



UK | DUBAI | MALAYSIA

BE FUTUREMADE

ACTUARIAL

AND DATA

SCIENCE

FutureMade is to look to the future, strive for better, aim for higher, make history. A future that mirrors our pioneering roots in 1821, the year we founded the world's first Mechanics Institute. By choosing to study at Heriot-Watt today you will become part of a community working across boundaries and cultures. Collaborating with international business and industry to tackle the global challenges faced by the world we live in. Heriot-Watt undergraduates are highly employable and sought after by the best organisations worldwide.

Be **FutureMade**
▶ hw.ac.uk/Malaysia

**LOOK TO THE FUTURE.
STRIVE FOR BETTER.
AIM FOR HIGHER.
MAKE HISTORY.
BE AMBITIOUS.
BE BOLD.**

WE DEVELOP RESILIENT GRADUATES

Heriot-Watt University is aware of the challenges the youth of today face in terms of maintaining a healthy mindset, managing stress as well as developing meaningful social relationships in a landscape that has also become increasingly digitised. The university is no stranger to pioneering the global educational landscape with world-class programmes enhanced with a unique Positive Education approach.

Youth Transformation Programme (YTP)

Specially created for post-secondary school students, the Youth Transformation Programme has been designed to support every student to realise their full potential.

Students are encouraged to engage in a positive transformation by focusing on developing their emotional intelligence and creativity, understanding their own personalities, strengths and weaknesses, and developing a long-term vision and mission. This is done by setting realistic SMART goals through engaging and interesting activities. Using a proven emotional intelligence framework and engaging activities focusing on expressing positive emotions such as empathy and gratitude, students are taught self-awareness, self-management, social awareness and relationship management.

On completion of the YTP, students will develop a strong sense of self-confidence and an ability to express their emotions in a positive way, and be able to relate comfortably to their peers and better manage their relationship with friends and family, paving the way for a smooth transition to and preparing them for the challenges of University studies.

The YTP is open to students who have achieved a minimum of 5Cs in relevant subjects in SPM, IGCSE or equivalent. The programme objectives are:

- **Develop your own Vision and Mission**
- **Collaborate effectively to accomplish a project**
- **Identify your strengths, passion and potential**
- **Discover your study and career pathway**

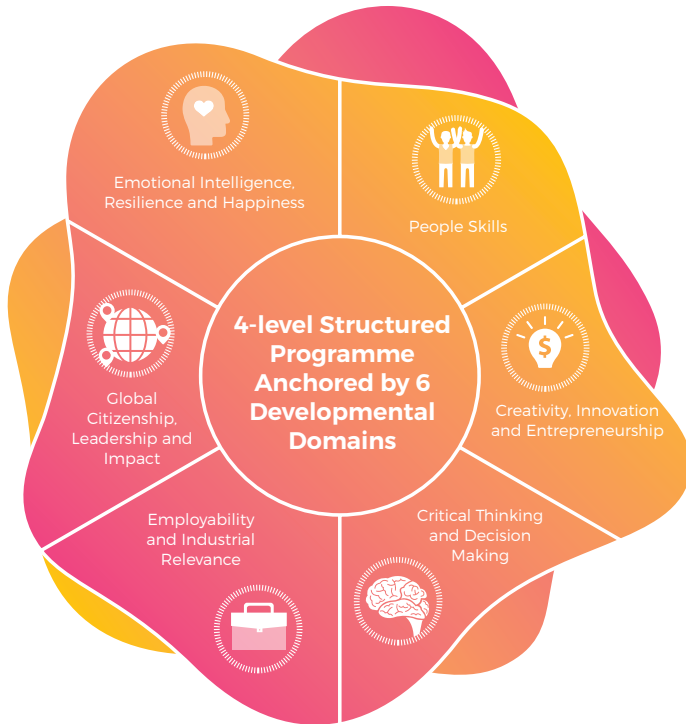
The following are some of the workshops under the YTP:

- **The Successful Mindset**
- **Ace It with Communication**
- **Creativity and Innovation**
- **Team Dynamics**
- **Emotional Intelligence**
- **Rewiring Your Brain**
- **Knowing Me, Myself and I**
- **Career Planning**
- **Project Showcase**

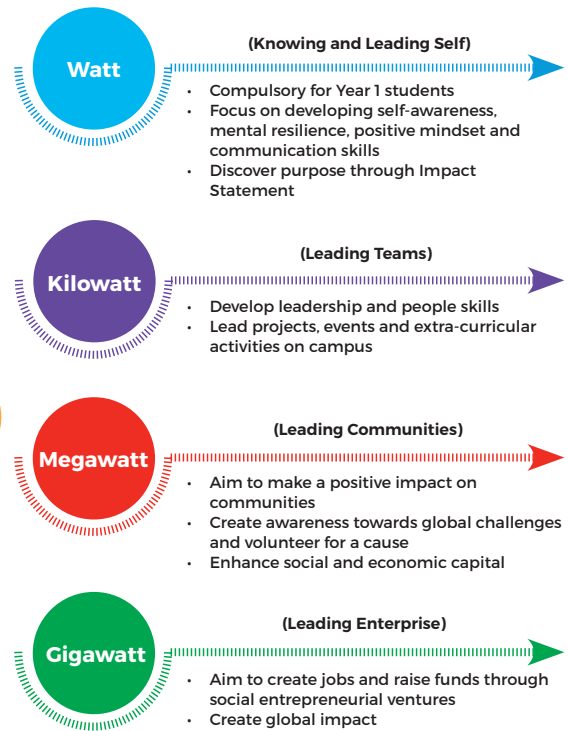


EmPOWER Programme

FEATURES



LEVELS



(Knowing and Leading Self)

- Compulsory for Year 1 students
- Focus on developing self-awareness, mental resilience, positive mindset and communication skills
- Discover purpose through Impact Statement

(Leading Teams)

- Develop leadership and people skills
- Lead projects, events and extra-curricular activities on campus

(Leading Communities)

- Aim to make a positive impact on communities
- Create awareness towards global challenges and volunteer for a cause
- Enhance social and economic capital

(Leading Enterprise)

- Aim to create jobs and raise funds through social entrepreneurial ventures
- Create global impact



Global Citizenship, Leadership & Impact



Emotional Intelligence, Resilience & Happiness



People Skills



Creativity, Innovation & Entrepreneurship



Critical Thinking & Decision Making



Employability & Industrial Relevance

	Global Citizenship, Leadership & Impact	Emotional Intelligence, Resilience & Happiness	People Skills	Creativity, Innovation & Entrepreneurship	Critical Thinking & Decision Making	Employability & Industrial Relevance
Watt Knowing & Leading Self	<ul style="list-style-type: none"> • Defining impact (Impact Statement) • Leadership style awareness 	<ul style="list-style-type: none"> • Self-awareness • Self-management • Active & healthy lifestyle 	<ul style="list-style-type: none"> • Effective communication • Time management • Gratitude 	<ul style="list-style-type: none"> • Divergent thinking • Facilitating discovery • Opportunity finding 	<ul style="list-style-type: none"> • Brainology • Thinking biases • Brain neurology • Reframing & positive framing 	<ul style="list-style-type: none"> • Preparing CV • LinkedIn profile • Career planning • Career fair • Prof. dev. plan
Kilowatt Leading Teams	<ul style="list-style-type: none"> • Influencing through impact • Awareness of the global challenges 	<ul style="list-style-type: none"> • Social awareness • Relationship management • Return on failure 	<ul style="list-style-type: none"> • Effective collaboration 	<ul style="list-style-type: none"> • Lean startup • Creating products, processes & services 	<ul style="list-style-type: none"> • Evaluating claims • Analysing inferences 	<ul style="list-style-type: none"> • Business etiquette • Applying knowledge in industrial contexts
Megawatt Leading Communities	<ul style="list-style-type: none"> • Widening impact • Resolving ethical challenges 	<ul style="list-style-type: none"> • Leading at the happiness project 	<ul style="list-style-type: none"> • Negotiation, mediation & persuasion 	<ul style="list-style-type: none"> • Financial literacy • Appreciating market & customers • Raising funds 	<ul style="list-style-type: none"> • Weighing decisions • Analysing challenges 	<ul style="list-style-type: none"> • Global industrial placement (work global)
Gigawatt Leading Enterprise	<ul style="list-style-type: none"> • Global impact • System thinking 	<ul style="list-style-type: none"> • Supporting those under their care emotionally 	<ul style="list-style-type: none"> • Lifelong learning 	<ul style="list-style-type: none"> • Running an enterprise • Blue ocean strategy 	<ul style="list-style-type: none"> • Assessing risk 	<ul style="list-style-type: none"> • Impacting industrial practice • Creating jobs

PROGRAMME STRUCTURE



EMPLOYER TESTIMONIALS



The EmPOWER Programme enables students to be in charge of charting their developmental needs and becoming intentional lifelong learners and will definitely make Heriot-Watt University graduates both highly employable and future-ready.

AINOL YAACOB
HEAD OF COUNTRY,
BP MALAYSIA



The EmPOWER Programme is certainly a great initiative by Heriot-Watt University Malaysia to prepare graduates to be industry-ready. Students will be shaped to think about the greater purpose with focus on soft skills that are fundamental when joining the workforce. Employers are looking for that differentiating factor in today's disruptive business environment. A structured programme such as this will be beneficial to increase students' employability.

**MUHAMMAD AZMI
BIN ZULKIFLI**
ACTING CEO, INVEST KL



I am delighted to see the EmPOWER Programme promoting global citizenship and a comprehensive set of 21st Century skills amongst the students of Heriot-Watt University Malaysia. The Programme will go a long way towards making them not only highly employable but also highly impactful citizens of the world.

SARAH DEVERALL
DIRECTOR MALAYSIA,
BRITISH COUNCIL

STUDENT TESTIMONIALS



BEng (HONS)
MECHANICAL ENGINEERING

MOHAMED SYAFIQ BIN SALLEH

"The EmPOWER Programme made me realise that NO GOAL is worth missing out on! The programme has encouraged me to look inward, understand myself and analyse what is important to me. It has enabled me to understand new perspectives of my surroundings and the world."



BEng (HONS)
CIVIL ENGINEERING

VALENTINA NICSON

"The community service component of this course helped bring our Impact Statement to life. It helped to boost life skills such as leadership, teamwork and communication through how we form our group, propose an event and negotiate and manage conflict among the group members. I personally vouch for the EmPOWER Programme and would highly recommend this course to continuously EmPOWER our Heriot-Watt community."



BSc (HONS)
ACTUARIAL SCIENCE

ARISSA NOORDINA BAHARI
BT MOHD AMIR SHAHRIL BAHARI

"The EmPOWER Programme, specifically the module on Impact Statement, had the students reflect on the past, the present and the future. In the present module, students had to come up with our *ikigai*, a Japanese concept for our reason for being. *Ikigai* is the intersection between what you love, what you are good at, what you get paid for and what the world needs. Leave one out and life becomes unfulfilled."

STUDY AND SEE THE WORLD

At Heriot-Watt, you have the opportunity to enjoy a truly international experience. We are one of the world's top universities for international student mix and you have the chance to become a global student by taking part in an Inter-Campus Transfer to our Scottish or Dubai campuses.



Campus transfers are guaranteed

as long as your programme is available at the campus you are transferring to and you meet progression requirements

20%

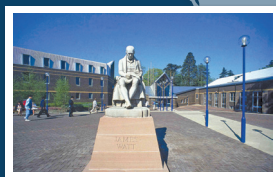
Tuition fee waiver
off Dubai or UK
tuition fees when you transfer



Study for as little as one semester
at one of our global campuses



Study at our global campuses
until completion



Edinburgh, Orkney & the Scottish Borders, Scotland, UK



Dubai, UAE



Putrajaya, MALAYSIA

About Our Programmes

BSc (HONS) ACTUARIAL SCIENCE

KPT/JPS (R/462/6/008) (FA4167) 06/24

Intake: September

Actuaries manage risk and uncertainty and evaluate the likely impact of future events. Heriot-Watt'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.

This programme is one of the few in Malaysia which are fully accredited by the UK Institute and Faculty of Actuaries (IFoA). Good performance means exemptions from the Core Principles subjects (CS1, CS2, CM1, CM2, CB1, CB2), giving prospective actuaries an advantage over those in other mathematics-based programmes. The degree is also accredited by the Royal Statistical Society and by the Malaysian Qualifications Agency (MQA).



Institute
and Faculty
of Actuaries



DATA | EVIDENCE | DECISIONS

Year 1:

- Probability and Statistics A & B
- Linear Algebra
- Actuarial and Financial Mathematics A & B
- Multivariable Calculus and Real Analysis A & B

Optional and elective courses available for Year 1 include:

- Finance and Financial Reporting
- Operations Management

Year 2:

- Life Insurance Mathematics A & B
- Stochastic Processes
- Survival Models
- Derivative Markets and Discrete-time Finance
- Statistical Models A & B
- Portfolio Theory & Asset Models

Year 3:

Students typically take Introductory Economics, Continuous-time Finance, Risk Theory and Time Series Analysis, and can choose from a range of options such as Statistics for Social Science, Bayesian Inference and Computational Methods, Statistical Machine Learning and Optimisation.

BSc (HONS) STATISTICAL DATA SCIENCE

KPT/JPS (N/462/6/0014) (PA 8513) 06/22

Intake: September

The applications of statistical data science range from economics and medicine to social and environmental sciences. Our BSc 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.

Our programme is accredited by the Royal Statistical Society. 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.



ROYAL
STATISTICAL
SOCIETY
DATA | EVIDENCE | DECISIONS

Year 1:

- Multivariable Calculus and Real Analysis A & B
- Linear Algebra
- Actuarial and Financial Mathematics A & B
- Probability and Statistics A & B
- Finance and Financial Reporting
- Operations Management (Elective)

Year 2:

- Stochastic Processes
- Statistical Models A & B
- Statistics for Social Science
- Portfolio Theory and Asset Models (Optional)
- Human Resource Management (Elective)
- Survival Models
- Bayesian Inference & Computational Methods
- Derivative Markets and Discrete-time Finance (Optional)
- Ordinary Differential Equations (Optional)

Year 3:

- Optimisation
- Statistical Dissertation A & B
- Statistical Machine Learning
- Continuous-Time Finance (Optional)
- Statistical Computing (Optional)
- Project Management (Elective)
- Time Series Analysis
- Risk Theory (Optional)
- Statistics Special Topic (Optional)
- Risk Management: Techniques and Tools (Optional)

FutureMade in
Actuarial Science

Oscar Tan Kah Jie's Story

“Heriot-Watt’s Actuarial Science programme appealed to me as it is among the top-ranked in the field. The course is designed so that the skills learned are directly transferrable to the workplace. The courses not only strengthen our theoretical knowledge, but also ensure that we are industry-ready.”

Oscar Tan Kah Jie

BSc (Hons) Actuarial Science student and former Foundation in Business student
Former School: SMJK Heng Ee



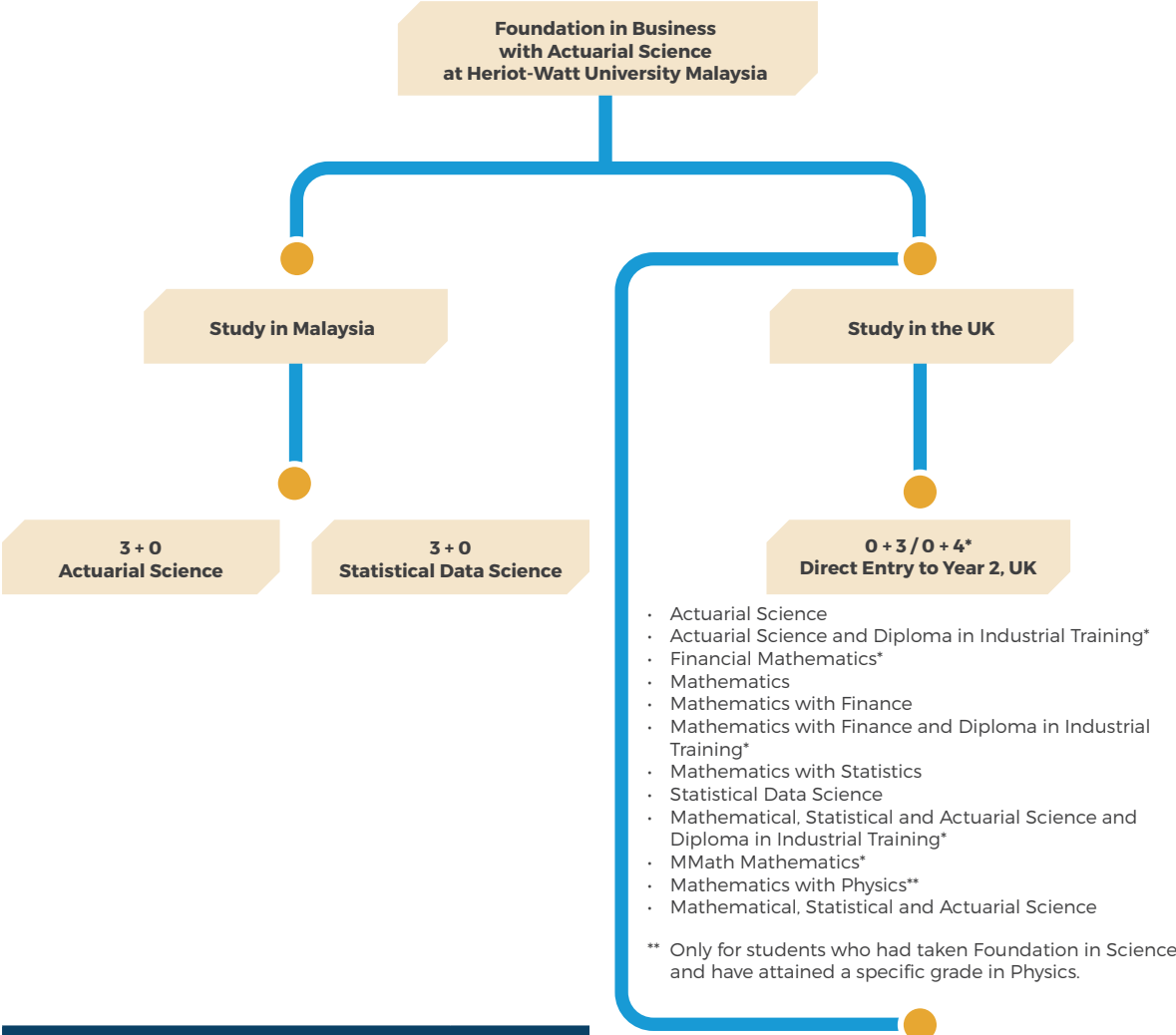
Your Study Pathway

Choose the Go Global Route



* Only possible for programmes available in both Malaysia and UK campuses

Or Choose to Study in Malaysia or Transfer Directly to the UK



- Actuarial Science
- Actuarial Science and Diploma in Industrial Training*
- Financial Mathematics*
- Mathematics
- Mathematics with Finance
- Mathematics with Finance and Diploma in Industrial Training*
- Mathematics with Statistics
- Statistical Data Science
- Mathematical, Statistical and Actuarial Science and Diploma in Industrial Training*
- MMath Mathematics*
- Mathematics with Physics**
- Mathematical, Statistical and Actuarial Science

** Only for students who had taken Foundation in Science and have attained a specific grade in Physics.

Malaysia and UK Equivalency	
Malaysia Foundation Programme	Year 1, UK
Year 1, Malaysia Campus	Year 2, UK
Year 2, Malaysia Campus	Year 3, UK
Year 3, Malaysia Campus	Year 4, UK

Entry to the UK campus is contingent upon agreed progression rules and entry requirements that are set by the UK campus. Please check with the Registry when you are making plans to do your transfer.

- Actuarial Science and Diploma in Industrial Training*
- Financial Mathematics
- Actuarial Science
- Statistical Data Science
- Mathematical, Statistical and Actuarial Science

Summary of Entry Requirements

Foundation Intakes: April, July and September

FOUNDATION PROGRAMME				
Programme Name	Qualification		Subject Requirement	
	SPM/IGCSE	SMA 3 (Indo)		
Foundation in Science	5Cs	6.0	English, Mathematics, Additional Mathematics, Physics and Chemistry	Progression to your chosen undergraduate programme may require pre-requisite subjects with specific grades at the SPM/IGCSE/Equivalent levels in addition to your Foundation results.
Foundation in Business	5Cs	6.0	English and Mathematics and other relevant subjects	
Foundation in Business (Actuarial Science Route)	5Cs	6.0	English, Mathematics, Additional Mathematics and other relevant subjects	
Foundation in Business (Psychology Route)	5Cs	6.0	English, Science, Mathematics and other relevant subjects	

UNDERGRADUATE PROGRAMMES							Pre-requisite Subjects
Programme Name	Qualification						
	STPM/A-Level	IB Diploma	SMA 3	UEC	WACE/SACE	FIB/FiS	
BSc (Hons) Actuarial Science BSc (Hons) Statistical Data Science	ABB	28 points	8	6A	ATAR 90**	ABBC	<p>FIS: A in Mathematics, B in Physics and Chemistry, C in Academic Skills and Foundation English.</p> <p>FIB: A in Mathematics, B in Accounting and Finance and Business Management, C in Academic Skills and Foundation English.</p> <p>STPM/A-Level/equivalent: A in Mathematics.</p> <p>IB Diploma: Minimum 6 in HL Mathematics.</p> <p>UEC: A1 in Mathematics and Advanced Mathematics.</p> <p>WACE: Minimum 80% in Mathematics.</p> <p>SACE: Minimum 17.0 in Mathematics.</p>

** May be subject to school assessment

ENGLISH LANGUAGE REQUIREMENTS

The following are the English language requirements for entry into our programmes.

ENGLISH REQUIREMENTS			
Qualification	Foundation	UG	UG - Actuarial
IELTS	5.5	6	6.5
Cambridge	FCE Grade C	FCE Grade B	FCE Grade A
Pearson PTE Academic	51	57	60
MUET	-	Band 4	Band 5
SPM	C	B+	A
1119 GCE-O	C	B	A
GCSE/IGCSE	C	B	A
UEC	B4	B3	A2
TOEFL IBT	70	80	90

In order to study effectively at Heriot-Watt, you need excellent English language skills. For those who need assistance and do not meet the English entry requirements above, Heriot-Watt University Malaysia provides a Pre-Sessional English Programme (PSEP). Find out more about our PSEP on our website: hw.edu.my/english

If your country's qualification is not listed, or you have any questions, contact our Recruitment and Administrations Office: MYadmissions@hw.ac.uk

HOW TO APPLY



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University
Malaysia accepts
applications all
year round.



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Open for consultation:
Monday to Friday (9am - 5pm) and Saturday (10am - 4pm)

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DISCLAIMER OF LIABILITY

Heriot-Watt University will make all reasonable efforts to deliver the programmes described in this brochure.

Prospective students should be aware that it is occasionally necessary to modify, discontinue or combine programmes and/or make changes to entry requirements. This may be necessary for a number of reasons such as low enrolments, illness or departure of staff, industrial action or reduction of funding. Changes will only be made if the University reasonably considers it to be necessary.

If a programme is discontinued, the University will use reasonable endeavours to provide a suitable alternative and will take all reasonable steps to minimise

APPLY ONLINE

You can apply online for our programmes at bit.ly/HWUMApply. 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:

▶ www.hw.edu.my/fees

disruption, or allow a student to withdraw without penalty if a programme is cancelled or significantly varied, with an appropriate refund of tuition fees and deposits.

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