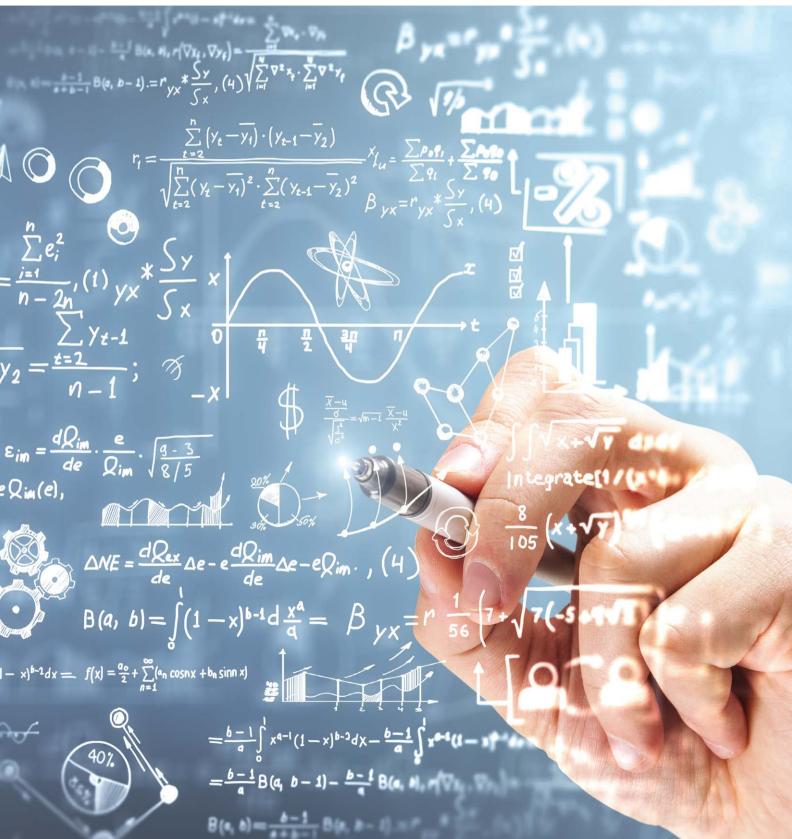
# MATHEMATICAL SCIENCES

- Prospectus 2025 -





SUNWAY UNIVERSITY MATHEMATICAL SCIENCES

## **CONTENTS**

- 1 Introduction
- 2 Distinctive Sunway Experience
- 3 Stellar Achievements
- 5 Entry Requirements
- 6 Bachelor of Science (Hons) in Actuarial Studies
- 8 Pathways for Bachelor of Science (Hons) in Actuarial Studies
- 10 Bachelor of Science (Hons) in Statistical Data Modelling
- 12 Pathways for Bachelor of Science (Honours) in Statistical Data Modelling
- 14 Where are our graduates now?
- 17 Bringing you further



#### **CONTACT:**

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- info@sunway.edu.my
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- SunwayUniversity



☑ @SunwayU



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Nurturing the Seeds of Wisdom

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#### SUNWAY IS ONE OF THE TOP 150 UNIVERSITIES IN THE WORLD UNDER 50 YEARS OLD

As one of Malaysia's leading and internationally recognised private universities, Sunway University is positioned amongst top universities in the world by QS World University Rankings. Sunway University is ranked #1 private university in ASEAN region by AppliedHE ASEAN Private University Ranking 2025 and recognised as the #1 Malaysia's highest-ranked private non-government linked university in the Times Higher Education World University Rankings 2025. The University is also #539 in the QS World University Rankings 2025.

Sunway University has been awarded #1 in Graduate Employability among all universities in Malaysia, for the third consecutive year, by Talentbank Group through the National Graduate Employability Index.

The University has achieved a significant milestone by making its debut in the Academic Ranking of World Universities (ARWU) for 2024. This achievement places Sunway University among the top five universities in Malaysia, alongside the top four research-intensive public universities, and establishes it as the only private higher education institution in the country to be included in this prestigious global ranking.

Collaborating with world class partners - Lancaster University and Le Cordon Bleu International, Sunway University offers premier education with international repute. The University also partners University of Oxford, University of Cambridge, Harvard University, Massachusetts Institute of Technology and University of California, Berkeley.

#### MALAYSIA'S #1

NON-GLU\* PRIVATE UNIVERSITY

Times Higher Education



World University Rankings 2025

The Only Private University in Malaysia to be included in the Academic Ranking of World Universities (ARWU) 2024



**SHANGHAI** 

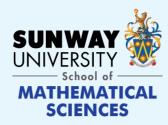








## INTRODUCTION



The School of Mathematical Sciences was established in 2017, and it offers both undergraduate and postgraduate programmes, in the fields of actuarial science, statistics, and the broader field of mathematical sciences.

To date, the School of Mathematical Sciences has produced more than **1.200 graduates**, who are now working in various industries. which include insurance, reinsurance, banking, finance and many more. The school ensures that the programmes offered are closely aligned with the industry needs and the programmes provide a distinctive Sunway experience for students.

All these great efforts have culminated in the recognition of the highest 6 stars rating for Employability and Best in Class by Talentbank for the Bachelor of Science (Hons) in Actuarial Studies and Bachelor of Science (Honours) in Statistical Data Modelling.

The Actuarial Studies programme prepares students for the professional exams leading to qualified actuary status, making it the ideal pathway for prospective students wishing to enter the actuarial profession. The Statistical Data Modelling programme equip students with the skills to analyse complex data using advanced mathematical and statistical methods and Alcomputational tools. This supports data-driven decision-making and generate impactful insights, which are in high demand for Al-related machine learning roles across almost every industry.

#CampusWithAConscience is an underlying principle that embraces everything you will experience during your time at Sunway Education Group. This is the fundamental spirit at the heart Sunway Campus Life as we educate, encourage, and engage all aspects of our diverse community to adopt a lifestyle and lifestyle habits that truly reflect a society determined to create a better living environment for this generation and generations to come.

This # campaign aims to encourage conscientious efforts of the Sunway campus community in areas such as...

- 1. The goals of the UN SDGs;
- 2. Acceptance and tolerance towards each community member of the campus and the wider national and global community;
- 3. Inclusiveness of all and unity with all:
- 4. Well-being, both physical and mental;
- 5. Doing things right for society.

Join our journey as we seek to create a better environment for all, starting with you.



actuary, Ms Sophia Ch'ng, Fellow of the Institute &



by Sunway Actuarial & Financial Excellence (SAFE)



#MostHappeningCampus is a vibrant concept to promote a positive sense of inclusiveness whilst

also generating a genuine feeling of community spirit. This # campaign has been successful in developing positive energy, togetherness and working as a team towards a common goal. It encompasses all the energy of Sunway life and supports student activities that happen on our

May it be iconic events hosted on campus, unique student activities, academic presentations, or even visits by global personalities that inspire us, #MostHappeningCampus expresses our feeling of positive energy and encourages all our community to work together and develop personal attributes and qualities that will support their academic achievements at Sunway.

The most happening part of our campus is YOU.

## **DISTINCTIVE SUNWAY EXPERIENCE**

#### **ACTUARIAL PRACTICE COURSE (APC)**

This 3-month additional professional course - Actuarial Practice Course (APC) is offered exclusively for actuarial students.

It is conducted by the school's in-house actuary, Ms Sophia Ch'ng, Fellow of the Institute and Faculty of Actuaries (FIA), providing students with hands-on assignments to better prepare them to be employment-ready.

The APC syllabus is closely aligned with the industry's needs and covers a wide range of relevant topics including:

- Pricing and reserving for life
- General and Takaful business
- Reinsurance concepts
- Participating products features
- Capital management
- Risk-based capital (RBC) guidelines from Bank Negara Malaysia
- IFRS 17 quidelines



#### LEARNING BEYOND THE CLASSROOM







Field trip to AIA

#### **ALUMNI HOMECOMING**

The School of Mathematical Sciences (SMS) Alumni Homecoming 2022 event brought together alumni, industrial partners, students, and lecturers in a meaningful engagement session.

The event featured the presentation of Outstanding Alumni Awards and Top Employers Award, as well as a forum sharing session by alumni.





### STELLAR ACHIEVEMENTS

We are proud to have a growing number of graduates who have become qualified actuaries from internationally recognised actuarial professional bodies. Additionally, some of our graduates have obtained credentials from CFA and CERA. Below, we are showcasing some of their achievements:

#### Fellow of the IFoA (FIA)



Nicholas Cheong Yeow Hoe Bachelor of Science (Hons) in Actuarial Studies

Company : Generali Malaysia

**Position :** Specialist, IFRS17 Financial Planning & Analysis



Tan Jun Jie
Bachelor of Science (Hons) in
Actuarial Studies

Company: AIA Berhad

Position: Senior Actuarial Analyst

and Faculty

of Actuaries

**SOCIETY OF** 

**ACTUARIES**®

Casualty Actuarial

#### Fellow of the SOA (FSA)



Wai Chong Yin
Bachelor of Science (Hons) in
Actuarial Studies

 $\textbf{Company} \,:\,\, \mathsf{SunLife}\,\, \mathsf{Assurance}\,\, \mathsf{Berhad}$ 

**Position :** Senior Manager, Actuarial Valuation &

Actuarial Valuation & Financial Reporting



Marcel Chang Jie Qin Bachelor of Science (Hons) in Actuarial Studies

Company : Milliman

**Position :** Consulting Actuary

#### Fellow of the CAS (FCAS)



Pui Yik Shen
Bachelor of Science (Hons) in
Actuarial Studies

Company: Berkshire Hathaway Specialty

Insurance

**Position :** Senior Actuarial Analyst, Asia & Middle East



Tan Khai Swen
Bachelor of Science (Hons) in
Actuarial Studies

**Company :** Great Eastern General Insurance (Malaysia)

Position: Assistant Vice President

ASSISTANT VICE Presiden

- Actuarial

## Chartered Financial Analyst (CFA)





## **Chartered Enterprise Risk Analyst (CERA)**





Marcel Chang Jie Qin Bachelor of Science (Hons) in Actuarial Studies

Company : Milliman

Position : Consulting Actuary

#### STELLAR ACHIEVEMENTS (cont.)

#### **ACCELERATED IFOA PATHWAY**

We offer a supportive learning environment to help our students pass additional IFoA exams during university, shortening the time to qualify as an actuary. Some achievements are featured below:



Nicholas Cheong Yeow Hoe Class of 2022 Bachelor of Science (Hons) in Actuarial Studies Graduated with 7 IFoA papers



Chew Jian Xun
Class of 2023
Bachelor of Science (Hons) in
Actuarial Studies
Graduated with 7 IFoA papers



Matthew Philippe Liu Man Hin Class of 2023 Bachelor of Science (Hons) in Actuarial Studies Graduated with 8 IFoA papers



Brandon Lee Han Class of 2025 Bachelor of Science (Hons) in Actuarial Studies Graduated with 7 IFoA papers

#### WINNERS OF SIR EDWARD JOHNSTON PRIZE 2021 TO 2023

The prize was established by the Institute and Faculty of Actuaries (IFoA) in 2013 and is awarded to the top performing graduating students on the actuarial programmes at several universities which are linked to the IFoA.



Tan Min Li



Tan Jun Jie



Nicholas Cheong Yeow Hoe



Ong Huai Zheng



Chin Siew Mei



Matthew Philippe Liu Man Hin

#### **TALENTBANK®**

https://www.talentbankgroup.com

We have been recognised as the "Best in Class" and "Champion" for **Actuarial Science** and **Analytics** by Talentbank. Sunway University is being classified by Talentbank as the employers' choice of university. On top of that, our program demonstrates an impressive job placement rate, as evidenced by the 6-star employability rating awarded by Talentbank.









## **ENTRY REQUIREMENTS**

	PROGRAMME	ENTRY REQUIREMENTS	ENGLISH REQUIREMENTS	SPECIFIC REQUIREMENTS
Ba of (H	Bachelor of Science (Hons) in Actuarial Studies	STPM Average C+ or CGPA 2.33 (Minimum 2 principals)  A-Level Minimum 12 points (Minimum of Grade D from 2 subjects)  Australian Matriculation ATAR 60  Canadian International Matriculation Programme 60%  MUFY 60%  Sunway Foundation in Arts CGPA 2.00  Sunway Foundation in Science & Technology	IELTS or equivalent 6.0 MUET Band 4 SPM English B3 or B+ UEC English B4 O-Level English Credit Sunway Intensive English Programme	Credit in Mathematics
	Bachelor of Science (Honours) in Statistical Data Modelling	CGPA 2.00  UEC Maximum 26 points from 5 subjects (all Grade Bs)  IB Diploma Completed with minimum 25 points (excluding bonus points)  Sunway Diploma* CGPA 2.00 or equivalent *Students may obtain advanced standing if credit transfer requirements are met.  Other Qualifications Any other qualifications will be considered on a case-to-case basis	(IEP) Pass Level 4 with minimum 65% ESL/English Satisfactory level in Pre-University programmes, where the medium of instruction is English	at SPM or equivalent

Note: For A-Level points calculation
A = 10 points B = 8 points C = 6 points D = 4 points E = 2 points



### BACHELOR OF SCIENCE (HONS) IN ACTUARIAL STUDIES

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#### PROGRAMME INTRODUCTION

in the financial services industry.

Bachelor of Science (Hons) in Actuarial
Studies draws together a variety
of subjects that involve applying
mathematical and statistical techniques

Designed to pave the way for students who want to enter a career as an actuary, they will be prepared for professional exams that will lead to a recognised actuary status or specialist in financial risk and insurance industries.

The Society of Actuaries (SOA) USA, Institute and Faculty of Actuaries (IFoA) UK, Casualty Actuarial Society (CAS) USA, The Institute of Actuaries of Australia (IAA), and Canadian Institute of Actuaries (CIA) conduct actuarial professional exams leading to + professional designations such as Fellow of the Society of Actuaries (FSA), Fellow of the Institute of Actuaries (FIA), Chartered Enterprise Risk Analyst (CERA), Fellow of the Casualty Actuarial + Society (FCAS), Fellow of the Institute of † Actuaries of Australia (FIAA) and Fellow of the Canadian Institute of Actuaries (FCIA).

ACCREDITED BY:



Institute and Faculty of Actuaries

RECOGNISED BY:



SILVER PARTNER OF:





- Actuarial reserving analyst
- Catastrophe risk analyst
- Chief actuary in life/ health/ property and casualty insurance
- Chief executive officer
- Chief financial officer
- Financial risk manager

#### Institute and Faculty of Actuaries (IFoA) UK

Our programme has been fully accredited by the Institute and Faculty of Actuaries (IFoA), UK. Students in our programme who attain an overall average of 65% and above are eligible for block exemptions from the IFoA professional exams for CS1, CS2, CM1, CM2, CB1, and CB2. Students who did not attain an overall average of 65% shall be recommended for subject exemptions instead.

#### Society of Actuaries (SOA) USA

This programme provides exemptions for 3 papers from the Society of Actuaries (SOA) USA through the Validation by Educational Experience (VEE) pathway. Students have to score at least 55% (B- or above) in the designated subjects offered in the programme.

#### Casualty Actuarial Society (CAS) USA

Our programme has been recognised by the Casualty Actuarial Society (CAS) as a Silver Level partner. We offer students comprehensive preparation for the CAS exams and a career in general insurance. Our students have the opportunity to earn up to five exam credits and we also equip them to take additional exams such as Exam 5 and MAS-II.

#### **PROGRAMME STRUCTURE - Subjects**

#### Year 1

- Advanced Calculus
- Calculus
- English for Business
- Fundamentals of AccountingIntroduction to Probability
- Linear Algebra & Applications
- Principles of Business Finance •••
- Principles of Economics •••
- Programming Principles■ Theory of Interest •

#### Year 2

- Communication Skills
- Derivative Securities I
- Derivative Securities II •
- Entrepreneurial Mindset & Skills
- Introduction to Statistics •••
- Life Contingencies I
- Life Contingencies II •
- Mathematical Methods
- Free Elective 1

#### Year 3

- Free Elective 2
- Internship
- Ratemaking & Loss Reserving for General Insurance
- Regression Analysis ••
- Simulation & Credibility Theory
- Stochastic Processes ●●

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#### **ELECTIVES WITH SPECIALISATION**

- Advanced Actuarial
- Finance & Risk Management
- Actuarial Artificial Intelligence

#### List of electives (Choose 3):

- Advanced Actuarial Statistics •
- Advanced Actuarial Mathematics & Finance ●
- Principles of Actuarial Control Cycle
- Risk Theory
- Survival Models
- Time Series & Forecasting
- Multivariate Analysis
- Predictive Analytics
- Machine Learning
- Design of ExperimentsCategorical Data Analysis
- Research Project
- Research Project

### MOHE COMPULSORY GENERAL STUDIES SUBJECTS

#### For Local students:

- Appreciation of Ethics & Civilisation
- Bahasa Kebangsaan A (Applicable to students who did not sit for SPM or did not obtain a Credit in SPM Bahasa Melayu) OR Critical Thinking
- Community Service for Planetary Health
- Integrity & Anti-Corruption
- Philosophy & Current Issues

#### For International students:

- Appreciation of Ethics & Civilisation
- Community Service for Planetary Health
- Critical Thinking
- Integrity & Anti-Corruption
- Malay Language for Communication 2

#### Subjects indicated lead to:

- SOA VEE exemptions
- IFoA exemptions
- CAS exam credits

## THE SUNWAY ADVANTAGE

## LSE SUMMER SCHOOL (3 WEEKS)



Obtain additional credits from the world-renowned London School of Economics.

Courses taught during the Summer School are based on regular LSE undergraduate courses, and taught to the same standards by leading LSE faculty. Lecturers are experts in their chosen fields and committed to teaching with academic rigour and contemporary relevance.



## ACTUARIAL PRACTICE COURSE

This 3-month course is designed to prepare actuarial students of Sunway University to be employment-ready, and incorporates the feedback from the industry practitioners in the course design. This course covers several topics with practical assignments, including long-term reserve, long-term pricing and IFRS 17.

Track record of 100%\* employment in actuarial-related positions for students who successfully completed this 3-month course.

\*Based on School of Mathematical Sciences graduate tracer study.

## IN-HOUSE ACTUARY Together with academic staff

Together with academic staff, our in-house actuaries ensure that our programme syllabus is in close alignment with the industry needs. Our students are highly employable as they are at the forefront in meeting the rising needs for actuarial expertise globally.



#### Nicholas Yeo

Founder of Actomate, with clients across the ASEAN region. Lectures on Actuarial Statistics and Mathematics subjects.



#### Sophia Ch'ng

Past President of Actuarial Society of Malaysia. About 20 years of experience in the insurance industry, ranging from life insurance, general insurance, takaful business to shared services.

#### **PARTNER UNIVERSITIES**

UNIVERSITY	TRANSFER OPTION: 1+2 ARTICULATION	
University of <b>Kent</b>	Students must achieve a minimum overall average of 65% in the 1st year of study*	
University of East Anglia	Students must achieve a minimum overall average of 65% in the 1st year of study* and Pre-U results stated below or equivalent:  • A Level/STPM – ABB (A in Mathematics)  • UEC – 4A  • CIMP – 80%  • ATAR 88  • MUFY 65%	
MACQUARIE University SYDNEY-AUSTRALIA	Students must achieve a minimum overall average of 80% in the 1st year of study* and Pre-U results stated below or equivalent:  • A Level – AAA • ATAR 96 or equivalent	

<sup>\*</sup>Please consult with programme leader on the subjects.

**PATHWAYS** for Bachelor of Science (Hons) in Actuarial Studies



https://sunwayuniversity.edu.my

Doctor of Philosophy in Mathematical Sciences (offered in Sunway University)

 Master of Science in Applied **Mathematics** 

 Master of Science in Mathematical Sciences

(offered in Sunway University)

Part III

Part II

**ACADEMIA** PATHWAY

**Pre- University.** 

Foundation, STPM,

**UEC** or equivalent

 $\rightarrow$ 

Macquarie University (1+2)

Part I

**Actuaries** Institute

THE INSTITUTE OF **ACTUARIES AUSTRALIA** 

https://www.actuaries.asn.au

Fellow of the Institute of Actuaries of Australia (FIAA)

> **Further Professional**

> > Course

Practical Experience Requirement

> 2 years Personal and Professional Development (PPD)

#### **Core Practices**

- CP1 Actuarial Practice
- CP2 Modelling Practice
- CP3 Communications Practice

#### **Core Principles**

- CS1 Actuarial Statistics\*
- CS2 Risk Modelling and Survival Analysis\*
- CM1 Actuarial Mathematics\*
- CM2 Financial Engineering and Loss Reserving\*
- CB1 Business Finance\*
- CB2 Business Economics\*
- CB3 Business Management

\*Obtain 6 IFoA exemptions

TRANSFER OPTIONS

**SUNWAY UNIVERSITY** 

BACHELOR OF SCIENCE (HONS) IN **ACTUARIAL STUDIES** 

**University of East Anglia University of Kent** 

(1+2)

PROFESSIONAL ACTUARY PATHWAY



#### THE INSTITUTE AND **FACULTY OF ACTUARIES (IFoA)**

https://www.actuaries.org.uk

Fellow of the Institute of Actuaries (FIA)

#### Specialist Advanced

(Choose 1 of 6 Specialist Advanced subjects)

#### **Specialist Principles**

(Choose 2 of 9 Specialist Principles subjects)

1 year Personal and Professional Development (PPD)

#### e-Learning Course • Pre-Actuarial Foundations Module and

- Actuarial Science Foundations Module
- Advanced Topics in Predictive Analytics Fundamentals of Actuarial Practice

#### Seminar

• Associateship Professionalism Course



#### Exam

- Exam ALTAM or Exam ASTAM
- Exam FAM Fundamentals of Actuarial Mathematics
- Exam FM Financial Mathematics
- Exam P - Probability
- Exam PA - Predictive Analytics
- Exam SRM Statistics for Risk Modelling
- VEE Accounting and Finance\*
- VFF Fconomics\*
- VEE Mathematical Statistics\*

\*Obtain all 3 Validation by Educational Experience (VEE) credits

> PROFESSIONAL ACTUARY PATHWAY



THE SOCIETY **OF ACTUARIES (SOA)** 

https://www.soa.org

Fellow of the Society of Actuaries (FSA)



Fellowship Admissions Course (FAC)

Another 3 or 4 **Exams and Modules** depending on the specialty track



Fellow of the Casualty Actuarial Society (FCAS)



- Exam 7 Advanced Estimation of Claims Liabilities
- Exam 8 Advanced Ratemaking
- Exam 9 Financial Risk and Rate of Return



- Course on Professionalism
- Data & Insurance Series courses
- Exam 1 Probability\*
- Exam 2 Financial Mathematics\*
- Exam 5 Basic Ratemaking and Estimating Claims Liabilities
- Exam 6 Regulation and Financial Reporting
- MAS-I Modern Actuarial Statistics I\*
- MAS-II Modern Actuarial Statistics II
- VFF Fconomics\*
- VEE Accounting and Finance\*

\*Obtain 5 exam credits

PROFESSIONAL ACTUARY PATHWAY

### **BACHELOR OF** SCIENCE (HONS) IN STATISTICAL **DATA MODELLING**

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#### PROGRAMME INTRODUCTION

Sunway University's Bachelor of Science (Honours) in Statistical Data Modelling is a home-grown 3-year degree programme designed to equip students with the skills to analyse complex data through advanced mathematical and statistical methods and Al-computational tools. This supports data-driven decision-making and generate impactful insights.

The AI-Driven Data Science specialisation track equips students with the skills to leverage AI and advanced data science techniques for analysing large, complex datasets. It enables them to design and implement machine learning algorithms, build predictive models, and handle data preprocessing and visualisation to uncover valuation insights across various industries using cutting-edge AI tools.

The Econometrics specialisation track furnishes students with advanced statistical and mathematical methodologies for the analysis of economic data, utilising techniques such as regression analysis and time series modelling. This empowers them to interpret economic trends and tackle complex real-world challenges across diverse sectors, including finance, policy analysis, market research, healthcare, energy, government, agriculture, transportation, and telecommunication.

Graduates are equipped for high-demand careers as Data Scientists, Al Analysts, and Econometricians.



#### CAREER PROSPECTS

- Audit analytics
- Biostatistician
- Business/Corporate data analyst
- Chief statistician
- Cryptographer
- Data analytics expert
- Data scientist
- Fraud investigator
- Healthcare statistician
- Investment/Risk data analyst
- Operations research analyst
- Optimisation & Forecasting engineer
- Quantitative analyst
- Researcher
- SAS programmer
- Sports performance analyst
- Statistical project consultant
- Statistical quality control engineer

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This programme equips students with Al-driven decision-making skills through computational tools, while also preparing them to successfully obtain the SAS Certified Data Scientist qualification.

- Exam 1: Data Curation for SAS Data Scientists
- Exam 2: Predictive Modeling
- Exam 3: Advanced Predictive Modeling
- Exam 4: Text Analytics, Time Series, Experimentation and Optimisation

To produce industry-ready graduates and enhance their employability, we offer professional exam preparatory courses and workshops in R, SAS, Excel, and Python.

#### **PROGRAMME STRUCTURE - Subjects**

#### Year 1

- Advanced Calculus
- Calculus
- Elementary Statistics
- English for Business
- Introduction to Operations Research
- Introduction to Probability
- Principles of Economics
- Linear Algebra & Applications
- Principles of Business Finance
- Programming Principles

#### Year 2

- Communication Skills
- Computer-Intensive Statistical Methods
- Design of Experiments ■ Entrepreneurial Mindset & Skills
- Free Elective 1
- Introductory Econometrics
- Mathematical Statistics I
- Quality Control and Survey Sampling
- Statistical Data Technologies and Fluency

#### Year 3

- Applied Econometrics
- Internship
- Free Elective 2
- Machine Learning Techniques for Data Mining
- Multivariate Analysis
- Time Series & Forecasting

#### **ELECTIVE WITH SPECIALISATION**

- Al-Driven Data Science
- Econometrics

#### List of Electives (Choose 3)

- Advanced Data Analytics •
- Applied Nonparametric Statistics
- Applied Time Series Econometrics •
- Behavioural Econometrics Modellina •
- Big Data Technologies ●
- Research Project ••
- Stochastic Processes
- Simulations and Credibility Theory
- Survival Models •

#### MOHE COMPULSORY GENERAL STUDIES SUBJECTS

#### For Local students:

- Appreciation of Ethics and Civilisation
- Bahasa Kebangsaan A (Applicable to students who did not sit for SPM or did not obtain a Credit in SPM Bahasa Melavul OR Critical Thinking
- Community Service for Planetary
- Integrity & Anti-Corruption
- Philosophy and Current Issues

#### For International students:

- Appreciation of Ethics & Civilisation
- Community Service for Planetary Health
- Critical Thinking
- Integrity & Anti-Corruption
- Malay Language for Communication 2



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### THE SUNWAY ADVANTAGE

#### **LSE SUMMER SCHOOL** (3 WEEKS)



Obtain additional credits from the world-renowned London School of Economics.

Courses taught during the Summer School are based on regular LSE undergraduate courses, and taught to the same standards by leading LSE faculty. Lecturers are experts in their chosen fields and committed to teaching with academic rigour and contemporary relevance.



#### **PROFESSIONAL SPECIALISATIONS WITH AI COMPUTATIONAL TOOLS**

In this programme, students will be awarded two SAS specialisation digital badges, which is

(i) Advanced Techniques for Data Science and Predictive Analytics, and



(ii) Data Science.

The programme covers key programming languages such as Python, R, SAS and SQL. Additionally, students can have the opportunity to explore tools like Excel, Power BI and Tableau.







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#### PROFFSSIONAL PATHWAY

Our programme prepares students for the globally recognised



SAS Certified Data Scientist Certification:



Certified **Analytics** Professional

Certified Analytics Professional (CAP)

#### PARTNER UNIVERSITIES

#### TRANSFER OPTION: 2+1 ARTICULATION UNIVERSITY OF TECHNOLOGY Students must have successfully completed 2 years in ■ Bachelor of Mathematical Sciences Sunway University before transferring. (Statistics and Data Science major) ■ Bachelor of Mathematical Sciences (Pure and Applied Mathematics major) ■ Bachelor of Science (Mathematics major) Students must achieve a minimum CGPA of 3.0 and above University of Essex English: • Credit in SPM 1119 Entering • IELTS - 6.5 ■ BSc Data Science and Analytics

#### **ESSEX GLOBAL PARTNERS' SCHOLARSHIP**

Undergraduate scholarship for Sunway University students

Please refer to the University of Essex's website: www.essex.ac.uk for more information.

• £1,500 maximum for entry into the third year of study

**PATHWAYS** for Bachelor of Science (Hons) in Statistical Data Modelling



https://sunwayuniversity.edu.my

**Doctor of Philosophy in** Mathematical Sciences (offered in Sunway University)

- Master of Science in Applied **Mathematics** 
  - or
- Master of Science in Mathematical Sciences

(offered in Sunway University)

ACADEMIA PATHWAY

Pre- University, Foundation, STPM, **UEC** or equivalent

SAS INSTITUTE

https://www.sas.com

**SAS** Certified **Data Scientist** 

**SAS** Certified

**Advanced Analytics** 

**Professional** 

Module

Advanced Predictive

Predictive Modeling

• Text Analytics, Time

and Optimisation

Series, Experimentation

Modeling



https://www.certifiedanalytics.org

**Certified Analytics** Professional (CAP)

Certification brought to you by **INFORMS** 

#### Domain Knowledge

- Analytics Problem Framing
- Business Problem Framing
- Data
- Deployment
- Lifecycle Management
- Methodology Selection
- Model Building

8 **SAS Certified** University of Professional: Technology Sydney **Data Curation for SAS Data Scientist** University of Essex (UK) (2+1)Data Curation Professional TRANSFER DATA SCIENTIST **PATHWAY** OPTIONS 4 YEARS OF **SUNWAY UNIVERSITY** ANALYTICS WORK **EXPERIENCE BACHELOR OF SCIENCE** (HONS) IN

STATISTICAL DATA MODELLING

Computational & Artificial Computer Complexity Intelligence **Programming** Modelling **Digital Economic Encryption** Modelling Modelling Coding **Environmental Financial** Machine Modelling **Accounting** Learning Medical Neural **Operations Policy** Modelling Network Research Modelling **Predictive** Risk **Statistical** Supply Modelling Management Modelling Chain

> **Career Domains** related to **Mathematics & Statistics**

> > PATHWAY INTO CAREERS RELATED TO MATHEMATICS & STATISTICS

> > > 13

https://career.guru99.com/jobs-for-math-majors

https://www.indeed.com/career-advice/finding-a-job/math-jobs-and-salaries

https://ai-jobs.net/list/mathematics-related-jobs/

## WHERE ARE **OUR GRADUATES NOW?**



**Ahmed Thanzeem** Bachelor of Science (Hons) in Actuarial Studies

Company: Dhivehi Insurance Company Private Limited (Maldives)

Position: Deputy Manager, Technical



Chiam Li Li Bachelor of Science (Hons) in Industrial Statistics Now known as Bachelor of Science in Statistical Data Modelling

Company: Rainforest Position: Data Ops Analyst



**Arshad Malik Bachelor of Science (Hons)** in Actuarial Studies

Company: Lembaga Tabung Haji Position: Assistant Manager, Performance & Quantitative

Analysis



**Desmond Chong** Bachelor of Science (Hons) in Actuarial Studies

Company: Income Insurance Limited,

Singapore

Position: Actuarial Manager. GI IFRS17



**Beebee Faateemah** Yusriyyah Fakira Bachelor of Science (Hons)

in Industrial Statistics Now known as Bachelor of Science (Hons)

Company: Eclosia Technology Services **Position:** Business Intelligence

Engineer



**Evan Suhadhi** Bachelor of Science (Hons) in Actuarial Studies

Company: EY Indonesia

Position: Financial Service Risk Management Senior Consultant



**Bryan Ng** Bachelor of Science (Hons) in Industrial Statistics Now known as Bachelor of Science (Hons) in Statistical Data Modelling

Company: Public Bank Berhad Position: Senior Executive



Foo Hui Shee Bachelor of Science (Hons) in Actuarial Studies

Company: HSBC Hong Kong

**Position**: Assistant Actuarial Manager



Carmen Choong Wai Lum Bachelor of Science (Hons) in Actuarial Studies

Company: Shopee Malaysia

Position: Business Development, Strategic Projects &

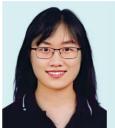
Analytics Lead | Shopee Mall



Foo Hui Sze Bachelor of Science (Hons) in Actuarial Studies

Company: Zurich Life Insurance Malaysia Berhad

Position: Senior Pricing Analyst



Foo See Yee Bachelor of Science (Hons) in Actuarial Studies

Company: Tricor Axcelasia Position: Data Analyst



Lim You Sheng Bachelor of Science (Hons) in Actuarial Studies

Company: FWD Insurance

**Position**: Senior Actuarial Analyst



Gabriel Ng Bachelor of Science (Hons) in Actuarial Studies

Company: Cover Genius (UK)

Position : Associate



Mohammad Danial A'rif bin Haii Mohammad Yani Mardeny Bachelor of Science (Hons)

in Actuarial Studies

Company: Insurans Islam TAIB Sdn Bhd

Position: Executive Officer. **Actuarial Division** 



Khoo Shi Teng Bachelor of Science (Hons) in Industrial Statistics Now known as Bachelor of Science (Hons. in Statistical Data Modelling

Company: OKX Position : Data Analyst



**Mohummud Riffai Purdasy** Bachelor of Science (Hons) in Actuarial Studies

Company: PwC Mauritius

**Position**: Senior Valuations

Associate



**Leong See Yew** Bachelor of Science (Hons) in Industrial Statistics Now known as Bachelor of Science (Hons) in Statistical Data Modelling

Company: Shell

Position: GSS Junior Analyst



Ng Qian Yun Bachelor of Science (Hons) in Actuarial Studies

Company: Shopee Malaysia

Position: Senior Associate. **Business Development** 

(Projects)



Lim Wei Kit Bachelor of Science (Hons) in Industrial Statistics Now known as Bachelor of Science (Hons) in Statistical Data Modelling

Company: Accenture

Position: Analytics Innovation

Analyst



**Nik Mohamad Khalid** Bachelor of Science (Hons) in Actuarial Studies

Company: Actuarial Partners Consulting

Position: Actuarial Consultant

## WHERE ARE OUR GRADUATES NOW? [cont.]



Rutendo Elizabeth Mabika Bachelor of Science (Hons) in Actuarial Studies

Company: CBZ Holdings Limited
Position: Market Risk and

Modelling Analyst



Tan Lynn Wei
Bachelor of Science (Hons)
in Actuarial Studies

Company: AFFIN Group

Position : Assistant Manager, Group Operational Risk Management



Shirley Lita Amir Bachelor of Science (Hons) in Actuarial Studies

Company: NE0360
Position: Data Analyst

(Digital Marketing)



Tanushia Paransothy
Bachelor of Science (Hons)
in Actuarial Studies

Company: RAC WA

Position: Senior Risk &

Compliance Advisor



Supriya A/P Sivabalan
Bachelor of Science (Hons)
in Actuarial Studies

Company: Bank Negara MalaysiaPosition: Associate Analyst



Tay Choon Ming
Bachelor of Science (Hons)
in Actuarial Studies

Company: KPMG Singapore

**Position :** Senior Associate, Actuarial

(General Insurance)



Tan Jia Jia
Bachelor of Science (Hons)
in Actuarial Studies

Company : KPMG China
Position : Manager



Thepan Ganesh
Bachelor of Science (Hons)
in Actuarial Studies

Company: Firstplanit

Position: Sustainability & Data



Tan Min Li Bachelor of Science (Hons) in Actuarial Studies

Company: Actomate

Position: Associate Actuary



Zulaikha Asyiqin binti Abdul Samad Bachelor of Science (Hons) in Actuarial Studies

Company: Prudential BSN Takaful

Berhad

Position : Assistant Manager

## **BRINGING YOU FURTHER**

Takaful Ikhlas Family

Tokio Marine Life

Berhad

Berhad

**Audit Firms** 

Ernst & Young

Deloitte

KPMG

(PwC)

## PARTNER COMPANIES FOR INTERNSHIPS AND GRADUATE EMPLOYMENT DESTINATIONS

Insurance Malaysia Berhad

• Tune Insurance Malavsia

PricewaterhouseCoopers

Zurich Life Insurance

Malaysia Berhad

#### **Insurance Companies**

- AIA Berhad
- AIG Malaysia Insurance Berhad
- Allianz General Insurance Company (Malaysia) Berhad
- Allianz Life Insurance Company (Malaysia) Berhad
- AmGeneral Insurance Berhad
- AmMetLife Insurance Berhad
- Berjaya Sompo Insurance Berhad
- Chubb Insurance Malaysia Berhad
- Etiqa General Insurance
  Berhad
- FWD Insurance Berhad
- FWD Takaful Berhad
- Generali Insurance Malaysia Berhad
- Great Eastern General Insurance (Malaysia) Berhad
- Great Eastern Life Assurance (Malaysia) Berhad
- Hannover Rueck SE Malavsian Branch
- Hong Leong Assurance Berhad
- Lonpac Insurance Berhad
- Malaysian Life Reinsurance Group Berhad
- Manulife Malaysia
- MCIS Insurance Berhad
- MSIG Insurance (Malaysia)
   Berhad
- Prudential Assurance Malaysia Berhad
- Prudential BSN Takaful Berhad
- QBE Insurance (Malaysia) Berhad
- Reinsurance Group of America
- Sun Life Malaysia Assurance Berhad

- Bank
  - AmBank (M) Berhad
- Bank Negara Malaysia
- CIMB Bank Berhad
- Hong Leong Bank BerhadKenanga Investment
- Bank Berhad
- Malayan Banking Berhad
- OCBC Bank (Malaysia)
   Berhad
- Public Bank Berhad

#### **Consulting Firms**

- Accenture
- Actuarial Partners Consulting Sdn Bhd

- Actomate
- Baker Hughes Services Malaysia Sdn Bhd
- E-Outsource Asia Sdn Bhd
- Ipsos Malavsia
- JPWall Consulting Partners
- Milliman
- NMG Financial Services Consulting

#### **Product & Services**

- ELMLAB Sdn Bhd
- PETRONAS
- Shopee MalaysiaUnilever Malaysia
- Unilever Malaysia Holding Sdn Bhd



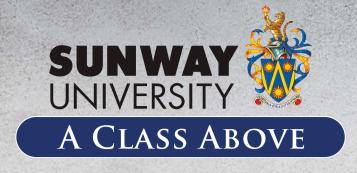


Sunway University
Tops Talentbank's Graduate
Employability Ranking for
Third Consecutive Year
2022, 2023 & 2024



conglomerates with 13 business divisions across more than 50 locations worldwide and a 16,000-strong employee base. The 13 business divisions are:

- Building Materials
- Construction
- Digital
- Education
- Healthcare
- ncare Malls
- HospitalityQuarry
- Investment & Financial Re
- Services
   Leisure
- •
- Real Estate
- REIT & other real estate funds
- Trading & Manufacturing



# MALAYSIA'S



## IN GRADUATE **EMPLOYABILITY**

For the 3<sup>rd</sup> consecutive year, Sunway University has been recognised as Malaysia's No. 1 in Graduate Employability\*.

We are immensely proud of the accomplishments of our graduates who have gone on to make a huge positive impact to the success of major Malaysian companies and indeed some of the world's leading organisations.

SUNWAY UNIVERSITY GRADUATES, TRULY A CLASS ABOVE

\*Talentbank GE Index 2024

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