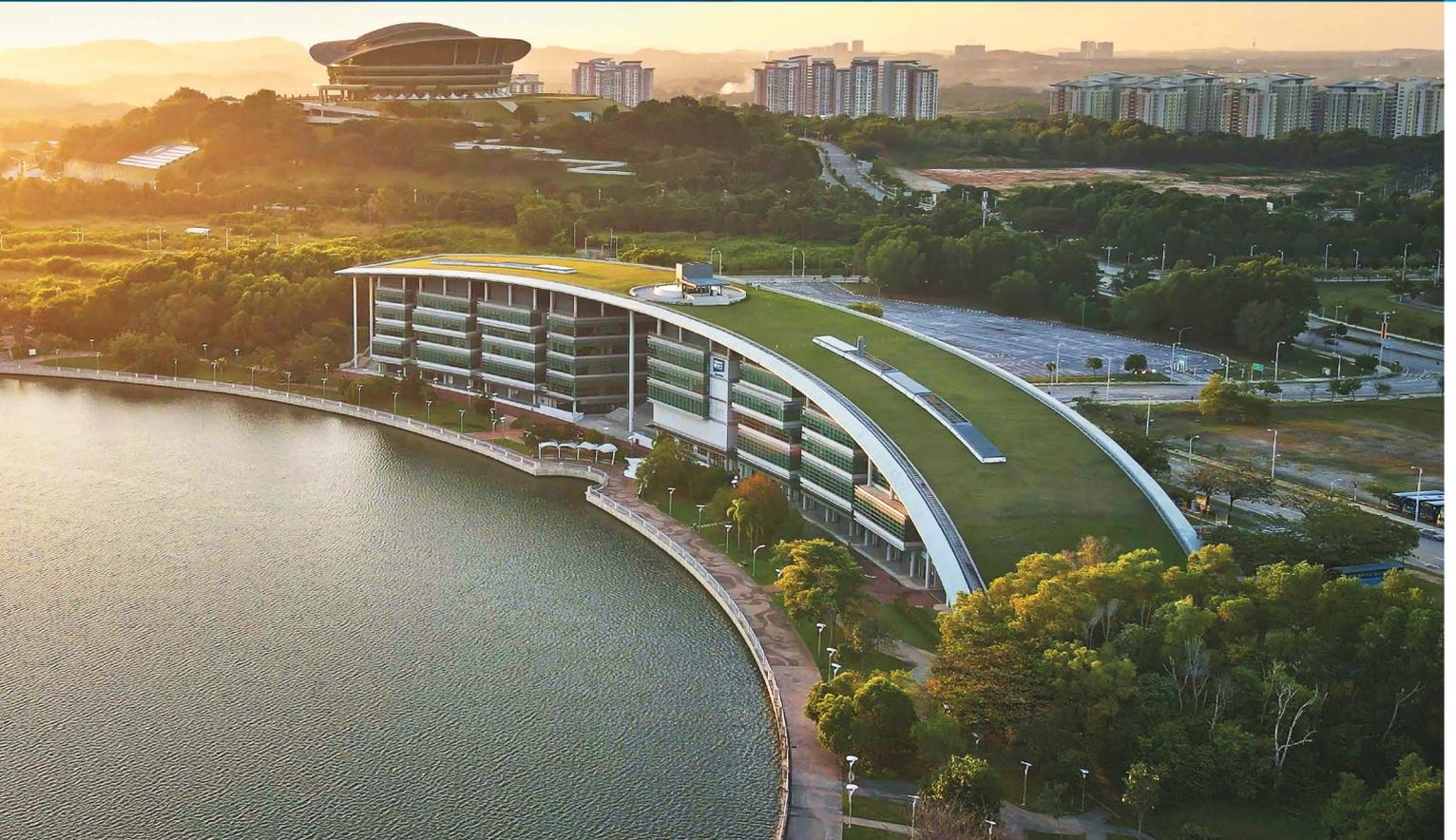




**HERIOT
WATT**
UNIVERSITY
UK | DUBAI | MALAYSIA

Mathematical and
Computer Sciences
2026



About

the School of Mathematical and Computer Sciences

The School of Mathematical and Computer Sciences at Heriot-Watt University Malaysia is a leading academic institution that offers a comprehensive range of programmes in the fields of mathematics and computer science. With a strong focus on research and innovation, the school provides students with a dynamic and intellectually stimulating learning environment.

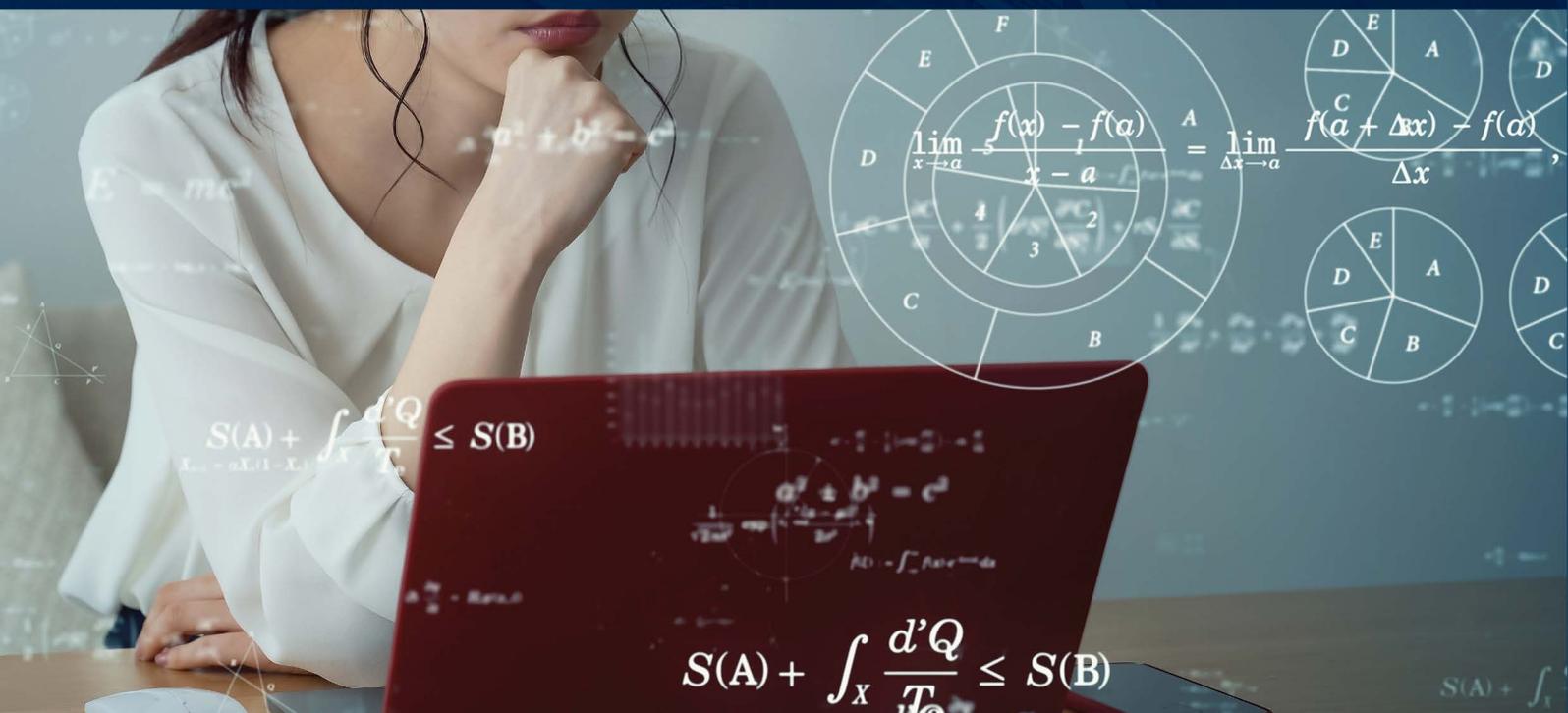
At the School of Mathematical and Computer Sciences, students have access to state-of-the-art facilities and cutting-edge technology, enabling them to develop their analytical and problem-solving skills. The school comprises of highly qualified and experienced academics who are dedicated to delivering quality education and mentoring students to achieve their full potential.

The school offers a wide range of undergraduate programmes in statistical data science, computer science, actuarial

science and information systems with data analytics. These programmes are designed to equip students with the necessary knowledge and skills to excel in their chosen fields.

In addition to academic excellence, the School of Mathematical and Computer Sciences fosters a supportive and inclusive community, encouraging collaboration and interaction among students and faculty members. Various extracurricular activities and student organisations provide opportunities for personal growth and networking.

By studying at the School of Mathematical and Computer Sciences at Heriot-Watt University Malaysia, students can expect a rigorous academic curriculum, access to world-class resources, and a supportive learning environment that prepares them for successful careers in mathematics and computer science.





BSc (Hons) Actuarial Science

KPT/JPS (R2/0542/6/0012) (MQA/FA4167) 06/29

Intake: September, January

Actuaries manage risk and uncertainty, and evaluate the likely impact of future events. Heriot-Watt University's Actuarial Science programme is world-famous for its excellence. It contains all the courses that are essential for ensuring a flying start to a career as an actuary whilst at the same time fostering highly transferable mathematical skills.

If you excel at mathematics, enjoy problem solving, and are looking for a degree that will prepare you for a rewarding career – both intellectually and financially – Actuarial Science could be the programme for you.

ACCREDITATION

Professional actuarial exams are essential for students pursuing a career in actuarial science. The Institute and Faculty of Actuaries (IFoA) offers these exams which assess the knowledge and skills of aspiring actuaries and are recognised globally as a benchmark for professional competence in the field.



Institute
and Faculty
of Actuaries

The programme is designed to prepare students for these exams and equip them with the knowledge and skills needed to succeed in the actuarial profession. Heriot-Watt University offers Actuarial Science students the opportunity to obtain exemptions for a maximum of 11 papers* from the Institute and Faculty of Actuaries' (IFoA's) professional exams, allowing them to streamline their academic journey by recognising their prior coursework and providing a pathway towards achieving their actuarial qualifications. The degree is also accredited by the Malaysian Qualifications Agency (MQA).

**This relates to our MSc Actuarial Management programme. We are also recognised by the Society of Actuaries (SOA) under Universities & Colleges with Actuarial Programs-Advanced Curriculum (UCAP-AC), which is the highest level of recognition in Malaysia.*

Additionally accredited by:



Year 1

- Probability and Statistics A & B
- Multivariable Calculus
- Real Analysis
- Actuarial and Financial Mathematics
- Linear Algebra
- Algorithmic and Scientific Programming
- Data Science Life Cycle

Year 2

- Life Insurance Mathematics A & B
- Stochastic Processes
- Survival Models
- Statistical Models A & B
- Economics for the Professions
- Finance and Financial Reporting

Year 3

- Financial Markets and Investments
- Financial Derivatives
- Time Series & Machine Learning
- Risk Theory

Optional and Elective Courses Available for Year 3 Include:

- Further Statistical Methods
- Climate Change and Sustainability
- International Bonds & Currency Markets
- Optimisation
- Bayesian Inference & Computational Methods
- Database Management
- Advanced Machine Learning
- Taxation (Malaysia)

Testimonial



Mohd Nizam

*BSc (Hons) Actuarial Science (Class of 2017),
Data Scientist
at Mudah.my*

My experience at Heriot-Watt University Malaysia (HWUM) played an important role in shaping how I think and solve problems today. The actuarial science programme trained me to approach challenges analytically, pay attention to detail, and build strong mathematical discipline, skills that have been valuable throughout my career. Beyond academics, the friendships, sense of community, and time spent learning together made my university experience meaningful. After graduation, I discovered Data Science and Analytics, realising that my analytical skills transitioned naturally into this field. Being an early adopter opened many doors and allowed me to grow alongside a rapidly evolving industry.



BSc (Hons) Computing Science

KPT/JPS (R/0613/6/0123) (MQA/FA14530) 06/31

Intake: September, January

In today's era of digitisation, computer scientists and software engineers are leading the way in driving the latest advancements across a wide range of fields such as artificial intelligence, cybersecurity, bioinformatics, healthcare, and data informatics. Our BSc (Hons) Computing Science degree focuses on software development and algorithms, with the aim of creating robust and user-friendly systems for industry and commerce.

This programme is designed to provide a well-balanced mix of theoretical knowledge and practical experience, with a strong emphasis on the latest tools and techniques, to help you develop the next generation of software tools that other system contractors will use. Our curriculum is strongly supported by our academic staff's research expertise and industrial linkages, ensuring that students receive an all-rounded education.

ACCREDITATION

We have obtained the initial full accreditation from BCS, The Chartered Institute of IT, UK.

Accredited by:



Year 1

- Software Development A and B
- Mathematics for Computer Science
- Introduction to Interaction Design
- Introduction to Computer Systems
- Introduction to Software Engineering
- Data Structures and Algorithms
- Database Management Systems

Year 2

- Software Engineering
- Data Communications and Networking
- Foundations 1 & 2
- Programming Languages
- Professional Development
- Operating Systems and Concurrency
- Hardware-Software Interface
- Industrial Training (Summer Internship)

Year 3

- Research Methods and Requirements Engineering
- Computer Network Security
- Artificial Intelligence and Intelligent Agents
- Design and Implementation
- Project Testing and Presentation

Optional Courses Available for Year 3 Include Courses from The Artificial Intelligence, Data Science or Cybersecurity Streams:

- Data Mining and Machine Learning
- Big Data Management
- Data Visualisation and Analytics
- Applied Text Analytics
- Computer Graphics
- Advanced Network Security

Testimonial



Izzat Hanis Zulhizzan

*BSc (Hons) Computing Science (Class of 2025),
CX Transformation Specialist
at CelcomDigi Bhd*

Heriot-Watt was able to offer me different opportunities in the way that I learned the syllabus by incorporating many hands-on projects, such as working with IoTs, developing apps and software, and using up-and-coming AI tools. The coursework provided a better understanding of applying my knowledge into code and real-life scenarios. Apart from academia, taking on the role of Vice President for Heriot-Watt Silverbacks led to the development of my own Touch Rugby team. The people I met, including friends and lecturers, created a supportive environment. The course structure, groupworks, projects, and lecturer guidance helped shape how I work, manage my time, and collaborate in teams today.



BSc (Hons) Statistical Data Science

KPT/JPS (R/462/6/0018) (MQA/FA8513) 08/27

Intake: September, January

The applications of statistical data science range from economics and medicine to social and environmental sciences. Our BSc (Hons) in Statistical Data Science provides a blend of both theoretical and applied elements of modern statistics, and aims to give students the training in modelling, analysing and interpreting real data that is required in the economy, industry and research.

The first year of the programme covers basic mathematics, probability and statistics. The final two years focus on specialist topics of statistical modelling and advanced courses in mathematics and data science. A variety of statistical computer packages are used.

It is possible for students who have completed the programme to apply for some exemptions from the Institute and Faculty of Actuaries (IFoA) professional examinations.

ACCREDITATION

It is possible for students who have completed the programme to obtain some exemptions from the Institute and Faculty of Actuaries professional examinations. Our programme is also accredited by the Royal Statistical Society (RSS).



Accredited by:



Institute
and Faculty
of Actuaries



Year 1

- Probability and Statistics A & B
- Multivariable Calculus
- Real Analysis
- Actuarial and Financial Mathematics
- Linear Algebra
- Algorithmic and Scientific Programming
- Data Science Life Cycle

Year 2

- Statistical Models A & B
- Further Statistical Methods
- Stochastic Processes
- Bayesian Inference and Computational Methods

Optional and Elective Courses Available for Year 2 Include:

- Artificial Intelligence and Intelligent Models
- Interactive Design
- Survival Models
- Database Management Systems
- Ordinary Differential Equations

Year 3

- Statistics Dissertation A & B
- Time Series & Machine Learning

Optional and Elective Courses Available for Year 3 Include:

- Data Assimilation
- Optimisation
- Financial Markets and Investments
- Sustainability
- Risk Theory
- Database Management Systems
- Big Data Management
- Statistics Special Topic
- Financial Derivatives
- Advanced Machine Learning

Testimonial



Miracle Wong

*BSc (Hons) Statistical Data Science
(Class of 2023),
Data Scientist
at Grab*

Even though I chose to study at Heriot-Watt due to the course, what astonished me was the high quality of teaching and academic support. The lecturers are responsive to feedback, eager to address my numerous queries, and motivate me to delve deeper into my degree. With their assistance, I was able to actively participate in shaping my education, gain a thorough comprehension of the course material, and maintain an inquisitive approach to learning about Data Science and its intricacies.



BSc (Hons) Information Systems with Data Analytics

KPT/JPS (N/0611/6/0092) (MQA/PA17527) 07/29

Intake: September, January

The BSc (Hons) in Information Systems with Data Analytics programme is intended to provide students with a strong grasp of information systems while also increasing their competence in data analytics. The curriculum emphasises the critical skills of data collection, management, and analysis, ensuring that students can handle and analyse data efficiently. The programme trains graduates to face real-world commercial and technological challenges by developing critical thinking and problem-solving skills. Furthermore, this degree seeks to generate professionals who are prepared to flourish in data-driven decision-making jobs across a variety of industries.

ACCREDITATION

This programme has obtained provisional accreditation from the Malaysian Qualifications Agency (MQA). In accordance with our normal practice, our professionally orientated programmes are designed to meet the educational requirements for membership of relevant professional institutions. In addition to recognition within Malaysia, we seek accreditation by the relevant UK or international professional bodies in accordance with their standard procedures.

**Not available for Go Global programme.*

Year 1

- Introduction to Programming 1
- Introduction to Interaction Design
- Management in a Global Context
- Fundamentals of Marketing
- Introduction to Computer Systems
- Introduction to Software Engineering
- Database Management Systems
- Data Science Life Cycle

Year 2

- Leading in Organisations
- Software Engineering
- Knowledge Management
- Human Resource Management
- Organisational Behaviour
- Professional Development
- Sociotechnical and Soft Systems
- Visual Analytics
- Industrial Training (Summer Internship)

Year 3

- Research Methods & Requirements Engineering
- Information System Methodologies
- Data Mining and Machine Learning
- Design & Implementation
- Project Testing & Presentation
- Big Data Management

Optional Courses (Choose 1 for Semester 1):

- Information Technology Master Class
- Software Engineering Foundations
- Statistical Modelling and Analysis

Optional Courses (Choose 1 for Semester 2):

- Advanced Human Computer Interaction
- Digital and Knowledge Economy
- Applied Text Analytics

Testimonial



Yow Xin Yi

*BSc (Hons) Information Systems
with Data Analytics (Current Student),
Heriot-Watt University Malaysia*

Information Systems with Data Analytics (ISDA) has given me a solid foundation in data analysis and problem-solving skills applicable to real-world business and technology environments. I appreciate how the coursework combines theory with hands-on projects, which helped me grow both academically and personally. It's a programme that truly prepares you for real-world challenges.

About Our Go Global

At Heriot-Watt University, the world is your classroom. Immerse yourself in a truly international learning experience with students from diverse backgrounds. Unlock the world's possibilities through our seamless inter-campus transfer programme to the **Edinburgh** or **Dubai campuses** and enjoy a **20% discount***.

** Subject to the degree programme running at your chosen campus.*

20%

tuition fee discount when you transfer to our **Edinburgh** or **Dubai campuses**

99%

of **Go Global students** said they would recommend it

Heriot-Watt University
Student Survey 2020

80%

of surveyed employers actively seek out graduates **with international experience**

QS Global Employer
Survey Report



HOW TO APPLY

Heriot-Watt
University
Malaysia accepts
applications all
year round.

APPLY ONLINE

You can apply online for our programmes at <https://bit.ly/HWApply> You must create an account to use the online application form. You don't have to complete the application in one session; you can save the information you have already entered and return to complete it at a later date. There is a help facility on each page of the online form.

SUPPORTING DOCUMENTS

Please remember to upload supporting documents so that we can make a decision on your application. This includes proof of English language proficiency and original or certified copies of academic transcripts.

Please refer to the supplemental item checklist on the Online Application form:

▶ <http://bit.ly/hwumaccount>

See website for details of fees:

▶ http://bit.ly/hwum_fees



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Open for consultation:
Weekdays 9am - 5pm
Weekends by appointment

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As of March 2026