ENTRY REQUIREMENTS
A good honours degree in mathematics, statistics or another numerate discipline is required. Preferably, but not exclusively a First or Second Class Honours degree in a suitable numerate science or engineering subject.

For students who have not studied enough mathematics to gain direct entry to the MSc programme, we may be able to offer the opportunity to build up and enhance their general mathematical and statistical skills in the year for access to the specialist MSc in an individually tailored Graduate Certificate programme, comprising key undergraduate mathematics and statistics courses.

ENGLISH REQUIREMENTS
If your first language is not English, or your first degree was not taught in English, we’ll need to see evidence of your English Language ability. The minimum requirement for English language is IELTS 6.0, TOEFL 80 (IBT) or equivalent. We offer a range of English language courses to help you meet the English language requirement prior to starting your Masters programme:
• 2 semesters English (for IELTS 4.5-5.0)
• 12 weeks English (for IELTS 5.5).

Further details can be found at www.english.hw.ac.uk

FEES, FUNDING AND SCHOLARSHIPS
Latest tuition fees are published on our fees web pages: www.hw.ac.uk/fees. We offer scholarships to well qualified applicants. Instructions on applying can be accessed from our scholarship web pages: www.scholarships.hw.ac.uk

HOW TO APPLY
You can apply by using our online application form available at www.postgraduate.hw.ac.uk/apply
You must also provide a copy of your degree certificate and relevant academic transcripts, references from two academic sources and evidence of your English language ability. You can attach documents to the online application using the document upload facility. If you are an applicant from outside the European Union and require a visa for entry to the UK, please provide a copy of the photograph page of your current passport.

There is no official deadline for applying to the programme. However it is always better to submit your completed application as early as possible to have a good chance of securing a place and for overseas applicants to obtain their Tier 4 student visa in sufficient time.

FIVE GOOD REASONS TO STUDY AT HERIOT-WATT
1. The programme is taught by leading academics with a strong research record
2. Our graduates have a wide range of career choices
3. Recruitment prospects are excellent in the coming years
4. Our degree will place you in a unique position at the core of this vibrant career
5. We are a green campus on the edge of the historic city of Edinburgh, the birthplace of James Clerk Maxwell.
PROGRAMME BACKGROUND
Graduates with good mathematical and statistical skills are in high demand in industry and academia. Current research in the Mathematics Department at Heriot-Watt applies to a diverse range of problems such as: cancer therapy, wound healing, ecology, squirrel populations and integrable systems.
Mathematical skills have consistently figured among the key criteria for securing the best jobs available in terms of: environment, income, employment outlook, physical demands and stress. The median annual income for mathematicians in 2011 is about £60,000. A postgraduate degree in mathematics from Heriot-Watt University will place you in an excellent position to pursue a wide range of exciting careers.

This Applied Mathematical Sciences MSc provides transferable, modern mathematical and statistical skills geared to careers with an emphasis in biological sciences. To achieve this we offer a solid theoretical and practical foundation through a broad range of taught courses.

PROGRAMME OBJECTIVES
The contribution of mathematical and computational modelling to the understanding of biological systems has rapidly grown in recent years. This discipline encompasses a wide range of life science areas, including ecology (e.g. population dynamics), epidemiology (e.g. spread of diseases), medicine (e.g. modelling cancer growth and treatment) and developmental biology.

This programme aims to equip students with the necessary technical skills to develop, analyse and interpret models applied to biological systems. Course work is supported by an extended and supervised project in life science modelling.

PROGRAMME STRUCTURE
Taught courses are selected from:
- Mathematical ecology
- Mathematical biology and medicine
- Modelling and tools
- Applied linear algebra
- Dynamical systems
- Approximation of continuous systems
- Statistical methods
- Foundation molecular biology
- Climate change causes and impacts
- Optimization
- Numerical analysis of PDEs
- Modern portfolio theory
- Partial differential equations
- Climate change: mitigation and adaption.

Typical projects include:
- Population cycles of forest insects
- The replacement of red squirrels by grey squirrels in the UK
- Vegetation patterns in semi-arid environments
- Modelling invasive tumour growth
- Wiring the nervous system
- Efficiency of chemotherapy protocols.

ASSESSMENT METHODS
Courses are assessed by a mixture of written examinations at the end of each semester and continuous assessment. The project is assessed by submitted report.