a very wide range of employment options, and our graduates have an excellent reputation with employers. Successful careers include marketing executive, operations manager, management consultant, stockbroker, and financial consultant.

MA (Hons) International Business Management with Economics

UCAS code N2N7
Duration 4 years MA (Hons)

The programme
At Level 1 students on all Business Management degrees follow a common programme which provides a strong grounding in the principles of modern business management. Level 2 introduces Marketing, HRM, Operations Management, and Economic Policy. At Levels 3 and 4 students take specialist courses in Economics and choose options to tailor the degree to meet their career aspirations.

Level 1 Students follow introductory courses in Business Management, Economics, Accounting, Finance, and Business Skills. Students also take elective courses with a wide range of subjects available including Modern Languages and Maths.

Level 2 Students study the functional areas of Business Management including Marketing, HRM, and Operations Management as well as a specialist course in Contemporary Economics Policy and further optional courses.

Level 3 Students take Strategic Management, International Trade, Economics of the EU, and Business Analysis and Consulting with further elective courses.

Level 4 Students develop their specialist interest in Economics by undertaking a dissertation on an Economics topic of interest. Students also take specialist Economics courses from a wide range available including World Economic History and Global Trends and Ethics.

Career prospects
Our degrees in International Business Management provide students with an excellent range of employment options and specialising in Economics ensures you will have specialist skills for an extremely healthy job market. Potential careers include economist, management consultant, operations manager and performance analyst.
MA (Hons) International Business Management with Enterprise

UCAS code N2N1
Duration 4 years MA (Hons)

The programme
At Level 1 students on all Business Management degrees follow a common programme which provides a strong grounding in the principles of modern business management. Level 2 introduces the more functional areas of business and management, including Marketing, HRM, Operations Management, and Enterprise. At Levels 3 and 4 students choose from a range of specialist Enterprise courses which allow them to tailor their degree to meet their particular career needs.

Level 1 Students follow introductory courses in Business Management, Economics, Accounting, Finance, and Business Skills. Students also take elective courses with a wide range of subjects available including Modern Languages and Maths.
Level 2 Students study Marketing, HRM, Operations Management and Commercial Law and specialist course, Enterprise: Concepts and Issues, as well as an elective.
Level 3 Students take Enterprise: Concepts and Issues, Business Venturing, Strategic Management and Business Research Methods. Optional/elective courses are also taken.
Level 4 Students develop their specialist interest in Enterprise by undertaking an individual business planning project. Students also take specialist Enterprise courses from a wide range available including High Growth Companies, Social Enterprise, Business Ethics, and Marketing and Management in SMEs.

Career prospects
This degree equips students with the skills necessary to build a business from the ground up and to lead innovation and change from within existing organisations. Enterprise skills are important for growing innovative start-ups or promoting local, national and global competitiveness for established businesses. They are also highly valued among the workforce of the business support sector.

MA (Hons) International Business Management with Human Resource Management

UCAS code N2N6
Duration 4 years MA (Hons)

The programme
At Level 1 students on all Business Management degrees follow a common programme which provides a strong grounding in the principles of modern business management. Level 2 introduces the more functional areas of business and management, including Marketing, HRM, and Operations Management. At Levels 3 and 4 students choose from a range of specialist HRM courses which allow them to tailor their degree to meet their particular career needs.

Level 1 Students follow introductory courses in Business Management, Economics, Accounting, Finance, and Business Skills. Students also take elective courses with a wide range of subjects available including Modern Languages and Maths.
Level 2 Students study Organisational Behaviour as well as functional areas of Business Management including HRM, Marketing, Operations Management and Intercultural Issues.
Level 3 Students study Resourcing and Talent Management, Strategic Management and Critical Approaches to Management as well as elective courses.
Level 4 Students develop their specialist interests in HRM by undertaking a dissertation on an HRM topic of interest to them. Students also take specialist HRM courses from the range available which includes Employment Relations, Law of HRM, The Contemporary Workforce, and Diversity Management.

Career prospects
Business Management degrees provide a wide range of employment options. Successful careers pursued by our management graduates include HR manager, operations manager and management consultant.

MA (Hons) International Business Management with Marketing

UCAS code N2N5
Duration 4 years MA (Hons)

The programme
At Level 1 students on all Business Management degrees follow a common programme which provides a strong grounding in the principles of modern business management. Level 2 introduces the more functional areas of business and management, including Marketing, HRM, and Operations Management. At Levels 3 and 4 students choose from a range of specialist marketing courses which allow them to tailor their degree to meet their particular career needs.

Level 1 Students follow introductory courses in Business Management, Economics, Accounting, Finance, and Business Skills. Students also take elective courses with a wide range of subjects available including Modern Languages and Maths.
Level 2 Students study the functional areas of Business Management including Marketing, HRM, Operations Management, and Commercial Law. Optional/elective courses are also taken. Level 3 Students take Marketing Communications, Consumer Behaviour, Strategic Management, and Business Research Methods. Optional/elective courses are also taken. Level 4 Students develop their specialist interests in Marketing by undertaking a dissertation on a Marketing topic of interest to them. Students also take specialist marketing courses from a wide range available including Digital Marketing, Retail Marketing, Leisure Marketing, Marketing and Management in SMEs, and Marketing Sustainability.

Career prospects
Specialising in Marketing provides a wide range of employment options and our graduates have an excellent reputation with employers. Successful careers pursued by our management graduates include marketing executive, digital marketing executive, fashion buyer, operations manager, management consultant, stockbroker, and financial consultant.

studywithus@hw.ac.uk www.hw.ac.uk/ug
School of Social Sciences  Business Management

Business Management Entry Requirements

Level 1
Standard
Highers AAAB (over two sittings)
A-Levels BBB
IB 29 points
BTEC DDM (Business preferred)
HNC B in graded unit (Business preferred)
HND B in graded unit (Business preferred)

Minimum*
Highers BBBC
A-Levels BCC

Level 2
Standard
Advanced Highers BB (including one of the following: Accounting, Business, Economics or Maths plus AAAB at Higher)
A-Levels ABB (including one of the following: Accountancy, Business, Economics, Maths)
IB 34 points (with Higher Level Business at 5)
HNC A in graded unit (Business)
HND BB in graded units (Business)
BTEC DDD (Business-related subjects preferred)

Level 3
Standard
HND AA in graded units (Business)

This degree is also available through a Partnership Route at selected Scottish colleges. Please see page 174 for details.

*Minimum: We operate contextual admissions defined by our Fair Access Policy which may mean entry requirements are flexible. Please see page 171 for eligibility details.

If you do not see your qualifications here please contact us at studywithus@hw.ac.uk

University-wide National 5/GCSE (or equivalent) Maths and English requirements are on page 170.

If English is not your first language, please refer to page 179 for our English language requirements.

MA (Hons) International Business Management with Operations Management

UCAS code N2N8
Duration 4 years MA (Hons)

The programme
At Level 1 Students on all Business Management degrees follow a common programme which provides a strong grounding in the principles of modern business management. Level 2 introduces Marketing, HRM, Operations Management, and Enterprise. At Levels 3 and 4 students take specialist courses in Operations and Logistics and choose options to tailor the degree to meet their career aspirations.

Level 1 Students follow introductory courses in Business Management, Economics, Accounting, Finance, and Business Skills. Students also take elective courses with a wide range of subjects available including Modern Languages and Maths.

Level 2 Students study the functional areas of Business Management including Marketing, HRM, and Operations Management, as well as a specialist course in Managing the Service Experience and further optional courses.

Level 3 Students take Strategic Management, Project Management, Logistics and Supply Chain Management, and Business Analysis and Consulting with further elective courses.

Level 4 Students develop their specialist interest in Operations and Logistics by undertaking a dissertation on a topic of interest. Students also take specialist courses from a wide range available including Managing Business Performance and Process Design.

Career prospects
Our degrees in International Business Management provide students with an excellent range of employment options and specialising in Operations and Logistics ensures you will have specialist skills for an extremely healthy job market. Potential careers include operations manager, performance analyst, project manager and logistics co-ordinator.

MA (Hons) International Business Management with a Year Abroad

UCAS code N201
Duration 4 years MA (Hons)

The programme
At Level 1 students on all Business Management degrees follow a common programme which provides a strong grounding in the principles of modern business management. Level 2 introduces the more functional areas of business and management, including Marketing, HRM, and Operations Management. Level 3 is spent studying abroad. At Level 4, students choose from a range of specialist courses in the key functional areas of Business Management, including Marketing, HRM, and Business Law, which allows them to tailor their degree to meet their career needs and aspirations.

Level 1 Students follow introductory courses in Business Management, Economics, Accounting, Finance, and Business Skills. Students also take elective courses with a wide range of subjects available including Modern Languages and Maths.

Level 2 Students study the functional areas of Business Management including Marketing, HRM, and Operations Management, as well as a specialist course in Managing the Service Experience and further optional courses.

Level 3 Students take Strategic Management, Project Management, Logistics and Supply Chain Management, and Business Analysis and Consulting with further elective courses.

Level 4 Students develop their specialist interests in International Business Management by undertaking a dissertation. Students also take business management courses from a wide range of subjects including International Business, Retail Marketing, Logistics, Diversity Management, and Law of HRM. Placements are allocated on a competitive basis.

Level 3 Students spend Level 3 studying at one of our exchange partners in the USA, Canada, China, Australia, Belgium, Germany, Italy, Poland, Spain, Sweden, or France. All partners offer business and management courses in English. Placements are allocated on a competitive basis.

Level 4 Students develop their specialist interests in International Business Management by undertaking a dissertation. Students also take business management courses from a wide range of subjects including International Business, Retail Marketing, Logistics, Diversity Management, and Law of HRM.

Career prospects
International Business Management degrees provide a wide range of employment options, and our graduates have an excellent reputation with employers. Successful careers include marketing executive, operations manager, international property development manager, management consultant, stockbroker, and financial consultant.
BBA (Hons)  
Bachelor of Business Administration

UCAS code N101  
Duration 4 years BBA (Hons)

The programme
The Bachelor of Business Administration (BBA) degree aims to develop students’ understanding of the area of Business Administration and Management and develop practical skills appropriate for careers in this area. Theory and practice are given equal emphasis to give a holistic understanding of the role of Business Administration as well as knowledge of and skills associated with business start-up, growth and innovation.

Level 1 Students follow introductory courses in Business Management, Economics, Accounting, Finance, and Business Skills.

Level 2 Students study the more functional areas of Business Administration with a wide range of business subjects available such as Marketing, HRM, Operations Management, Organisational Behaviour, and Commercial Law. Students can also choose from a number of elective courses.

Level 3 Students take Strategic Management and Business Research Methods. Further optional/elective courses in business are also taken.

Level 4 Students develop their specialist interests in Business Administration and Management by undertaking a dissertation. Students also take management courses from a wide range of subjects including International Business, Retail Marketing, Logistics, Diversity Management, Law of HRM, and Company Law.

Career prospects
The BBA degree provides a wide range of career options, and our graduates have an excellent reputation with employers. Successful careers include marketing executive, operations manager, international property development manager, management consultant, stockbroker, and financial consultant.
Economics

Economics
Economics is the study of how individuals, firms and governments make choices, and how these choices determine the way in which resources are distributed. It helps us understand and improve decision-making for ourselves, organisations, governments and societies, and it throws light on issues as diverse as the environment, unemployment, inflation, poverty, globalisation and trade.

With this in mind, we have designed a suite of undergraduate degree programmes underpinned by the work of our globally respected researchers, which equip students with a highly desirable balance of quantitative, analytical and communication skills. Our programmes offer lots of flexibility within a tried and tested structure and our student-focused approach has helped our students achieve the best undergraduate marks in the UK, relative to entry requirements, for six of the past seven years.

Teaching and assessment
Teaching is delivered through a combination of lectures, tutorials and project work, but requires students to study on their own as well. Assessment involves coursework, exams, presentations and projects. Honours degree awards are based on the average mark obtained in qualifying courses completed over the last two Levels of full-time study.

Programme structure
In Year 1 we build fundamental knowledge in Economics, Accountancy, Business Management and Finance. From here you will explore the theory and practice of applying statistical economic techniques before learning to analyse global economic policy. Find more detailed programme structures in the breakdown of each degree.

Our Economics community
The Economics department at Heriot-Watt University benefits from a friendly atmosphere and extremely engaged staff. We have a popular, student-run Economics Society which hosts regular social events, debates and guest lectures with leading industry speakers and organisations.

Skills gained
• Analytical and critical thinking
• Ability to reduce complex problems to simple components
• Development of a framework for the analysis of business decisions, government policy and the economy as a whole
• Use of statistical techniques to test theories
• Appreciation of the use of incentives upon behaviour
• Effective oral and written communication of ideas.

Our department of Economics is highly regarded and our graduates are highly sought after by industry. A survey found that 90% of our recent graduates were in work or further study six months after graduating (Unistats 2018).

Graduates have gone on to forge successful careers in the world of business, banking, commerce, research, and policy analysis with organisations such as BP, EY, and the Royal Bank of Scotland as well as the Scottish Government and the UK Government.

The Guardian University Guide 2018 ranked Heriot-Watt as the number 1 university in Scotland for Economics and 3rd best in the whole of the UK.
Open Days

The Edinburgh Campus Open Days will take place on Friday 7 June and Saturday 26 October 2019.

Offer Holder Days are held in March and April and provide an opportunity to learn more about our programmes, and meet staff and students. All applicants who receive offers are invited to attend.

www.hw.ac.uk/opendays

Programmes available within Economics

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Jill Cruickshank
MA (Hons) Economics and Accountancy

What appealed to you most about studying at Heriot-Watt?

I chose to study Economics and Accountancy at Heriot-Watt not only because of the University’s exceptional reputation for Economics, but also because of the fantastic campus and approachable staff. The campus is also situated in one of the most beautiful cities with great student nightlife.

Is the experience living up to your expectation?

The Economics programme at Heriot-Watt has been structured perfectly to suit around the individual. The programme offers a broad range of topics to choose from, so that it can be tailored to an individual’s own interests. There is also a fantastic balance between theory and practice and macro/micro economics subjects. This varied and flexible approach encourages students to be in control of their own learning and become well-rounded individuals with a broad and varied knowledge of the core disciplines of economics. The teaching at Heriot-Watt is also outstanding, with lecturers who support and invest time and effort in your academic and personal development.

How is your degree helping prepare you for your chosen career?

It became apparent in my Summer Internship at EY in Tax how current and practical my Economics degree is and how highly regarded Heriot-Watt’s business graduates are with leading firms such as EY.
Economics Entry Requirements

Level 1
Standard
Highers AAAB (over two sittings)
A-Levels BBB
IB 29 points
BTEC DDM (Accountancy, Business, Economics, Finance preferred)
HNC B in graded unit (Accounting or Business preferred)
Minimum
Highers BBBC
A-Levels BCC

Level 2
Standard
Advanced Highers BB (AAAB at Higher to include Maths or AAAB plus Maths Higher C)
A-Levels ABB (at least one of the following preferred: Accounting, Business or Economics and AS Level Maths C)
IB 34 points (including Maths or Economics at Higher Level 5)
HND BB in graded units (Accounting or Business required)

*Minimum: We operate contextual admissions defined by our Fair Access Policy which may mean entry requirements are flexible. Please see page 171 for eligibility details.

If you do not see your qualifications here please contact us at studywithus@hw.ac.uk

University-wide National 5/GCSE (or equivalent) Maths and English requirements are on page 170.

If English is not your first language, please refer to page 179 for our English language requirements.

MA (Hons) Economics

UCAS code L100
Duration 4 years MA (Hons)

The programme
The MA in Economics does not require prior knowledge of the core discipline of economics. Study begins at an introductory level and the degree has a flexible structure to enable students to tailor their studies so that they can pursue their own interests. As a result, graduates are able to embark upon successful careers, especially in banking, finance, the civil service and a wide range of management roles, and also pursue further study in economics and related disciplines.

Level 1 Students will follow introductory courses in Economics, Accounting, Finance, and Business Management. An introductory mathematics course is also taken. In addition, students may take an elective course from a wide range of subjects including Information Skills, and Modern Languages.
Level 2 Students are introduced to the formal theory of economics and the methods used in applied research. Intermediate Economics covers core microeconomic models of consumer choice and firm behaviour, and macroeconomic models of long-run equilibrium and short-run adjustments. Students also study Quantitative Methods, Contemporary Economic Policy and Statistical Techniques.
Level 3 Some of the courses studied during Level 3 count towards the final degree classification. Students must complete an econometrics project and a course in Advanced Economics. Students also take further economics courses from a range of topics including Economic History, Development Economics, Environmental and Energy Economics, and International Trade.
Level 4 Students take a number of economics courses, including Advanced Economic Policy. Students may elect to study further economics courses or courses from other disciplines, with a wide range of subjects on offer, including Company Law, Marketing, Logistics, Auditing, and Corporate Finance.

Career prospects
Our MA in Economics strongly emphasises the application of theory to problems that arise in everyday life. As a result, our graduates are well equipped to enter permanent employment or further study, and most do so within three months of leaving the University.

MA (Hons) Economics and Accountancy

UCAS code LN14
Duration 4 years MA (Hons)

The programme
The MA in Economics and Accountancy does not require prior knowledge of the core disciplines of economics or accountancy. Study begins at an introductory level and the degree has a flexible structure to enable students to tailor their studies so that they can pursue their own ambitions and interests. As a result, graduates are able to embark upon successful careers, especially in accounting, banking, finance, and the civil service, and also pursue further study in economics and related disciplines.

Level 1 Students will follow introductory courses in Economics, Accounting, Finance, and Business Management. An introductory mathematics course is also taken. In addition, students may take an elective course from a wide range of subjects including Information Skills, and Modern Languages.
Level 2 Students are introduced to the formal theory of economics and methods used in applied research. Intermediate Economics covers core microeconomic models of consumer choice and firm behaviour, and macroeconomic models of long-run equilibrium and short-run adjustments. Accounting courses introduce financial reporting and management accounting. Students also take Quantitative Methods and Statistical Techniques.
Level 3 Some of the courses studied during Level 3 count towards the final degree classification. Students must complete an econometrics project, a course in Advanced Economics and a minimum of one Accountancy course. Electives are also taken.
Level 4 Students will take courses in the core subjects of Economics and Accountancy. A required number of courses must be taken from each subject area. Students may also take courses from other disciplines, with a wide range of subjects available, including Company Law, Finance, Logistics, and Marketing.

Career prospects
The joint degree in Economics and Accountancy provides a wide range of employment options, and our graduates have an excellent reputation with employers. Successful careers pursued include economist, chartered accountant, unit trust administrator, stockbroker, and performance analyst.
Panmure House
In 2018 Heriot-Watt University re-opened Panmure House, the only surviving home of Adam Smith, the father of modern-day economics, following a significant restoration project. To celebrate his legacy, Panmure House will become a hub of economic, social and political debate in the heart of Edinburgh’s Old Town.
### Economics Entry Requirements

**Level 1**

**Standard**
- Highers AAAB (over two sittings)
- A-Levels BBB
- IB 29 points
- BTEC DDM (Accountancy, Business, Economics, Finance preferred)
- HNC B in graded unit (Accounting or Business preferred)

**Minimum***
- Highers BBBC
- A-Levels BCC

**Level 2**

**Standard**
- Advanced Highers BB (AAAB at Higher to include Maths or AAAB plus Maths Higher C)
- A-Levels ABB (at least one of the following preferred: Accounting, Business or Economics and AS Level Maths C)
- IB 34 points (including Maths or Economics at Higher Level 5)
- HND BB in graded units (Accounting or Business required)

*Minimum: We operate contextual admissions defined by our Fair Access Policy which may mean entry requirements are flexible. Please see page 171 for eligibility details.

If you do not see your qualifications here please contact us at studywithus@hw.ac.uk

University-wide National 5/GCSE (or equivalent) Maths and English requirements are on page 170.

If English is not your first language, please refer to page 179 for our English language requirements.

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### MA (Hons) Economics and Finance

**UCAS code** LN13  
**Duration** 4 years MA (Hons)

**The programme**
The MA in Economics and Finance does not require prior knowledge of the core disciplines of economics and finance. Study begins at an introductory level and the degree has a flexible structure to enable students to tailor their studies so that they can achieve their ambitions and goals. As a result, graduates are able to embark upon successful careers, especially in banking, finance, the civil service, and a wide range of management roles, and also pursue further study in economics and related disciplines.

**Level 1** Students will follow introductory courses in Economics, Accounting, Finance, and Business Management. An introductory mathematics course is also taken. In addition, students may take an elective from a wide range of subjects including Information Skills, and Modern Languages.

**Level 2** Students will be introduced to the formal theory of economics and the methods used in applied research. Intermediate Economics covers core microeconomic models of consumer choice and firm behaviour, and macroeconomic models of long-run equilibrium and short-run adjustments. Finance courses look at the theory of Financial Markets and Corporate Finance. Students also take Quantitative Methods and Statistical Techniques.

**Level 3** Some of the courses taken during Level 3 will count towards the final degree classification awarded. Students must complete an econometrics project, a course in Advanced Economics and a minimum of one other Finance course. Electives are also taken.

**Level 4** Students will take courses in the core subjects of Economics and Finance. A required minimum number of courses must be taken from each subject area. Students may also take courses from other disciplines with a wide range of subjects available, such as Company Law, Marketing, and Logistics.

### Career prospects
The joint degree in Economics and Finance provides a wide range of employment opportunities, and our graduates have an excellent reputation with employers. Successful careers pursued include economist, unit trust administrator, risk management associate, stockbroker, and performance analyst.

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### MA (Hons) Economics and Business Management

**UCAS code** LN12  
**Duration** 4 years MA (Hons)

**The programme**
The MA in Economics and Business Management requires no prior knowledge of the core subject areas of management or economics. The programme offers flexibility, allowing students to tailor their choices to suit their own interests. We provide students with the skills necessary for an understanding of both economic and management situations, but that are equally transferable to many other situations.

**Level 1** Students will follow introductory courses in Economics, Accounting, Finance, and Business Management. An introductory mathematics course is also taken. In addition, students may take an elective from a wide range of subjects including Information Skills, and Modern Languages.

**Level 2** Students are introduced to the formal theory of economics. Intermediate Economics covers core microeconomic and macroeconomic models. You also study Quantitative Methods, as well as two business management courses from a range of options including Commercial Law, HRM, Marketing, and Operations Management. Students also take Quantitative Methods and Statistical Techniques.

**Level 3** Some of the courses taken during Level 3 will count towards the final degree classification awarded. Students must complete an econometrics project, a course in Advanced Economics and a minimum of one other Business Management course. Electives are also taken.

**Level 4** Students will take courses in the core subjects of Economics and Business Management. A required number of courses must be taken from each subject area. Students may also take courses from other disciplines with a wide range of subjects available including Company Law, Finance, Logistics, and Marketing.

### Career prospects
The joint degree in Economics and Business Management provides a wide range of employment opportunities and our graduates have an excellent reputation with employers. Successful careers pursued include economist, management consultant, operations manager, risk management associate, and performance analyst.
MA (Hons)  
Economics and Marketing  

UCAS code LN15  
Duration 4 years MA (Hons)  

The programme  
The MA in Economics and Marketing requires no prior knowledge of the core subject areas of economics and marketing. The programme offers a considerable degree of flexibility, permitting students to tailor their studies to meet their own interests. We seek to provide students with skills which are necessary for an understanding of economic and marketing theories, but can also be applied in many other situations. As a result, graduates are able to embark upon successful careers in banking, finance, the civil service and a wide range of marketing and management roles.  

Level 1  Students will follow introductory courses in Economics, Accounting, Finance, and Business Management. An introductory mathematics course is also taken. In addition, students may take an elective from a wide range of subjects including Information Skills, and Modern Languages.  

Level 2  Students are introduced to the formal theory of economics through Intermediate Economics which covers core microeconomic and macroeconomic models. Marketing courses introduce the fundamentals and perspectives of marketing. Students also take Quantitative Methods and Statistical Techniques.  

Level 3  Some courses taken during Level 3 will count towards the final degree classification awarded. Students must complete an econometrics project, a course in Advanced Economics and a minimum of one other Marketing course. Elective courses are also taken.  

Level 4  Students will take courses in the core subjects of Economics and Marketing. A required minimum number of courses must be taken from each subject area. Students may also take up to three elective courses from a wide range of subjects available including Company Law, Auditing, and International Finance.  

Career prospects  
The joint degree in Economics and Marketing provides a wide range of employment opportunities. Potential careers include economist, management consultant, performance analyst, marketing manager and marketing analyst.
The ability to communicate across different languages is a key advantage in our globalised world.

For over 40 years, we have produced graduates with communication skills of the very highest standard, earning a reputation for excellence. We teach French, German, Spanish, British Sign Language and Chinese.

We achieved the highest ranking in Scotland for Overall Student Satisfaction in the National Student Survey 2018 and in the Guardian University League Tables 2019, we achieved the highest ranking in Scotland for employability from a modern language degree.

Department of Languages and Intercultural Studies
At Heriot-Watt University, we don’t just teach languages, we teach languages for a purpose. For over 40 years our applied approach to teaching has produced graduates with the highest professional standards.

We teach French, German, Spanish, British Sign Language and Chinese and offer a suite of career-focused degrees which develop specialist skills in the areas of interpreting, translation, teaching and international business. Our degrees can be tailored to your individual skills and interests, and our teaching is delivered by globally recognised academics and practising professionals with years of experience.

Launching global careers
Studying languages can open up a world of possibilities for your career. Our alumni work in every corner of the globe, as freelancers or with international organisations, NGOs and multinational corporations. With small class sizes we build a tight-knit community between students and staff and maintain close ties with our graduates as they launch their careers. We invite graduates back each year to share invaluable advice at specialist career events, offering our current students excellent networking opportunities.

Teaching facilities
Teaching facilities include three state-of-the-art interpreting laboratories, which are equipped for simultaneous interpreting and have more booths than any other higher education institution in Europe. We have three further digital language laboratories with professional standard Computer Aided Translation tools, audio-visual self-study facilities, and a Virtual Learning Environment accessible on or off campus. Our language practice and interpreting classes are small and interactive.

Global opportunities
With three main campuses across three different continents, Heriot-Watt University has a truly global reach. In 2018 we were named the International University of the Year by The Times in recognition of our international outlook, and nowhere is this global outlook stronger than in the Languages and Intercultural Studies Department. We conduct research into cultural issues all over the world and this feeds into our teaching of global issues and languages. We also give you the chance to complete year 3 abroad at partner universities in countries where your studied languages are spoken.
Accreditation and recognition
We have recently been chosen as an official Higher Education Partner for the Chartered Institute of Linguists – a professional body that maintains the highest standards for practising interpreters and translators. We are founding members of CIUTI, the world’s oldest and most prestigious international association of universities who train interpreters and translators. Coming from one of only four UK member universities of CIUTI, our graduates are recognised by industry and international organisations such as the European Parliament and the United Nations.

Rankings and reputation
Our reputation is reflected in this year’s university league tables. In the National Student Survey 2018 we achieved the highest rating in Scotland for Overall Student Satisfaction, and in the Guardian University League Tables 2019 we achieved the highest ranking in Scotland for employability from a modern language degree.

Open Days
The Edinburgh Campus Open Days will take place on Friday 7 June and Saturday 26 October 2019. www.hw.ac.uk/opendays

Programmes available within Languages and Intercultural Studies

Languages (Interpreting and Translating) (LINT)
French/German RR12
French/Spanish RR14
German/Spanish RR24
French/British Sign Language Q193
German/British Sign Language Q194
Spanish/British Sign Language Q195
4 years MA (Hons)

Applied Languages and Translating (ALT)
French/German RRC2
French/Spanish RRC4
German/Spanish RRF4
4 years MA (Hons)

British Sign Language (Interpreting, Translating and Applied Language Studies) Q196
4 years MA (Hons)

Applied Language Studies (ALS)
French and Applied Language Studies R100
German and Applied Language Studies R200
Spanish and Applied Language Studies R400
4 years MA (Hons)

International Business Management and Languages (IBML)
Chinese as Main Language 0E68
French as Main Language NR21
German as Main Language NR22
Spanish as Main Language NR24
4 years MA (Hons)

Gregor Millar
MA (Hons) Applied Languages: Interpretation and Translation (Spanish and French)

What appealed to you most about Heriot-Watt University?
A mixture of the outstanding facilities, which allow us to practise using similar equipment to professional interpreters, and the teaching staff who are extremely knowledgeable and experienced. They are always looking to support and help us develop professionally and personally.

What sort of experience have you had in making links with industry?
The entire teaching body in the department have a wealth of experience to help us prepare for working in industry and organise events for us to be able to network with contacts in the industry. Furthermore, the Careers Service alongside teaching staff constantly update us with job opportunities and further training events.

How has your degree programme prepared you for a career?
The degree programme is very practical, therefore, very helpful when entering the jobs market. The opportunities which we have at Heriot-Watt are extremely useful in preparing for a career in the industry due to the applicable skills we learn.
Languages Entry Requirements

Level 1

Standard
Highers AAAB including main language at A (over two sittings)
A-Levels BBB (including main language)
IB 30 points (with main language at Higher Level 5)
BTEC DDM (Main language at A-Level B or equivalent required)
HNC B in graded unit (with main language Higher A or A-Level B grade or equivalent)

Minimum*
Highers BBBC including main language at B (over two sittings)
A-Levels BCC including main language at B

*Minimum: We operate contextual admissions defined by our Fair Access Policy which may mean entry requirements are flexible. Please see page 171 for eligibility details.

If you do not see your qualifications here please contact us at studywithus@hw.ac.uk

University-wide National 5/GCSE (or equivalent) Maths and English requirements are on page 170.

If English is not your first language, please refer to page 179 for our English language requirements.

MA (Hons) Languages (Interpreting and Translating) (LINT)

UCAS code RR12/RR14/RR24/Q193/Q194/Q195
Duration 4 years MA (Hons)

The programme
In this degree you will study two foreign languages or British Sign Language to degree level with a focus on practical language skills, communication studies, European Studies and linguistics/translation studies. Foreign Language students spend Level 3 studying abroad whilst BSL students complete a placement in the UK. If you have only one language at post-Higher/A-Level you will follow an accelerated intensive language course during Level 1 and join the mainstream language courses from Level 2.

Level 1 You will take two courses in each of your languages covering translation, spoken/signed skills, aural/BSL comprehension, and writing in a foreign language/BSL production. You will also take European History and Culture, Introduction to Languages and Intercultural Studies, and a further two options unless you are doing an intensive course or BSL for your second language.

Level 2 You will take eight courses which include: Language studies in each language (including Translation, Liaison and Conference Interpreting); Society and Institutions in Contemporary Europe; Linguistics and two optional subjects. BSL students undertake further language sessions instead of optional subjects.

Level 3 You will complete two five-month placements at partner institutions in countries where your chosen languages are spoken such as France, Belgium, Austria, Germany, Switzerland, Spain or Chile. If you study British Sign Language you will consolidate your proficiency in BSL and spend time within the UK signing community.

Level 4 You will study two Interpreting courses (including Conference and Liaison Interpreting) and Translation and Spoken/Signing Practice, as well as courses in Translation Theory and International Studies. You will also complete an Honours Dissertation.

Career prospects
LINT equips students for a range of careers including translation, interpreting, industry, international business, the media, senior positions in international organisations, educational and academic careers, and public service.

MA (Hons) Applied Languages and Translating (ALT)

UCAS code RRC2/RRC4/RRF4
Duration 4 years MA (Hons)

The programme
In this degree you will study two foreign languages to degree level with a focus on practical language skills, communication studies, European Studies and linguistics/translation studies and spend Level 3 on international placement. If you have only one language at post-Higher/A-Level you will follow an accelerated intensive language course during Level 1 and join the mainstream language courses from Level 2.

Level 1 You will take two courses in each of your languages covering translation, spoken, aural, and writing in a foreign language. You will also take European History and Culture, Introduction to Languages and Intercultural Studies, and a further two options.

Level 2 You will study two courses in each of your two languages (covering Translation, Liaison and Conference Interpreting), as well as Societies and Institutions in Contemporary Europe, Linguistics and two optional courses.

Level 3 You will complete two five-month placements at partner institutions in countries where your chosen languages are spoken such as France, Belgium, Austria, Germany, Switzerland, Spain or Chile.

Level 4 You will study three optional courses, two translation courses and a course in International Politics and Organisations. You will also complete an Honours Dissertation.

Career prospects
ALT equips students for a range of careers including translation, interpreting, industry, international business, the media, senior positions in international organisations, educational and academic careers, and public service.
MA (Hons)
British Sign Language (Interpreting, Translating and Applied Language Studies)

UCAS code Q196
Duration 4 years MA (Hons)

The programme
The first undergraduate programme of its kind in Scotland in which British Sign Language (BSL) is studied to professional level. Students train to work as BSL/English Interpreters, and to use BSL proficiently in related professional areas. It includes professional placements in years 3 and 4.

Level 1 Students take two intensive, practically oriented courses in BSL and courses in Deaf History and Culture, Introduction to Languages and Intercultural Studies, and two elective courses.
Level 2 Students take two intensive, practically oriented courses in BSL (including language practice and an introduction to translation and interpreting skills), and courses in Deaf People in Society and Comparative Studies, General Linguistics, Sign Linguistics and Working with Deaf Communities.
Level 3 This is usually spent in two placements, where students work in the signing community with organisations in the field, further developing their language skills and cultural awareness. This placement is self-financed. Alternatively students can opt for a study-abroad placement to study sign language interpreting or a related subject at one of our partner universities.
Level 4 This Level includes courses in BSL Proficiency, Advanced Interpreting Skills, Interpreting in the Community, Translation and Interpreting Studies and the International Context and a final placement course, in which students work closely with professional interpreters. You will also complete an Honours Dissertation.

Career prospects
The programme equips students to work as BSL/English interpreters and translators and graduates successfully completing all specified components of the programme are able to register as full Members of the Register of Sign Language Interpreters with NRCPD, the national registration body in the UK for sign language interpreting, and with SASLI, the Scottish Association of Sign Language Interpreters.

BSL/English Interpreters have the opportunity to work in a wide variety of situations including health, media, TV, legal, education, employment, conference and social work settings.
Languages Entry Requirements

Level 1

Standard
Highers AAAB including main language at A (over two sittings)
A-Levels BBB (including main language)
IB 30 points (with main language at Higher Level 5)
BTEC DDM (Main language at A-Level B or equivalent required)
HNC B in graded unit (with main language Higher A or A-Level B grade or equivalent)

Minimum*
Highers BBBC including main language at B (over two sittings)
A-Levels BCC including main language at B

*Minimum: We operate contextual admissions defined by our Fair Access Policy which may mean entry requirements are flexible. Please see page 171 for eligibility details.

If you do not see your qualifications here please contact us at studywithus@hw.ac.uk

University-wide National 5/GCSE (or equivalent) Maths and English requirements are on page 170.

If English is not your first language, please refer to page 179 for our English language requirements.

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MA (Hons)
French/German/Spanish
and Applied Language Studies

UCAS code R100 / R200 / R400
Duration 4 years MA (Hons)

The programme
Our Applied Language Studies (ALS) degree is designed to allow you to ‘major’ in either French, German or Spanish whilst also studying a range of complementary subjects.

Level 1 Language Studies in your chosen language (translation, spoken classes, aural comprehension, writing); Introduction to Languages and Intercultural Studies; Modern History and Culture of France, Germany or Spain. You can also study a second language and courses from selected disciplines from within the School of Social Sciences.

Level 2 Advanced Language Studies (covering translation, liaison and conference interpreting); French/German/Spanish Society and Comparative Studies; and Linguistics. Students may continue to study a second language and also choose from a variety of subjects such as Economics, Marketing, Intercultural Communication, or Teaching English to Speakers of Other Languages.

Level 3 You will spend this year abroad, either at a university or teaching English in a school.

Level 4 You will continue with Applied Language Studies in your chosen language and study International Politics and Organisations. You have three optional courses and can choose business, intercultural or interpreting courses. You will also complete an Honours Dissertation.

Career prospects
Our Applied Language Studies degree equips students for a wide range of careers including industry, business, teaching, retail, media, international organisations, educational and academic careers and public service, including the Foreign Office.

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MA (Hons)
International Business Management and Languages (IBML)

UCAS code 0E68 / NR21 / NR22 / NR24
Duration 4 years MA (Hons)

The programme
European and international markets present excellent opportunities for multilingual graduates with business and management skills. This degree programme integrates both academic fields and is offered with Chinese, French, Spanish or German. During Levels 1 and 2 there is a certain amount of flexibility to the language element as you may study one or two languages, with the option to study both from the same level or to take up a second language from beginner’s level.

Level 1 Introductory courses in Business Management and either Accounting and Finance or Economics. You will study one language at intermediate level (i.e. post-Higher/A-Level) or Chinese (usually from beginner’s level) and a second language or optional subject.

Level 2 You will continue with a main language (Chinese, French, German or Spanish), and study Marketing, HRM, and further Business Management options as well as either a second language or an elective.

Level 3 You will spend a full academic year at a Business School or university in China, France, Germany or Spain.

Level 4 You will continue with your main language studies whilst completing an Honours Dissertation and an International Business course. You will also have the choice of three further business management courses such as: Retail Marketing; International Business; International Business Law; Business Ethics and Diversity Management; Marketing and Management in SMEs.

Career prospects
International Business Management and Languages will equip students for a wide range of careers in industry, business, retail, media and international organisations, as well as educational and academic careers and public service, including the Foreign Office.
Psychology

Contact Social Sciences Admissions
T: 0131 451 3451 E: studywithus@hw.ac.uk
www.hw.ac.uk/ug-psychology

Heriot-Watt University offers two specialist undergraduate psychology degrees accredited by the British Psychological Society: BSc (Hons) Psychology and BSc (Hons) Psychology with Management.

Our degrees are shaped by the work and knowledge of research-active academics whose expertise in psychology ranges from Work, Society and Environment to Lifespan Health and Wellbeing and Cognition, Brain and Behaviour.

Study with us to discover a supportive, inspiring environment where you will gain in-depth knowledge in psychology and advanced skills in research, data gathering, data analysis, report writing, creativity, leadership, teamwork, communication, presentation and problem-solving.

Psychology

Psychology is the scientific study of the relationship between mind and behaviour. It uses scientific methods to explore key themes within this relationship, such as: the influence biology has on behaviour; how we develop from early infancy to adulthood; how we perceive, think, solve problems and make decisions; and how we interact with each other.

Our approach to psychology

At Heriot-Watt we aim to offer practical solutions for the real world. We begin by identifying a problem and then consider how psychology can help us address it. We have four specialist labs which facilitate the research of academics and students alike.

Both our Psychology degrees qualify Honours students for graduate registration with the British Psychological Society (BPS). This is required for those wishing to take professional courses and qualify as professional psychologists (e.g. clinical, forensic, occupational or educational psychologists).

Core areas of Psychology are covered in our BPS accredited degrees:

- Cognitive Psychology
- Developmental Psychology
- Individual Differences
- Psychobiology
- Social Psychology
- Research Design and Quantitative Methods.

Teaching and assessment

Lectures, seminars and practical experimental classes form much of the delivery, whilst web-based and computer-based provisions support these methods. Courses are assessed by short examination and continuous assessment. Project work is assessed by written reports and supported by presentations.

Focus on employability

Our degrees have been refreshed in recent years to focus on employability. They now offer the chance to study Psychology with specialist pathways for Health, Education, Social Work or Business.

Psychology degrees develop a unique combination of interpersonal and transferable skills that are hugely attractive to employers. Our graduates have an excellent track record in gaining employment across business, teaching, counselling, nursing and marketing, as well as professional psychology as clinical, counselling, educational, forensic, health and occupational psychologists.

Open Days

The Edinburgh Campus Open Days will take place on Friday 7 June and Saturday 26 October 2019.

School Offer Holder Days are held during March and April. All applicants who receive the offer of a place are invited to attend.

www.hw.ac.uk/opendays
Programmes available within Psychology

**Psychology C800**
4 years BSc (Hons)

**Psychology with Management C8N2**
4 years BSc (Hons)

Heather McClelland BSc (Hons)  
**Applied Psychology**  
Honorary Assistant Psychologist,  
Royal Hospital for Sick Children, Edinburgh

**How did your degree help you on your chosen career path?**

After graduating with a Psychology degree from Heriot-Watt, I was able to get a job as a Support Worker with children and adults with mental difficulties, including schizophrenia, depression and OCD. The theories learned throughout my degree gave me a better understanding of what my supportees were going through and helped me to plot realistic goals for them to work towards.

**Is your career progressing in the way that you hoped it would?**

Yes it is. Due to the successful implementation of my theoretical knowledge, I was quickly given a higher-level job overseeing support workers who were specialising in autism. I was in South Korea teaching English to children, and developed a programme in my school to help children with ADHD. I am currently working at the Royal Hospital for Sick Children as an Honorary Assistant Psychologist. Thanks to my degree at Heriot-Watt, and the advice that the lecturers gave us on pursuing our career paths, I will soon be applying to study for a Clinical Doctorate.
School of Social Sciences Psychology

Psychology Entry Requirements

**Level 1**

**Standard**
- Highers AAABB (over two sittings)
- A-Levels BBB
- IB 27 points
- BTEC DDM (Health and Social Sciences preferred)
- HNC B in graded unit Social Sciences (Psychology, Research Methods/Statistics required modules)

**Minimum**
- Highers BBBC
- A-Levels BBC

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## BSc (Hons) Psychology

**UCAS code** C800
**Duration** 4 years BSc (Hons)

**The programme**
The programme covers the main areas of the discipline, namely social psychology, developmental psychology, cognitive psychology, biological psychology, individual differences, and research methods. Other courses emphasise the application of this information to various employment-related contexts and address careers in psychology. Students also take optional courses from subjects such as biological sciences, management, or languages. The programme is accredited by the British Psychological Society.

**Level 1** Courses introduce fundamental aspects of Psychology and develop the specific research and academic skills required for psychological research. Additional courses develop computing and study skills and optional courses cover disciplines in biology, marketing and foreign languages.

**Level 2** Courses include Social Psychology, Cognitive Psychology, Philosophy and History of Psychology, Developmental Psychology, and Research Methods. Students also select two courses in biological sciences, marketing and foreign languages.

**Level 3** Courses include Social Cognition and Personality, Cognition across the Life Span, Psychobiology, Intelligence at Work, and Research Methods. Two optional courses are taken in biological sciences, marketing or foreign languages.

**Level 4** Students devise and conduct a research project in experimental psychology. They study Psychology of Education and Advanced Social Psychology as well as four approved psychology options including Memory, Development and Reliability, Cognition and Emotion, Social Influences on Childhood Behaviour, Industrial and Organisational Psychology, Psychology of Ageing, Developmental Psychopathology, Neuropsychology, Psychology and Mental Health and Consciousness.

**Career prospects**
Psychology graduates have a strong record of employment, progressing to a wide variety of careers, including business, teaching, counselling, nursing, social work, probation work and market research. Psychology graduates may also progress in the profession itself by training in research and teaching or as clinical, counselling, educational, forensic, health or sports psychologists.

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## BSc (Hons) Psychology with Management

**UCAS code** C8N2
**Duration** 4 years BSc (Hons)

**The programme**
Seventy-five per cent of the curriculum covers the main areas of the psychology discipline; social, developmental, cognitive, and biological psychology, as well as topics such as individual differences and research methods. The remaining twenty-five per cent introduces management subjects including marketing, human resource management, finance, and management. Teaching is mainly via lectures, but staff and students know each other well through group work in tutorials. Assessment features a mixture of coursework and examination. The programme is accredited by the British Psychological Society.

**Level 1** Courses introduce fundamental aspects of Psychology and develop the specific research and academic skills required for psychological research. Management in a Global Context and two additional optional courses introduce the specific areas of management and finance of interest to the student.

**Level 2** Psychology courses cover social, cognitive and developmental Psychology as well as Research Methods and the Philosophy and History of Psychology. Two Management courses are chosen from a range of options.

**Level 3** Courses include Psychobiology, Intelligence at Work, Social Cognition and Personality, and Cognition across the Lifespan. Students also select two management courses with options covering Project Management, Employment Law, Marketing, Enterprise and other specialist areas.

**Level 4** Students devise and conduct a research project in experimental psychology over both semesters and study Psychology of Education and Advanced Social Psychology. Students are also offered four options with the choice of approved psychology options and additional specialist management options.

**Career prospects**
Graduates will be well prepared for business-related employment. Psychology graduates generally progress to a wide variety of careers, including business, teaching, counselling, nursing, social work, probation work, and market research.
Dhanishtha Patel  
BSc Psychology with Forensic Science  

What appealed to you most about Heriot-Watt University?

The diverse range of research and the expertise of the professors in their respective fields. I personally wanted a university with a big campus as it gives you the true university experience. I have met lecturers who have been guiding hands into getting me towards my goal of being an academic, by always keeping me in the loop of research.

How has your degree programme prepared you for a career?

The courses have allowed me to explore different psychology specialisations and apply everything practically, rather than just understanding it theoretically. This is the most useful tool going into a career, not only as a psychologist but also any other field, as you learn to apply your knowledge in different aspects of life and career.

What would you say to prospective students considering Heriot-Watt as their first choice of university?

The psychology department here is unlike any other. You feel like you become a part of the conversation within any area of psychology and have the freedom to explore different areas with lecturers who are well equipped and excellent in their respective and diverse fields.
The School of Textiles and Design has a distinguished history. Since 1883 the School has specialised in the education of professionals in the global textiles industry and has established a reputation as one of the world’s leading textiles and fashion design institutions.

The School is small, friendly and located at the Scottish Borders Campus in the heart of the internationally renowned Scottish textile industry. This, together with its specialist facilities, provides a stimulating and creative environment in which to learn. Our excellent record for providing professional and vocationally orientated programmes ensures that our graduates are highly successful in securing employment throughout the industry.

The School has well-established industry links and alumni associations across the world, equipping our students for employment through competitions, sponsorship, guest speakers, work placements and projects.

The School is engaged in leading-edge research projects in textiles, design, fashion, clothing and nano-fibres, reinforcing our international reputation and contributing towards excellence in teaching.

A £31.4 million development to modernise the Scottish Borders Campus has created state-of-the-art student facilities that combine with creative expertise and design innovation to provide a unique learning environment.

“I am very, very impressed by the facilities that they have in the School of Textiles and Design in the Scottish Borders. I am sure there is no other college or university in the whole of the British Isles that can come anywhere near to this.”

Vivienne Westwood
Fashion Designer and Honorary Graduate

Heriot-Watt’s School of Textiles and Design came 1st in the UK for industry and society ‘impact’ scoring 100% in the most recent Research Excellence Framework.
Cameron Powers from Colorado, United States of America  
BA (Hons) Fashion Marketing and Retailing

What appealed to you most about Heriot-Watt University when you made the decision to come here?

The reputation. The University is ranked highly by reliable sources such as Times Higher Education. In addition, I have Scottish family and roots so I was intrigued to explore this country as well as Europe as a whole.

What sort of experience have you had in making links with industry?

I have connected with a director of marketing and merchandising who has worked with J. Crew, Levi Strauss and Dockers and done some merchandising work with the company. I have also volunteered with charity fashion shows.

How has your degree programme prepared you for a career?

The most interesting experiences so far have been the collaborations with students from other disciplines such as fashion communication and even textiles students. At the moment my main project is to create a magazine similar to that of i-D. I never imagined before that I would be working with such a diverse group of people outside of my discipline but this project has shown me what the reality of working in the industry will be like, working with people of all sorts of disciplines towards the one shared goal.

What would you say to prospective students considering Heriot-Watt University?

I have enjoyed every minute of being a student here. The creativity is endless and the projects allow so much room to add your own individual touch. The University has such a diverse group of people attending so there are so many of us who have travelled away from our home countries to come here and that, in itself, is comforting to know you’re not the only one.
The School has excellent links with the global fashion industry. Leading-edge research projects in textiles, design, clothing and sustainability reinforce our international reputation and contribute to excellence in teaching.

Introduction
Textiles, fashion and clothing design are fundamental in modern society and culture, and their study can lead to exciting and diverse opportunities worldwide. The School offers a unique range of textile and fashion programmes designed to match the needs of the global and increasingly fast-moving textile and fashion design industries.

The School provides six undergraduate programmes covering the design of constructed and printed textiles, fashion technology, fashion design, fashion communication, fashion marketing and retailing and interior design. This range of programmes is designed to suit students’ aspirations and to offer the choice of a wide range of career paths, from design practitioner through to marketing, styling, retailing and buying.

The programmes are supported by an extensive range of facilities including superbly equipped workshops for knit, weave, print and apparel, spacious studios and computer and CAD/CAM suites.

Professional awards
The School has an international reputation for leading-edge research. Study and travel awards include:
- Worshipful Company of Woolmen of the City of London;
- Worshipful Company of Dyers of the City of London;
- The Woolmark Company;
- the Worshipful Company of Weavers;
- and Worshipful Company of Framework Knitters.

Industrial connections and live projects
All students have the opportunity to work with industry, either through placements or live industry projects. Companies that the School has recently collaborated with include Harvey Nichols, Johnstons of Elgin, Old Navy, MYB Textiles, Estee Lauder and W L Gore.

#Transform19
The School of Textiles and Design hosts an annual showcase of students’ work in the Scottish Borders campus in Galashiels. The event is open to the public and includes a salon fashion show and exhibition. Tickets go on sale in April.

Open Days
The Open Days will be held on Friday 27 September and Friday 8 November 2019.

See Heriot-Watt Open Days or contact the Student Recruitment Service for more information.
Programmes available within Textiles and Design

Design for Textiles (Fashion, Interior, Art) W232
4 years BA (Hons)

Fashion W230
4 years BA (Hons)

Fashion Communication W640
4 years BA (Hons)

Fashion Marketing and Retailing WN25
4 years BA (Hons)

Fashion Technology JW42
4 years BSc (Hons)

Interior Design W250
2 years BA (Hons) Top Up

Alannah Cooper BA (Hons) Fashion Communication
Graduated in 2017
Winner of Best Fashion Photography Award at Graduate Fashion Week
Winner of Herald Online Fashion Graduate of the Year Award

How did you feel when you won?
I was really surprised when I won the award because I was just delighted to have been nominated. I am really happy and proud that I won because it was a great achievement for my university. I wouldn’t have ever been close to winning if it had not been for the support of my dedicated tutors and the team spirit of my class, who all pulled together to help each other make their best work in the final year.

What are your memories of Heriot-Watt?
The thing I miss most about Heriot-Watt is seeing all the people that I’ve made such good friends with. There was a studio space dedicated for the fourth year Fashion Communication students, where we spent so much time there bouncing ideas off each other. Going to the canteen with a purple face after having volunteered to trial a makeup look for someone was nothing out of the ordinary.

What have you been doing since you graduated in June?
My work has been featured in Elle and Vogue. Right now, I am working as the Digital Editor at Karen Mabon and I shot their lookbook in Portugal this summer, which will be released early next year. In January, I will be moving to London to begin an MA in Fashion Communication and Promotion at Central Saint Martins.
Design for Textiles Entry Requirements

Level 1
Standard
Highers ABBB (including English)
A-Levels BBC
IB 29 points
BTEC DMM (in a relevant area)

Minimum*
Highers BBBC (including English)
A-Levels BCC

Level 2
Standard
HNC A in graded unit (in a relevant HNC)
BTEC DDD (in relevant subject)

Level 3
Standard
HND A in graded unit (in relevant HND)

This degree is also available through a Partnership Route at selected Scottish colleges. Please see page 174 for details.

Selection is normally by application and submission of a portfolio, which should show an aptitude to textiles through use of colour, texture, rhythmic pattern-making and a logical design process. The ability to produce observational work in the form of both controlled and gestural drawing, painting and relief work should also be demonstrated.

Level 2 and Level 3 entrants are specialists in printed, woven and knitted textiles.

*Minimum: We operate contextual admissions defined by our Fair Access Policy which may mean entry requirements are flexible. Please see page 171 for eligibility details.

If you do not see your qualifications here please contact us at studywithus@hw.ac.uk

University-wide National 5/GCSE (or equivalent) Maths and English requirements are on page 170.

If English is not your first language, please refer to page 179 for our English language requirements.

BA (Hons) Design for Textiles (Fashion, Interior, Art)

UCAS code W232
Duration 4 years BA (Hons)
Number of places 30

The programme
This programme is highly creative and designed to balance practice-based exploration with appropriate theory and fabric design methodology with fabric production techniques. It also aims to encourage independent learning. The programme has elected pathways in printed and constructed textiles (woven and knitted textiles, with an option in Level 3 for fashion knit). The emphasis is fabric-making with a personal handwriting geared towards different practical outcomes, many with the involvement of recognised design studios and companies. The main market sectors covered are fashion fabrics, accessories, furnishing fabrics, wall coverings, gallery pieces, greeting cards and gift wrap.

Level 1 Lectures and practical classes provide a foundation for development and help you decide which area to specialise in. Practical projects in printed, woven and knitted textiles and CAD are underpinned by drawing, painting and material manipulation projects. Sampling and mixing techniques are encouraged to provide a wealth of fabric outcomes.

Level 2 Students choose either printed or constructed textiles (knit and weave), and explore a range of both Fashion and Interior textile projects. Study tours are organised for students to make contacts with studios and visit exhibitions and museums as part of visual and market research.

Level 3 Participation in national and international competitions is encouraged. External companies set briefs across courses, and this involvement helps you evaluate work critically and present professionally. Student exchanges are available, and a foreign study tour allows students to experience trade fairs Premiere Vision and Indigo.

Career prospects
Graduates have gone on to work with fashion/interior design companies such as Jasper Conran, Calvin Klein, Cath Kidston, Next, Morton Young and Borland, Niki-Jones and AllSaints.

Fashion Entry Requirements

Level 1
Standard
Highers ABBB (including English)
A-Levels BBC
IB 29 points
BTEC DMM (in a relevant area)

Minimum*
Highers BBBC (including English)
A-Levels BCC

Level 2
Standard
HNC A in graded unit (in a relevant HNC)
BTEC DDD (in relevant subject)

Level 3
Standard
HND A in graded unit (in relevant HND)

Portfolio submission is a prerequisite and will demonstrate an individual interest in Fashion. This can be communicated through any media including traditional, observed and expressive drawing, painting and photography.

*Minimum: We operate contextual admissions defined by our Fair Access Policy which may mean entry requirements are flexible. Please see page 171 for eligibility details.

If you do not see your qualifications here please contact us at studywithus@hw.ac.uk

University-wide National 5/GCSE (or equivalent) Maths and English requirements are on page 170.

If English is not your first language, please refer to page 179 for our English language requirements.
BA (Hons) Fashion

UCAS code W230
Duration 4 years BA (Hons)
Number of places 30

The programme
The Fashion programme explores the creative process of fashion design from initial research through to collection creation and production. This pathway explores the range of market sectors from fast fashion through the high street to ready to wear both within the UK and relevant to a global context. Applicants will develop a personal fashion handwriting and a broad understanding of the worldwide fashion industry. The personal handwriting will both embed skills and allow personal creative fashion statements appropriate to the chosen market.

Level 1 Students are encouraged to research and develop individual strengths and skills in the analysis, evaluation and contextualisation of their work in the contemporary fashion marketplace.

Level 2 Students will develop their individual fashion handwriting through individual and group design projects. They will be invited to reflect on the market through collaborative projects with the fashion industry.

Level 3 Students will be involved in design projects and fashion industry collaborations through a combination of independent study and team working. Merged in an international environment, they will be offered study abroad opportunities to develop their awareness of a global industry.

Level 4 Students will consolidate their skills and reinforce their own fashion identity through the initiation, development and production of a contemporary final fashion-led collection accompanied by a strong fashion design portfolio.

Career prospects
Internships are encouraged to widen students’ commercial awareness, and this mixture of academic, creative, practical and commercial experience produces graduates who can succeed in the global fashion industry at all levels.
BA (Hons) Fashion Communication

**UCAS code**: W640

**Duration**: 4 years BA (Hons)

**Number of places**: 30

**The programme**
This programme is aimed at students who are fascinated by the diversity of ways that fashion and clothing is communicated, promoted and presented creatively to different audiences. Fashion Communication is the activity that supports the promotion and purchases of fashion products through photography, film, digital media, performance, music, advertising and journalism. The core elements of the programme aim to develop an understanding of all areas of contemporary popular culture — underpinned with an in-depth knowledge of contemporary fashion design and its context, to inspire dynamic ideas to communicate fashion to an international audience.

**Level 1**
This broad common Level 1 for all Fashion, Communication, Marketing and Retailing students provides an introduction to students’ chosen programme and to the related pathways. Students are encouraged to research and develop individual strengths and skills in the analysis, evaluation and contextualisation of their work in the contemporary fashion marketplace.

**Level 2**
Students will specialise and explore ideas in Fashion Communication in greater depth, through courses in Fashion Photography, Digital Application, Typography and Graphics, Promotion and Advertising. You will be introduced to new skills in all of these areas and be encouraged to research and develop an individual approach to subjects.

**Level 3**
Students will work on cross-disciplinary projects and fashion industry collaborations through a combination of independent study, team working and external projects in an area related to Fashion Communication. This external activity provides industry awareness, as well as giving first-hand knowledge of contextualising their work in the contemporary marketplace.

**Level 4**
Students will consolidate their skills and develop their individuality through the initiation, development and completion of a final degree project. This can take the form of a fashion publication, fashion film, website or other form of contemporary fashion communication.

**Career prospects**
This programme offers many transferable skills that can lead to careers in all related areas of fashion communication.

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**Fashion Marketing and Retailing Entry Requirements**

**Level 1**

<table>
<thead>
<tr>
<th>Standard</th>
<th>Highers ABBB (including English)</th>
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<tbody>
<tr>
<td>A-Levels</td>
<td>BBC</td>
</tr>
<tr>
<td>IB</td>
<td>29 points</td>
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<tr>
<td>BTEC</td>
<td>DMM (in a relevant area)</td>
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**Minimum**

<table>
<thead>
<tr>
<th>Standard</th>
<th>Highers BBBC (including English)</th>
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<tr>
<td>A-Levels</td>
<td>BCC</td>
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**Level 2**

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<tr>
<th>Standard</th>
<th>HNC A in graded unit (in a relevant HNC)</th>
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<tbody>
<tr>
<td>BTEC</td>
<td>DDD (in relevant subject)</td>
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**Level 3**

<table>
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<tr>
<th>Standard</th>
<th>HND A in graded unit (in relevant HND)</th>
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</table>

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If you do not see your qualifications here please contact us at studywithus@hw.ac.uk

University-wide National 5/GCSE (or equivalent) Maths and English requirements are on page 170.

If English is not your first language, please refer to page 179 for our English language requirements.
BA (Hons)
Fashion Marketing and Retailing

UCAS code WN25
Duration 4 years BA (Hons)
Number of places 30

The programme
Designed to provide students with the opportunity to experience elements of product development and materials evaluation, this programme is based on practical industry-based projects. The programme provides students with the knowledge and skills to deal with fashion business in a rapidly changing digital landscape. These skills include understanding the business environment and the supply chain from product evaluation through to delivering to the end-user. The programme provides invaluable exposure to industry practice.

Level 1
Encourages students to research and develop skills in analysis and critical awareness of the factors influencing fashion design, design thinking, fashion and digital media and communications as well as an introduction to fashion management and marketing principles.

Level 2
This equips students with evaluation skills to further explore retail management areas including the role of fashion buying, promotion and advertising, merchandising, consumer behaviour and digital technologies. These topics all contribute to help students understand how to manage the retail design process, including the delivery and marketing of products and services.

Level 3
Deepens the understanding of the latest cutting-edge retail innovations as well as developing and sharpening entrepreneurial instincts. Fashion writing skills are developed giving students the potential opportunity to move into journalism and/or blogging. Events management provides opportunities to plan, manage and co-ordinate live events. Included is a visit to an international buying exhibition to Paris.

Level 4
Takes a global and strategic consideration of retail and the key influences promoted by sourcing opportunities, threats from foreign retail rivals and focus on company growth and development. Digital and social media marketing gives students a deep insight into the shifting role of communication and will help them navigate the ever-changing digital landscape.

Career prospects
Graduates can pursue an extensive range of careers within the fashion industry including retail management, digital and fashion marketing, buying and merchandising.
### Fashion Technology Entry Requirements

**Level 1**

- **Standard**
  - Highers ABBB (including English) (National 5 Mathematics C is also required)
  - A-Levels BBC (including English) (GCSE English C is also required)
  - IB 29 points
  - BTEC DMM (in a relevant area)

- **Minimum**
  - Highers BBBC (including English) (National 5 Mathematics C is also required)
  - A-Levels BCC

**Level 2**

- **Standard**
  - HNC A in graded unit (in a relevant HNC)
  - BTEC DDD (in relevant subject)

**Level 3**

- **Standard**
  - HND A in graded unit (in relevant HND)

This degree is also available through a Partnership Route at selected Scottish colleges. Please see page 174 for details.

*Minimum: We operate contextual admissions defined by our Fair Access Policy which may mean entry requirements are flexible. Please see page 171 for eligibility details.

If you do not see your qualifications here please contact us at studywithus@hw.ac.uk

University-wide National 5/GCSE (or equivalent) Maths and English requirements are on page 170.

If English is not your first language, please refer to page 179 for our English language requirements.

### BSc (Hons) Fashion Technology

- **UCAS code**: JW42
- **Duration**: 4 years BSc (Hons)
- **Number of places**: 30

#### The programme

The programme offers a strong vocational focus and multidisciplinary approach, providing a balance of creativity and fashion product development. Students learn how commercial design and fashion technology link to create successful fashion products. Industrial focused projects develop a broad range of essential skills preparing graduates for a wide range of roles within the dynamic fashion industry. An integrated industrial placement in the third year of study provides students with essential industry skills in a variety of roles.

**Level 1** Practical classes, workshops and lectures provide a fundamental and practical knowledge of design, fashion product development, textiles and fashion marketing that underpin the clothing and fashion industry. Practical projects allow for individual creativity and personal development, whilst consolidating subject areas.

**Level 2** Expanding on the foundations of year 1, year 2 reinforces the commercial context, whilst further developing skills and knowledge in CAD, design and development, textiles and fashion buying. The programme has strong industry links with some courses delivered as live industry projects.

**Level 3** Students develop independent learning through interlinked projects that further enhance their creative and problem-solving skills, whilst embedding technical expertise and commercial product development with live industry projects. Students spend the second semester in industry which contextualises their learning in an industry setting.

**Level 4** Each student determines and negotiates their individual Honours project that reflects the diverse and contemporary areas of the clothing and fashion industry. A global context is further explored in the Honours year with students studying future textiles, global fashion management and entrepreneurship.

#### Career prospects

There is a wide range of career prospects including product design and development, buying, merchandising, management, garment technology, production, marketing, and retailing – with many leading companies such as Paul Smith, Jasper Conran, Anna Sui, Oasis, Marks and Spencer, Next, Levi Strauss, John Lewis, Berghaus, and Nike.

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### Interior Design (Top Up)* Entry Requirements

**Level 3 entry**

- HND A in graded unit. Entry into Level 3 from appropriate articulated HND/BTEC courses or from Approved Learning Partners (dependent upon places available).

- Portfolio submission is a prerequisite and will demonstrate an individual’s interest in Interior Design.

*Entry from Level 3 only.*
BA (Hons)
Interior Design (Top Up)*

UCAS code W250
Duration 2 years BA (Hons) Top Up
Number of places 20

The programme
The programme explores and develops the creative process of Interior Design, from research and conceptualisation, materiality and furnishings, through to architectural design and alteration at varying scales, and technology. The programme is delivered jointly by the Schools of Textiles and Design and of Energy, Geoscience, Infrastructure and Society and provides a core set of design skills relevant to the industry, and a unique overlap of art, design and science, supported by contextual studies, technology and subject-specific expertise. Students tackle projects that enable them to articulate their own specialism in Interior Design, with the aim of designing interior spaces with relevance and value.

Level 3 Focuses on interdisciplinary projects and industry collaborations through a combination of independent study, team working and dynamic external projects. This external activity provides students with industry awareness as well as giving them first-hand knowledge of contextualising their own work in the contemporary Interior Design discipline and practice.

Level 4 Students will consolidate their skills and develop their own Interior Design agenda and creative identity through the initiation, development and delivery of a self-selected major project that responds to present-day themes and issues.

Career prospects
Students develop the key cognitive and technical skills required for a career as a designer, such as the analytical, conceptual and creative thinking that underlies all good design, the technical know-how and proficiency that get interiors built, and the interpersonal skills and empathy that make interiors useful and delightful to those who inhabit and experience them.
School of Mathematical and Computer Sciences

Professor Beatrice Pelloni Head of School

The School of Mathematical and Computer Sciences combines one of the oldest and most important areas of human knowledge with a young and fast-moving discipline that impacts all aspects of our lives.

Students studying these subjects at Heriot-Watt will enjoy a rich and rewarding experience that sheds light on the way the world works. On graduating, this experience will be in great demand across a vast array of career disciplines.

International perspective
The School boasts a thriving international community of well-qualified students from across the world.

Our programmes
Those pursuing a mathematics-related degree, who have the drive and the mind-set, can apply their skills widely in the world of work. Mathematicians’ efforts underpin the latest developments in applied science, engineering and business operations, whilst the actuarial profession is making a significant contribution to the ongoing debate about pension systems and entitlements.

Computer science lies at the heart of our technologically driven society, supporting everything from the largest corporate systems to the smallest mobile device. Technology is evolving so quickly that there is always a new challenge and range of career specialisms. Heriot-Watt ensures that computer science graduates are armed with core technical and deep specialist skills, allied to strong links with industry, to take full advantage of the career opportunities available. In contrast, Information Systems is a degree for those who are interested in how people, organisations and technology interact in a modern society.

For those attracted by a career in the financial sector, degrees in actuarial science and financial mathematics are particularly appropriate. Heriot-Watt was the first university in the UK to offer a degree with a substantial actuarial component. Successful completion of our BSc in Actuarial Science can entitle graduates to exemptions from a number of the professional examinations required to qualify as an actuary. The programme is fully accredited by the UK actuarial profession.

Teaching and learning
New developments include the use of android and social interaction mechanisms in teaching, to explore new possibilities for learning. Staff are dedicated to the pursuit of knowledge and excellence in their own areas of specialism, where many are world authorities, and to passing this knowledge on to students through their inspirational teaching.

Research
The School has an excellent reputation and is highly rated for the quality of its research and teaching. It has multiple links to international industry and offers excellent pathways into the many fascinating careers open to mathematics and computer science specialists. The range of interests varies in line with the many programmes and research disciplines on offer.

More information on the School’s leading-edge research can be found at www.hw.ac.uk/schools/mathematical-computer-sciences/research.htm

Heriot-Watt came 5th in the UK in Mathematical Sciences in the 2014 Research Excellence Framework in a joint submission with the University of Edinburgh.
Leong Chee Yean
BSc Actuarial Science

What appealed to you most about Heriot-Watt University?
There were two main reasons that attracted me to pursue a degree in Actuarial Science in Heriot-Watt University. Firstly, it has a long rich history and is renowned for its high quality teaching. It was the first university in the UK to offer a course in Actuarial Science in 1972. Its actuarial programme is also fully accredited by the IFoA (Institute and Faculty of Actuaries) and offers exemption for the actuarial professional papers which is a great start to an actuarial career.

The Go Global programme in Heriot-Watt University really appealed to me as it allows me to pursue my studies in the Malaysia and Edinburgh campuses. This is a wonderful opportunity as I got to enjoy the best of both worlds, expand my network of friends while completing my degree!

What sort of experience have you had in making links with industry?
The University had organised many activities and events which provide students with opportunities to network with young professionals in various industries. For example, senior and student actuaries were often invited to give career presentations as well as to Careers Fairs. Through these events, I managed to get an insight into the actuarial profession and it definitely helped me through my job applications.

How has your degree programme prepared you for a career?
The degree has equipped me with relevant actuarial knowledge ranging from theoretical mathematics to practical applications. The materials are closely related to the IFoA actuarial professional examination curriculum and help prepare you for your future actuarial professional exams and your career. In addition, the lecturers are well-versed in their respective fields and some are equipped with years of actuarial industry experience.
Actuarial Mathematics
and Statistics

Contact Admissions Officer
T: 0131 451 3451 E: studywithus@hw.ac.uk
www.hw.ac.uk/ug-actuarial

Our Actuarial Science programmes are well regarded throughout the actuarial world. Heriot-Watt University’s Edinburgh Campus is recognised as a Center of Actuarial Excellence by the Society of Actuaries (SOA) in North America. With roots dating back to 1889, the SOA is the world’s largest actuarial professional organisation with more than 28,000 actuaries as members. Heriot-Watt University’s Edinburgh Campus is the first Center of Actuarial Excellence in Europe.

Introduction
Heriot-Watt’s Department of Actuarial Mathematics and Statistics was the first of its kind in the UK and is one of the world’s leading centres for teaching and research in these areas. Many of our teaching staff are professionally qualified actuaries so teaching is always relevant and practical. Our Actuarial Science degrees are accredited by the UK actuarial profession, two of only a handful of programmes in the UK to have this accolade.

Building on its actuarial strengths, the School has attracted many experts in the fields of probability, statistics and financial mathematics, the latter of which is much in demand in banks and investment companies. Again, the lecturers in this area are recognised across the globe for their high quality of work.

Our programmes offer the chance of an industrial placement or a year studying abroad in Canada or Australia. Actuarial Science students can take advantage of our international campuses by studying in Malaysia for a semester or a year. On-campus, we give students plenty of support and encouragement by allowing for small groups and team working in some tutorials, and by allocating all students a personal tutor.

Teaching and assessment
There are examinations after completion of most courses and at the end of the corresponding semester. Some assessment is by project work based on practical statistical, financial and actuarial problems solved in the computer labs.

Students will have many opportunities to develop their skills in specialist mathematical and statistical software to solve real-world problems, learn programming and mathematical modelling skills and handle large, complex data sets. This software includes R, Excel, Matlab and SPSS.

Information for Level 2 entrants (three-year Honours degree)
Well-qualified applicants can achieve the Honours degree in three years by direct entry to Level 2. This is the equivalent to entering Year 1 of an Honours degree in England, Wales and Northern Ireland. Potential applicants should note that all exemption subjects are available to those completing the three-year programme. We also assist such students by offering them preparatory summer reading.

Programme flexibility
The degrees in Actuarial Science, Financial Mathematics and Statistical Data Science are very similar, which allows transfer between them up to the end of Level 2. Some Mathematics degrees also have similar content, allowing transfer here, too.
Professional recognition and exemptions
Our Actuarial Science degrees are fully accredited by the Institute and Faculty of Actuaries and offer potential exemptions from a number of the professional examinations. Because of this they offer a fast-track start to the process of becoming a qualified actuary.

Prizes and scholarships
The value of our degrees is recognised by employers and professional bodies who provide generous prizes. Currently, prizes are provided by Longevitas, the IMA, Scottish Widows, Standard Life and the Worshipful Company of Actuaries.

The University offers limited scholarships to applicants. Please visit the scholarship website for full details and conditions. www.hw.ac.uk/study/fees/scholarships-bursaries.htm

Open Days
The Edinburgh Campus Open Days will take place on Friday 7 June and Saturday 26 October 2019.

All applicants who are offered a place of study will be invited to attend an organised departmental visit in spring 2020. Our Offer Holder Days give you the chance to learn about programmes, and look around our beautiful Campus and excellent teaching facilities. You will also meet members of staff and students on our programmes. www.hw.ac.uk/opendays

Programmes available within Actuarial Mathematics and Statistics

Actuarial Science GG13
4 years BSc (Hons) or 3 years BSc (Hons)

Actuarial Science and Diploma in Industrial Training 5G5B
5 years BSc (Hons) and Diploma or 4 years BSc (Hons) and Diploma

Financial Mathematics GGC3
4 years BSc (Hons) or 3 years BSc (Hons)

Statistical Data Science G301
4 years BSc (Hons) or 3 years BSc (Hons)

Michal Kobák
BSc (Hons) Financial Mathematics

Michal is currently doing a Master’s degree at ETH Zurich and University of Zurich in Quantitative Finance.

What aspects of your programme really appealed to you?
The BSc in Financial Mathematics stood out to me due to the programme’s content and the reputation of the Department of Actuarial Mathematics and Statistics. Choosing the application of mathematics to finance to be the focus of my Bachelor’s degree was the obvious next step for me, as I have always enjoyed using mathematics to solve real-life problems and had a liking for probability. Coming to study at Heriot-Watt was a great decision, as the programme turned out to be uniquely and thoroughly put together, providing comprehensive knowledge from the fields of mathematics, probability, statistics, finance, and economics.

What impressed you about your learning experience at Heriot-Watt?
The academic staff were always friendly, eager to provide valuable feedback, and able to answer my questions or point me in the right direction. The material of the courses taught throughout the four years was conveniently interconnected, with the first two years mostly providing the tools to tackle the challenging material of the last two. The campus has an inviting and attractive environment and it has been continuously evolving. New study spaces and other facilities have been built, refurbished, and improved, which made my experience even more enjoyable. The four years at Heriot-Watt have prepared me for my further studies and have opened the door to explore new and exciting opportunities.
**Actuarial Mathematics and Statistics Entry Requirements**

**Level 1**

**Standard**
- Highers AAAB (including Mathematics at A)
- A-Levels AAB (including Mathematics at A)
- IB 28 points (with Higher Level Mathematics at 6)
- BTEC DDD (including sufficient Mathematics)

**Minimum**
- Highers ABBC (including Mathematics at A)
- A-Levels ABC (including Mathematics at A)

**Level 2**

**Standard**
- Advanced Highers AAB (including Mathematics at A plus excellent Highers)
- A-Levels AAA (including Mathematics)
- IB 30 points (with Higher Level Mathematics at 7)
- BTEC DDD (including sufficient Mathematics)

As Actuarial Science is also taught at our Malaysia Campus, you will have the opportunity to transfer there for one semester or for one academic year, subject to satisfactory academic progress.

*Minimum: We operate contextual admissions defined by our Fair Access Policy which may mean entry requirements are flexible. Please see page 171 for eligibility details.

If you do not see your qualifications here please contact us at studywithus@hw.ac.uk

University-wide National 5/GCSE (or equivalent) Maths and English requirements are on page 170.

If English is not your first language, please refer to page 179 for our English language requirements.

### BSc (Hons) Actuarial Science

**UCAS code** GG13
**Duration** 4 years BSc (Hons) or 3 years BSc (Hons)

**The programme**

If you enjoy mathematics and are looking for a degree that will prepare you for a rewarding career, both intellectually and financially, then this might be the programme for you. It is one of only a few to be accredited by the UK Institute and Faculty of Actuaries (IFoA). Exemptions from professional IFoA examinations may be obtained by good performance in relevant courses, giving prospective actuaries an advantage over those on other mathematics programmes. At the same time it opens doors to the wide range of careers available to mathematics graduates. Opportunities are available for industrial placements for UK and EU students or the option is open to all students to study abroad for a year. Suitably qualified applicants can start in Level 2.

**Level 1**
- Introduction to Statistical Science; Calculus; Introduction to University Mathematics; Professional Development Planning; Finance; Economics; and practical work.
- Level 2 Probability and Statistics; Actuarial and Financial Mathematics; Linear Algebra; Real Analysis; Multivariate Calculus; Numerical Analysis; and practical work.
- Level 3 Survival Models; Portfolio Theory; Life Insurance Mathematics; Statistical Modelling; Stochastic Processes; and project work.
- Level 4 Risk Theory; Financial Risk Management; Pension; Life Office Practice; Time Series; Continuous-Time Finance; Bayesian Inference and other statistical topics.

**Career prospects**

Employment prospects are good, with excellent financial rewards – our students readily find work as trainee actuaries in the UK or overseas. Graduates are also well equipped for more general careers like accountancy, banking, stockbroking or teaching.

### BSc (Hons) Actuarial Science and Diploma in Industrial Training

**UCAS code** 5G5B
**Duration** 5 years BSc (Hons) and Diploma or 4 years BSc (Hons) and Diploma

**The programme**

This programme combines the rigorous studies of the BSc (Hons) Actuarial Science with a year-long work placement in an organisation such as a pensions consultancy or a life insurance company. Exemptions from professional IFoA examinations may be obtained by good performance in relevant courses. The Diploma in Industrial Training is gained through successful completion of this work placement. The work placement helps you to develop specific work-related skills, giving you the opportunity to apply and build upon the theory you learn in your studies. It allows you to take on real responsibilities, enhance your interpersonal skills through teamwork and communication and experience workplace culture. The Diploma is available to all students, including those from overseas, as it does not require a work visa. It is your responsibility to find a suitable work placement; if you are unable to find a suitable work placement then you can transfer to the standard BSc (Hons) Actuarial Science degree. Organisations that students have recently secured placements with include Prudential, Aegon and Mercer.

**Level 1**
- Introduction to Statistical Science; Calculus; Introduction to University Mathematics; Professional Development Planning; Finance; Economics; and practical work.
- Level 2 Probability and Statistics; Actuarial and Financial Mathematics; Linear Algebra; Real Analysis; Multivariate Calculus; Numerical Analysis; and practical work.
- Level 3 Survival Models; Portfolio Theory; Life Insurance Mathematics; Statistical Modelling; Stochastic Processes; and project work.
- Level 4 Risk Theory; Financial Risk Management; Pension; Life Office Practice; Time Series; Continuous-Time Finance; Bayesian Inference and other statistical topics.

**Career prospects**

Employment prospects are good, with excellent financial rewards – our students readily find work as trainee actuaries in the UK or overseas. Graduates are also well equipped for more general careers like accountancy, banking, stockbroking or teaching.
BSc (Hons)
Financial Mathematics

**UCAS code** GGC3
**Duration** 4 years BSc (Hons)
or 3 years BSc (Hons)

**The programme**
If you are looking for a career in the world of finance and love mathematical challenges, then Financial Mathematics is the degree for you. Just as civil engineering deals with the design, construction and maintenance of buildings and roads, financial mathematics is concerned with the design, construction and maintenance of financial products. It is well known that careers in financial mathematics offer some of the best salaries of all professions and graduates working in this area thrive on being offered many interesting challenges on a day-to-day basis.

**Level 1** Introduction to Statistical Science; Calculus; Introduction to University Mathematics; Professional Development Planning; Finance; Economics; and practical work.

**Level 2** Probability and Statistics; Actuarial and Financial Mathematics; Linear Algebra; Real Analysis; Multivariate Calculus; Numerical Analysis; and practical work.

**Level 3** Portfolio Theory and Asset Models; Derivative Markets and Discrete-Time Finance; Stochastic Processes; Statistical Modelling; Vector Analysis; Numerical Analysis; Bayesian Inference and Computational Methods.

**Level 4** Advanced Derivative Pricing; Continuous-Time Finance; and options from a wide choice, including Statistical Machine Learning, Optimisation, Risk Theory and Time Series.

**Career prospects**
Investment banking is the main destination of financial mathematicians; however, the skills developed on the programme are desirable to all businesses, and there are many research opportunities. Due to the high mathematical ability required in this industry, there is always a limited number of well-trained financial mathematicians available, meaning that graduates are much in demand.

BSc (Hons)
Statistical Data Science

**UCAS code** G301
**Duration** 4 years BSc (Hons)
or 3 years BSc (Hons)

**The programme**
Statistical Data Science is at the core of modern data analytics that turn data into intelligence to inform decision-making and solve challenging problems. Applications range from economics and medicine, to social and environmental sciences. This degree covers theoretical and applied elements of modern statistics, and provides training and practical experience in modelling, analysing and interpreting real data required in the economy, industry and research. The early years of the degree cover basic Mathematics, Probability and Statistics. The final years focus on advanced specialist topics in Statistical Modelling, Data Science, Machine Learning, Probability and Stochastic Processes.

**Level 1** Introduction to Statistical Science; Calculus; Introduction to University Mathematics; Professional Development Planning; Finance; Economics; and practical work.

**Level 2** Probability and Statistics; Actuarial and Financial Mathematics; Linear Algebra; Real Analysis; Multivariate Calculus; Numerical Analysis; and practical work.

**Level 3** Portfolio Theory and Asset Models; Derivative Markets and Discrete-Time Finance; Stochastic Processes; Statistics for Social Science; Statistical Modelling; Vector Analysis; Survival Models; Bayesian Inference and Computational Methods.

**Level 4** Optimisation; Statistical Machine Learning; Time Series; and options from a wide choice, including Risk Theory, Statistical Computing, Mathematical Biology and Continuous-Time Finance.

**Career prospects**
Due to the near-universal relevance of statistical modelling and data science, career opportunities exist for suitably qualified statisticians in a wide variety of areas, notably the pharmaceutical industry, business, insurance, financial consulting, market research, the civil service and scientific research in areas such as environmental science.
School of Mathematical and Computer Sciences  Computer Science

Computer Science

Contact Admissions Officer
T: 0131 451 3451 E: studywithus@hw.ac.uk
www.hw.ac.uk/ug-computer

Employment prospects in industry, commerce, finance and the public sector are excellent both in the UK and internationally.

Introduction
Computing is the key technology for all aspects of twenty-first-century life. Everybody is touched by computers, either directly through work and home use of desktop systems, mobile devices, media players and toys, or indirectly through the multiple public and private agencies that depend on computers to deliver services to us. Yet the vast majority of people have no need to understand what goes on inside computers, and are often only aware of them when they stop working properly.

So, while computers are at the heart of computing, our philosophy is that computing is very much also about people using computers. We aim to help develop the highly trained experts who will build and organise the computer-based systems that everybody else uses.

Our Computer Science programme is aimed at developing specialists who can construct the complex software tools others use to build everything from apps to systems. In contrast, Information Systems is a degree for those who are interested in how people, organisations and technology interact in a modern society. Our Computer Systems programme combines strong technical skills with a focus on organising and managing systems. Our MEng in Software Engineering includes a significant placement in industry where technical and system skills are integrated.

Practical activity is carefully integrated into all our programmes. All Level 3 students take part in a year-long group project, where they co-operate in tackling a large, realistic problem. Level 4 students conduct a major, year-long, individual dissertation project.

Our graduates enjoy excellent employment and career prospects. Employers tell us they like the way that we offer a distinctive blend of core skills and specialist knowledge, and produce graduates who have the ability to work individually and in a team.

Teaching and assessment
Teaching is based on a flexible mix of lectures, small group tutorials, group activities and laboratories, arranged to suit individual courses. Progress is normally determined by a combination of continuous assessment and end-of-course examinations, again tailored to meet the needs of specific courses.

Programme flexibility
Applicants with appropriate qualifications may transfer to any other undergraduate degree programme in the discipline at the end of Level 1.

Professional recognition and exemptions
The excellence of our Computer Science, Computer Systems, Information Systems and Software Engineering degrees is certified by the highest levels of accreditations by the British Computer Society (BCS) and the Engineering Council, giving students relevant exemptions in a variety of professional certifications, including CEng and CSci.
Industrial placements/work experience

Students on the MEng Software Engineering programme will spend up to six months in industry between Levels 4 and 5. Students on the BSc in Computer Science and Diploma in Industrial Training, BSc in Computer Systems and Diploma in Industrial Training and BSc in Information Systems and Diploma in Industrial Training will spend 12 months in industry in Level 4.

Skills gained
- The ability to design sound computer-based solutions to real-world problems
- A strong foundation in contemporary computer science theory and practice
- Specialist knowledge in a focused field
- Experience of group and individual project work
- Highly marketable qualification for employment in industry or for research.

Open Days
The Edinburgh Campus Open Days will take place on Friday 7 June and Saturday 26 October 2019.

Offer Holder Days are organised in the spring of 2020.

Programmes available within Computer Science

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<tr>
<td>Software Engineering G601</td>
<td>5 years MEng or 4 years MEng</td>
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</table>

Hazel Brookes
Computer Science BSc

What aspects of your programme really appealed to you?
I was always greatly interested in video games and programming, so when I saw the Computer Science degree I really knew I wanted to do it. The University’s opportunities for language generalisation and then allowing you to specialise in games programming modules in third and fourth year really appealed to me. The degrees are very flexible so you are able to completely tailor your degree to your interests.

What do you like most about studying at Heriot-Watt?
Personally, the lecturers and the staff are some of the best people I’ve met. They are incredibly helpful and supportive and if you are motivated they will completely go out of their way to give you opportunities. Events like the Code Clinic every week are extremely beneficial for coding support and personal tutors are always there for one-on-one help when needed. I’ve found myself helping at charity outreach events and Open Days all through volunteering and staff… the opportunities are endless!
Computer Science Entry Requirements

Level 1

Standard
Highers ABBB (including Mathematics)
A-Levels BBB (including Mathematics)
IB 28 points (with Mathematics at Higher Level 5)
BTEC DDM (including sufficient Mathematics)
HNC B in graded unit (including sufficient Mathematics)

Minimum*
Highers BBBC (including Mathematics at B)
A-Levels BBC (including Mathematics at B)

Level 2

Standard
Advanced Highers BBB (including Mathematics and Computing plus excellent Highers)
A-Levels ABB (including Mathematics and Computing)
IB 30 points (with Mathematics and Computing at Higher Level 6)
HNC A in graded unit (including sufficient Mathematics and Computing)
HND AB in graded units (including sufficient Mathematics and Computing)
BTEC DDM (including sufficient Mathematics and Computing)

Level 3

Standard
HND AA in graded units (including sufficient Mathematics and Computing)

Those entering at Level 2 are expected to be proficient in a high-level programming language; Java is our preference.

*Minimum: We operate contextual admissions defined by our Fair Access Policy which may mean entry requirements are flexible. Please see page 171 for eligibility details.

If you do not see your qualifications here please contact us at studywithus@hw.ac.uk

University-wide National 5/GCSE (or equivalent) Maths and English requirements are on page 170.

If English is not your first language, please refer to page 179 for our English language requirements.

Computer Science

BSc (Hons) Computer Science

UCAS code G400 / G700 / G440 / G600 / G450*

Duration 4 years BSc (Hons)
or 3 years BSc (Hons)

The programme

Our BSc Computer Science Honours degree is oriented to constructing robust and useable systems. This programme aims to give a well-integrated balance of theoretical underpinnings and practical experience, strongly informed by the research expertise of our academic staff. We aim to teach people not just how to deploy cutting-edge tools and techniques, but how to build the next generation of software tools that other system developers will use.

Level 1
You will study three courses on programming in Java, interactive systems, web design and databases, computer systems, and logic and proof.

Level 2
You will study interaction design, web programming, data structures and algorithms, programming languages, software design, database management systems, hardware-software interface and discrete mathematics.

Level 3
You will study software engineering, data communications and networking, artificial intelligence and intelligent agents, operating systems and concurrency, language processors, professional development, theory of computing and programming language semantics. You will also take part in a major group project with an industrial orientation.

Level 4
You will study five advanced courses drawn from a wide range of our research and technical specialisms. You will also conduct a substantial individual project, on a topic of your choice or suggested by an academic, lasting the whole year.

Career prospects

Prospects in industry, commerce and the public sector are excellent. The growth in network services on computers in the office, at home, and on mobile devices has increased the demand for experts who can design, implement and manage richly interactive computational systems for non-specialist users.

Additional information

At Level 4, you will have the opportunity to specialise in Artificial Intelligence, Games Programming, Software Engineering or Data Science.

BSc (Hons) Computer Science and Diploma in Industrial Training

UCAS code Q2P3

Duration 5 years BSc (Hons) and Diploma or 4 years BSc (Hons) and Diploma

The programme

If you want to start your career with a year’s work experience in hand, then you should consider this programme. It combines the rigorous studies of the BSc (Hons) Computer Science with a year of work placement in Level 4. Good performance means 12 months’ experience of working in an organisation in the computing sector. The Diploma in Industrial Training helps you to develop specific work-related skills, giving you the opportunity to apply and build upon the theory you’ve learned. This programme aims to give a well-integrated balance of theoretical underpinnings and practical experience, strongly informed by the research expertise of our academic staff. The Diploma is available to all students, including those from overseas, as it does not require a work visa. It is your responsibility to find a suitable work placement; if you are unable to find a suitable work placement then you can transfer to the standard BSc (Hons) Computer Science degree.

Level 1
You will study three courses on programming in Java, interactive systems, web design and databases, computer systems, and logic and proof.

Level 2
You will study interaction design, web programming, data structures and algorithms, programming languages, software design, database management systems, hardware-software interface and discrete mathematics.

Level 3
You will study software engineering, data communications and networking, artificial intelligence and intelligent agents, operating systems and concurrency, language processors, professional development, theory of computing and programming language semantics. You will also take part in a major group project with an industrial orientation.

Level 4
Twelve-month work placement.

Level 5
You will study five advanced courses drawn from a wide range of our research and technical specialisms. You will also conduct a substantial individual project, on a topic of your choice or suggested by an academic, lasting the whole year.
Career prospects
Prospects in industry, commerce and the public sector are excellent. The growth in network services on computers in the office, at home, and on mobile devices has increased the demand for experts who can design, implement and manage richly interactive computational systems for non-specialist users.

Additional information
At Level 5, you will have the opportunity to specialise in Artificial Intelligence, Games Programming, Software Engineering or Data Science.

Additional information
As Computer Science is also taught at our Dubai Campus, you will have the opportunity to transfer there for one semester or for one academic year, subject to satisfactory academic progress.

*Please note BSc Computer Science (Data Science) G450 is not available at the Dubai Campus.
Computer Systems / Information Systems Entry Requirements

**Level 1**

**Standard**
- Highers ABBB
- A-Levels BBB
- IB 28 points
- BTEC DDM
- HNC B in graded unit

**Minimum**
- Highers BBBC
- A-Levels BCC

**Level 2**

**Standard**
- Advanced Highers BBB (including Computing plus excellent Highers)
- A-Levels ABB (including Computing)
- IB 30 points (with Computing at Higher Level 6)
- HNC A in graded unit (including sufficient Computing)
- HND AB in graded units (including sufficient Computing)
- BTEC DDM (including sufficient Computing)

**Level 3**

**Standard**
- HND AA in graded units (including sufficient Computing)

Those entering at Level 2 are expected to be proficient in a high-level programming language; Java is our preference.

*Minimum: We operate contextual admissions defined by our Fair Access Policy which may mean entry requirements are flexible. Please see page 171 for eligibility details.

If you do not see your qualifications here please contact us at studywithus@hw.ac.uk

University-wide National 5/GCSE (or equivalent) Maths and English requirements are on page 170.

If English is not your first language, please refer to page 179 for our English language requirements.

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**BSc (Hons) Computer Systems**

**UCAS code** I100 / 5Y6J

**Duration** 4 years BSc (Hons) or 3 years BSc (Hons)

**The programme**
Our BSc Computer Systems degree is well suited for students looking for a sound foundation in contemporary computing, complemented by the professional skills needed to design, deploy and manage robust systems in diverse organisations, from SMEs to large corporations.

**Level 1** You will study three courses on programming in Java, interactive systems, web design and databases, computer systems, and an elective of your choice.

**Level 2** You will study interaction design, web programming, data structures and algorithms, programming languages, software design and database management systems, and two electives of your choice.

**Level 3** You will study software engineering, artificial intelligence and intelligent agents, data communications and networking, knowledge management, language processors, operating systems and concurrency, professional development and sociotechnical and soft systems.

**Level 4** You will study five advanced courses drawn from a wide range of our research and technical specialisms. You will also conduct a substantial individual project, on a topic of your choice or suggested by an academic, lasting the whole year.

**Career prospects**
Prospects in industry, commerce and the public sector are excellent. The growth in network systems on computers in the office, at home, and on mobile handheld devices has increased the demand for experts who can design, implement and manage richly interactive computational systems for non-specialist users.

**Additional information**
At Level 4 you will have the opportunity to specialise in Games Programming. As Computer Systems is also taught at our Dubai Campus, you will have the opportunity to transfer there for one semester or for one academic year, subject to satisfactory academic progress.

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**BSc (Hons) Computer Systems and Diploma in Industrial Training**

**UCAS code** Q2P4

**Duration** 5 years BSc (Hons) and Diploma or 4 years BSc (Hons) and Diploma

**The programme**
This programme combines the rigorous studies of the BSc (Hons) Computer Systems with a year-long work placement in the computing sector. The Diploma in Industrial Training helps you to develop specific work-related skills, giving you the opportunity to apply and build upon the theory you’ve learned. This programme is well suited for students looking for a sound foundation in contemporary computing, complemented by the professional skills needed to design, deploy and manage robust systems in diverse organisations. The Diploma is available to all students, including those from overseas, as it does not require a work visa. If you are unable to find a suitable work placement then you can transfer to the standard BSc (Hons) Computer Systems degree.

**Level 1** You will study three courses on programming in Java, interactive systems, web design and databases, computer systems, and an elective of your choice.

**Level 2** You will study interaction design, web programming, data structures and algorithms, programming languages, software design and database management systems, and two electives of your choice.

**Level 3** You will study software engineering, artificial intelligence and intelligent agents, data communications and networking, knowledge management, language processors, operating systems and concurrency, professional development and sociotechnical and soft systems.

**Level 4** Twelve-month work placement.

**Level 5** You will study five advanced courses drawn from a wide range of our research and technical specialisms. You will also conduct a substantial individual project, on a topic of your choice or suggested by an academic, lasting the whole year.

**Career prospects** See under BSc (Hons) Computer Systems.

**Additional information**
At Level 5 you will have the opportunity to specialise in Games Programming. As Computer Systems is also taught at our Dubai Campus, you will have the opportunity to transfer there for one semester or for one academic year, subject to satisfactory academic progress.
BSc (Hons)
Information Systems

**UCAS code** G560 / G590 / G501 / GN52
**Duration** 4 years BSc (Hons) or 3 years BSc (Hons)

**The programme**
Our BSc Information Systems degree focuses on making sure that computer systems really are useable. There is a strong emphasis on system design and evaluation techniques — especially for interactive systems — and on the management skills necessary to plan and organise the large-scale information resources that drive modern organisations.

**Level 1** You will study introductory programming in Java, interactive systems, web design and databases, computer systems, enterprise and its business environment, technology in society, and an elective of your choice.
**Level 2** You will study interaction design, software design and database management systems, complemented by fundamentals of marketing, management in a global context, project management and operations management. You will also take part in a creative design project.
**Level 3** You will study knowledge management, critical thinking, human resource management, sociotechnical and soft systems, organisational behaviour, marketing communications, software engineering and professional development. You will also take part in a major group project with an industrial orientation.
**Level 4** You will study five advanced courses drawn from a wide range of our research and technical specialisms. You will also conduct a substantial individual project, on a topic of your choice or suggested by an academic, lasting the whole year.

**Career prospects**
Information Systems graduates are in demand from a variety of organisations from finance and engineering to retail, IT and software houses. Our recent graduates have gone on to work in project management and analyst roles, IT graduate schemes, graphic design and technical consultancies either locally in Scotland or throughout Europe and the rest of the world.

**Additional information**
At Level 4, you will have the opportunity to specialise in Interaction Design, Internet Systems or Management.

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BSc (Hons)
Information Systems and Diploma in Industrial Training

**UCAS code** Q3R3
**Duration** 5 years BSc (Hons) and Diploma or 4 years BSc (Hons) and Diploma

**The programme**
If you want to start your career with a year’s work experience in hand, then you should consider this programme. It combines the rigorous studies of the BSc (Hons) Information Systems with a year of work placement in Level 4. Good performance means 12 months’ experience of working in an organisation in the computing sector. The Diploma in Industrial Training helps you to develop specific work-related skills, giving you the opportunity to apply and build upon the theory you’ve learned. There is also strong focus on system design and evaluation techniques, especially for interactive systems, complemented by the management skills needed to plan and organise the large-scale information resources that drive modern organisations. The Diploma is available to all students, including those from overseas, as it does not require a work visa. It is your responsibility to find a suitable work placement; if you are unable to find a suitable work placement then you can transfer to the standard BSc (Hons) Information Systems degree.

**Level 1** You will study introductory programming in Java, interactive systems, web design and databases, computer systems, enterprise and its business environment, technology in society, and an elective of your choice.
**Level 2** You will study interaction design, software design and database management systems, complemented by fundamentals of marketing, management in a global context, project management and operations management. You will also take part in a creative design project.
**Level 3** You will study knowledge management, critical thinking, human resource management, sociotechnical and soft systems, organisational behaviour, marketing communications, software engineering and professional development. You will also take part in a major group project with an industrial orientation.
**Level 4** Twelve-month work placement.
**Level 5** You will study five advanced courses drawn from a wide range of our research and technical specialisms. You will also conduct a substantial individual project, on a topic of your choice or suggested by an academic, lasting the whole year.

**Career prospects**
Information Systems graduates are in demand from a variety of organisations from finance and engineering to retail, IT and software houses. Our recent graduates have gone on to work in project management and analyst roles, IT graduate schemes, graphic design and technical consultancies either locally in Scotland or throughout Europe and the rest of the world.

**Additional information**
At Level 5, you will have the opportunity to specialise in Interaction Design, Internet Systems or Management.
Software Engineering Entry Requirements

Level 1
Standard
Highers AAAB (including Mathematics at B)
A-Levels BBB (including Mathematics)
IB 28 points (including Mathematics at Higher Level 5)
BTEC DDM (including sufficient Mathematics)
HNC B in graded unit (including sufficient Mathematics)

Minimum*
Highers BBBC (including Mathematics at B)
A-Levels BBC (including Mathematics at B)

Level 2
Standard
Advanced Highers BBB (including Mathematics and Computing plus excellent Highers)
A-Levels ABB (including Mathematics and Computing)
IB 30 points (with Mathematics and Computing at Higher Level 6)
HNC A in graded unit (including sufficient Mathematics and Computing)
HND AB in graded units (including sufficient Mathematics and Computing)
BTEC DDM (including sufficient Mathematics and Computing)

Level 3
Standard
HND AA in graded units (including sufficient Mathematics and Computing)

Those entering at Level 2 are expected to be proficient in a high-level programming language; Java is our preference.

*Minimum: We operate contextual admissions defined by our Fair Access Policy which may mean entry requirements are flexible. Please see page 171 for eligibility details.

If you do not see your qualifications here please contact us at studywithus@hw.ac.uk

University-wide National 5/GCSE (or equivalent) Maths and English requirements are on page 170.
If English is not your first language, please refer to page 179 for our English language requirements.

MEng Software Engineering

UCAS code G601
Duration 5 years MEng or 4 years MEng

The programme
The MEng Software Engineering degree is an integrated Masters programme, which augments the first three Levels of the BSc Computer Science programme with the professional skills necessary for constructing robust, secure systems. Students undertake a mandatory work placement, typically lasting six months, following completion of Level 4. The work placement is paid and you will receive support to prepare your CV and for the interview process. Organisations that recent students have been placed with include Skyscanner, Leonardo, Cadence, BlackRock and Satalia. Many of our students go on to secure an offer of employment from their placement employer.

Level 1 You will study three courses on programming in Java, interactive systems, web design and databases, computer systems, and logic and proof.
Level 2 You will study interaction design, web programming, data structures and algorithms, programming languages, software design, database management systems, hardware-software interface and discrete mathematics.
Level 3 You will study software engineering, data communications and networking, artificial intelligence and intelligent agents, operating systems and concurrency, language processors, professional development, theory of computing and programming language semantics. You will also take part in a major group project with an industrial orientation.
Level 4 As well as advanced topics, you will also undertake professional and industrial studies courses. A major individual project will also be carried out.
Level 5 Starting at the end of Level 4, you will undertake an industrial placement. You will also take further advanced topics in software engineering.

Career prospects
Prospects in industry, commerce and the public sector are excellent. The growth in network services on computers in the office, at home, and on mobile handheld devices has increased the demand for experts who can design, implement and manage richly interactive computational systems for non-specialist users.

Additional information
As the first three years of MEng Software Engineering are also taught at our Dubai Campus, you will have the opportunity to transfer there for one semester or for one academic year, subject to satisfactory academic progress.
Mathematics

Contact Admissions Officer
T: 0131 451 3451 E: studywithus@hw.ac.uk
www.hw.ac.uk/ug-mathematics

Employment prospects are excellent in industry, commerce, finance, the civil service, scientific research and all levels of teaching.

Introduction
Mathematics is a wide-ranging and important subject area based around a particular way of thinking about the world. Graduates in mathematics will find their problem-solving and numerical skills highly sought after across a wide range of careers. To take this diversity into account, our degrees have been produced in a flexible modular form, with a range of specialist options available later in the programme. For students who have decided on their interests from the outset, a wide selection of joint degrees is available. These ‘mathematics with’ programmes still allow the possibility of later transfer to a mathematics degree. In Levels 3 and 4, class sizes tend to be small, which engenders a friendly and co-operative atmosphere.

There is a strong emphasis on transferable skills training throughout our programmes, including a careers course, a project preparation skills course and a dissertation-based project. We believe this emphasis contributes to our high graduate employment rates with internationally leading companies.

Information for Level 2 entrants
Direct entry into Level 2 of most of our programmes is possible for applicants with a strong mathematical background. We support Level 2 entrants with advice on preparation, a special introduction in Freshers’ Week, mentoring, and bridging material in the first part of the programme.

Professional recognition and exemptions
Mathematics research at Heriot-Watt (submitted jointly with our research partner, the University of Edinburgh) received the highest rating in Scotland at the most recent Research Assessment Exercise.

Exemptions from professional actuarial examinations of the Institute and Faculty of Actuaries (IFoA) are available from the Mathematical, Statistical and Actuarial Sciences degree.

Scholarships
University scholarships are available for applicants and details are listed in our scholarship database.
www.hw.ac.uk/scholarships

Skills gained
• A broad knowledge and understanding of modern mathematics
• A detailed understanding of certain specific areas of mathematics
• The ability to formulate and solve complex real-world problems in mathematical language
• A flexible and rigorous approach to problem-solving
• Confidence in technical writing and communication
• The essential skills for successfully entering the career market.
Open Days
The Edinburgh Campus Open Days will take place on Friday 7 June and Saturday 26 October 2019.

Visits for UCAS applicants who are offered a place of study will be arranged for the spring of 2020. Individual visits are also welcomed. Our Open Days give applicants the chance to learn about degree programmes, view the Campus and meet members of staff and final year students on our programmes.
www.hw.ac.uk/opendays

Programmes available within Mathematics

**Mathematics G100**
4 years BSc (Hons) or 3 years BSc (Hons)

**Mathematics G101**
5 years MMath or 4 years MMath

**Mathematical, Statistical and Actuarial Sciences GGD3**
4 years BSc (Hons) or 3 years BSc (Hons)

**Mathematical, Statistical and Actuarial Sciences and Diploma in Industrial Training G3N3**
5 years BSc (Hons) and Diploma or 4 years BSc (Hons) and Diploma

**Mathematics with Computer Science G1G4**
4 years BSc (Hons) or 3 years BSc (Hons)

**Mathematics and Computer Science GG14**
4 years BSc (Hons) or 3 years BSc (Hons)

**Mathematics with Finance G1N3**
4 years BSc (Hons) or 3 years BSc (Hons)

**Mathematics with Finance and Diploma in Industrial Training G1N4**
5 years BSc (Hons) and Diploma or 4 years BSc (Hons) and Diploma

**Mathematics with French G1R1**
4 years BSc (Hons)

**Mathematics with German G1R2**
4 years BSc (Hons)

**Mathematics with Spanish G1R4**
4 years BSc (Hons)

**Mathematics with Physics G1F3**
4 years BSc (Hons) or 3 years BSc (Hons)

**Mathematics with Statistics G1G3**
4 years BSc (Hons) or 3 years BSc (Hons)

Tamsin White
BSc (Hons) Mathematics

What aspects of your programme really appealed to you?

From the outset I knew I wanted to study maths. The challenges of calculations and the adaptability of the subject knowledge really engaged me. I set my heart on a campus university with high standards of teaching and Heriot-Watt University ticked those boxes. With its stunning grounds and welcoming staff I was thoroughly excited to be accepted.

What has impressed you about your learning experience here?

Throughout my time at Heriot-Watt there were always staff available to assist with any questions or queries I had and they do their utmost to help you. They are passionate about their expertise and this really shines through in their varied teaching styles. There is a student representation system which is fully supported by the University and they really work to involve all students in changes and decision-making to benefit all parties within the University.

Would you recommend studying at Heriot-Watt?

Yes. Heriot-Watt has, undoubtedly, not only provided me with a stable programme of study but an array of activities to suit any mood. Between the Student and Sports Unions my time at Heriot-Watt University has been filled with rowing, tennis and societies such as First Aid Africa, a charity I am spending my summer with in Tanzania having just graduated. I am proud of how far both the University and I have come. In four years my experience has encouraged me to find the right future career path and become a more confident individual.
Heriot-Watt University // Undergraduate Prospectus 2020

School of Mathematical and Computer Sciences Mathematics

MMath/BSc
Mathematics Entry Requirements

Level 1
Standard
Highers ABBBB (including Mathematics at A)
A-Levels BBB (including Mathematics)
IB 28 points (with Mathematics at Higher Level 5)
BTEC DDM (including sufficient Mathematics)

Minimum*
Highers BBBC (including Mathematics at B)
A-Levels BBC (including Mathematics at B)

Alternative Qualifications
Applications from students studying a recognised access programme and who possess a suitable grounding or appropriate qualification in Mathematics would be welcomed.

*Minimum: We operate contextual admissions defined by our Fair Access Policy which may mean entry requirements are flexible. Please see page 171 for eligibility details.

If you do not see your qualifications here please contact us at studywithus@hw.ac.uk

University-wide National 5/GCSE (or equivalent) Maths and English requirements are on page 170.

If English is not your first language, please refer to page 179 for our English language requirements.

BSc (Hons)
Mathematics

UCAS code G100
Duration 4 years BSc (Hons)
or 3 years BSc (Hons)

The programme
Mathematics is a fundamental way of thinking about the world and this programme equips budding mathematicians with the technical skills necessary to carve out a successful career. The programme covers basic knowledge and recent developments in research and develops advanced mathematical and statistical skills together with an understanding of their application to the formulation and solution of real-world problems. In essence, the programme combines specialist mathematical knowledge with crucial transferable skills.

Level 1
The core material includes algebra, geometry, combinatorics, calculus and problem-solving skills. Level 1 has been carefully designed to ease the transition from school to university. You will take the above subjects together with an elective course in each semester.

Level 2
Level 1 work is consolidated and extended in both pure and applied mathematics. A choice between optional courses in computer science and probability and statistics is available.

Level 3
A combination of core and optional courses develops mathematical skills and knowledge and introduces the ideas used at the forefront of modern mathematics. Subjects include: analysis, abstract algebra, discrete mathematics, numerical analysis, and ordinary differential equations. A communication skills and careers course offers useful transferable skills.

Level 4
Further exploration and specialisation is possible with options related to our research expertise including functional analysis, optimisation, differential geometry, mathematical biology and a selection of courses in both pure and applied mathematics. An extended project also builds on the Level 3 skills course.

Career prospects
Prospects are excellent in industry, commerce, finance, the civil service, scientific research establishments and all levels of teaching. As a mathematics graduate you have not only specific mathematics skills, but also a more general training in the key skills of creative problem-solving, communication and logical thinking that are sought and highly valued by employers.

MMath
Mathematics

UCAS code G101
Duration 5 years MMath
or 4 years MMath

The programme
A graduate from the MMath degree will be able to communicate to specialist and non-specialist audiences and unambiguously demonstrate the ability to work professionally with a considerable degree of autonomy. They will also be well equipped to continue independent study in mathematics (e.g. PhD study), should they wish to do so.

Level 1
The core material includes algebra, geometry, combinatorics, calculus and problem-solving skills. Level 1 has been carefully designed to ease the transition from school to university. You will take the above subjects together with an elective in each semester.

Level 2
Level 1 work is consolidated and extended in both pure and applied mathematics. A choice between optional courses in computer science and probability and statistics is available.

Level 3
A combination of core and optional courses develops mathematical skills and knowledge and introduces the ideas used at the forefront of modern mathematics. Subjects include: analysis, abstract algebra, discrete mathematics, numerical analysis, and ordinary differential equations. A communication skills and careers course offers useful transferable skills.

Level 4
Further exploration and specialisation is possible with options related to our research expertise including functional analysis, optimisation, differential geometry, mathematical biology and a selection of courses in both pure and applied mathematics. An extended project also builds on the Level 3 skills course.

Level 5
This Level will provide detailed knowledge and understanding at an advanced level, and develop a critical awareness of current problems in some areas of mathematics. Courses on the research specialities of the department such as mathematical biology and numerical analysis will be available. There will be a further in-depth, dissertation-based project.

Career prospects
In a competitive job market, Masters-level qualifications are increasingly in demand. The MMath offers a path into work or to further research.
Mathematical, Statistical and Actuarial Sciences

Entry Requirements

**Level 1**

**Standard**
- Highers ABBBB (including Mathematics at A)
- A-Levels BBB (including Mathematics)
- IB 28 points (with Mathematics at Higher Level 5)
- BTEC DDM (including sufficient Mathematics)

**Minimum**
- Highers BBBC (including Mathematics at B)
- A-Levels BBC (including Mathematics at B)

**Level 2**

**Standard**
- Advanced Highers ABB (including Mathematics at A plus excellent Highers)
- A-Levels ABB (including Mathematics at A)
- IB 30 points (with Mathematics at Higher Level 6)
- BTEC DDD (including sufficient Mathematics)

**Alternative Qualifications**
Applications from students studying a recognised access programme and who possess a suitable grounding or appropriate qualification in Mathematics would be welcomed.

*Minimum: We operate contextual admissions defined by our Fair Access Policy which may mean entry requirements are flexible. Please see page 171 for eligibility details.

If you do not see your qualifications here please contact us at studywithus@hw.ac.uk

University-wide National 5/GCSE (or equivalent) Maths and English requirements are on page 170.

If English is not your first language, please refer to page 179 for our English language requirements.

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**BSc (Hons) Mathematical, Statistical and Actuarial Sciences**

**UCAS code** GGD3

**Duration** 4 years BSc (Hons) or 3 years BSc (Hons)

**The programme**
This programme combines material taught within the Mathematics and Actuarial Science programmes into a unique programme that includes specialist actuarial and statistical skills as well as a wide-ranging approach to other areas of advanced mathematics. Level 1 comprises core topics in algebra, calculus and statistics with an introduction to finance and economics. Level 2 builds upon and adds to this by introducing topics in actuarial science. Levels 3 and 4 offer a range of options allowing students to choose the combination which best reflects their interests. Exemptions from professional actuarial examinations may be obtained by good performance in relevant courses.

**Level 1**

This Level has been designed to ease the transition from school to university. You will take courses in calculus, algebra, geometry and combinatorics which continue the development of these subjects already studied in school while also taking courses on statistics, economics and finance.

**Level 2**

You will continue your study of calculus, algebra and statistics, taking courses in multivariable calculus and real analysis, linear algebra and probability and statistics. In addition you will start the study of actuarial and financial mathematics and numerical analysis.

**Level 3**

All students must study abstract algebra, ordinary differential equations and statistical modelling. You will also study a wide range of options including life insurance mathematics, stochastic processes, survival models, vector analysis, complex analysis, numerical analysis and other topics in pure and applied mathematics.

**Level 4**

All courses are optional at this Level and you can choose from life insurance mathematics, pensions, life office practice, statistics for social science, Bayesian inference, risk theory, time series, optimisation, partial differential equations, mathematical biology, functional analysis, geometry, numerical analysis and other topics in pure and applied mathematics.

**Career prospects**
Mathematics graduates are in very high demand because of their ability to solve complex problems in a logical way. For many employers, these skills are at least as important as advanced technical skills in mathematics. This degree also covers subjects of specific interest to employers in finance and insurance.

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**BSc (Hons) Mathematical, Statistical and Actuarial Sciences and Diploma in Industrial Training**

**UCAS code** G3N3

**Duration** 5 years BSc (Hons) and Diploma or 4 years BSc (Hons) and Diploma

**The programme**
If you want to start your career with a year's work experience in hand, then you should consider this programme. It combines the rigorous studies of the BSc (Hons) in Mathematical, Statistical and Actuarial Sciences with a year-long work placement in Level 4. Good performance means 12 months’ experience of working in an organisation in the financial sector. The Diploma in Industrial Training is gained through successful completion of this work placement. The work placement helps you to develop specific work-related skills, giving you the opportunity to apply and build upon the theory you learn in your studies. It allows you to take on real responsibilities, enhance your interpersonal skills through teamwork and communication and experience workplace culture. The Diploma is available to all students, including those from overseas, as it does not require a work visa. If you are planning to come to the UK using a student visa you should check the Tier 4 Student Visa Policy Guidance to confirm you are permitted to undertake a work placement as part of your studies. Our award-winning Careers Service will assist; however, it is your responsibility to find a suitable work placement; acceptance onto the programme does not guarantee you a placement. If you are registered on the programme and are unable to find a suitable work placement before the end of Level 3 then you can transfer to the standard BSc (Hons) in Mathematical, Statistical and Actuarial Sciences degree.

**Level 1**

This Level has been designed to ease the transition from school to university. You will take courses in calculus, algebra, geometry and combinatorics which continue the development of these subjects already studied in school while also taking courses on statistics, economics and finance.

**Level 2**

You will continue your study of calculus, algebra and statistics, taking courses in multivariable calculus and real analysis, linear algebra and probability and statistics. In addition you will start the study of actuarial and financial mathematics and numerical analysis.

**Level 3**

All students must study abstract algebra, ordinary differential equations and statistical modelling. You will also study a wide range of options including life insurance mathematics, stochastic processes, survival models, vector analysis, complex analysis, numerical analysis and other topics in pure and applied mathematics.

**Level 4**

All courses are optional at this Level and you can choose from life insurance mathematics, pensions, life office practice, statistics for social science, Bayesian inference, risk theory, time series, optimisation, partial differential equations, mathematical biology, functional analysis, geometry, numerical analysis and other topics in pure and applied mathematics.

**Career prospects**
Mathematics graduates are in very high demand because of their ability to solve complex problems in a logical way. For many employers, these skills are at least as important as advanced technical skills in mathematics. This degree also covers subjects of specific interest to employers in finance and insurance.
Level 3 You will study abstract algebra, ordinary differential equations and statistical modelling. You will also have the opportunity to study a wide range of options including life insurance mathematics, stochastic processes, survival models, vector analysis, complex analysis, numerical analysis and other topics in pure and applied mathematics.

Level 4 Twelve-month work placement.

Level 5 All courses are optional in this year and you can choose from life insurance mathematics, pension funds, life office practice, statistics for social science, Bayesian inference, risk theory, time series, optimisation, partial differential equations, mathematical biology, functional analysis, geometry, numerical analysis and other topics in pure and applied mathematics.

Career prospects
Mathematics graduates are in very high demand because of their ability to solve complex problems in a logical way. For many employers, these skills are at least as important as advanced technical skills in mathematics. This degree also covers subjects of specific interest to employers in finance and insurance.
Mathematics with Computer Science Entry Requirements

**Level 1**

**Standard**
- Highers ABBBB (including Mathematics at A)
- A-Levels BBB (including Mathematics)
- IB 28 points (with Mathematics at Higher Level 5)
- BTEC DDM (including sufficient Mathematics)

**Minimum**
- Highers BBBC (including Mathematics at B)
- A-Levels BBC (including Mathematics at B)

**Level 2**

**Standard**
- Advanced Highers ABB (including Mathematics at A and Computing plus excellent Highers)
- A-Levels ABB (including Mathematics at A and Computing)
- IB 30 points (with Mathematics and Computing at Higher Level 6)
- BTEC DDD (including sufficient Mathematics and Computing)

**Alternative Qualifications**
Applications from students studying a recognised access programme and who possess a suitable grounding or appropriate qualification in Mathematics would be welcomed.

*Minimum: We operate contextual admissions defined by our Fair Access Policy which may mean entry requirements are flexible. Please see page 171 for eligibility details.

If you do not see your qualifications here please contact us at studywithus@hw.ac.uk

University-wide National 5/GCSE (or equivalent) Maths and English requirements are on page 170.

If English is not your first language, please refer to page 179 for our English language requirements.

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**BSc (Hons) Mathematics with Computer Science / Mathematics and Computer Science**

**UCAS code** G1G4 / GG14

**Duration** 4 years BSc (Hons) or 3 years BSc (Hons)

**The programme**
Fundamental ideas in pure and applied mathematics are developed together with key concepts in computer science. In addition to expertise in both subjects, the programme fosters the intellectual skills of analytical reasoning, systematic problem-solving and the development and clear communication of ideas. Students studying Mathematics with Computer Science study roughly 75% mathematics and 25% computer science. Those interested in a programme with a larger computer science component can follow Mathematics and Computer Science (UCAS GG14). The split in this case is 50/50.

**Level 1**
The mathematics content is identical to that of the BSc in Mathematics. Two courses in software development in computer science introduce key ideas in programming.

**Level 2**
Work in mathematics extends in both applied and pure mathematics. In computer science, software design and programming languages are core courses.

**Level 3**
Topics develop mathematical skills and knowledge, and introduce ideas used at the forefront of modern mathematics. The computer science material includes theory of computing and programming language semantics.

**Level 4**
Further exploration and specialisation in advanced mathematics is possible with options related to our research expertise, together with computer science options in Rigorous Methods for Software Engineering and Artificial Intelligence and Intelligent Agents. Students will complete a mathematical project.

**Career prospects**
As a mathematics/computer science graduate you have not only specific mathematics and computing skills, but also a more general training in the key skills of creative problem-solving, communication and logical thinking that are sought and highly valued by employers.

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Mathematics with Finance Entry Requirements

**Level 1**

**Standard**
- Highers ABBBB (including Mathematics at A)
- A-Levels BBB (including Mathematics)
- IB 28 points (with Mathematics at Higher Level 5)
- BTEC DDM (including sufficient Mathematics)

**Minimum**
- Highers BBBC (including Mathematics at B)
- A-Levels BBC (including Mathematics at B)

**Level 2**

**Standard**
- Advanced Highers ABB (including Mathematics at A plus excellent Highers)
- A-Levels ABB (including Mathematics at A and Computing)
- IB 30 points (with Mathematics at Higher Level 6)
- BTEC DDD (including sufficient Mathematics)

**Alternative Qualifications**
Applications from students studying a recognised access programme who possess a suitable grounding or appropriate qualification in Mathematics would be welcomed.

*Minimum: We operate contextual admissions defined by our Fair Access Policy which may mean entry requirements are flexible. Please see page 171 for eligibility details.

If you do not see your qualifications here please contact us at studywithus@hw.ac.uk

University-wide National 5/GCSE (or equivalent) Maths and English requirements are on page 170.

If English is not your first language, please refer to page 179 for our English language requirements.
BSc (Hons) Mathematics with Finance

UCAS code G1N3
Duration 4 years BSc (Hons) or 3 years BSc (Hons)

The programme
This popular programme meets the high demand for mathematically trained graduates who are aware of the operation of international finance, investment and capital markets, and able to combine expertise in these areas. The programme combines courses in mathematics from a foundation level up to the edge of current research with courses in all the key areas of modern finance. Graduates will be able to contribute at the highest level to financial analysis and decision-making. As a major financial centre, Edinburgh offers excellent career opportunities.

Level 1 This Level has been designed to ease the transition from school to university. You will take mathematics courses in calculus, algebra, geometry and combinatorics while also taking courses introducing statistics and finance.

Level 2 You will continue your study of calculus and algebra, taking courses in multivariable calculus and real analysis, and linear algebra. In addition you will start the study of financial mathematics and numerical analysis.

Level 3 You will study abstract algebra, ordinary differential equations and complex analysis. As well as these subjects, you will study international bond and currency markets, financial derivatives and have a choice of courses in pure and applied mathematics and numerical analysis.

Level 4 You will study risk management and derivatives and equity markets and fund management, as well as having a wide choice of courses in both pure and applied mathematics.

Career prospects
Prospects are excellent in industry, commerce, finance, the civil service, scientific research establishments and all levels of teaching. As a mathematics graduate you have not only specific mathematics skills, but also a more general training in the key skills of creative problem-solving, communication and logical thinking that are sought and highly valued by employers.

BSc (Hons) Mathematics with Finance and Diploma in Industrial Training

UCAS code G1N4
Duration 5 years BSc (Hons) and Diploma or 4 years BSc (Hons) and Diploma

The programme
If you want to start your career with a year’s work experience in hand, then you should consider this programme. It combines the rigorous studies of the BSc (Hons) in Mathematics with Finance with a year-long work placement in Level 4. Good performance means 12 months’ experience of working in an organisation in the financial sector. The Diploma in Industrial Training is gained through successful completion of this work placement. The work placement helps you to develop specific work-related skills, giving you the opportunity to apply and build upon the theory you learn in your studies. It allows you to take on real responsibilities, enhance your interpersonal skills through teamwork and communication and experience workplace culture. The Diploma is available to all students, including those from overseas, as it does not require a work visa. If you are planning to come to the UK using a student visa you should check the Tier 4 Student Visa Policy Guidance to confirm you are permitted to undertake a work placement as part of your studies. Our award-winning Careers Service will assist; however, it is your responsibility to find a suitable work placement; acceptance onto the programme does not guarantee you a placement. If you are registered on the programme and are unable to find a suitable work placement before the end of Level 3 then you can transfer to the standard BSc (Hons) in Mathematics with Finance degree.

Level 1 This Level has been designed to ease the transition from school to university. You will take mathematics courses in calculus, algebra, geometry and combinatorics while also taking courses introducing statistics and finance.

Level 2 You will continue your study of calculus and algebra, taking courses in multivariable calculus and real analysis, and linear algebra. In addition you will start the study of financial mathematics and numerical analysis.

Level 3 You will study abstract algebra, ordinary differential equations and complex analysis. As well as these subjects, you will study international bond and currency markets, financial derivatives and have a choice of courses in pure and applied mathematics and numerical analysis.

Level 4 Twelve-month work placement.
Mathematics with Language Entry Requirements

Level 1
Standard
Highers ABBBB (including Mathematics at A and a language)
A-Levels BBB (including Mathematics and a language)
IB 28 points (with Mathematics and a language at Higher Level 5)
BTEC DDM (including sufficient Mathematics and a language)

Minimum*
Highers BBBC (including Mathematics at B and a language)
A-Levels BBC (including Mathematics and a language at B)

Alternative Qualifications
Applications from students studying a recognised access programme and who possess a suitable grounding or appropriate qualification in Mathematics and a language would be welcomed.

*Minimum: We operate contextual admissions defined by our Fair Access Policy which may mean entry requirements are flexible. Please see page 171 for eligibility details.

If you do not see your qualifications here please contact us at studywithus@hw.ac.uk

University-wide National 5/GCSE (or equivalent) Maths and English requirements are on page 170.

If English is not your first language, please refer to page 179 for our English language requirements.

BSc (Hons) Mathematics with French / German / Spanish

UCAS code G1R1 / G1R2 / G1R4
Duration 4 years BSc (Hons)

The programme
This programme provides graduates with advanced mathematical skills and fluency in their chosen language, offering a valuable combination of technical expertise and linguistic excellence. Mathematical and language skills will be enhanced by studying mathematics for a year at one of the foreign partner universities. Languages on offer are French, German and Spanish. Graduates in mathematics and languages are consistently near the top of graduate employment tables, and the coupling of disciplines in this degree programme ensures a highly marketable qualification.

Level 1 This Level eases the transition from school to university. You will take courses in calculus, algebra, geometry, combinatorics, statistics, problem-solving and the use of computer packages. In your chosen language you will take courses in translation, aural comprehension and writing and spoken courses.

Level 2 You will continue your study of calculus and algebra taking courses in multivariable calculus and real analysis and linear algebra. You will start the study of pure and applied mathematics and numerical analysis. In language courses you will continue with translation, spoken and written classes in preparation for studying abroad in Level 3.

Level 3 This Level is spent studying mathematics at a European university as part of an organised study programme. At the time of publication, students studying Mathematics with French are based in Pau, France. Students studying Mathematics with German are based in Dresden, Germany. Students studying Mathematics with Spanish are based in Granada, Spain.

Level 4 On returning for the final year, you will take a selection of advanced courses in mathematics.

Career prospects
Prospects are excellent in industry, commerce, finance, the civil service and all levels of teaching. Graduates will possess specific mathematics and language skills, but also a more general training in the key skills of creative problem-solving, communication and logical thinking that are sought and highly valued by employers.

Mathematics with Physics Entry Requirements

Level 1
Standard
Highers ABBBB (including Mathematics at A and Physics)
A-Levels BBB (including Mathematics and Physics)
IB 28 points (with Mathematics and Physics at Higher Level 5)
BTEC DDM (including sufficient Mathematics and Physics)

Minimum*
Highers BBBC (including Mathematics and Physics at B)
A-Levels BBC (including Mathematics and Physics at B)

Level 2
Standard
Advanced Highers ABB (including Mathematics at A and Physics plus excellent Highers)
A-Levels ABB (including Mathematics at A and Physics)
IB 30 points (with Mathematics and Physics at Higher Level 6)
BTEC DDD (including sufficient Mathematics and Physics)

Alternative Qualifications
Applications from students studying a recognised access programme who possess a suitable grounding or appropriate qualification in Mathematics and Physics would be welcomed.

*Minimum: We operate contextual admissions defined by our Fair Access Policy which may mean entry requirements are flexible. Please see page 171 for eligibility details.

If you do not see your qualifications here please contact us at studywithus@hw.ac.uk

University-wide National 5/GCSE (or equivalent) Maths and English requirements are on page 170.

If English is not your first language, please refer to page 179 for our English language requirements.
BSc (Hons) Mathematics with Physics

UCAS code G1F3
Duration 4 years BSc (Hons) or 3 years BSc (Hons)

The programme
Mathematics and physics are inextricably linked. The comprehensive grounding in mathematics offered by this programme underpins an exploration of key physics topics, including quantum theory, dynamics and relativity and solid state physics. While a clear understanding of the subject will be a given, employers will also be looking for the other qualities imparted through this programme, in particular numerical, analytical and problem-solving skills.

Level 1 This Level has been designed to ease the transition from school to university. You will take courses in calculus, algebra, geometry and combinatorics which continue the study of these subjects from school, while also taking physics courses on mechanics and waves and fields and forces.

Level 2 Work in mathematics consolidates and extends Level 1 content, with applied mathematics and numerical analysis being introduced, alongside physics courses in photonics, optics and thermal physics and properties of matter.

Level 3 Mathematics courses in pure and applied topics are offered along with physics courses in advanced quantum theory and electromagnetism.

Level 4 Further exploration and specialisation in advanced mathematics is possible with options related to our research expertise, together with a selection of topics in advanced physics.

Career prospects
Prospects are excellent in industry, commerce, finance, the civil service, scientific research establishments and all levels of teaching. As a graduate you have not only specific mathematics and physics skills, but also a more general training in the key skills of creative problem-solving, communication and logical thinking that are sought and highly valued by employers.

Mathematics with Statistics Entry Requirements

Level 1
Standard
Highers ABBBB (including Mathematics at A)
A-Levels BBB (including Mathematics)
IB 28 points (with Mathematics at Higher Level 5)
BTEC DDM (including sufficient Mathematics)

Minimum*
Highers BBBC (including Mathematics at B)
A-Levels BBC (including Mathematics at B)

Level 2
Standard
Advanced Highers ABB (including Mathematics at A plus excellent Highers)
A-Levels ABB (including Mathematics at A)
IB 30 points (with Mathematics at Higher Level 6)
BTEC DDD (including sufficient Mathematics)

Alternative Qualifications
Applications from students studying a recognised access programme who possess a suitable grounding or appropriate qualification in Mathematics would be welcomed.

*Minimum: We operate contextual admissions defined by our Fair Access Policy which may mean entry requirements are flexible. Please see page 171 for eligibility details.

If you do not see your qualifications here please contact us at studywithus@hw.ac.uk

University-wide National 5/GCSE (or equivalent) Maths and English requirements are on page 170.

If English is not your first language, please refer to page 179 for our English language requirements.

BSc (Hons) Mathematics with Statistics

UCAS code G1G3
Duration 4 years BSc (Hons) or 3 years BSc (Hons)

The programme
This programme offers broad-based training in modern pure and applied mathematics, together with a sound knowledge of key areas in contemporary statistics. It allows students to study both mathematics and statistics courses in each Level of the programme. A blend of compulsory and optional courses in mathematics ensures a broad knowledge base, and the statistics course offers additional expertise in data analysis, rational decision-making, and the modelling of random behaviour. The programme develops valuable transferable skills in numeracy, analytical and logical reasoning and problem-solving which lead to a wide variety of possible careers.

Level 1 This Level is designed to ease the transition from school to university. You will take courses in calculus, algebra, geometry and combinatorics along with an introduction to statistics, problem-solving and the use of computer packages. You will also choose an elective course.

Level 2 You will continue your study of calculus, algebra and statistics, taking courses in multivariable calculus and real analysis, linear algebra and probability and statistics. In addition, you will start the study of pure and applied mathematics and numerical analysis.

Level 3 You will study abstract algebra, ordinary differential equations, complex analysis and statistical modelling. In addition you will continue the study of pure and applied mathematics and numerical analysis.

Level 4 In statistics, students study statistics for social science and time series, together with some of the mathematics options also offered in the BSc Mathematics degree.

Career prospects
Prospects are excellent in industry, commerce, finance, the civil service, scientific research establishments and all levels of teaching. As a mathematics graduate you have not only specific mathematics and statistics skills, but also a more general training in the key skills of creative problem-solving, communication and logical thinking that are sought and highly valued by employers.
Combined Studies gives you the opportunity to define your own interests within the framework of an unusually broad educational experience. A Combined Studies degree is a chance to ‘write’ your own degree structure. With guidance from a Director of Studies, you may select subjects from the full range available at Heriot-Watt. You can pursue a Combined Studies programme to Ordinary or Honours level, on a full-time, part-time or ‘mixed-mode’ basis.

While students on Combined Studies programmes may range across a number of fields, they are assigned to a Director of Studies who provides the advice and guidance needed to help them build their own modular programmes into a coherent degree.

The Combined Studies programme is based on the principle of credit accumulation. Credits are obtained from courses across the full range of degree programmes offered by the University.

Programmes available within Combined Studies (BSc)

Combined Studies CFG0
4 years BSc (Hons) (full-time) or up to 10 years (mixed-mode)

Engineering H100
4 years BEng (Hons)
(see pages 68–69)

Tell us about your experience as a Combined Studies student at Heriot-Watt.

I studied Electronic Engineering and History of Science at Heriot-Watt. Following a sabbatical year as President of the Students’ Association, I was advised to consider technical writing as a career. This proved to be good advice and I spent nine years involved in technical writing and marketing at Sun Microsystems in Grenoble, France. After branching out to do an MBA in Asia, I am now based in Singapore. I work as a Sales Enablement Consultant to the IT industry, and clients include Google, Cisco and HP. I still keep up my Heriot-Watt connection: there’s a thriving alumni group here in Singapore and the Principal jets in every year for the Heriot-Watt graduation ceremony.
Joe Burnett
BSc Combined Studies

What appealed to you most about Heriot-Watt University?
The University has always had a good reputation for high quality studies and links with industry. The ability to develop skills in both Computer Science and Business Management in one personalised degree also appealed to me.

Do you feel your degree has prepared you well for a career?
Yes, the teaching in the Computer Science areas of my degree has been very practical and has involved working on projects for real companies, giving an insight into issues faced in industry. Business Management has also used relevant tools to provide understanding of current challenges in the workplace.

Has your degree programme helped you develop links with industry?
The University in general helps you to develop links with industry. My programme is delivered by the School of Mathematical and Computer Sciences and the School of Social Sciences. Both Schools have invited various guests to deliver workshops, projects or talks around topics in industry that relate to what we are studying. There are also various Careers Fairs run throughout each semester.

What would you say to prospective students considering studying at Heriot-Watt?
Heriot-Watt has great facilities, all located on campus. The library is packed with stuff to help you, the sports centre has various different things to do and the Student Union always has events. The staff here are very passionate about the subjects they teach. Often they are pretty informal too, making it easier to chat to them if you ever need help.
Combined Studies Entry Requirements

Level 1
Standard
Highers AABB (including one science at A and Mathematics at B)
A-Levels BBC (including Mathematics and one relevant science)
IB 31 points (including a relevant science and Mathematics at Higher Level)
BTEC DDM (in a relevant subject)
HNC A in graded unit (in a relevant HNC)

Minimum*
Highers BBBC (including one relevant science at B and Mathematics at B)
A-Levels BCC (including one relevant science at B and Mathematics at C).

Level 2
Combined Studies offers an individualised degree programme, combining any university disciplines. The entrance qualifications for Level 2 entry are dependent on these disciplines. Please contact us directly to discuss the details of any offer.

Level 3
Combined Studies offers an individualised degree programme, combining any university disciplines. The entrance qualifications for Level 3 entry are dependent on these disciplines. Please contact us directly to discuss the details of any offer.

*Minimum: We operate contextual admissions defined by our Fair Access Policy which may mean entry requirements are flexible. Please see page 171 for eligibility details.

If you do not see your qualifications here please contact us at studywithus@hw.ac.uk

University-wide National 5/GCSE (or equivalent) Maths and English requirements are on page 170.

If English is not your first language, please refer to page 179 for our English language requirements.

BSc (Hons) Combined Studies

UCAS code CFG0
Duration 4 years BSc (Hons) (full-time) or up to 10 years (mixed-mode)
Number of places 40

Choice of subjects
The subjects available for BSc Combined Studies at the Edinburgh Campus are:
- Actuarial Science
- Biological Sciences
- Brewing and Distilling
- Building Engineering
- Chemical Engineering
- Chemistry
- Civil Engineering
- Computer Science
- Electrical and Electronic Engineering
- Information Systems
- Mathematics
- Mechanical Engineering
- Physics
- Psychology
- Statistics.

You can also combine the above subjects with one of the following:
- Accountancy and Finance
- Economics
- Languages
- Management.

Level 1 Each student is allocated to a Director of Studies, who assists in the design of an individualised programme.

Additional information
A Combined Studies degree allows students to design their own degree programme from the subjects offered at Heriot-Watt University. Students take a group of subjects not covered by other degree programmes and can pick the right set of subjects from the wide range available to meet individual learning goals. Students can adapt their study on a part-time basis. With the help of a Director of Studies, students can devise a study programme that will support their ambitions.

Subject areas
Please indicate in section 3(f) of the UCAS application form the TWO main areas of study. You are not ‘held’ to your initial selection but it is useful in providing a starting point for Level 1 of your programme. The subject areas indicated are within the Schools of the University and therefore further information on the programme content can be found within the relevant sections throughout this prospectus.

Subject area abbreviations
AF Accountancy and Finance
AS Actuarial Science
BD Brewing and Distilling
BS Biological Sciences
Build Building Engineering
C Chemistry
CE Chemical Engineering
CivE Civil Engineering
CS Computer Science
E Economics
EEE Electrical and Electronic Engineering
IS Information Systems
L Languages
M Mathematics
Man Management
ME Mechanical Engineering
P Physics
PS Psychology
S Statistics
Justine Rousvoal and Meghann Piau
Combined Studies: Finance / Statistics / Critical Writing

Tell us about your experience at Heriot-Watt.

We got the chance to come to Heriot-Watt University through an agreement between our university in France and Combined Studies. We studied Statistics, Databases and English on our French course. When we came to Scotland, we continued with these subjects at Heriot-Watt, but we also studied Finance, Critical Writing and Problem Based Learning (PBL).
Graduate Apprenticeships: Kick-start your career

Fully funded, flexible, work-based learning, tailored to the needs of industry and individuals.

Heriot-Watt is one of the pioneers of Graduate Apprenticeships, which allow apprentices to gain degrees while working for their employers. From working with household names like BP, Shell and Siemens through to our knowledge transfer partnerships with Edinburgh gin-maker Spencerfield Spirit and heat battery developer SunAmp, we have an enviable record of working successfully with businesses.

The new Graduate Apprenticeship (GA) scheme offers apprentices the chance to gain a Bachelor’s-level degree while working for their employer. They are a ground-breaking initiative, creating degree-qualified employees with the skills companies are looking for. Employers and universities collaborate to shape GAs around the needs of the industry. This approach guarantees that the content and study practices are easily implemented in, and relevant to, the workplace of the apprentice. GA is open to existing employees and new recruits.

CHOOSE FROM OUR GA PROGRAMMES

- MA (Hons) Business Management
- MA (Hons) Business Management: Financial Services
- BEng (Hons) Civil Engineering
- BSc (Hons) Construction and the Built Environment
- BEng (Hons) Engineering Design and Manufacture (Electronic or Mechanical)
- MA (Hons) IT Management for Business
- BSc (Hons) Software Development for Business

Places are in high demand, and offered on a first come first served basis to qualified employees – so please contact us for information now. 

www.hw.ac.uk/ga

FOR

NEW OR EXISTING EMPLOYEES

WHEN

THE BALANCE BETWEEN WORK AND STUDY IS ABOUT 4 : 1

DURATION

4 YEARS

HONOURS DEGREE

NO AGE LIMIT

FULLY FUNDED
Supta Das

Supta Das is a Graduate Apprentice studying for a degree in IT Business Management and works as a Commercial Specialist in the Digital Directorate of Scottish Water.

What attracted you to Graduate Apprenticeships?
With a family to support, I could not afford to leave my job to go into full-time education but wanted to get industry-recognised qualifications in the IT sector.

How is the GA approach helping you in your role at Scottish Water?
I’m very fortunate to have this opportunity. Every time I’m doing coursework, I can directly relate and align it to my work. I can identify ways in which I can improve at Scottish Water by applying what I have learned through my apprenticeship.

What influenced your decision to choose a Graduate Apprenticeship degree at Heriot-Watt?
I’ve always had a clear career goal, but to get there I knew that I needed to develop both my personal and technical skills. My apprenticeship is doing exactly that.

After learning more about customer engagement, Supta identified that Scottish Water’s Digital Directorate required more engagement with its business customers for effective management of supplier relations with its strategic partners and suppliers.

Supta spoke with her line manager and suggested the organisation tried to engage customers more with its strategic plans. Scottish Water’s new IT sourcing model has since incorporated this idea.
Information for Applicants

Q: WHAT QUALIFICATIONS AND GRADES DO I NEED?...

The qualifications or grades you need will vary by course and may also depend on whether you are applying from a wider access background. Some courses will require you to have studied specific subjects.

In this prospectus we list the entry requirements for each of our courses. This is an example of how this information is presented:

University English and Maths Requirements
All courses offered by Heriot-Watt University require:
National 5 Maths Grade C, GCSE Grade C or 4 (or equivalent) (with the exception of Language and Fashion courses)
National 5 English Grade C, GCSE Grade C or 4 (or equivalent).

LEVEL 1

STANDARD
Highers (required subject and grades)
A-Levels (required subject and grades)
IB
BTEC

MINIMUM
Highers (required subject and grades)
A-Levels (required subject and grades)

This is the Level you would enter the course at. Direct entry into higher Levels is possible with suitable entry grades.

These are the grades and any required subjects you will need to get onto the course.

Eligibility for an offer at the minimum entry requirements is defined by our Fair Access Policy. The grades and any required subjects you will need to get onto the course will be listed here also.

Q: WHAT DO I NEED TO APPLY FOR THE COURSE I WANT TO STUDY?...

You’ll need qualifications, a personal statement and a reference. For some specific courses you may also need to submit an art/design portfolio, and attend an interview.

Our application deadlines are:
15 January 2020
Deadline for all UK and EU applicants
30 June 2020
Deadline for all other international applicants.

All applications to undergraduate degree programmes at Heriot-Watt University, whether from the UK or internationally, should be made through the Universities and Colleges Admissions Service (UCAS). Applications are made online at:
www.ucas.com

Applicants should not apply through UCAS for programmes based at our Dubai or Malaysia Campuses, but apply directly to the relevant campus. Please visit the websites for further information:
www.hw.ac.uk/dubai or www.hw.ac.uk/malaysia
**Q: AM I A WIDENING ACCESS STUDENT?...**

We recognise that not everyone has an equal opportunity to demonstrate their full academic potential from their school or college qualifications alone. For this reason, we aim to identify applicants who could benefit from additional consideration in the admissions process. This process is called Fair Access, and it enables us to consider an applicant’s achievements in context.

**Q: WHAT ARE MINIMUM ENTRY REQUIREMENTS?...**

As part of the Fair Access process, the Minimum Entry Requirements enable students who are within one or more of the categories (below) to be guaranteed an offer if the Minimum Entry Requirements have been met. The categories which enable a student to be considered under Minimum Entry Requirements are:

- Live in an area within the Scottish Index of Multiple Deprivation lowest 20% (SIMD20)
- Are care experienced.

If you are care experienced, please remember to tick the box on your UCAS application form. You can also mention this in your personal statement or ask your referee to include this in your reference. This information is only required to help you get the correct support. You can find out more about our support for individuals with care experience on our website: [www.hw.ac.uk/careleavers](http://www.hw.ac.uk/careleavers)

**Q: WHAT ARE CONTEXTUAL ADMISSIONS?...**

Some students will be between the Standard and Minimum Entry Requirements, meaning they may be given a measure of flexibility in the offer-making stage. We call this a Contextual Offer. In order to be eligible for a Contextual Offer, an applicant must fall into one or more of these categories:

**LEAPS School Eligibility**
[www.leapsonline.org/about/our-schools](http://www.leapsonline.org/about/our-schools)

- Attend a LEAPS (Lothians Equal Access Programme for Schools) Group 1+ school
- Attend a LEAPS (Lothians Equal Access Programme for Schools) Group 1 school
- Attend a LEAPS (Lothians Equal Access Programme for Schools) Group 2 school and be LEAPS eligible
- Attend a SHEP (Schools for Higher Education Programme) school (see LEAPS website above)

**OR**

- Live in an area within the Scottish Index of Multiple Deprivation (SIMD21-40)
- Studying on the Scottish Wider Access Programme (SWAP)
- Have caring responsibilities
- Estranged Students (Students studying without the support of a family network)
- In receipt of Educational Maintenance Allowance (EMA)
- Eligible for Free School Meals
- Adverse Personal Circumstances.

**Q: WHAT WILL A CONTEXTUAL OFFER LOOK LIKE?...**

For a Higher/Advanced Higher student this may take the form of:

- Making an offer to an applicant with up to two grades lower than the standard requirement e.g. AABB would be BBBB, AACC or ABBC
- Making an offer to an applicant with one less Higher than the standard entry requirements e.g. AABB would be AAB or ABB, BBBBC would be BBBB or BBBC
- Counting one Advanced Higher taken in S6 as additional to the Higher taken in the same subject in S5 (as opposed to the current practice where Advanced Highers cancel out the same Highers).

Scottish applicants with qualifications other than Highers can also be afforded this flexibility.

**Q: DO YOU ACCEPT HNCs AND HNDs?...**

Many Higher National Certificates (HNCs) and Higher National Diplomas (HNDs), which are qualifications taken in college, allow you to enter the second or third year of a university degree programme, though this is not possible with all HNC and HND qualifications. Where this is possible it is listed with the entry requirements for our courses. You can also check our website for more information: [www.hw.ac.uk/college](http://www.hw.ac.uk/college)

**Q: I’M A MATURE STUDENT, CAN I APPLY?...**

If you are 21 years old or over in the year in which you want to start your degree studies, you will be classed as a mature student. Traditional entry requirements may be relaxed if you didn’t gain formal qualifications at school, but you may be able to enter university with qualifications such as an access course or Open University modules. We welcome applications from students who have completed a SWAP Access Programme to prepare them for university study.

Check our website, or get in touch, for more information: [www.hw.ac.uk/study/entry/other-routes-to-entry](http://www.hw.ac.uk/study/entry/other-routes-to-entry)

SWAP entry requirements are available at: [https://swapsurvey.org/progression/east](https://swapsurvey.org/progression/east)
Q: WHAT IS ACCREDITATION OF PRIOR LEARNING (APL)?...
Heriot-Watt is part of the Scottish Credit and Qualifications Framework (SCQF). The SCQF brings together all Scottish higher education qualifications as well as further education, vocational, and secondary school qualifications into a single national framework. Through this framework, students may be able to use qualifications or work experience to gain entry to Level 1 of a programme or exemption from earlier years of a programme or from specific courses. Further information on APL is available by contacting studywithus@hw.ac.uk

Q: WHAT IS A PERSONAL STATEMENT?...
Your personal statement is your opportunity to demonstrate your interest in your chosen course and describe your suitability as a student. We advise that all candidates take the time to write a strong personal statement. You may wish to consider including the following:

REASONS FOR CHOOSING THE PROGRAMME
- A clear understanding of what the course/career entails
- Demonstration of commitment and motivation
- Future plans
- Background to your interest in the subject
- Interests from your current studies.

ANY RELATED PROJECT WORK
- Related hobbies
- Employment, work experience or placement
- Part-time job or work experience
- Work shadowing in your chosen area.

SOCIAL, SPORTING OR OTHER INTERESTS AND ACTIVITIES
- Evidence of responsibility/initiative e.g. voluntary work
- Evidence of key skills e.g. teamwork, communication skills.

Q: WHAT IS A REFERENCE?...
This should be submitted by a teacher, tutor or other professional who is able to comment on your application and ability to complete your intended course of study. If you have experienced any personal circumstances which may have affected your previous academic performance, we would advise that you should speak to your referee about including this in this section.

Q: WHEN WILL I HEAR BACK ABOUT MY APPLICATION?...
Applications are considered by an Admissions Tutor for the subject area(s) to which you are applying. Once they have reviewed your application they will do one of three things:

MAKE YOU AN UNCONDITIONAL OFFER
- This means that you have already met the entry requirements. If you firmly accept the offer you have secured a place at the University.

MAKE YOU A CONDITIONAL OFFER
- This means that you will have to achieve specific results in the qualifications you are undertaking before you can be accepted by the University. The results required will be detailed in your conditional offer.
- Regretfully inform you that your application has been unsuccessful this time.

Q: WILL I HAVE AN OPPORTUNITY TO VISIT HERIOT-WATT ONCE I HAVE APPLIED?...
All applicants who are made an offer of a place at the University or who are being considered for an offer are invited to one of our Offer Holder Days. This is your opportunity to confirm your interest in the course you have applied for and ask any questions before making a decision on whether to accept your offer.
Partnership Routes with Colleges:
Your Alternative Degree Pathway

We recognise the achievements of applicants from a range of diverse educational pathways. Working with local college partners, over 20% of our students gain entry through a college course.

**START AT YOUR LOCAL COLLEGE**
As a student on one of our Partnership Routes with a college, you will be both a college student and a Heriot-Watt student. You will complete the first two years of your degree course by studying at a local college. This incorporates a Higher National Diploma (HND) qualification. Once you have successfully completed your two years as a student on a Partnership Route, you are guaranteed a place to continue your studies at Heriot-Watt University in year 3.

**PARTNERSHIP ROUTES:**
- BEng/MEng Chemical Engineering (partnership route with Forth Valley College)
- BEng/MEng Mechanical Engineering (partnership route with Edinburgh College)
- BEng/MEng Mechanical Engineering (partnership route with Forth Valley College)
- BEng/MEng Electrical and Electronic Engineering (partnership route with Edinburgh College)
- BEng/MEng Electrical and Electronic Engineering (partnership route with Forth Valley College)
- BBA Bachelor of Business Administration (partnership route with Borders College)
- BA (Hons) Design for Textiles – Weave (partnership route with Glasgow Clyde College)
- BA (Hons) Design for Textiles – Print (partnership route with Glasgow Clyde College)
- BSc (Hons) Fashion Technology (partnership route with Glasgow Clyde College)

Partnership Route students who successfully complete the programme receive exactly the same qualification as students who begin their study with us from year 1.

**BENEFITS OF THE PARTNERSHIP ROUTE INCLUDE:**
- Flexible entry requirements defined by the college partner
- Enrolment with both the college partner and the University
- Access to University facilities (library, guidance services)
- A programme of activities and visits to the University throughout your college studies
- A guaranteed place at the University for Level 3 study if you meet the progression requirements
- Eligibility for our Access Bursary during your study from year 3 onwards.

Applications to the Partnership Route should be made directly to the relevant college partner.

For more information on our Partnership Routes, please contact studentrecruitment@hw.ac.uk

**OVER 20% OF OUR STUDENTS GAIN ENTRY THROUGH A COLLEGE COURSE.**
Scholarships, Bursaries and Merit Awards

We are committed to supporting our students with an attractive and competitive range of Scholarships, Bursaries and Merit Awards.

We want to ensure that students from all financial backgrounds can benefit from the advantages of a Heriot-Watt degree. Scholarships, Bursaries and Merit Awards are made based on your personal circumstances, including academic achievement. These awards don’t need to be paid back.

FOR FURTHER INFORMATION, ELIGIBILITY AND HOW TO APPLY:
www.hw.ac.uk/scholarships

Obtaining the Heriot-Watt Merit Scholarship has helped me achieve my dream of studying in one of the best universities for an Actuarial Science degree, which is one of only a few to be accredited by the Institute and Faculty of Actuaries. It has opened up plenty of opportunities as I am able to form close links with the industry via various events such as actuarial careers fairs and talks by graduates working in leading actuarial firms.

Keshana Thinakaran from Malaysia
BSc Actuarial Science and Diploma in Industrial Training
School of Mathematical and Computer Sciences
**ACCESS BURSARIES**

The University offers 50 awards each year. Students who are awarded an Access Bursary receive a total of £1,000 for each year of their undergraduate studies. The student is paid £1,000 in their first year of studies (this includes those entering directly to Levels 2 or 3), and £1,000 in each year as an enrolled student on an Honours degree. If the student is taking part in a paid work placement, the bursary will not normally be paid for that year. Students on an Inter-Campus Transfer will continue to receive the bursary.

[www.hw.ac.uk/access-bursary](http://www.hw.ac.uk/access-bursary)

**REST OF UK (RUK) BURSARIES**

In addition to government loans and grants towards the costs of fees and living costs, we are offering generous income-related financial bursaries of up to £3,100, to attract and support eligible students from England, Northern Ireland or Wales.

**MERIT AWARDS AVAILABLE FOR INTERNATIONAL FEE-PAYING, SELF-FUNDED STUDENTS**

Heriot-Watt Merit Awards for International students:
- Merit Awards of £1,500 for the first year of study are available for applicants with a good level of academic achievement
- Excellence Awards of £3,000 for the first year of study are available for those with high levels of academic achievement
- More information is available at: [www.hw.ac.uk/scholarships](http://www.hw.ac.uk/scholarships)

**100$s** of students supported

**UP TO £3,100 IN INCOME-RELATED FINANCIAL BURSARIES**

**FOR INFORMATION ON SCHOLARSHIPS AT OUR DUBAI CAMPUS:**
[www.hw.ac.uk/dubai-scholarships](http://www.hw.ac.uk/dubai-scholarships)

**FOR THE FIRST YEAR OF STUDY FOR APPLICANTS WITH GOOD LEVELS OF ACADEMIC ACHIEVEMENT**

**£1,500**

**FOR THE FIRST YEAR OF STUDY FOR APPLICANTS WITH HIGH LEVELS OF ACADEMIC ACHIEVEMENT**

**£3,000**
International Students

Welcome to Scotland – renowned for its hospitality, wild and beautiful landscape and rich cultural heritage, as well as a global reputation for its contribution to science and education.

One-third of the University’s on-campus students studying in Scotland are from outside of the UK, making Heriot-Watt one of the most internationally diversified of any UK universities, with students travelling from countries including China, India, Malaysia, Thailand, Kazakhstan, Oman, Saudi Arabia, Nigeria, Norway, France, Germany, Spain, the Republic of Ireland and Greece.

The friendly team in the International Recruitment Office is likely to be your first contact if you are an international or a European student. The team is here to provide advice on the best programme of study for you. Our knowledge of qualifications throughout the world is comprehensive and along with Admissions Tutors we can offer you a rapid response to any query relating to programmes or life at Heriot-Watt.

INTERNATIONAL RECRUITMENT TEAM
T: +44 (0) 131 451 3707
studentrecruitment@hw.ac.uk

ADMISSION
If you are an international or European student applying for a full-time undergraduate programme, you should submit your application directly through UCAS (www.ucas.com).

Please note that the application deadline is 15 January 2020 although non-EU applications will still be considered after this date.

ACCESS/Foundation Programmes
The University has a special relationship with a number of independent schools and local further education colleges and is willing to consider admitting students who have achieved certain grades in pre-degree programmes.

For further information please contact the International Recruitment Team.

ADVANCED ENTRY TO LEVEL 2 OR 3
If you have achieved good results in a diploma course or have obtained an overseas or European qualification in your home country after 2 to 2.5 years of post-high school study, this may meet the requirements for advanced entry to our programmes.

This also applies if you have obtained excellent A-Level results or equivalent. In order to aid this type of transition to Level 2 or 3, we offer subject-specific support.

EXCHANGE STUDENTS
If you are an international exchange student on an Erasmus or non-Erasmus exchange programme, please feel free to contact the Global Student Office when you apply to Heriot-Watt.

T: +44 (0) 131 451 3028
hwuexchange@hw.ac.uk

INCOMING STUDY ABROAD (NON-EXCHANGE)
We welcome applications from semester or full year visiting and non-graduating students and can offer a range of different undergraduate courses through our five academic Schools. Our flexible degree structure allows students to mix and match four courses (modules) per semester and choose from first, second and third year courses (subject to prerequisites). Credits are awarded for each of the courses.

Further information is available from the International Recruitment Team:
www.hw.ac.uk/visitingstudents
T: +44 (0) 131 451 3633
visitingstudents@hw.ac.uk

European students who wish to study for one semester (outside Erasmus+) at Heriot-Watt University should contact:

Dr Brian Carson
International Recruitment Team
T: +44 (0) 131 451 3897
b.r.carson@hw.ac.uk
ENTRY REQUIREMENTS FOR INTERNATIONAL STUDENTS

We can accept many international qualifications for entry to our undergraduate programmes. Please visit the Country Pages on our website for specific entry requirements for your country. If your country is not listed or you want to confirm that you are eligible before completing your UCAS application, please contact the International Recruitment Team on:

T: +44 (0) 131 451 3707
studentrecruitment@hw.ac.uk
www.hw.ac.uk/your-country

ENGLISH LANGUAGE REQUIREMENTS

If your first language is not English, it is important that you gain an acceptable English language qualification before joining one of our undergraduate programmes. To guide you in this, we have listed some acceptable qualifications below but these may vary so please check with the Admissions Tutor prior to application.

- IELTS: 6.0, with minimum of 5.5 in all four skills (listening, speaking, reading, writing)
- PEARSON (PTE): 57 overall, with a minimum of 51 in all four skills
- CAMBRIDGE: FCE (minimum 169)
- TOEFL IBT: Minimum 79 overall with a minimum of 42 in all four skills
- An average C grade on a Heriot-Watt pre-sessional programme.

EXCEPTIONS TO THE ABOVE:

Undergraduate programmes in Actuarial Science require IELTS 6.5 or equivalent.

All our undergraduate interpreting and translating programmes require IELTS 7.5 or equivalent.

Students from Norway who have achieved a good level of English (4) in their Vitnemål generally do not need to sit an English language test.

ENGLISH LANGUAGE PROGRAMMES

Heriot-Watt offers a flexible pre-sessional programme of English language and study skills designed to help you prepare the ground for your degree studies. These courses vary in length, depending on your requirements and level of English. Successful completion means that you will be able to enter the degree of your choice without having to sit further English language tests such as IELTS. If you do not have the required English language level you can join one of our English Language programmes.

Olwyn Alexander
Director of Academic English
School of Social Sciences
T: +44 (0) 131 451 8189
O.Alexander@hw.ac.uk
International Students

Heriot-Watt is a highly internationalised study environment with opportunities to study abroad.

INTERNATIONAL STUDENT ADVICE (ISAO), GLOBAL STUDENT OFFICE
Visit the International Student Advice website for pre-arrival information on visa applications, money and what to bring. Once you are here the Global Student Office team provides helpful, friendly advice on visas and immigration, health care and working in the UK, and they will also help you to extend your student visa if you need to.

T: +44 (0) 131 451 3028
isao@hw.ac.uk
www.hw.ac.uk/isa

ACCOMMODATION GUARANTEE
As an international undergraduate student you will be guaranteed a room in one of the University’s halls of residence or flats either on or off campus. This is only guaranteed if you have an unconditional offer from us and apply for accommodation before the deadline. This guarantee does not apply to exchange students.

Edinburgh Campus
E: halls@hw.ac.uk
www.hw.ac.uk/accommodation-ed

Scottish Borders Campus
E: bordershalls@hw.ac.uk
www.hw.ac.uk/accommodation-sbc

INTERNATIONAL STUDENT SOCIETIES
Heriot-Watt plays host to a thriving collection of international student societies, including those for African, Caribbean and Indian students. More information on the societies is available from the Student Union.

www.hwunion.com

INTERNATIONAL FEES AND LIVING EXPENSES
Tuition fees for 2020/21 can be found on our website. Fees are listed alongside the programme information at:

www.hw.ac.uk/ug

See www.hw.ac.uk/students/international/uk/living/banking-budgeting.htm for a guide figure as to what you should expect to spend on living expenses during each academic year (nine months), though of course the amount you actually do spend is very much down to lifestyle choice.

Before joining Heriot-Watt, you should ensure that you have the necessary funds to cover all expenditure over the life of your programme as, regrettably, the University is unable to provide financial assistance other than through individual scholarships awarded before commencing your studies.

HERIOT-WATT SCHOLARSHIPS (FEE REDUCTION)
Heriot-Watt offers non-EU applicants for undergraduate programmes the opportunity to apply for one of our scholarships. Awards are made on a competitive basis. Further details of fee reduction scholarships are available at:

www.hw.ac.uk/scholarships

In addition, applicants can consult the following website to learn of other funding opportunities available:

www.educationuk.org/scholarships

INTERNATIONAL CONNECTIONS
If you have further questions or would like to speak to a current student from your country about their experience, do get in touch and we will arrange this for you.

CHECKLIST FOR OVERSEAS APPLICANTS
- If you wish to check which year of entry you may be offered a place for, you should forward a copy of your exam results and English qualification by email indicating your programme choice to the International Recruitment Team (studentrecruitment@hw.ac.uk) or directly to the Admissions Tutor in the School where you wish to study. Your results will be assessed and you will be advised as to which year of entry you may be eligible for.
- Fill in your UCAS form online at www.ucas.com and send it electronically to UCAS.
- Confirm that you have adequate financial support.
- Firmly accept your offer of a place via www.ucas.com
- Book your accommodation early before the deadline.
- If you need to apply for a student visa, please ensure you follow the guidelines on the Home Office website or contact the ISAO.

www.gov.uk/tier-4-general-visa
We have found Heriot-Watt graduates to be curious, reflective and open-minded. In addition they have all gained various work and industry experiences throughout their studies. We believe this is proof of the personal qualities required when turning theory into practice and adapting to new work challenges.

Hans Å. Skumlien
HR Manager
EMAS AMC
As well as supporting your academic career we want to ensure you’re getting all the additional help you need. To help you achieve your goals we have a wide range of high quality academic and personal support staff who can be contacted whenever you need them.

**ACCOMMODATION**

We have new, state-of-the-art halls of residence on our Edinburgh Campus which provide spacious student accommodation.

Find out more:

[www.hw.ac.uk/ed-ug-newhalls](http://www.hw.ac.uk/ed-ug-newhalls)

Undergraduate students are housed in self-catering halls, most with en-suite facilities and internet access, with wi-fi throughout.

Find out more:

[www.hw.ac.uk/accommodation-ed](http://www.hw.ac.uk/accommodation-ed)

For help to find suitable accommodation off campus please contact [halls@hw.ac.uk](mailto:halls@hw.ac.uk)

For information on student accommodation at our Scottish Borders Campus go to:

[www.hw.ac.uk/accommodation-sbc](http://www.hw.ac.uk/accommodation-sbc)

**FINANCES**

Effective financial planning is essential for all undergraduate students, whether you are funded or self-financing, a UK national or an international student. Outline student budgets for September 2020 entry will be available from March 2020 at:

[www.hw.ac.uk/finances](http://www.hw.ac.uk/finances)

The British Council provides extensive information on student funding options at:

[www.britishcouncil.org/study-work-create/practicalities/funding-studies](http://www.britishcouncil.org/study-work-create/practicalities/funding-studies)

Additional information on potential sources of University funding is available at:

[www.hw.ac.uk/scholarships](http://www.hw.ac.uk/scholarships)

**ACCOMMODATION OFFER**

New, full-time undergraduate students studying for the full academic year on our Edinburgh Campus are offered accommodation if they have accepted the offer of a place and applied for accommodation before the closing date advertised on our website.
TUITION FEES AND FUNDING
Tuition fees vary, depending on the programme you choose and where you come from. Information on tuition fees and funding can be found online:
www.hw.ac.uk/fees-ug

You can find out how to pay here:
www.hw.ac.uk/payment

FUNDING POSSIBILITIES
As a great deal depends on your own circumstances, funding cannot be guaranteed by any particular route. If you are not sure whether you qualify as a European Union or ‘Other Overseas’ student ask for a Fee Status form to complete, also available online:
www.hw.ac.uk/documents/fee-status-enquiry-form.pdf

SPORT
In 2016, our Edinburgh Campus became home to Oriam, Scotland’s Sports Performance Centre. Housed in a stunning £33 million purpose-built sports facility, this cutting-edge development transforms Heriot-Watt into the training hub for, among others, Scotland’s national football and rugby squads. The new multi-purpose development will support you to develop your full potential as an athlete, making our Edinburgh Campus a vibrant place of high-level sport.
Find out more: www.oriamscotland.com

STUDENT UNION
There’s more to university life than simply getting your degree, and Heriot-Watt University Student Union is all about helping you to have the best possible experience while you study here. Heriot-Watt University Student Union is run by students, for students. It aims to promote, defend and extend students’ rights, provide advice and support, and empower student social and voluntary activity, as well as providing a range of services in an environment where individuals can feel safe and able to participate.
Find out more: www.hwunion.com

DISABILITY SERVICE
Advice and guidance are just a call or email away. To discuss the support you need please contact the Disability Service on +44 (0) 131 451 3509.
Find out more: www.hw.ac.uk/disability
CHILDCARE
We have a nursery based on our Edinburgh Campus. It provides childcare for children between three months and five years old. It is called Pinocchio’s and is fully registered with the Care Inspectorate.
Find out more:
www.pinocchiosnursery.co.uk
www.hw.ac.uk/childcare

HEALTH AND WELLBEING
Staying healthy, both physically and mentally, ensures you remain focused on your studies, achieve your full potential and enjoy the experience of being a student.
Find out more:
www.hw.ac.uk/support

CHAPLAINCY AND WORSHIP
The Chaplaincy on our Edinburgh Campus exists to promote spiritual and social wellbeing. It is open to everyone – both students and staff – from all backgrounds and cultures. People of all faiths and no religious faith are welcome.
Find out more:
www.hw.ac.uk/chaplaincy

INTERNATIONAL STUDENT ADVISORS
As a new international student at Heriot-Watt University, you’ll be joining one of the largest international student cohorts at a Scottish university. Our small dedicated team of International Student Advisors are here to help you with your preparation for coming to study and live in the UK. We offer advice and assistance on immigration and tuition fees, and general guidance on living and studying in the UK (council tax, bank accounts, health care, etc.).
Find out more:
www.hw.ac.uk/isa

INFORMATION AND TECHNOLOGY SERVICES
We provide state-of-the-art Library, Information and Technology services to support your research, learning, teaching and administrative activities.
Find out more: www.hw.ac.uk/is

COUNSELLING AND SUPPORT
We can offer you counselling, support and information to help you deal with any difficulties you may face while studying with us.
Find out more: www.hw.ac.uk/counselling
How to Find Us
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