

# ENGINEERING & COMPUTING

- Prospectus 2026 -

**SUNWAY**  
UNIVERSITY



A CLASS ABOVE



# CONTENTS

- 1 ■ Introduction
- 2 ■ Sunway Changemakers Advantage – Invested in You
- 4 ■ Industry Collaborations
- 5 ■ Engineering & Computing Pathways in Sunway University
- 6 ■ Entry Requirements
- 9 ■ Fields in Computing
  - 10 – Bachelor of Science (Honours) in Artificial Intelligence
  - 11 – Bachelor of Science (Honours) in Computer Science
  - 12 – Bachelor of Software Engineering (Hons)
  - 13 – BSc (Hons) Information Technology (Computer Networking and Security)
  - 14 – Bachelor of Science (Honours) in Information Technology
  - 15 – Bachelor of Information Systems (Honours) (Data Analytics)
  - 16 – Bachelor of Science (Honours) in Computer Science (Artificial Intelligence)
- 18 ■ Fields in Engineering
  - 19 – Bachelor of Chemical Engineering with Honours
  - 20 – Bachelor of Electronic and Electrical Engineering with Honours
  - 21 – Bachelor of Mechatronic Engineering (Robotics) with Honours
  - 22 – Bachelor of Mechanical Engineering with Honours
  - 23 – Bachelor of Civil Engineering with Honours
- 24 ■ Facilities
- 26 ■ Activities Beyond the Classroom
- 29 ■ Mobility & Study Abroad
- 30 ■ Industry Advisors
- 34 ■ Bringing You Further
- 36 ■ Where are Our Graduates Now?



## 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 2026. The University is also #410 in the QS World University Rankings 2026.

Sunway University has been awarded #1 in Graduate Employability among all universities in Malaysia, for the fourth 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, Arizona State University and Le Cordon Bleu International, Sunway University offers premier education with international reputation. 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

as awarded by Times Higher Education



\*Government-Linked University

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



## INTRODUCTION

Industrial Revolution 4.0, Artificial Intelligence (AI), Internet of Things (IoT), electronics innovation, and the growth of new materials, chemicals and technological platforms have further propelled the demand for tech specialists and engineers. Pandemic of 2020 also highlighted the importance of innovation and technology advances, and the need for such skilled professionals.

The Faculty of Engineering and Technology at Sunway University, Malaysia, stands as a beacon of innovation and academic excellence in the region. With a commitment to nurturing future ready engineers and technology leaders, our faculty offers a dynamic and inclusive learning environment that merges cutting-edge knowledge with practical skills. Our faculty comprises accomplished academics and industry experts dedicated to delivering top-tier education, fostering creativity and through state-of-the-art facilities and hands on learning experiences including electrical engineering, mechanical engineering, computer science and many more.

The only private Malaysian university with the **highest number of Top 2% scientist** in their respective disciplines.

Stanford University List of Top 2% Scientist 2023

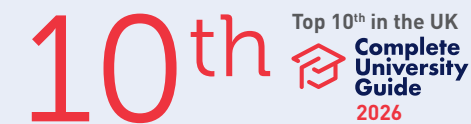
Recognised for its qualifications and commitment in offering top-notch digital technology degree programmes and generations of highly-skilled graduates for the industry.



- Energy Science and Engineering ranked 200-300 in 2024 Academic Ranking of World Universities (Shanghai Ranking).
- Analytics is ranked as the Best in Class Field of Studies at (4<sup>th</sup> Edition) 2024.
- Analytics and Computing & IT have attained an outstanding 6-star (out of 6) at National Graduate Employability Index (4<sup>th</sup> Edition) 2024.
- Sunway Electrical & Electronics Engineering AND Computer Science & Information Systems are ranked in the 2025.

Upon successful completion of the programme, graduates are awarded 2 certificates; one from Sunway University and another from Lancaster University.

VALIDATED BY:



### TOWARDS RECOGNITION\* BY BOARD OF ENGINEERS MALAYSIA (BEM)

Through BEM, Malaysia is a signatory to the Washington Accord (WA). Following the WA agreement on mutual recognition of engineering qualifications, graduates from BEM-accredited engineering programmes will be mutually recognised for professional registration and eligible to perform professional engineering services in countries such as the US, Canada, UK, Australia, New Zealand, Korea, China, Singapore, and more.



\*Sunway University's Engineering programmes are provisionally accredited by the Board of Engineers Malaysia (BEM) and will be ready for full accreditation during its first cohort's final year.

## CONTACT:

**SUNWAY UNIVERSITY** DU025 (B)  
Registration no : 200701042913 (800946-T)

📍 No. 5, Jalan Universiti, Bandar Sunway,  
47500 Selangor Darul Ehsan, Malaysia.

🌐 [sunwayuniversity.edu.my](http://sunwayuniversity.edu.my)

✉️ [info@sunway.edu.my](mailto:info@sunway.edu.my)

☎️ +6 (03) 7491 8622

📘 SunwayUniversity 📷 SunwayUniversity



Owned and governed by the

**Jeffrey Cheah Foundation**  
Nurturing the Seeds of Wisdom

This brochure is valid for our 2026 intakes. All information is correct at the time of printing (Jun 2024).  
Copyright Notice: The content of this brochure shall not be reproduced in any form nor distributed in part or in its entirety, without prior written permission from the University.

# SUNWAY CHANGEMAKERS ADVANTAGE INVESTED IN YOU

Our bold, future-focused initiative transforming how we teach, engage, and support student success to make education holistically enriching for each student - an investment in your future. We aim to develop graduates who are:

- Collaborative and solution-oriented
- Competent in their discipline
- Digitally fluent and innovation-driven
- Ethically grounded with value-based leadership
- Globally competitive and culturally agile



## YOUR PERSONAL GROWTH

### Personalised pathways for every ambition

#### Success X-Factor Coaching

- Year 1 :** Academic Success Coach for academic growth and goal setting guidance.
- Year 2 :** Industry Success Coach for career mentorship.
- Year 3 :** Executive Success Coach with executive leaders for leadership growth.



**Inaugural Executive SuccessCoach Session**  
featuring  
**Tan Sri Sir Jeffrey Cheah**,  
Founder & Chairman of  
Sunway Group



**Appointment of 100 Industry Success Coaches**  
from Sunway Group & its  
subsidiaries



**First Coaching Session**  
between industry  
coaches and Sunway  
University students

### Career Xcellerator & FleX Pathways

Design your own learning journey, dive deep into specialisations or explore interdisciplinary flexibility to curate your own purpose-driven future. Students can choose to deepen expertise in a focused career track or explore across disciplines, such as Business + AI or Healthcare + Innovation while aligning with their evolving interests and strengths.

### Xplorer Hub

Choose from hundreds of curated electives from across disciplines for breadth of learning and interdisciplinary knowledge. Featuring high-demand courses in areas such as digital innovation, data analytics and exploration of emerging fields to enhance career competitiveness within a flexible learning ecosystem.

For more information regarding Xplorer Hub, please refer to <https://sunwayuniversity.edu.my/courses/xplorer-hub>

or scan



## YOUR CAREER DEVELOPMENT & GLOBAL READINESS

### CareerX Internships

Flexible pathways tailored to each students' career goals - choose from industry placements, freelance projects, or entrepreneurship opportunities which will enhance employability and graduate quality.

### Global Mobility & Cultural Fluency

Opportunities for international internships, exchanges, and research projects build cross-cultural competence and global networks. Global placements and exchange opportunities to operate confidently across borders for international career success.

### Dual Degrees & Global Partners

With many courses offering dual degrees through our partnership with Lancaster University, UK and Arizona State University, USA, students benefit from studying locally and graduating globally.

### 8,000+ Employers

Students have access to over 8,000 local and international companies through Sunway's Career Portal, with robust opportunities for global placements, internships and employment.

### Triple International Rankings

Sunway is one of the only private universities in ASEAN with triple global rankings in:

- QS World University Rankings;
- Times Higher Education (THE) World University Rankings; and;
- Academic Ranking of World Universities (ARWU)



## YOUR FUTURE RELEVANCE & LIFELONG LEARNING

Stay ahead and make a difference with the robust support and preparation.

**AI for All:** AI literacy embedded across all disciplines.

### Immersive AR-VR powered courses and labs

Forward-looking co-learning spaces for experiential learning opportunities.



### Sunway XCeED Platform

Sunway alumni will have exclusive access to Sunway's lifelong learning portal with customised, stackable and flexible education (micro-credentials, short courses) to empower our alumni to upskill, reskill, and stay future-ready at every stage of life.



### Industry-empowered learning, real-world curriculum

Our programmes are co-designed with industry partners and enriched by live case studies, expert talks, and tools used by professionals. Integrating feedback from the industry on what are future skills and talents needed to prepare students for the future.

Strategic partnerships to co-develop curriculum, assessments, and real-world training. Appointment of practice professors and industry leaders to collaborate in teaching and learning.



**Unlocking the Basics of AI**



**Interview Mastery: Ace Your Dream Job**



## INNOVATION AND SUSTAINABILITY OF OUR COMMUNITY

### SUSTAIN Strategy (Sustainability & values-based education)

An interconnected approach to sustainability education, connecting 3 signature courses

- Entrepreneurial Mindset & Skills
- Integrity and Sustainable Development, and
- Community Service for Planetary Health

Be equipped to tackle real-world Sustainable Development Goals (SDG) challenges through ethical, interdisciplinary, and community-focused learning.

For more information, please refer to

<https://sunwayuniversity.edu.my/explore/teaching-and-learning/sustain-now-better-tomorrow> or scan



## THE ENTREPRENEURIAL MINDSET AND SKILLS (EMS) WITH PARADOX OF THERON (POT)

### The EMS with POT module combines



**Flipped Classroom**  
Instructional content like lectures, readings, and multimedia resources are provided to students through an eLearning platform.



**Paradox Of Theron (POT)**  
Online game-based learning enhancing entrepreneurship understanding through simulated entrepreneurial experiences.



**Face-2-Face Sessions**  
Interactive lectures and reflective tutorials consolidate experiences with theoretical concepts to deepen understanding of key lessons.



### Paradox of Theron (POT)

- is an **online game-based learning** platform
- is **integrated into EMS**
- provides **immersive and experiential learning opportunities**
- mirrors entrepreneurial challenges to students



# INDUSTRY COLLABORATIONS



## Collaboration partners

### Computing

**FORTINET**

**ERICSSON**

**aws** academy  
Member Institution

**EC-COUNCIL | ACADEMIA**  
PARTNER

**Alibaba Business School**

**MSTB**  
Malaysian Software Testing Board

**sas**

**HUAWEI**

**Global Digital Talent**

**Cisco Networking Academy**

**intellize**

**internet alliance**

### Engineering



**DAIKIN**

**Hartalega**

**KEYSIGHT**

**景興紙業 JINGXING PAPER**

## Professional Certifications



- SAS Certified Associate: Programming Fundamentals Using SAS 9.4



- AWS Cloud Foundations



- AWS Certified Cloud Practitioner



- MY5G Pioneers Programme (Ericsson)

**MSTB**  
Malaysian Software Testing Board

- IREB CPRE-FL Software Engineering
- ISTQB Certified Tester Foundation Level (CTFL)



- CCNA v7.0 Introduction to Networks (ITN)



- CCNA v7.0 Switching, Routing and Wireless Essentials (SRWE)

**FORTINET**

- Fortinet Certified Fundamentals & Associate

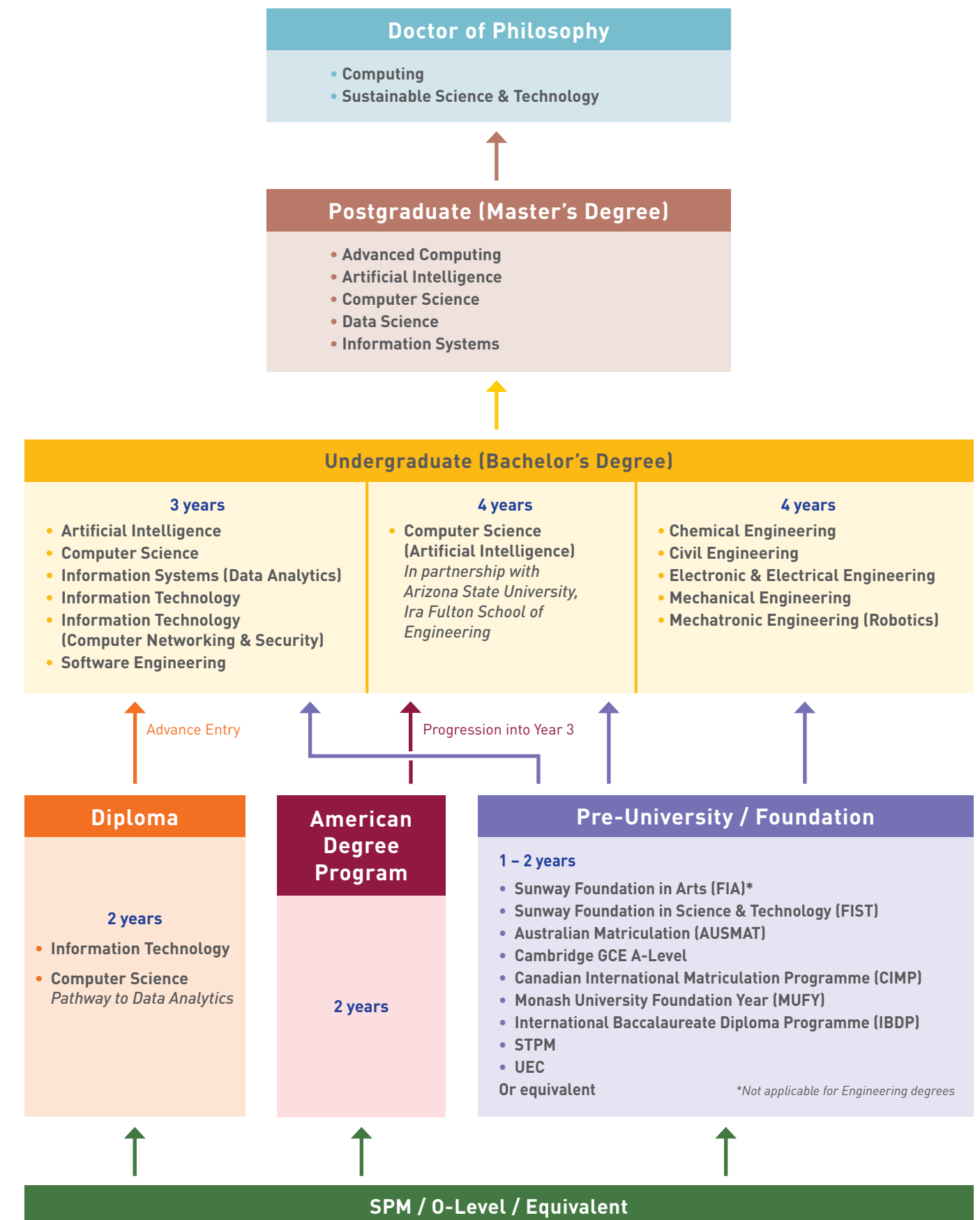


- CEH (Certified Ethical Hacker)



- CHFI (Computer Hacking Forensic Investigator)

# ENGINEERING & COMPUTING PATHWAYS IN SUNWAY UNIVERSITY



# ENTRY REQUIREMENTS

## COMPUTING

| PROGRAMME                                                                   | ENTRY REQUIREMENTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | SPECIFIC REQUIREMENTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | ENGLISH REQUIREMENTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>BACHELOR OF SCIENCE (HONOURS) IN COMPUTER SCIENCE</b>                    | <b>STPM</b> Average C or CGPA 2.00 (minimum 2 principals)<br><i>Note: Student entering Artificial Intelligence must have minimum grade C in Mathematics &amp; one Science/ ICT subject.</i><br><b>A-Level</b> Minimum 12 points (Minimum Grade D in at least 2 subjects)<br><b>Australian Matriculation</b> ATAR 60<br><b>Canadian International Matriculation Programme</b> 60%<br><b>MUFY</b> 60%<br><b>Sunway Foundation in Arts</b> CGPA 2.30<br><b>Sunway Foundation in Science &amp; Technology</b> CGPA 2.30<br><b>UEC</b> Maximum 28 points from 5 subjects (all grade Bs)<br><b>IB Diploma</b> Completed with minimum 28 points (excluding bonus points)<br><b>Sunway Diploma in Information Technology / Diploma in Computer Science</b> CGPA 2.50 or equivalent<br><b>APEL.A</b><br>An APEL.A Certificate (APEL T-6) Recognition of Prior Learning<br><b>Other Qualifications:</b><br>Applicants with qualifications other than those described above will be considered on a case-to-case basis | Credit in Additional Mathematics at SPM B in Advanced Mathematics in UEC or its equivalent<br>Candidates with the following qualifications or its equivalent:<br>• STPM (Arts Stream)<br>• A-Level<br>• Matriculation or Foundation<br>• Any Diploma in Science and Technology (Level 4, MQF)<br>who do not have Additional Mathematics at SPM level or its equivalent may be admitted with a credit in Mathematics and any one of the Science, Technology or Engineering subjects at SPM level or its equivalent.<br>Candidates need to enrol and pass a Mathematics Enhancement subject at the beginning of the study.<br>However, the specific requirements are not required for the following qualifications:<br>• STPM (Science Stream)<br>• Diploma in Computing fields<br>• Diploma Kemahiran Malaysia (DKM) / Diploma Vokasional Malaysia (DVM) in Computing fields<br>• Diploma Lanjutan Kemahiran Malaysia (DLKM) in Computing fields | <b>IELTS or equivalent</b> 6.0<br><b>MUET</b> Band 4<br><b>SPM English B</b><br><b>UEC English B6</b><br><b>O-Level English (1119)</b> Credit<br><b>Sunway Intensive English Programme (IEP)</b><br>Pass Level 4 with minimum 65%<br><b>ESL/English</b><br>Satisfactory level in Pre-University programmes, where the medium of instruction is English<br><b>Note:</b><br><i>The following students will be exempted from the English Language requirement: Students from countries that use English as the official language; OR Students with academic qualifications from institutions that use English as a full medium of instruction.</i> |
| <b>BACHELOR OF SOFTWARE ENGINEERING (HONS)</b>                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>BACHELOR OF SCIENCE (HONOURS) IN ARTIFICIAL INTELLIGENCE</b>             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>BSC (HONS) INFORMATION TECHNOLOGY (COMPUTER NETWORKING AND SECURITY)</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>BACHELOR OF SCIENCE (HONOURS) IN INFORMATION TECHNOLOGY</b>              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>BACHELOR OF INFORMATION SYSTEMS (HONOURS) (DATA ANALYTICS)</b>           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

**Note:** For A-Level points calculation

A = 10 points B = 8 points C = 6 points D = 4 points E = 2 points

### INTAKES

JANUARY • APRIL • SEPTEMBER

### DURATION

3 YEARS



## COMPUTING (cont.)

| PROGRAMME                                                                       | ENTRY REQUIREMENTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | SPECIFIC REQUIREMENTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ENGLISH REQUIREMENTS                                                                                                                                                                                                                                                                                                                                                |
|---------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>BACHELOR OF SCIENCE (HONORS) COMPUTER SCIENCES (ARTIFICIAL INTELLIGENCE)</b> | <b>American Degree Transfer Program (ADTP)</b><br>Completion of ADTP with CGPA at 2.0<br><b>STPM</b><br>Average C or CGPA 2.0 (Minimum 2 principals)<br><b>A-Level</b><br>Minimum 8 points (Minimum Grade D in at least 2 subjects)<br><b>Australian Matriculation</b><br>ATAR 50<br><b>Canadian Matriculation</b><br>50%<br><b>Monash University Foundation Year</b> 50%<br><b>Foundation Program</b><br>CGPA 2.0<br><b>UEC</b><br>Maximum 30 points from 5 subjects (all grade Bs including English)<br><b>IB Diploma</b> Completed with minimum 24 points (excluding bonus points)<br><b>Diploma</b><br>• Diploma in Science and Technology with a minimum CGPA of 2.75<br>• Diploma in Computing with a minimum CGPA of 2.50<br><b>APEL.A</b><br>An APEL.A Certificate (APEL T-6) Recognition of Prior Learning<br><b>Other Qualifications:</b><br>Applicants with qualifications other than those described above will be considered on a case-to-case basis | Credit in Additional Mathematics at SPM level or its equivalent [applicants from STPM (Science Stream) and Diploma in Computing are exempted from this requirement];<br><b>OR</b><br>If a candidate does not have a credit in Additional Mathematics at SPM level or its equivalent but has a credit in Mathematics and in one of the Science, Technology or Engineering subjects at SPM level or its equivalent, the candidate must take and pass the reinforcement Mathematics course equivalent to Additional Mathematics at SPM level in the first semester. | <b>IELTS or equivalent</b> 6.0<br><b>MUET</b> Band 4<br><b>UEC English B6</b><br><b>SPM English Credit</b><br><b>O-Level English (1119)</b> Credit<br><b>Sunway Intensive English Program</b><br>Pass Level 4 with minimum 65%<br><b>ESL/English</b><br>Satisfactory level in Pre-University programmes, Diploma or ADTP where the medium of instruction is English |

**Note:** For A-Level points calculation

A = 10 points B = 8 points C = 6 points D = 4 points E = 2 points

### INTAKES

JANUARY • APRIL • SEPTEMBER

### DURATION

4 YEARS

ENTRY REQUIREMENTS

ENGINEERING

| PROGRAMME                                                      | ENTRY REQUIREMENTS                                                                                                                                                                                                                                                                                                                                                 | SPECIFIC REQUIREMENTS                                                                            | ENGLISH REQUIREMENTS                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BACHELOR OF CHEMICAL ENGINEERING WITH HONOURS                  | <p><b>STPM</b> CGPA 2.00<br/>(including Mathematics &amp; one Natural Sciences subject with minimum Grade C)</p> <p><b>A-Level</b> Minimum 12 points<br/>(including Mathematics &amp; one Natural Sciences subject with minimum Grade D)</p> <p><b>Australian Matriculation</b> ATAR 65<br/>(including Mathematics Methods &amp; one Natural Sciences subject)</p> | Natural Sciences subjects are Physics, Biology or Chemistry. Chemistry will be given preference. | <p><b>IELTS or equivalent</b> 6.0</p> <p><b>MUET</b> Band 4</p> <p><b>SPM English</b> B</p> <p><b>UEC English</b> B6</p> <p><b>O-level English (1119)</b> Credit</p> <p><b>Sunway Intensive English Programme (IEP)</b><br/>Pass Level 4 with minimum 65%</p> <p><b>ESL/English</b><br/>Satisfactory level at Pre-University programmes with English as the medium of instruction.</p> |
| BACHELOR OF ELECTRONIC AND ELECTRICAL ENGINEERING WITH HONOURS | <p><b>Canadian International Matriculation Programme</b> 65%<br/>(including Advanced Functions, Calculus &amp; Vectors and one Natural Sciences subject)</p> <p><b>MUFY</b> 65%<br/>(including Mathematics &amp; one Natural Sciences subject)</p>                                                                                                                 | Natural Sciences subjects are Physics, Biology or Chemistry. Physics will be given preference.   |                                                                                                                                                                                                                                                                                                                                                                                        |
| BACHELOR OF MECHATRONIC ENGINEERING (ROBOTICS) WITH HONOURS    | <p><b>Sunway Foundation in Science &amp; Technology</b> CGPA 2.50<br/>(including Mathematics and one Natural Sciences subject)</p> <p><b>UEC</b> Maximum 26 points from 5 subjects (all grade Bs including Mathematics and one Natural Sciences subject)</p>                                                                                                       |                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                        |
| BACHELOR OF MECHANICAL ENGINEERING WITH HONOURS                | <p><b>Diploma</b> CGPA 2.50 from any diploma in Engineering, Science or Technology</p> <p><b>Matriculation/Foundation</b> CGPA 2.50<br/>(including Mathematics and one Natural Sciences subject)</p> <p><b>IB Diploma</b> Completed with minimum 25 points (excluding bonus points)(including Mathematics and one Natural Sciences subject)</p>                    |                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                        |
| BACHELOR OF CIVIL ENGINEERING WITH HONOURS                     | <p><b>APEL.A</b><br/>An APEL.A Certificate (APEL T-6) Recognition of Prior Learning</p> <p><b>Other Qualifications:</b><br/>CGPA 2.50 or equivalent and any other qualifications will be considered on a case-to-case basis.</p>                                                                                                                                   |                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                        |

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

INTAKES

JANUARY • APRIL • SEPTEMBER

DURATION

4 YEARS

FIELDS IN COMPUTING

| Programme          | <br>Data Analytics                                                                              | <br>Artificial Intelligence                                                                                                                                                                    | <br>Computer Science                                                          | <br>Software Engineering                                                                              | <br>Information Technology                                                          | <br>Computer Networking & Security |                                                                                                                                        |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Specialised Fields | <b>Big Data and Cloud</b> <ul style="list-style-type: none"><li>• Big Data Analytics in the Cloud</li></ul>                                                                        | <b>Data-Driven IoT Intelligence</b>                                                                                                                                                                                                                                               | <b>Internet of Things (IoT)</b> <ul style="list-style-type: none"><li>• Distributed Systems</li></ul>                                                            | <b>Software Development Life Cycle</b> <ul style="list-style-type: none"><li>• Requirement Engineering</li><li>• Software Evolution and Maintenance</li><li>• Software Testing</li></ul> | <b>Customer Relationship Management</b>                                                                                                                                | <b>Digital Forensics</b> <ul style="list-style-type: none"><li>• Computer Hacking Forensic Investigator</li></ul>     |                                                                                                                                        |
|                    | <b>Data Mining and Knowledge Discovery</b>                                                                                                                                         | <b>Evolutionary Algorithms</b>                                                                                                                                                                                                                                                    | <b>Computational Intelligence</b>                                                                                                                                | <b>Cloud Computing</b>                                                                                                                                                                   |                                                                                                                                                                        | <b>IoT Networking and Security</b>                                                                                    |                                                                                                                                        |
|                    | <b>Information Systems</b> <ul style="list-style-type: none"><li>• Business Intelligence Systems</li></ul>                                                                         | <b>Machine and Deep Learning</b>                                                                                                                                                                                                                                                  | <b>Desktop/Mobile Application Development</b> <ul style="list-style-type: none"><li>• Human Computer Interaction</li><li>• Object-oriented Programming</li></ul> |                                                                                                                                                                                          | <b>Network Management</b> <ul style="list-style-type: none"><li>• Advanced Computer Networks</li><li>• Computer Networks • Network and System Administration</li></ul> |                                                                                                                       |                                                                                                                                        |
|                    |                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                   | <b>Systems Analysis and Design</b>                                                                                                                               | <b>Computing Algorithms</b> <ul style="list-style-type: none"><li>• Data Structures &amp; Algorithm</li></ul>                                                                            |                                                                                                                                                                        |                                                                                                                       |                                                                                                                                        |
|                    | <b>Analytics and Statistics</b> <ul style="list-style-type: none"><li>• Analytics Engineering</li><li>• Social and Web Analytics</li><li>• Statistics for Data Analytics</li></ul> | <b>Robotics Intelligence and Autonomous Systems</b>                                                                                                                                                                                                                               | <b>Systems Analysis and Design</b>                                                                                                                               | <b>Software Engineering</b>                                                                                                                                                              | <b>Systems Analysis and Design</b>                                                                                                                                     |                                                                                                                       |                                                                                                                                        |
|                    |                                                                                                                                                                                    | <b>Generative AI and Natural Language Processing</b>                                                                                                                                                                                                                              | <b>Database Development</b> <ul style="list-style-type: none"><li>• Database Management Systems</li></ul>                                                        |                                                                                                                                                                                          |                                                                                                                                                                        |                                                                                                                       | <b>Ethical Hacking and Counter measures Fundamentals</b>                                                                               |
|                    | <b>Artificial Intelligence</b>                                                                                                                                                     |                                                                                                                                                                                                                                                                                   |                                                                                                                                                                  |                                                                                                                                                                                          |                                                                                                                                                                        |                                                                                                                       |                                                                                                                                        |
|                    | <b>Data Science Fundamentals</b> <ul style="list-style-type: none"><li>• Information Systems Concepts</li><li>• Linear Algebra and Applications</li></ul>                          | <b>Data Fusion and Digital Twin</b>                                                                                                                                                                                                                                               | <b>Data Communication</b>                                                                                                                                        |                                                                                                                                                                                          |                                                                                                                                                                        |                                                                                                                       | <b>Cybersecurity</b> <ul style="list-style-type: none"><li>• Advanced Topics in Computer Security</li><li>• Network Security</li></ul> |
|                    | <b>AI Foundation and Applications</b>                                                                                                                                              | <b>AI Fundamentals</b> <ul style="list-style-type: none"><li>• Foundations of Machine Learning</li><li>• Intelligent Systems and Applications</li></ul>                                                                                                                           | <b>Code Camp</b>                                                                                                                                                 |                                                                                                                                                                                          |                                                                                                                                                                        |                                                                                                                       |                                                                                                                                        |
|                    |                                                                                                                                                                                    | <b>Computer Fundamentals</b> <ul style="list-style-type: none"><li>• Programming Principles • Computer Mathematics • Web Fundamentals</li><li>• Networking Principles • Operating System Fundamentals • Database Fundamentals</li><li>• AI Foundations and Applications</li></ul> |                                                                                                                                                                  |                                                                                                                                                                                          |                                                                                                                                                                        |                                                                                                                       |                                                                                                                                        |

# BACHELOR OF SCIENCE (HONOURS) IN ARTIFICIAL INTELLIGENCE

## PROGRAMME INTRODUCTION

The **BSc (Hons) in Artificial Intelligence** at Sunway University offers a distinctive learning experience supported by advanced facilities, active research, and a dynamic academic community.

Students train in the AI and Machine Learning Lab, equipped with GPU-powered systems, NVIDIA Jetson Nano, and IoT prototyping kits for hands-on, real-world learning. They also access Sunway's High-Performance Computing (HPC) service, powered by cloud-based NVIDIA GPU-accelerated computing on AWS, gaining practical experience with industry-relevant tools and infrastructure.

The programme is led by renowned academics and researchers engaged in funded projects across machine learning, computer vision, natural language processing, and smart systems. Through project-based learning, capstone projects, and internships, students bridge academic knowledge with industry practice.

As part of the Faculty of Engineering and Technology, students join AI-focused competitions, hackathons, innovation challenges, and projects through Sunway iLabs. They are supported by an active AI and Data Science club, mentorship, and leadership programmes. With a connected smart campus and strong industry ties, BSc AI students graduate as highly skilled, future-ready professionals.

VALIDATED BY:



## DISTINCTIVE SUNWAY EXPERIENCE

Students are exposed to latest Cloud technologies and principles so that they can be equipped with the fundamentals of Cloud computing via our industry partners such as AWS.



## PROGRAMME STRUCTURE - Subjects

### Year 1

- Computer Mathematics
- Operating System Fundamentals
- Programming Principles
- Introduction to Artificial Intelligence
- Responsible AI and Professional Ethics
- Data Structure & Algorithms
- Database Fundamentals
- Networking Principles
- Statistics for Data Analytics
- Foundations of Machine Learning
- Intelligent Systems and Applications

### Year 2

- Essentials of Employability
- Software Architecture and Design Patterns
- Artificial Intelligence Applications
- Computer Vision
- Deep Learning
- Generative Models in AI
- Natural Language Processing
- Reinforcement Learning
- Evolutionary Algorithms
- Machine Learning Operations
- Field Electives (Choose 1)**

### Year 3

- Capstone Project 1
- Capstone Project 2
- Knowledge-Based Systems
- Internship
- Field Electives (Choose 3)**

## FIELD ELECTIVES

### Robotics

- Data Fusion
- Intelligent Digital Twin
- Data-Driven IoT Intelligence
- Advances to Brain Computer Interaction
- Advanced Robotics Intelligence and Autonomous Systems

### Advanced AI

- Data Mining and Knowledge Discovery Fundamentals
- Advanced Natural Language Processing
- Advanced Topics in Deep Learning
- Algorithm for Optimisation
- Edge Intelligence

## MOHE COMPULSORY GENERAL STUDIES SUBJECTS

### For Local Students:

- Appreciation of Ethics & Civilisation
- Philosophy & Current Issues
- Entrepreneurial Mindset & Skills
- Integrity & Anti-Corruption
- Community Service for Planetary Health

**Note:** Students who did not sit for SPM or did not obtain a Credit in SPM Bahasa Melayu will need to take additional subject Bahasa Kebangsaan A.

### For International Students:

- Appreciation of Ethics & Civilisation
- Malay Language for Communication 2
- Entrepreneurial Mindset & Skills
- Integrity & Anti-Corruption
- Community Service for Planetary Health



## CAREER PROSPECTS

- Artificial Intelligence Engineer
- Machine Learning Specialist
- Data Scientist
- Computer Vision Engineer
- Natural Language Processing (NLP) Engineer
- AI Solutions Architect
- Robotics and Automation Engineer
- AI Product Manager
- Intelligent Systems Developer
- AI Research Scientist



[N/0613/6/0127][08/30][MQA/PA18509]

# BACHELOR OF SCIENCE (HONOURS) IN COMPUTER SCIENCE

## PROGRAMME INTRODUCTION

The Computer Science programme was designed to produce innovators and creators of new computing systems as well as designing and developing various types of software such as systems infrastructure or application technologies.

The programme is developed in accordance to ACM-IEEE(CS) and MQA recommendations, while offering a comprehensive syllabus that enables graduates to thrive in the working world and be leaders in their own niches.

VALIDATED BY:



## CAREER PROSPECTS

- Chief Technology Officer
- Game Developer
- IT Executive
- IT Project manager
- IT Technical Solutions Consultant
- Mobile App Developer
- Software Architect/Software Engineer
- System Administrator
- System Designer
- System Engineer

### Software Taught

- Akka
- Eclipse
- Figma
- Haskell
- IntelliJ IDEA
- Java
- Oracle DBMS
- Python
- SBT
- Scala
- SQL
- Visual Studio Code

## DISTINCTIVE SUNWAY EXPERIENCE

Students are exposed to latest Cloud technologies and principles so that they can be equipped with the fundamentals of Cloud computing via our industry partners such as AWS.



## PROGRAMME STRUCTURE - Subjects

### Year 1

- AI Foundation and Applications
- Computer Mathematics
- Computer Organisation
- Database Fundamentals
- Networking Principles
- Object-Oriented Programming Fundamentals
- Operating System Fundamentals
- Programming Principles
- Systems Analysis and Design
- Web Fundamentals

### Year 2

- Code Camp
- Data Structure and Algorithms
- Essentials of Employability
- Free Electives (Choose 2)
- Object-Oriented Programming
- Social Responsibility and Professional Ethics in Computing
- Field Electives (Choose 2)**

### Year 3

- Artificial Intelligence
- Capstone Project 1 & 2
- Distributed Systems
- Human Computer Interaction
- Internship
- Field Electives (Choose 3)**



[R3/0613/6/0083][03/31][MQA/FA0282]

## FIELD ELECTIVES

### Data Science & Analytics

- Social & Web Analytics
- Data Mining & Knowledge Discovery Fundamentals

### Advanced Artificial Intelligence

- Computer Vision
- Computational Intelligence

### Software Solutions

- Database Management Systems
- Digital Image Processing
- Functional Programming Principles
- Concurrent Programming
- Database Engineering
- Mobile Application Development

### Networking & Security

- Data Communications
- IoT Networking & Security
- Computer Networks
- Computer Security

### Software Design

- Programming Languages
- Cloud Computing
- Software Architecture & Design Patterns
- UI/UX Design & Development

## FREE ELECTIVES

**Note:** List of free electives offered are available at Xplorer Hub.

## MOHE COMPULSORY GENERAL STUDIES SUBJECTS

### For Local Students:

- Appreciation of Ethics & Civilisation
- Philosophy & Current Issues
- Entrepreneurial Mindset & Skills
- Integrity & Anti-Corruption
- Community Service for Planetary Health

**Note:** Students who did not sit for SPM or did not obtain a Credit in SPM Bahasa Melayu will need to take additional subject Bahasa Kebangsaan A.

### For International Students:

- Appreciation of Ethics & Civilisation
- Malay Language for Communication 2
- Entrepreneurial Mindset & Skills
- Integrity & Anti-Corruption
- Community Service for Planetary Health

# BACHELOR OF SOFTWARE ENGINEERING (HONS)

## PROGRAMME INTRODUCTION

The Software Engineering programme empowers students with the knowledge and understanding of user requirements in analysing, modelling, designing, and developing large-scale software systems that are reliable and robust. Such Software Engineering (SE) specialists will be able to respond to the ever-growing impact of large-scale software systems in a wide range of situations.

Furthermore, this programme will enable them to select the most appropriate and reliable techniques for producing quality software systems on time and within budget.

## VALIDATED BY:



## CAREER PROSPECTS

- Game Developer
- Mobile App Developer
- Requirement Engineer
- Software Architect
- Software Engineer
- Software Quality Assurance Officer
- Software Tester
- System Designer
- Technical Analyst
- Web Developer

### Software Taught

- Android Studio
- Eclipse
- Figma
- Java
- IntelliJ IDEA
- Oracle DBMS
- PHP
- Python
- SBT
- SQL
- Scala
- Visual Studio
- Code
- Web Servers

## DISTINCTIVE SUNWAY EXPERIENCE

Together with Malaysian Software Testing Board (MSTB), member of International Software Testing Quality Board (ISTQB) and through their partnership with International Requirements Engineering Board (IREB), our students have the opportunity to obtain up to two professional certificates known as Certified Tester Foundation Level (CTFL) and Certified Professional in Requirements Engineering-Foundation Level (CPRE-FL) during their study. These industry-linked certificates will be an added advantage for our graduates, making them highly employable.



## PROGRAMME STRUCTURE - Subjects

### Year 1

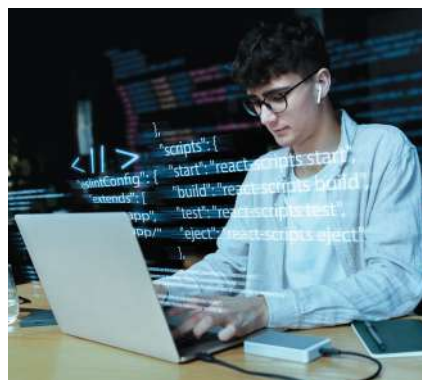
- AI Foundation and Applications
- Computer Mathematics
- Computer Organisation
- Database Fundamentals
- Networking Principles
- Object-Oriented Programming Fundamentals
- Operating System Fundamentals
- Programming Principles
- Software Engineering
- Web Fundamentals

### Year 2

- Artificial Intelligence
- Data Structure & Algorithms
- Essentials of Employability
- Free Electives (Choose 3)
- Project Management
- Requirement Engineering
- Field Electives (Choose 2)

### Year 3

- Capstone Project 1 & 2
- Computer Security
- Software Architecture & Design Patterns
- Software Evolution & Maintenance
- Software Processes
- Software Testing
- Internship
- Field Electives (Choose 3)



[R2/0612/6/0028][11/31][MQA/FA8122]

## FIELD ELECTIVES

### Software Development

- Object-Oriented Programming
- Code Camp
- Concurrent Programming
- Human Computer Interaction

### Networking & Security

- Data Communication
- Network Security
- Advanced Network Security
- Computer Networks

### Software Solutions & Design

- Database Management Systems
- Digital Image Processing
- Cloud Computing
- Database Engineering

### Artificial Intelligence

- Computer Vision

### Mobile App Development

- Mobile Application Development

## FREE ELECTIVES

**Note:** List of free electives offered are available at Xplorer Hub.

## MOHE COMPULSORY GENERAL STUDIES SUBJECTS

### For Local Students:

- Appreciation of Ethics & Civilisation
- Philosophy & Current Issues
- Entrepreneurial Mindset & Skills
- Integrity & Anti-Corruption
- Community Service for Planetary Health

**Note:** Students who did not sit for SPM or did not obtain a Credit in SPM Bahasa Melayu will need to take additional subject Bahasa Kebangsaan A.

### For International Students:

- Appreciation of Ethics & Civilisation
- Malay Language for Communication 2
- Entrepreneurial Mindset & Skills
- Integrity & Anti-Corruption
- Community Service for Planetary Health

# BSC (HONS) INFORMATION TECHNOLOGY (COMPUTER NETWORKING AND SECURITY)

## PROGRAMME INTRODUCTION

The Computer Networking and Security programme aims to equip students with technical competencies in exploring the technology behind computer networks and security systems.

This programme focuses on networking developments and distributed applications within the Internet, corporate networks and the information systems in which they interconnect. In terms of computer security, students will gain the ability to manage and develop computer systems and applications that enhance networking and security within organisations.

## VALIDATED BY:



## CAREER PROSPECTS

- Digital Forensic Investigator
- IT Security Consultant
- Network Engineer
- Network Infrastructure Specialist
- Penetration Tester
- Security Analyst
- Security Engineer

### Software Taught

- Aircrack
- Android Studio
- Autopsy
- Burp Suite
- Cisco Packet Tracer
- FTK imager
- Maltego
- Metasploit
- Nmap
- Netwitness
- Sleuth Kit
- Virtualisation Software

## DISTINCTIVE SUNWAY EXPERIENCE

Students in this programme will experience the latest techniques in IT security and developing critical threat-hunting expertise, developed in collaboration with world's leading cybersecurity organizations like Cisco, Fortinet and AWS.

Students enrolled in this programme have the opportunity to obtain multiple industry-recognized certifications as part of their learning journey. These include certifications from EC-Council, Cisco, Fortinet, and AWS.

The programme culminates in a capstone project developed in collaboration with leading cybersecurity companies across Malaysia, offering students a unique opportunity to immerse themselves in real-world security operations and industry environments. Under the guidance of experienced industry mentors, students engage in solving authentic cybersecurity challenges, effectively bridging academic theory with professional practice.



## PROGRAMME STRUCTURE - Subjects

### Year 1

- AI Foundation and Applications
- Computer Mathematics
- Computer Organisation
- Database Fundamentals
- Networking Principles
- Object-Oriented Programming Fundamentals
- Operating System Fundamentals
- Programming Principles
- Systems Analysis and Design
- Web Fundamentals

### Year 2

- Computer Networks
- Cloud Computing
- Distributed Systems
- Essentials of Employability
- Free Electives (Choose 1)
- IoT Networking & Security
- Network & System Administration
- Network Security
- Probability & Statistics

### Year 3

- Advanced Computer Networks
- Advanced Topics in Computer Security
- Capstone Project 1 & 2
- Computer Hacking Forensic Investigator
- Ethical Hacking & Countermeasures Fundamentals
- Free Electives (Choose 1)
- Human Computer Interaction
- Internship

## FREE ELECTIVES

**Note:** List of free electives offered are available at Xplorer Hub.

## MOHE COMPULSORY GENERAL STUDIES SUBJECTS

### For Local Students:

- Appreciation of Ethics & Civilisation
- Philosophy & Current Issues
- Entrepreneurial Mindset & Skills
- Integrity & Anti-Corruption
- Community Service for Planetary Health

**Note:** Students who did not sit for SPM or did not obtain a Credit in SPM Bahasa Melayu will need to take additional subject Bahasa Kebangsaan A.

### For International Students:

- Appreciation of Ethics & Civilisation
- Malay Language for Communication 2
- Entrepreneurial Mindset & Skills
- Integrity & Anti-Corruption
- Community Service for Planetary Health



[R2/0611/6/0084][03/30][MQA/FA4817]

# BACHELOR OF SCIENCE (HONOURS) IN INFORMATION TECHNOLOGY

## PROGRAMME INTRODUCTION

The Information Technology programme was designed to provide our graduates with strong analytical skills and the knowledge to keep abreast with the rapid advances in technology.

Students undertaking this programme are exposed to both technical and real-world practical experiences through the specially-crafted coursework and industrial training, making our graduates market-ready upon graduation.

During their study, students may select electives to explore and enhance their knowledge in specific fields such as network management and security, database engineering and mobile development.

VALIDATED BY:



## CAREER PROSPECTS

- Database Architect
- IT Specialist
- Network Specialist
- System Engineer
- Web/e-Commerce Architect

### Software Taught

- Android Studio
- Cisco Packet Tracer
- CSS
- Eclipse
- Figma
- HTML
- Java
- Javascript
- Oracle DBMS
- PHP
- Python
- Scala

## DISTINCTIVE SUNWAY EXPERIENCE

This programme will give the students a good mix of knowledge in both software and hardware. With the knowledge from both sides, the students will be equipped with the skills required to develop an organisation's technology infrastructure and support the people who use it.

Students are exposed to latest Cloud technologies and principles so that they can be equipped with the fundamentals of Cloud computing via our industry partners such as AWS.



## PROGRAMME STRUCTURE - Subjects

### Year 1

- AI Foundation and Applications
- Computer Mathematics
- Computer Organisation
- Database Fundamentals
- Networking Principles
- Object-Oriented Programming Fundamentals
- Operating System Fundamentals
- Programming Principles
- Systems Analysis and Design
- Web Fundamentals

### Year 2

- Code Camp
- Computer Networks
- Essentials of Employability
- Free Electives (Choose 2)
- Project Management
- Social Responsibility and Professional Ethics in Computing
- Web Programming
- **Field Elective (Choose 2)**

### Year 3

- Capstone Project 1 & 2
- Cloud Computing
- Free Electives (Choose 2)
- Human Computer Interaction
- Internship
- **Field Electives (Choose 3)**

## FIELD ELECTIVES

### Software Development and Design

- Database Management Systems
- Data Structure and Algorithms
- Object-Oriented Programming
- Database Engineering
- Mobile Application Development
- UI/UX Design and Development
- Software Architecture and Design Patterns

### Networking & Security

- Data Communications
- Network Security
- IoT Networking & Security
- Advanced Computer Networks
- Advanced Network Security
- Computer Security
- Distributed Systems
- Network & System Administration
- Network Management

### Business Solutions & AI

- Customer Relationship Management
- Enterprise Application Development
- Artificial Intelligence

### Data Science

- Data Mining and Knowledge Discovery Fundamentals
- Big Data Analytics in the Cloud

## FREE ELECTIVES

**Note:** List of free electives offered are available at Xplorer Hub..

## MOHE COMPULSORY GENERAL STUDIES SUBJECTS

### For Local Students:

- Appreciation of Ethics & Civilisation
- Philosophy & Current Issues
- Entrepreneurial Mindset & Skills
- Integrity & Anti-Corruption
- Community Service for Planetary Health

**Note:** Students who did not sit for SPM or did not obtain a Credit in SPM Bahasa Melayu will need to take additional subject Bahasa Kebangsaan A.

### For International Students:

- Appreciation of Ethics & Civilisation
- Malay Language for Communication 2
- Entrepreneurial Mindset & Skills
- Integrity & Anti-Corruption
- Community Service for Planetary Health

# BACHELOR OF INFORMATION SYSTEMS (HONOURS) (DATA ANALYTICS)

## PROGRAMME INTRODUCTION

The Data Analytics programme focuses on the development of analytical skills in the study of technologies. Harnessing and analysing massive data creates significant value for organisations and it has become the basis for decision-making to achieve greater efficiency while spearheading constant innovation.

During their studies, students will solve practical and real-world problems of companies utilising data sets in the presence of analytics experts.

VALIDATED BY:



## CAREER PROSPECTS

- Big Data System Architect
- Business Intelligence Manager/Specialist/Architecture Consultant
- Chief Data Scientist
- Chief Knowledge Analyst
- Chief Social Media Scientist
- Credit Scorecard Specialist
- Customer Segmentation Specialists
- Forensic Experts

### Software Taught

- Hadoop
- Oracle DBMS
- Power BI
- Python
- R
- SAS
- SQL
- Tableau

## DISTINCTIVE SUNWAY EXPERIENCE

In this programme, students will be awarded a SAS Joint Certificate in Big Data with Advanced Techniques in Data Science and an academic digital badge to validate their knowledge. As one of the **Top 10 Most Prominent Data Science Institutes\***, Sunway students learn innovative ways to use and leverage data to generate actionable outcomes across a variety of industries.

Python and R languages and the SAS tools are taught in the programme. The collaboration with AWS and Alibaba GET enhance & provide students a 360 degree view of analytics knowledge and skills.

*\*Analytics Insight Magazine (January 2022)*



## PROGRAMME STRUCTURE - Subjects

### Year 1

- AI Foundation and Applications
- Computer Organisation
- Data Mining & Knowledge Discovery Fundamentals
- Database Fundamentals
- Information Systems Concepts
- Linear Algebra and Applications
- Networking Principles
- Operating System Fundamentals
- Programming Principles
- Systems Analysis and Design

### Year 2

- Analytics Engineering
- Database Management Systems
- Data Fusion
- Enterprise Architecture
- Essentials of Employability
- Free Electives (Choose 2)
- Statistics for Data Analytics
- Social and Web Analytics

### Year 3

- Advanced Business Analytics
- Artificial Intelligence
- Big Data Analytics in the Cloud
- Business Intelligence Systems
- Capstone Project 1 & 2
- Data Mining & Knowledge Discovery
- Free Electives (Choose 1)
- Internship
- Project Management

## FREE ELECTIVES

**Note:** List of free electives offered are available at Xplorer Hub..

## MOHE COMPULSORY GENERAL STUDIES SUBJECTS

### For Local Students:

- Appreciation of Ethics & Civilisation
- Philosophy & Current Issues
- Entrepreneurial Mindset & Skills
- Integrity & Anti-Corruption
- Community Service for Planetary Health

**Note:** Students who did not sit for SPM or did not obtain a Credit in SPM Bahasa Melayu will need to take additional subject Bahasa Kebangsaan A.

### For International Students:

- Appreciation of Ethics & Civilisation
- Malay Language for Communication 2
- Entrepreneurial Mindset & Skills
- Integrity & Anti-Corruption
- Community Service for Planetary Health



## BACHELOR OF SCIENCE (HONORS) IN COMPUTER SCIENCE (ARTIFICIAL INTELLIGENCE)

### PROGRAM INTRODUCTION

The **Bachelor of Science (Honors) in Computer Science (Artificial Intelligence)** is a rigorous academic program designed to provide students with a comprehensive foundation in core areas of computer science, with a specialised focus on **artificial intelligence**.

The curriculum emphasises mathematical principles, algorithm development, and intelligent systems—areas that are critical for analytical reasoning and autonomous decision-making. Modelled after the **BS in Computer Science offered by the Ira A. Fulton School of Engineering at Arizona State University, USA**, this program ensures that students are equipped with both theoretical depth and practical competencies.

Graduates will be well-prepared to pursue a diverse range of professional roles, including **Data Analyst, AI/ML Engineer, and Cyber Security Specialist** to name a few, contributing meaningfully to industry, research, and societal advancement.



SCHOOL OF AMERICAN EDUCATION



Students will have the option to top up credits to obtain an Arizona State University certificate.

### PROGRAM STRUCTURE - Subjects

#### Year 1

- Calculus I
- Programming 1
- Programming 2
- Public Speaking and Presentation Skills
- English Composition 1
- System Analysis and Design
- Discrete Mathematical Structures
- Elective 1
- Elective 2

#### Year 2

- Calculus II
- Calculus III
- English Composition 2
- Software Engineering
- Data Structures and Algorithms
- Web Based Application Development
- Introduction to Programming Languages
- Computer Organization and Assembly Language Programming
- Elective 3
- Elective 4
- Elective 5

#### Year 3

- Introduction to Theoretical Computer Science
- Computing Ethics
- Information Assurance
- Database Management
- Distributed Software Development
- Computer Networks
- Foundations of Machine Learning
- Operating Systems

#### Year 4

- Capstone Project I
- Capstone Project II
- Human Computer Interaction
- Probability and Statistics
- Foundation for Data Visualization
- AI in Information Security
- Artificial Intelligence Theory
- Internship

### MOHE COMPULSORY GENERAL STUDIES SUBJECTS

#### For Malaysian 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)
- Community Service for Planetary Health
- Entrepreneurial Mindset and Skills
- Integrity and Anti-Corruption (KIAR)
- Philosophy and Current Issues

#### For International Students:

- Appreciation of Ethics & Civilisation
- Community Service for Planetary Health
- Entrepreneurial Mindset and Skills
- Integrity & Anti-Corruption (KIAR)
- Malay Language for Communication 2

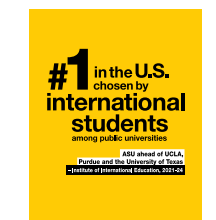


### CAREER PROSPECTS

- Artificial Intelligence/ ML Engineer
- Data Scientist / Analyst
- AI-based Software Developer
- Cybersecurity Specialist (AI-Focused)
- AI Researcher / Academic
- System Analyst / IT Consultant
- AI in Domain Applications (Healthcare, Finance, Education)



[N/0613/6/0097][08/31][MQA/PA17672]



Arizona State University (ASU), ranked No. 1 "Most Innovative School" in the U.S. by U.S. News & World Report for eleven years, 2016 - 2026. ASU is a comprehensive public research university; measured not by whom it excludes, but by whom it includes and how they succeed; advancing research and discovery of public value; and assuming fundamental responsibility for the economic, social, cultural and overall health of the communities it serves.

### ASU Ira A. Fulton Schools of Engineering Arizona State University

The Ira A. Fulton Schools of Engineering at Arizona State University is the largest and most comprehensive engineering program in the United States, with 32,709 students enrolled in Fall 2024 and 209 National Merit Scholars for 2022-23. Recognized for its excellence, the school ranks #2 for its online Master's in Electrical Engineering and #35 overall for undergraduate engineering programs (U.S. News & World Report, 2025).

Students at the Fulton Schools benefit from a globally diverse student body, bringing a wide range of perspectives and ideas to tackle the world's most significant challenges through engineering and technology.



Ira A. Fulton Schools of Engineering.



# FIELDS IN ENGINEERING

| Programme          | <br>Electronic & Electrical Engineering | <br>Mechatronic Engineering (Robotics) | <br>Mechanical Engineering | <br>Chemical Engineering | <br>Civil Engineering |
|--------------------|--------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| Specialised Fields | Artificial Intelligence & Data Analytics                                                                                 |                                                                                                                         |                                                                                                             |                                                                                                            |                                                                                                          |
|                    | Engineering Design & Project Management with Sustainability                                                              |                                                                                                                         |                                                                                                             |                                                                                                            |                                                                                                          |
|                    | Programming                                                                                                              |                                                                                                                         |                                                                                                             |                                                                                                            |                                                                                                          |
|                    | Industry 4.0                                                                                                             |                                                                                                                         |                                                                                                             |                                                                                                            |                                                                                                          |
|                    | Electronic Systems                                                                                                       |                                                                                                                         | Materials                                                                                                   |                                                                                                            |                                                                                                          |
|                    | Computer Architecture & Systems                                                                                          |                                                                                                                         |                                                                                                             | Environmental Engineering                                                                                  |                                                                                                          |
|                    | Telecommunication Systems                                                                                                |                                                                                                                         | Thermodynamics & Fluid Mechanics                                                                            |                                                                                                            | Construction Technology                                                                                  |
|                    | Digital Signals & Systems                                                                                                |                                                                                                                         |                                                                                                             |                                                                                                            |                                                                                                          |
|                    | Instrumentations & Control                                                                                               |                                                                                                                         |                                                                                                             |                                                                                                            | Structural Design                                                                                        |
|                    | Embedded Systems                                                                                                         |                                                                                                                         | Automotive                                                                                                  | Chemical Process Design                                                                                    |                                                                                                          |
|                    | Digital Image & Video Processing                                                                                         |                                                                                                                         |                                                                                                             |                                                                                                            | Geotechnical & Geological Studies                                                                        |
|                    | Advanced Digital System Design                                                                                           | Computer-Aided Design & Simulations                                                                                     |                                                                                                             | Chemical Reactions                                                                                         |                                                                                                          |
|                    |                                                                                                                          | Robotics & Industrial Automation                                                                                        | Renewable Energy Generation                                                                                 |                                                                                                            | Transportation Engineering                                                                               |
|                    | Wireless Sensor Networks                                                                                                 | Computer Modelling & 3D Printing                                                                                        |                                                                                                             | Separation Technology                                                                                      |                                                                                                          |
|                    | Electrical Power & Drive Systems                                                                                         | Actuations                                                                                                              |                                                                                                             | Chemical Plant Design                                                                                      |                                                                                                          |
|                    |                                                                                                                          |                                                                                                                         |                                                                                                             | Water Management                                                                                           |                                                                                                          |

## BACHELOR OF CHEMICAL ENGINEERING WITH HONOURS

### PROGRAMME INTRODUCTION

Chemical Engineering is a discipline dealing with creating, developing and designing processes to produce, transform or transport products and materials. It integrates knowledge from the natural, experimental, and life sciences, along with mathematics and economics, to investigate problems and develop solutions related to safety, efficiency, and sustainability. Chemical Engineers pioneer new materials and technologies of the future; they design equipment for chemical manufacturing, develop and manage industrial processes that turn raw materials into the valuable products.

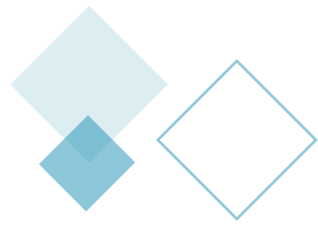
Chemical engineers solve major societal challenges in energy, human health, manufacturing and sustainability. To achieve this, chemical engineers apply principles of material and energy balances, heat and mass transfer, thermodynamics, fluid mechanics, separation technologies, chemical reaction kinetics, reactor design, and process design and integration. These tools enable them to create sustainable manufacturing processes, design robust chemical plants, and ensure safe and efficient equipment operation.

This programme is recognised as equivalent to that of the Lancaster University's MASTER OF ENGINEERING CHEMICAL ENGINEERING WITH HONOURS (MEng Hons). Upon successfully completing the programme, graduates will also be awarded the MEng Hons degree from Lancaster University. They will be awarded two certificates, making them graduates of both Sunway University and Lancaster University.

VALIDATED BY:



### PROGRAMME STRUCTURE - Subjects

| Year 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Year 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>AI Foundation and Applications</li> <li>Chemical Process Calculations</li> <li>Design &amp; Innovative Thinking</li> <li>Engineering Mathematics 1</li> <li>Engineering Materials</li> <li>Engineering Mathematics 2</li> <li>Fluid Mechanics</li> <li>Organic Chemistry</li> <li>Physical Chemistry</li> <li>Sustainable Engineering Design</li> </ul>                                                                                                                             | <ul style="list-style-type: none"> <li>Advanced Biochemical Engineering</li> <li>Advanced Electrochemical Engineering</li> <li>Advanced Process Control</li> <li>Advanced Wastewater Engineering</li> <li>Design Project II</li> <li>Final Year Project I</li> <li>Final Year Project II</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Year 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Year 4 Electives (Choose 2)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <ul style="list-style-type: none"> <li>Advanced Engineering Calculus</li> <li>Chemical Engineering Laboratory I</li> <li>Chemical Engineering Thermodynamics</li> <li>Engineering Statistics &amp; Probability</li> <li>Engineers in Society</li> <li>Essentials of Employability</li> <li>Heat Transfer</li> <li>Mass Transfer &amp; Separation Processes</li> <li>Numerical Methods for Chemical Engineers</li> <li>Plant Design &amp; Process Synthesis</li> <li>Project Management &amp; Engineering Design</li> </ul> | <ul style="list-style-type: none"> <li>Carbon Capture &amp; Storage</li> <li>Environment &amp; Climate Change</li> <li>Nanomaterials &amp; Nanotechnology</li> <li>Petroleum Refining &amp; Gas Processing</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Year 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | MOHE COMPULSORY GENERAL STUDIES SUBJECTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <ul style="list-style-type: none"> <li>Chemical Engineering Laboratory II</li> <li>Chemical Engineering Laboratory III</li> <li>Chemical Process Safety</li> <li>Chemical Reaction Engineering</li> <li>Data Analytics for Engineers</li> <li>Design Project I</li> <li>Industrial Training</li> <li>Multiphase System</li> <li>Process Dynamics &amp; Control</li> <li>Reactor Design &amp; Analysis</li> <li>Transport Phenomena</li> </ul>                                                                              | <p><b>For Local Students:</b></p> <ul style="list-style-type: none"> <li>Appreciation of Ethics &amp; Civilisation</li> <li>Philosophy &amp; Current Issues</li> <li>Entrepreneurial Mindset &amp; Skills</li> <li>Integrity &amp; Anti-Corruption</li> <li>Community Service for Planetary Health</li> </ul> <p><b>Note:</b> Students who did not sit for SPM or did not obtain a Credit in SPM Bahasa Melayu will need to take additional subject Bahasa Kebangsaan A.</p> <p><b>For International Students:</b></p> <ul style="list-style-type: none"> <li>Appreciation of Ethics &amp; Civilisation</li> <li>Malay Language for Communication 2</li> <li>Entrepreneurial Mindset &amp; Skills</li> <li>Integrity &amp; Anti-Corruption</li> <li>Community Service for Planetary Health</li> </ul> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <p><b>CAREER PROSPECTS</b></p> <ul style="list-style-type: none"> <li>Design Engineer</li> <li>Engineering Consultant</li> <li>Environmental Engineer</li> <li>Material Engineer</li> <li>Product Development Scientist</li> <li>Process Data Analyst</li> <li>Process Engineer</li> <li>Production Engineer</li> </ul>                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

[N/0711/6/0022][01/28][MQA/PA14248]

# BACHELOR OF ELECTRONIC AND ELECTRICAL ENGINEERING WITH HONOURS

## PROGRAMME INTRODUCTION

Electronic and Electrical Engineering specialises on electrical and electronic equipment, interfaces and communications. Electrical engineering tends to focus on larger scale electrical equipment and power, whilst electronic engineering is more focused on electronic circuits and devices, computer and communication systems. It gives a fascinating insight into how electrical devices and technology work and in a future that will likely be full of new electric technologies.

The programme gives students a strong technical knowledge in a variety of areas, which include electronics, signal processing, power engineering, computer and communication systems and engineering management. Alongside the theories, students also learn through hands-on practical exposure to ensure that they are prepared for engineering work upon graduation.

This programme is recognised as equivalent to that of the Lancaster University's MASTER OF ENGINEERING ELECTRONIC AND ELECTRICAL ENGINEERING WITH HONOURS (MEng Hons). Upon successfully completing the programme, graduates will also be awarded the MEng Hons degree from Lancaster University. They will be awarded two certificates, making them graduates of both Sunway University and Lancaster University.

VALIDATED BY:



## PROGRAMME STRUCTURE - Subjects

### Year 1

- AI Foundation and Applications
- Analogue Electronic Fundamentals
- Digital Electronic Fundamentals
- Electrical Circuits
- Engineering Materials
- Engineering Mathematics 1
- Engineering Mathematics 2
- Engineering Physics
- Instrumentation, Measurement, & Controls
- Programming for Engineers

### Year 2

- Advanced Engineering Calculus
- Artificial Intelligence
- Control Systems
- Communication Systems
- Electrical Power Systems
- Electronic Systems
- Engineering Electromagnetics
- Engineering Mathematics 3
- Engineers in Society
- Essentials of Employability
- Microprocessor Systems
- Project Management & Engineering Design
- Signals & Systems
- Sustainable Engineering Design

### Year 3

- Advanced Digital Design
- Artificial Intelligence for Engineering Applications
- Computer Networks
- Data Analytics for Engineers
- Digital Image & Video Processing
- Digital Signal Processing
- Electrical Machines
- Integrated Design Project 1
- Integrated Design Project 2
- Numerical Methods for Engineers
- Power Electronics & Drivers

### Year 4

- Advanced Computer Architecture
- Engineering Design for Industrial Revolution 4.0
- Industrial Training
- Final Year Project 1
- Final Year Project 2
- Networked Embedded Systems
- Wireless & Optical Communications

## MOHE COMPULSORY GENERAL STUDIES SUBJECTS

### For Local Students:

- Appreciation of Ethics & Civilisation
- Philosophy & Current Issues
- Entrepreneurial Mindset & Skills
- Integrity & Anti-Corruption
- Community Service for Planetary Health

**Note:** Students who did not sit for SPM or did not obtain a Credit in SPM Bahasa Melayu will need to take additional subject Bahasa Kebangsaan A.

### For International Students:

- Appreciation of Ethics & Civilisation
- Malay Language for Communication 2
- Entrepreneurial Mindset & Skills
- Integrity & Anti-Corruption
- Community Service for Planetary Health



## CAREER PROSPECTS

- Communication Engineer
- Computer Engineer
- Control Engineer
- Design Engineer
- Electrical Engineer
- Electronic Engineer
- Engineering Consultant
- Hi-tech Entrepreneur
- Product Development Engineer
- Robotics Engineer



[N/0713/6/0047][01/28][MQA/PA14247]

# BACHELOR OF MECHATRONIC ENGINEERING (ROBOTICS) WITH HONOURS

## PROGRAMME INTRODUCTION

Mechatronic Engineering (Robotics) programme focuses on the integration of mechanical, electronic and computer control, which addresses the engineering needs of Industry 4.0. This programme is also structured for specialisation in robotics engineering.

The programme prepares graduates to be ready for the future workforce with strong focus on Artificial Intelligence and Industrial Automation. Throughout the programme, emphasis on sustainability and real-world learning is achieved through incorporation of industry-related and UN SDG-related project-based learning. Students explore sustainable solutions to real-world problems by employing technologies such as AI, Data Analytics, Industrial Automation, Robotics and Internet-of-Things.

This programme is supported by state-of-the-art facilities that are developed with industry partnerships i.e. the Collaborative Robots and Integrated Automation Laboratory and ROBOVERSE (Mobile Robotics Laboratory).

This programme is recognised as equivalent to that of the Lancaster University's MASTER OF MECHATRONIC ENGINEERING (ROBOTICS) WITH HONOURS (MEng Hons). Upon successfully completing the programme, graduates will also be awarded the MEng Hons degree from Lancaster University. They will be awarded two certificates, making them graduates of both Sunway University and Lancaster University.

VALIDATED BY:



## PROGRAMME STRUCTURE - Subjects

### Year 1

- AI Foundation and Applications
- Analogue Electronic Fundamentals
- Digital Electronic Fundamentals
- Electrical Circuits
- Engineering Mathematics 1
- Engineering Mathematics 2
- Engineering Physics
- Engineering Materials
- Instrumentation, Measurement, & Controls
- Programming for Engineers
- Sustainable Engineering Design

### Year 2

- Actuators & Drives for Robotics Applications
- Artificial Intelligence
- Control Systems
- Interfacing & Integration
- Machine Elements
- Essentials of Employability
- Engineering Mathematics 3
- Robotics Project
- Statics

### Year 3

- Artificial Intelligence for Engineering Applications
- Computer Modelling & 3D Printing
- Data Analytics for Engineers
- Digital Image & Video Processing
- Electrical Power Systems
- Engineers in Society
- Industrial Automation Systems
- Dynamics
- Mechatronic Design Project 1
- Microprocessor Systems
- Numerical Analysis & Simulation Tools in Engineering Design
- Project Management & Engineering Design

### Year 4

- Cyber-Physical Production Systems
- Final Year Project 1
- Final Year Project 2
- Industrial Training
- Mechatronic Design Project 2
- Robotics Systems

## Year 4 Electives

(Choose one Field Elective and one Free Elective)

### Field Electives

- Advanced Computer Architecture
- Computer Networks
- Communication Systems
- Digital Signal Processing

### Free Electives

**Note:** List of free electives offered are available at Xplorer Hub..

## MOHE COMPULSORY GENERAL STUDIES SUBJECTS

### For Local Students:

- Appreciation of Ethics & Civilisation
- Philosophy & Current Issues
- Entrepreneurial Mindset & Skills
- Integrity & Anti-Corruption
- Community Service for Planetary Health

**Note:** Students who did not sit for SPM or did not obtain a Credit in SPM Bahasa Melayu will need to take additional subject Bahasa Kebangsaan A.

### For International Students:

- Appreciation of Ethics & Civilisation
- Malay Language for Communication 2
- Entrepreneurial Mindset & Skills
- Integrity & Anti-Corruption
- Community Service for Planetary Health



## CAREER PROSPECTS

- Automation/AI Engineer
- Construction M&E Engineer
- Field Service Engineer
- Instrumentation Engineer
- Mechanical Design Engineer
- Mechatronics Project Engineer
- PLC/SCADA Engineer
- Product Engineer
- Project Engineer
- Researcher
- Robotics Engineer



[N/0788/6/0015][10/31][MQA/PA17867]

# BACHELOR OF MECHANICAL ENGINEERING WITH HONOURS

## PROGRAMME INTRODUCTION

The Mechanical Engineering programme is a modern, project-based degree which aims to produce graduates who address the Grand Challenges for Engineering and the UNSDGs.

As a project-based degree, our students will Conceive-Design-Implement-Operate at least 4 engineering systems (or projects) throughout their degree, with at least 2 of such projects being based in real-life industry challenges.

Their projects will address the Grand Challenges and the UNSDGs. To assist them, students will also be taught to meaningfully use current Industry 4.0 tools and softwares such as 3D Printing, Computational Fluid Dynamics and Finite Element Method.

This programme is recognised as equivalent to that of the Lancaster University's MASTER OF ENGINEERING MECHANICAL ENGINEERING WITH HONOURS (MEng Hons). Upon successfully completing the programme, graduates will also be awarded the MEng Hons degree from Lancaster University. They will be awarded two certificates, making them graduates of both Sunway University and Lancaster University.

VALIDATED BY:



## CAREER PROSPECTS

- Automotive Engineer
- Automation Engineer
- CAD/CAM Engineer
- Design Engineer
- Manufacturing Engineer
- Materials Engineer
- Mechanical Engineer
- Project Engineer
- Robotic Engineer
- Systems Engineer

## PROGRAMME STRUCTURE - Subjects

### Year 1

- AI Foundation and Applications
- Engineering Materials
- Engineering Mathematics 1
- Engineering Mathematics 2
- Engineering Physics
- Engineers in Society
- Fluid Mechanics
- Programming for Engineers
- Sustainable Engineering Design

### Year 2

- Advanced Engineering Calculus
- Computer Modelling & 3D Printing
- Dynamics
- Electrical Power Systems & Machines
- Engineering Mathematics 3
- Essentials of Employability
- Project Management & Engineering Design
- Statics
- Thermodynamics & Heat Transfer

### Year 3

- Advanced Fluid Mechanics
- Advanced Thermodynamics & Heat Transfer
- Data Analytics for Engineers
- Instrumentation and Automation Control
- Manufacturing Processes
- Electronics and Microprocessor Systems
- Numerical Analysis & Simulation Tools in Engineering Design
- Solid Mechanics
- Vibrations

### Year 4

- Final Year Project 1
- Final Year Project 2
- Industrial Training
- Mechanical Engineering Group Project 1
- Mechanical Engineering Group Project 2

### Year 4 Electives (Choose 5)

- Artificial Intelligence for Mechanical Engineering
- Civil Engineering Materials
- Environment and Climate Change
- Environmental Management
- Highway and Traffic Engineering
- Machine Learning
- Nanomaterials and Nanotechnology
- Principles of Entrepreneurship
- Robotics I
- Robotics II
- Startup Foundry
- Water and Wastewater Engineering

## MOHE COMPULSORY GENERAL STUDIES SUBJECTS

### For Local Students:

- Appreciation of Ethics & Civilisation
- Philosophy & Current Issues
- Entrepreneurial Mindset & Skills
- Integrity & Anti-Corruption
- Community Service for Planetary Health

**Note:** Students who did not sit for SPM or did not obtain a Credit in SPM Bahasa Melayu will need to take additional subject Bahasa Kebangsaan A.

### For International Students:

- Appreciation of Ethics & Civilisation
- Malay Language for Communication 2
- Entrepreneurial Mindset & Skills
- Integrity & Anti-Corruption
- Community Service for Planetary Health



[N/0714/6/0019][10/30][MQA/PA16959]

# BACHELOR OF CIVIL ENGINEERING WITH HONOURS

## PROGRAMME INTRODUCTION

Civil Engineering programme equips students with a robust foundation in civil engineering principles, emphasising sustainability and the integration of Artificial Intelligence (AI) to address modern engineering challenges. The programme offers a comprehensive curriculum that combines core civil engineering subjects with cutting-edge topics in sustainability and AI, preparing graduates to lead in innovative and eco-friendly infrastructure development.

The programme places a strong emphasis on sustainable practices, integrating courses such as Sustainable Engineering Design and Sustainable Digital Construction Technology. A key feature of the programme is its focus on AI. Courses such as Data Analytics for Engineers and AI in Civil Engineering utilise AI technologies to optimise designs, predict maintenance needs, and enhance construction processes.

Hands-on experience and soft skills are cornerstones of the programme. Students participate in laboratory work, project-based learning and industry placements, providing practical experience with the latest tools and technologies.

This programme is recognised as equivalent to that of the Lancaster University's MASTER OF CIVIL ENGINEERING WITH HONOURS (MEng Hons). Upon successfully completing the programme, graduates will also be awarded the MEng Hons degree from Lancaster University. They will be awarded two certificates, making them graduates of both Sunway University and Lancaster University.

VALIDATED BY:



## CAREER PROSPECTS

- BIM Engineer
- Building Control Surveyor
- Consulting Engineer
- Design Engineer
- Geotechnical Engineer
- Hydraulic Engineer
- Project Engineer
- Site Engineer
- Structural Engineer
- Traffic / Transportation Engineer
- Water Engineer

## PROGRAMME STRUCTURE - Subjects

### Year 1

- AI Foundation and Applications
- Artificial Intelligence
- Engineering Materials
- Engineering Mathematics 1
- Engineering Mathematics 2
- Engineering Mechanics & Dynamics
- Engineers in Society
- Programming for Engineers
- Topographical Engineering
- Sustainable Engineering Design

### Year 2

- Accounting & Finance for Engineers
- Civil Engineering Materials
- Data Analytics for Engineers
- Engineering Geology & Soil Mechanics
- Engineering Mathematics 3
- Essentials of Employability
- Fluid Mechanics
- Introduction to Civil Engineering Design Philosophy
- Project Management & Engineering Design
- Structural Analysis
- Sustainable Digital Construction Technology

### Year 3

- Advanced Structural Analysis
- AI in Civil Engineering
- Civil Engineering Integrated Design Project 1
- Construction Camp
- Geotechnical Engineering
- Hydraulic System & Design
- Reinforced Concrete Design
- Road and Pavement Engineering
- Structural Steel & Composite Design
- Terrestrial Hydrology
- Transportation Engineering

### Year 4

- Civil Engineering Integrated Design Project 2
- Final Year Project 1
- Final Year Project 2
- Industrial Training
- Water & Wastewater Systems Design & Operation

### Year 4 Electives (Choose 4)

- Advanced and Sustainable Concrete Technologies
- Advanced Structural Steel Design
- Advanced Water Resources Engineering
- Bridge Engineering
- Finite Element & Advanced Computational Method
- Foundation Engineering
- Innovative & Sustainable Building Material Design
- Precast Concrete Design
- Solid Waste Management
- Special Concrete
- Structural Dynamics & Earthquake Engineering
- Tall Building Design

## MOHE COMPULSORY GENERAL STUDIES SUBJECTS

### For Local Students:

- Appreciation of Ethics & Civilisation
- Philosophy & Current Issues
- Entrepreneurial Mindset & Skills
- Integrity & Anti-Corruption
- Community Service for Planetary Health

**Note:** Students who did not sit for SPM or did not obtain a Credit in SPM Bahasa Melayu will need to take additional subject Bahasa Kebangsaan A.

### For International Students:

- Appreciation of Ethics & Civilisation
- Malay Language for Communication 2
- Entrepreneurial Mindset & Skills
- Integrity & Anti-Corruption
- Community Service for Planetary Health



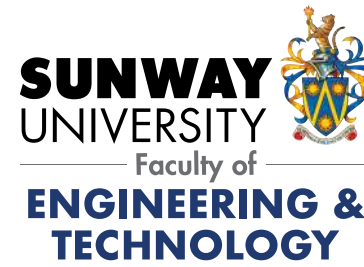
[N/0716/6/0011][09/31][MQA/PA17921]

# FACILITIES

## FACULTY OF ENGINEERING & TECHNOLOGY LABS

The Faculty of Engineering & Technology is well-equipped with state-of-the-art facilities to meet our teaching and research needs.

We constantly invest in upgrading, constructing or acquiring new facilities to enhance the learning experience and advance our research possibilities.



Osborne Reynold's Demonstration



Carpentry Workshop



Solar Energy Unit



FDM 3D Printer (multi-colour)



Distillation Column



Modular Educational Systems for Drivers of DC Motors



Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES)



COBOTS (Robotic Arm) and Humanoid Robot



Computer Numerical Control (CNC) Machine



Oscilloscope, Function Generator, and Power Supply



Computer-Controlled Modular Control and Regulation Unit with Ball and Beam Module



Advanced Computing Lab



Solid Mechanics and Materials Lab



Modular System for the Study of Sensors



CyberSecurity Intelligence (CSI) Lab



Heat Transfer Lab



Fluid Mechanics Lab



Chemistry Instrument Lab



Instrumentation and Control Lab



Engineering Physics Lab



House of Multimodal Evolution (HOME) Lab



Research Centre for Nano-Materials and Energy Technology Lab



Sunway Centre for Electrochemical Energy and Sustainable Technology Lab



Chemical Reaction and Process Control Lab

### MORE LABS COMING SOON:



- Chemical Engineering Pilot Plant
- Collaborative Robots and Integrated Automation Lab
- Concrete and Highway Lab
- Digital Architecture, Engineering, Construction, and Operation (AECO) Lab
- Heavy Structures Lab
- Renewable Energy Lab
- ROBOVERSE (Mobile Robotics Lab)
- Water and Environmental Engineering Lab
- XR Lab
- & more!

# ACTIVITIES BEYOND THE CLASSROOM

## COMPETITION AND RECOGNITION



FET students have emerged as the champion of UMHackathon 2025, securing the First Prize worth RM7,500.

- **Angel Tan Xian Theng** [Bachelor of Information Systems (Honours) (Data Analytics)],
- **Lim Shen Yik** [Bachelor of Information Systems (Honours) (Data Analytics)],
- **Vijayanthiran** [Bachelor of Software Engineering (Hons)],
- **Siew Jun Zhen** [Bachelor of Software Engineering (Hons)].



IMEchE Sunway Team has secured 1<sup>st</sup> Runner-Up at the IEM Engineering Quest 2025! Team Members:

- **Koay Yun Sheng** – Bachelor of Mechatronic Engineering (Robotics) with Honours
- **Tan Xin Ming** – Bachelor of Chemical Engineering with Honours
- **Yap Xin Yan** – Bachelor of Electronic & Electrical Engineering with Honours
- **Ng Zi Yi** – Bachelor of Electronic & Electrical Engineering with Honours



Bachelor of Chemical Engineering with Honours students – **Andrea Tan Chiao Pin**, **Tresa Au Wen Xin**, and **Chong Chee Hin** won the Second Runner-Up in the Technical Presentation Competition organised by the Society of Petroleum Engineers (SPE), Universiti Malaya Student Chapter!



FET Engineering students won the DJI Robomaster Challenge 2025, held at Universiti Kebangsaan Malaysia (UKM), Bangi on 24 May 2025!

- **Koay Yun Sheng** – Bachelor of Mechatronic Engineering (Robotics) with Honours
- **Tan Din Xuen** (Bachelor of Mechatronic Engineering (Robotics) with Honours),
- **Yap Xin Yan** (Bachelor of Electronic and Electrical Engineering with Honours).



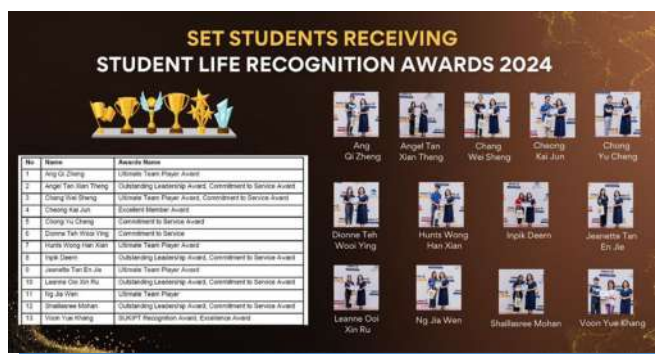
30 August 2025 – SUNCTF 2025, a national-level cybersecurity competition, was successfully organised by the Sunway Cybersecurity Club, bringing together 246 students from over 20 universities across Malaysia. The 6-hour event featured 25+ challenges across multiple categories, testing the skills and creativity of participants. This event was supported by sponsors LGMS Berhad and Glocomp Systems.



Lim Su-Lyn, a Year 3 student from the Bachelor of Information Systems (Honours) (Data Analytics) programme, emerged as the Champion in the Excel category at the Microsoft Office Specialist Malaysia National Championship 2025, organised by Acestar and Certiprot. She scored an outstanding 980 in the Microsoft Excel Associate (MO-210) certification exam.



Bachelor of Chemical Engineering with Honours student, **Choo Xuan Liang**, won the 2nd runner-up in the Chemical Engineering Challenge category of the "An Engineering Challenge 2025 (AEC 2025)", organised by the Chemical Engineering Undergraduate Club (CEUC), Universiti Malaya.



Our incredible students won multiple **Student Life Leadership Recognition Awards**.

## WORKSHOP / TALKS / SEMINAR:



Visit from the Mapua University, Philippines.



Workshop: IEM X SUNWAY YES OPEN DAY 3.0



An insightful talk on: "Participatory Design Approach for Exploring Unconscious Biases and Beliefs about Emerging Technology in Child-Computer Interaction".



Talk: What is Artificial Intelligence (AI)? by Professor Amitava Datta, University of Western Australia.



Final-year Bachelor of Information Systems (Honours) (Data Analytics) (BSDA) students who won the Datathon Competition, and emerged as Second Runner-Up at the Deriv<AI> Hackathon.

Team FortuneTellers:  
**Chan Ming Li, Goh Jia Ying, Lai Jing Kun and Leanne Ooi Xin Ru.**



Workshop: Empowering Women in IT & Engineering at Sunway University.



Hybrid Technical Talk by IEM and Sunway University: Advancing Civil and Structural Engineering.

ACTIVITIES BEYOND THE CLASSROOM (cont.)

STUDY TRIPS & VISITS



Taiwan Study Trip 2025, led by Professor Ir. Ts. Yap Kian Meng through Taichung, Yunlin and Tainan universities exploring how the universities bridge theory and real-world applications.



Professor Angela Lee Siew Hoong took 40 enthusiastic students on an inspiring visit to Huawei Malaysia office! During the visit, students had the opportunity to explore cutting-edge technologies, engage in insightful discussions with industry experts, and learn about potential career paths in the tech sector. This experience not only enhanced their learning but also ignited their passion for innovation and technology.



IEM Sunway Student Section Visit to Hartalega's Factory.

OTHER ACTIVITIES



Memorandum of Understanding (MOU) Signing Ceremony with Daikin, Hartalega, Mercedes-Benz, Keysight and JingXing Holdings, was conducted at FET-LABS Building (formerly known as SET-LABS Building), Thinker Space. The event was led by Professor Angela Lee Siew Hoong, Deputy Dean (Employability and Alumni), also Club Advisor for Sunway Analytics Society.



Tea Session with Dean & Exemplary Capstone Project Awards Presentation.

MOBILITY & STUDY ABROAD

| Country                                       | Partner Institutions • Duration • Programmes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |                            |   |                                        |                    |   |                                      |                                               |   |                 |               |   |                 |          |   |
|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------|---|----------------------------------------|--------------------|---|--------------------------------------|-----------------------------------------------|---|-----------------|---------------|---|-----------------|----------|---|
| United Kingdom                                | <div><p><b>Lancaster University</b></p><p><b>1-semester Study Abroad</b></p><ul style="list-style-type: none"><li>■ Computer Science</li><li>■ Information Systems (Data Analytics)</li><li>■ Information Technology</li><li>■ Information Technology (Computer Networking &amp; Security)</li><li>■ Software Engineering</li><li>■ Chemical Engineering</li><li>■ Electronic &amp; Electrical Engineering</li><li>■ Mechanical Engineering</li></ul><p><i>Year 1 CGPA of 3.0 and above</i></p></div>                                                                                                           | <div><p><b>UNIVERSITY OF BIRMINGHAM</b></p><p><b>2+2 Transfer</b></p><ul style="list-style-type: none"><li>■ Chemical Engineering</li><li>■ Electronic &amp; Electrical Engineering</li></ul><p><i>Year 2 CGPA of 3.0 and above</i></p></div>                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |                            |   |                                        |                    |   |                                      |                                               |   |                 |               |   |                 |          |   |
|                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |                            |   |                                        |                    |   |                                      |                                               |   |                 |               |   |                 |          |   |
| Australia                                     | <div><p><b>Australian National University</b></p><p><b>1+2 Transfer</b></p><ul style="list-style-type: none"><li>■ Computer Science</li><li>■ Information Systems (Data Analytics)</li><li>■ Information Technology</li><li>■ Information Technology (Computer Networking &amp; Security)</li><li>■ Software Engineering</li></ul><p><i>Year 1 CGPA of 2.8 and above</i></p><p><b>2+2 Transfer</b></p><ul style="list-style-type: none"><li>■ Chemical Engineering</li><li>■ Electronic &amp; Electrical Engineering</li><li>■ Mechanical Engineering</li></ul><p><i>Year 2 CGPA of 3.2 and above</i></p></div> | <div><p><b>THE UNIVERSITY OF WESTERN AUSTRALIA</b></p><p><b>1+2 Transfer</b></p><ul style="list-style-type: none"><li>■ Computer Science</li><li>■ Information Systems (Data Analytics)</li><li>■ Information Technology</li><li>■ Information Technology (Computer Networking &amp; Security)</li><li>■ Software Engineering</li></ul><p><i>Year 1 CGPA of 2.7 and above</i></p></div> | <div><p><b>GRIFFITH UNIVERSITY</b></p><p><b>1+2 Transfer / 1.5+1.5 Transfer</b></p><ul style="list-style-type: none"><li>■ Computer Science</li><li>■ Information Systems (Data Analytics)</li><li>■ Information Technology</li><li>■ Information Technology (Computer Networking &amp; Security)</li><li>■ Software Engineering</li></ul></div> |  |                            |   |                                        |                    |   |                                      |                                               |   |                 |               |   |                 |          |   |
|                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |                            |   |                                        |                    |   |                                      |                                               |   |                 |               |   |                 |          |   |
|                                               | <p><b>Applicable to all degree programmes</b></p> <table><tr><td>■ Lancaster University, UK</td><td>:</td><td>3-week International Cultural Exchange</td></tr><tr><td>■ UC Berkeley, USA</td><td>:</td><td>Start-up semester &amp; 4.5-day Bootcamp</td></tr><tr><td>■ North China University of Technology, China</td><td>:</td><td>3-week Workshop</td></tr><tr><td>■ South Korea</td><td>:</td><td>2-week Workshop</td></tr><tr><td>■ Taiwan</td><td>:</td><td>2-week Workshop</td></tr></table>                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                     |  | ■ Lancaster University, UK | : | 3-week International Cultural Exchange | ■ UC Berkeley, USA | : | Start-up semester & 4.5-day Bootcamp | ■ North China University of Technology, China | : | 3-week Workshop | ■ South Korea | : | 2-week Workshop | ■ Taiwan | : |
| ■ Lancaster University, UK                    | :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 3-week International Cultural Exchange                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |                            |   |                                        |                    |   |                                      |                                               |   |                 |               |   |                 |          |   |
| ■ UC Berkeley, USA                            | :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Start-up semester & 4.5-day Bootcamp                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |                            |   |                                        |                    |   |                                      |                                               |   |                 |               |   |                 |          |   |
| ■ North China University of Technology, China | :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 3-week Workshop                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |                            |   |                                        |                    |   |                                      |                                               |   |                 |               |   |                 |          |   |
| ■ South Korea                                 | :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 2-week Workshop                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |                            |   |                                        |                    |   |                                      |                                               |   |                 |               |   |                 |          |   |
| ■ Taiwan                                      | :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 2-week Workshop                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |                            |   |                                        |                    |   |                                      |                                               |   |                 |               |   |                 |          |   |

Programme-specific requirements and T&C apply.



# INDUSTRY ADVISORS

## ENGINEERING



**Mr Chin Wei Rick**

**Company** : Medline Industries Sdn Bhd

**Position** : Project Manager



**Ms Lim Yen Fei**

**Company** : Kelington Technologies Sdn Bhd

**Position** : Division Manager



**Ms Peggy Kiew**

**Company** : Group Technical Solution, Kuala Lumpur

**Position** : Principal Engineer



**Ir. Dr Calvin Chok Vui Soon**

**Company** : Kuala Lumpur Kepong (KLK) Berhad

**Position** : Senior Manager, Group Sustainability and Special Projects



**Ir. Chong Chew Fan**

**Company** : Greatians Consulting Sdn Bhd

**Position** : Director



**Ts. Loo Huai Zhi**

**Company** : PETRONAS

**Position** : Process Technical Specialist



**Ir. Rafil Elyas**

**Company** : East One-Zero-One Sdn Bhd

**Position** : Owner & Principal Engineer



**Mr Chee Seng Kee**

**Company** : Keysight Technologies

**Position** : Application Development Engineer



**Mr Chong Kee Yum**

**Company** : Bursa Malaysia

**Position** : Manager, PMO



**Mohammed Afsal**

**Company** : Robomy Sdn Bhd

**Position** : Founder & Chief Technology Officer



**Ir. Rozali Ahmad**

**Company** : DAR Energy Sdn Bhd (DAR)

**Position** : Director, Business Development



**Ir. Chang Yew Cheong**

**Company** : Abbaco Controls Sdn Bhd

**Position** : Director



**Mr Daniel Yap Chew Sing**

**Company** : Keysight Technologies

**Position** : Global Education & Research Business Manager



**Ts. Nadzifah Hayati Binti Ariffin**

**Company** : Tenaga Nasional Berhad

**Position** : Chief Engineer (Asset Strategy & Policies) Distribution Network



**Mr Tan Lim Wee Kwan**

**Company** : Top Glove Berhad

**Position** : Senior Project Manager



**Ir. Chen Thiam Leong**

**Company** : Primetech Engineers Sdn Bhd

**Position** : Advisor



**Mr Henry Lee Siew Hang**

**Company** : Sustainpact Consultancy

**Position** : Director of Corporate Sustainability



**Ir. Dr Ng Kok Chiang**

**Company** : ACO Group Berhad

**Position** : Member Board of Directors



**Mr Tan Yeong Shun**

**Company** : Texas Instruments

**Position** : Data Intelligence Manager



**Dr Chin Wai Meng**

**Company** : Daikin Research & Development Malaysia Sdn Bhd

**Position** : Deputy General Manager, Development Support Division



**Ir. Ts. Lim Min Hui**

**Company** : Syarikat Pembinaan Yeoh Tiong Lay Sdn Bhd

**Position** : Head of Department, Water Engineering

## INDUSTRY ADVISORS (cont.)

## COMPUTING

**Ms Bong Siew Yong****Company** : The Impact Center**Position** : Founder / CEO**Mr Gan Ken Wei****Company** : Mercedes-Benz Malaysia Sdn Bhd**Position** : General Manager, Head of Mercedes-Benz Tech Malaysia**Mr Marcus Mu****Company** : Land Transport Authority, Singapore**Position** : Senior Software Engineer**Mr Abdullah Zawawi Mohamed****Company** : SD Guthrie Berhad**Position** : Vice President, Head of Robotics & Product Development**Mr Cheang Wei Chuin****Company** : Vlan Asia and The Internet Alliance Malaysia**Position** : Managing Director of Vlan Asia and Vice President of The Internet Alliance Malaysia**Mr Herman Bin Md Tahir****Company** : Appfuxion Consulting Sdn Bhd**Position** : Senior Test Manager**Mr Peter Kua****Company** : Growth.Pro Data Science Consulting & Academy, Malaysia**Position** : Co-founder**Ms. Abigail Sua Jee Qian****Company** : AirAsia Move Sdn Bhd**Position** : Senior Data Analyst**Ms. Ch'ng Ke Xin****Company** : Setel Ventures Sdn Bhd**Position** : Analyst (Data/Growth)**Ts. Dr Ismamuradi Abdul Kadir****Company** : Risk Management Division, Bank Muamalat Malaysia Berhad**Position** : Chief Information Security Officer**Dr Taarik Hatoyaani****Institution** : RemoColla Ltd, Japan**Position** : Chief Executive Officer**Dr Afnizanfaizal Abdullah****Institution** : Malaysian Research Accelerator for Technology & Innovation (MRANTI)**Position** : General Manager, (Technology Commercialization)**Mr Daniel Ng****Company** : Omni Integra, Singapore**Position** : Managing Partner/ Executive Vice President/ Mentor/ Keynote Speaker/ Humanising AI leader/ Sustainability Coach**Mr Jarrod Tham Kuok Yew****Company** : Hong Leong Bank Berhad**Position** : Senior Data Scientist**Mr Vishwa Moorthy****Company** : Payments Network Malaysia (PayNet)**Position** : Senior Executive (CISO Office)**Mr Ali Nirabi****Company** : Inscale Asia, Kuala Lumpur**Position** : Senior Software Engineer**Ms Fazryatul Hazrim binti Abd Rahim****Company** : Malaysia Digital Economy Corporation (MDEC)**Position** : Manager, Digital Talent**Dr Karthigayan Muthukaruppan****Company** : Asrix Prime Berhad**Position** : Head, Artificial Intelligence & Technology**Mr Yashim Wong****Institution** : Deriv Services Sdn Bhd**Position** : Staff Engineer**Mr Brian Chang****Company** : Fortinet Malaysia Sdn Bhd**Position** : Regional Solutions Architect**Mr Lee Kok Seong****Company** : Takaful Ikhlas Family Berhad**Position** : Senior Vice President & Chief Information Officer

# BRINGING YOU FURTHER

## INTERNSHIP AND EMPLOYMENT OPPORTUNITIES

### Aerospace

- GE Aerospace
- Honeywell
- Lockheed Martin

### AgriTech

- IOI Corporation Bhd

### Automotive

- BMW
- Mercedes-Benz (M) Sdn Bhd
- Perodua
- Proton
- Sime Darby

### Building Material

- Tasek Corporation Bhd
- YTL

### Computer Software

- Acestor Sdn Bhd
- Apptivity Lab Sdn Bhd
- AS Networks (M) Sdn Bhd
- Ascentrio Sdn Bhd
- BASS Sdn Bhd
- Commerce.Asia
- Cornet Research
- Dassault Systèmes
- Fusionex Corp Sdn Bhd
- Juris Technologies Sdn Bhd
- Netiquette Software (M) Sdn Bhd
- PeopleQuest
- Philip Solutions PLT
- PulseSync Sdn Bhd
- SAS Institute Sdn Bhd
- Service Rocket

### Computer Hardware

- Dell
- Hewlett-Packard
- Western Digital

### Construction

- Gamuda
- IJM Corporation
- Sunway Construction

### Cybersecurity

- Condition Zebra (M) Sdn Bhd
- LGMS Malaysia
- Sysarmy Sdn Bhd
- Vigilant Asia (M) Sdn Bhd

### E-commerce Service

- iPay 88 Sdn Bhd
- Shopee

### Electronics

- Dyson Manufacturing Sdn Bhd
- Flextronics Group
- Globetronics
- Panasonic Group
- Samsung Group
- Sony

### Energy Solutions

- Baker Hughes
- First Solar Malaysia Sdn Bhd
- General Electric (GE)
- Ranhill Worley
- Schneider Electric
- Technip

### Information Technology

- Accenture
- Delaware Consulting (M) Sdn Bhd
- Hilti Asia IT Services (HAITS)
- IBM Malaysia
- Mesiniaga Berhad
- Metacloud Sdn Bhd
- Quandatics Sdn Bhd
- Sunway Group IT Shared Services Sdn Bhd
- Tencent Cloud International

### Manufacturing

- Continental Tyres
- Daikin
- Hartalega
- Top Glove

### Multinational Technology

- Alibaba Group
- Grab Holdings

### Oil & Gas

- Exxon
- Petronas
- Shell

### Oilfield Services & Equipment

- Schlumberger

### Oleochemicals

- Kuala Lumpur Kepong Berhad
- FPG Oleochemicals

### Research

- Institute for Democracy and Economic Affairs (IDEAS)
- MIMOS Berhad

### Semiconductors

- Intel Group
- Infineon Technologies
- OSRAM Opto
- Semiconductors Malaysia Sdn Bhd
- Carsem (M) Sdn Bhd
- Unisem (M) Bhd
- SilTerra Malaysia Sdn Bhd

### Telecommunication

- CelcomDigi Berhad
- Huawei Technologies (M) Sdn Bhd
- Maxis Bhd
- Motorola
- Telekom Malaysia
- TIME dotcom Bhd
- Webe Digital

### Transportation/Logistics

- Commerceone Solution Sdn Bhd
- DHL Information Services
- DKSH
- Grab

### Transportation Solution

- Alstom
- Mott-Macdonald

### Utilities

- TNB
- YTL Power
- Powertek
- Genting Sanyen Power

### Web Development

- Ebryx Tech
- Excelfixer

### Accounting

- Deloitte SEA Services Sdn Bhd
- Ernst & Young (EY)
- KPMG
- Pricewaterhouse Coopers

### Banking

- CIMB Bank Bhd
- Hong Leong Bank Bhd
- Malayan Banking Berhad
- OCBC Bank
- Public Bank Berhad
- RHB Bank
- Standard Chartered Bank Malaysia
- UOB Bank

### Business service

- Experian
- FUJIFILM Business Innovation
- GrowthOps
- Ikano Insight
- INFOPRO
- NielsenIQ
- Konica Minolta Business Solutions
- Priority Dynamics Sdn Bhd
- Roche Services (APAC) Sdn Bhd

### Consumer Goods & Services

- Carlsberg
- Dutch Lady Milk Industries
- Estee Lauder
- F&N
- FOS Apparel Group Sdn Bhd
- Heineken
- Nestle
- Sherwin Williams Services (M) Sdn Bhd

### Food & Beverage

- MyBurgerlab
- Sushi Kin Sdn Bhd

### Marketing & Advertising

- Bean Search Expert Sdn Bhd
- C27
- IPG Media Brands Malaysia
- Moving Walls Sdn Bhd
- SearchGuru Sdn Bhd

### Media and Broadcast Solutions

- Grass Valley (M) Sdn Bhd
- Media Prima Berhad

### Media/Entertainment

- Cinema Online Sdn Bhd

### Publishing

- Penerbitan Pelangi Sdn Bhd

### Theme Park

- Sunway Lagoon

### Travel Agency

- Sunway Travel Sdn Bhd



**Sunway University**  
Tops Talentbank's Graduate  
Employability Ranking for  
Fourth Consecutive Year  
2022, 2023, 2024 & 2025



### Opportunities in Sunway Group

The Sunway Group is one of Southeast Asia's leading conglomerates with 13 business divisions across more than 50 locations worldwide and a 16,000-strong employee base. The 13 business divisions are:

**SUNWAY®**

- |                      |               |                                   |               |                                  |
|----------------------|---------------|-----------------------------------|---------------|----------------------------------|
| • Building Materials | • Education   | • Investment & Financial Services | • Malls       | • REIT & Other Real Estate Funds |
| • Construction       | • Healthcare  | • Leisure                         | • Quarry      | • Trading & Manufacturing        |
| • Digital            | • Hospitality |                                   | • Real Estate |                                  |

# WHERE ARE OUR GRADUATES NOW?



**Aida Natasha Binti Khalil Ong**  
**BSc (Hons) Information Systems (Business Analytics)**  
*Now known as Bachelor of Information Systems (Honours) (Data Analytics)*  
**Company :** Maybank Investment Bank  
**Position :** Analyst, Strategic Solutions, Equity & Commodity Derivatives



**Fennie Lee Jia Xian**  
**Bachelor of Science (Honours) in Computer Science**  
**Company :** Hilti Asia IT Services (HAITS)  
**Position :** IT Cohort Lead Business Analyst



**Natalie Choo Yin Yui**  
**Bachelor of Software Engineering (Hons)**  
**Company :** Grab Malaysia  
**Position :** Senior Software Engineer - Backend



**Tan Tze Hong**  
**Bachelor of Software Engineering (Hons)**  
**Company :** TnG Digital Sdn Bhd  
**Position :** Specialist, Java Developer



**Chaang Yunhua**  
**Bachelor of Science (Honours) in Computer Science**  
**Company :** Tencent Cloud International  
**Position :** Senior Partner Business Development Manager



**Joanavene Tan Qie Ven**  
**BSc (Hons) Information Technology (Computer Networking and Security)**  
**Company :** Sumitomo Mitsui Banking Corporation (SMBC), Singapore  
**Position :** Assistant Vice President (AVP) - Regional Technology Risk Manager (APAC)



**Neeven Hossam Mohamed Elafifi**  
**BSc (Hons) Information Systems (Business Analytics)**  
*Now known as Bachelor of Information Systems (Honours) (Data Analytics)*  
**Company :** PwC (Middle East)  
**Position :** Senior Consultant, IT Risk Assurance



**Tsai Yao Cherng**  
**Bachelor of Science (Honours) in Computer Science**  
**Company :** Deloitte  
**Position :** SEA IT Senior Manager



**Cheah Yung Jien**  
**BSc (Hons) Information Technology (Computer Networking and Security)**  
**Company :** Tridentech Solutions Sdn Bhd  
**Position :** Chief Technical Officer



**Lee Shu Yi**  
**Bachelor of Software Engineering (Hons)**  
**Company :** Ant Group  
**Position :** Product Manager



**Ng Thea Jong**  
**Bachelor of Information Systems (Honours) (Data Analytics)**  
**Company :** TnG Digital Sdn Bhd  
**Position :** Data Scientist



**Tunku Intan Sophia Binti Tunku Noorzaman**  
**Bachelor of Science (Honours) in Computer Science**  
**Company :** Access World  
**Position :** IT Developer



**Chee Chem Zing**  
**Bachelor of Science (Honours) in Information Technology**  
**Company :** Digital Route Sdn Bhd  
**Position :** Senior Software Engineer



**Lee Yi Fei**  
**BSc (Hons) Information Systems (Business Analytics)**  
*Now known as Bachelor of Information Systems (Honours) (Data Analytics)*  
**Company :** BASF Asia Pacific Service Centre Sdn Bhd  
**Position :** Business Solutions Consultant, Digitalization of R&D and Data Science



**Nyow Ning Xin**  
**BSc (Hons) Information Technology (Computer Networking and Security)**  
**Company :** Synapxe Pte Ltd  
**Position :** Senior Systems Analyst



**Vinudha A/P Jeya Sangar**  
**BSc (Hons) Information Systems (Business Analytics)**  
*Now known as Bachelor of Information Systems (Honours) (Data Analytics)*  
**Company :** Maybank Shared Services Group  
**Position :** Senior Executive, Business Data Analysis, GT-Strategic Data Management



**Chen Kah Weng**  
**Bachelor of Science (Honours) in Computer Science**  
**Company :** Accenture Singapore  
**Position :** Technology Consultant



**Marcus Lu Xian-Zheng**  
**Bachelor of Science (Honours) in Computer Science**  
**Company :** DKSH Corporate Shared Services Center  
**Position :** Senior Robotics Process Automation (RPA) Developer



**Prashanth George A/L Mathew**  
**Bachelor of Science (Honours) in Information Technology**  
**Company :** Ricoh Business Services Asia Pacific Sdn Bhd  
**Position :** Regional Technical Account Support Specialist



**Yap Zhi Kai**  
**Bachelor of Science (Honours) in Information Technology**  
**Company :** Aiken Digital Sdn Bhd  
**Position :** Senior Technical Project Manager



**Choong Moon Zhe**  
**Bachelor of Science (Honours) in Information Technology**  
**Company :** KPMG Malaysia  
**Position :** Assistant Manager



**Ngho Chin Joe**  
**Bachelor of Science (Honours) in Computer Science**  
**Company :** Equinix Data Center  
**Position :** Senior Java Developer



**Tan Jia Wen**  
**Bachelor of Science (Honours) in Information Technology**  
**Company :** Bolttech Malaysia  
**Position :** Fullstack Software Engineer



**Yeap Khor Chin**  
**Bachelor of Software Engineering (Hons)**  
**Company :** Woow Moment Limited  
**Position :** System Analyst

**SUNWAY**  
UNIVERSITY



A CLASS ABOVE

MALAYSIA'S

#1

IN GRADUATE  
EMPLOYABILITY  
2025

For the 4<sup>th</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 2025

**SUNWAY UNIVERSITY** 200401015434 (653937-U) DU025(B) A member of Sunway Education Group  
No.5, Jalan Universiti, Bandar Sunway, 47500 Selangor Darul Ehsan. Tel: +603 7491 8622