

# SCIENCE STUDY OPTIONS AND CAREER OPPORTUNITIES

[swinburne.edu.my/science](https://swinburne.edu.my/science)



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SWINBURNE  
UNIVERSITY OF  
TECHNOLOGY

MALAYSIA • AUSTRALIA

# WITH A DEGREE FROM SWINBURNE, YOU CAN GO ANYWHERE IN THE WORLD.

Malaysia. Australia. Our graduates are spread around the globe and work for some of the most dynamic organisations, from start-ups to not-for-profit to multinationals.

A degree from Swinburne means you'll have the prestige of a globally renowned university paired with the confidence that comes from genuine workplace experience.

When you graduate, you'll become one of thousands of Swinburne graduates around the world who are writing their own success stories.



<b>BIODIVERSITY HOTSPOT</b>	Sarawak is home to thousands of exotic plants, animals and microbial species
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<b>STRONG INDUSTRY LINKAGES</b>	Randstad, Sumitomo Chemical, DKSH, WWF, Sarawak Biodiversity Centre
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<b>UNIQUE AREA OF STUDIES</b>	Tropical Ecology, Earth Observation, Environmental Biotechnology, Nutraceutical Biopesticides and Biofertilizers
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<b>FLEXIBLE MINOR CHOICES</b>	Choose from Bio-entrepreneurship, Business Management, Commercialisation and many more
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# WHAT'S RIGHT FOR ME: PATHWAY OPTIONS

At Swinburne University, you get options. You can start your journey in Foundation studies then progress to a degree; jump in to a standard three-year degree, or you can even start your study journey now and go on to postgraduate study – like a Masters or PhD – down the track.



QUALIFICATION	SWINBURNE FOUNDATION STUDIES (SCIENCE)	SCIENCE DEGREE	MASTERS	DOCTOR OF PHILOSOPHY
Duration	1 year full-time	3 years full-time	2 years	4 years
Entry requirements	Successful completion of SPM or equivalent and upon meeting the minimum entry requirements.	Successful completion of STPM, A Levels or Year 12 equivalents, and meets the minimum entry requirements and pre-requisite subjects.	A recognized degree at a Credit level.	Four years or equivalent of tertiary studies in relevant discipline at a high level of achievement.

## 2020 INTAKES

**Foundation** - January, April, September, October

**Degree** - March, September

## **SWINBURNE FOUNDATION STUDIES (ENGINEERING/ SCIENCE)**

Foundation Studies prepares you for direct entry to a bachelor's degree at Swinburne Sarawak or Swinburne Australia, as long as you meet the entry requirement and pre-requisites\*. Courses are designed to help you develop skills in communication, information technology and mathematics, and undertake units in physics, chemistry, and mathematics for engineering.

\*must meet entry requirements and pre-determined requisites

### **UNITS OF STUDY**

Students must complete seven core and two electives.

#### **Core units**

- FCL10001 Academic and Communication Skills A
- FCL10003 Innovation and Change
- FCT10010 Information Technology
- FSE10024 Introductory Physical Science
- FSE10022 Engineering/Science Mathematics A
- FCL10002 Academic and Communication Skills B
- FSE10021 Chemistry

#### **Electives**

- FSE10023 Engineering Maths B
- FSE10025 Physics
- FST10014 Programming



### WHAT'S IN A STANDARD SCIENCE DEGREE?

Our Science degrees are made up of 24 units of study for a 3-year program. A unit is basically another name for subject and you'll usually take four per semester; eight per year. These units fall largely into one of three categories:

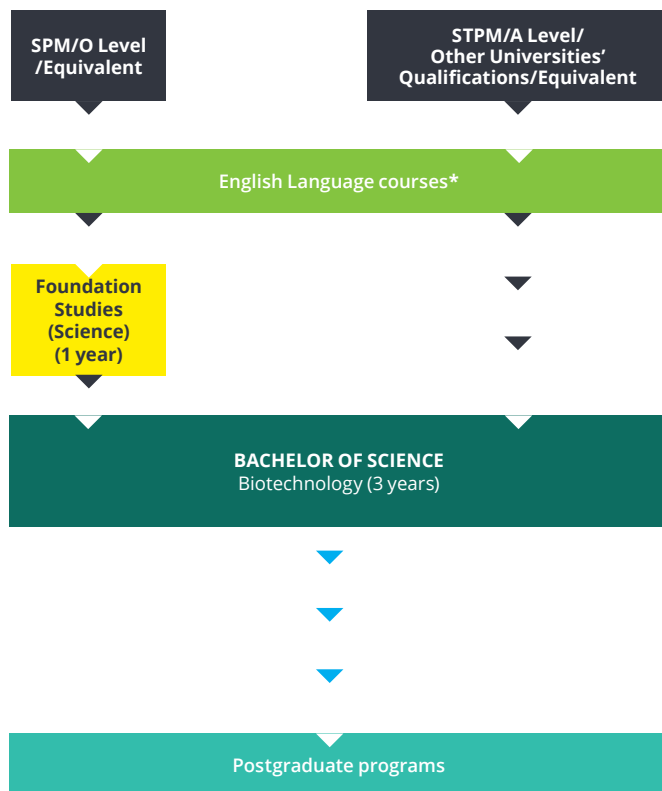
**Core units** – students will need to complete these units, regardless of his chosen major, in order to graduate.

**Major units** – these units make up your specialisation. So pick a major you love!

**Elective units** – these are the remaining units from any areas of study.

- Taking all elective units from your course gives you a second major
- Taking four electives from selected areas earns you a minor
- Mix and match elective units based on your interest.

### Your pathway options



- ▶ Course entry
- ▶ Pathway Opportunity

\* If students does not meet the English Language entry requirement

# SCIENCE STUDY GUIDE

**"I WANT TO LEARN HOW TO USE LIVING ORGANISMS AND THEIR BY-PRODUCTS FOR COMMERCIAL DEVELOPMENT"**

## Study **BIOTECHNOLOGY**

With a degree  
**Bachelor of Science (Biotechnology)**

R/545/6/0060 MQA/SWA0100

### To learn about

Basic Science	5
Applied Biology	9
Applied Chemistry	2
Communications and Research Skills	4
Electives	4

### Unit

### To become

- Research and Development Scientist
- Microbiologist/ Biochemist/ Biotechnologist
- Medical Laboratory Technician/Scientist
- Product Specialist
- Quality Assurance/ Control Technician or Scientist
- Science communicator

### Annual tuition fee

M: RM31,888  
I: RM40,664

**Duration:**  
**3 years**

**"I WANT TO USE MY KNOWLEDGE OF EARTH'S SYSTEMS TO PROTECT THE ENVIRONMENT AND HUMAN HEALTH"**

## Study **ENVIRONMENTAL SCIENCE**

With a degree  
**Bachelor of Science (Environmental Science)**

N/422/6/0035 MQA/PSA 13429

### To learn about

Basic Science	5
Applied Biology	2
Applied Chemistry	2
Environmental management	3
Communications and Research Skills	4
Electives	4

### Unit

### To become

- Research and Development Scientist
- Microbiologist/ Biochemist/ Biotechnologist
- Medical Laboratory Technician/Scientist
- Product Specialist
- Quality Assurance/ Control Technician or Scientist
- Science communicator

### Annual tuition fee

M: RM31,888  
I: RM40,664

**Duration:**  
**3 years**

Tuition fee for 2020 only. All tuition fees are subject to an annual review and adjustment.  
Note: M: Malaysian | I: International

# SCHOLARSHIPS AND BURSARIES

Scholarships are about providing opportunity, promoting equity and recognising excellence and achievement. That's why we've created various scholarships and bursaries that may help you meet your financial needs.

If you've excelled in your previous study, you could be awarded a scholarship or bursary. Generally, the better your grades, the higher the amount will be. And if you continue to do well in your studies, you may also be rewarded pathway scholarship for your next level of study.

SCHOLARSHIP	DESCRIPTION	VALUE
<b>PRO CHANCELLOR'S ACADEMIC EXCELLENCE SCHOLARSHIP (FOUNDATION STUDIES)</b>	This is a full scholarship for students enrolled into a Foundation program, up to the completion of the program.	Full scholarship
<b>PRO CHANCELLOR'S ACADEMIC EXCELLENCE SCHOLARSHIP (UNDERGRADUATE STUDIES)</b>	This is a full scholarship for students enrolled into an Undergraduate program.	Full scholarship
<b>DEPUTY VICE-CHANCELLOR'S ACADEMIC EXCELLENCE AWARD (FOUNDATION STUDIES)</b>	This scholarship is for students enrolled into Foundation studies.	Between RM2,000 to RM12,000
<b>DEPUTY VICE-CHANCELLOR'S ACADEMIC EXCELLENCE AWARD (UNDERGRADUATE STUDIES)</b>	This scholarship is for students enrolled into an Undergraduate program.	Between RM3,000 to RM10,000
<b>ACADEMIC PROGRESSION SCHOLARSHIP</b>	This scholarship is open to students who enrolled during the current year only.	RM5,000 per annum
<b>UEC ACADEMIC GRANT</b>	UEC graduates applying for a Bachelor's degree program at Swinburne Sarawak and who is qualified for the Deputy Vice-Chancellor's Academic Excellence Award will also be offered the UEC Academic Grant.	15% reduction of the 1 <sup>st</sup> year's tuition fee on top of the Deputy Vice Chancellor's Academic Excellence Scholarship
<b>EMERGING TECHNOLOGY AWARD</b>	Open to students who had successfully enrolled into one of the programs below: <ul style="list-style-type: none"> <li>• Bachelor of Engineering (Chemical) (Honours)</li> <li>• Bachelor of Information and Communication Technology</li> <li>• Bachelor of Computer Science</li> <li>• Bachelor of Design</li> <li>• Bachelor of Design (Multimedia Design)</li> <li>• Bachelor of Science (Biotechnology).</li> </ul>	Up to 20% off the 1 <sup>st</sup> year's tuition fee
<b>DEAN'S OUTSTANDING AWARD</b>	This award is in recognition of your participation in co-curricular activities or sports events at the state and national level.	Up to RM5,000
<b>BUMIPUTERA FINANCIAL SCHEME</b>	This financial scheme is open to Sarawakian Bumiputera students who are newly enrolled into any Foundation or Undergraduate program of study at Swinburne Sarawak.	Zero payment while waiting for loan approval from relevant government bodies (Terms & Conditions apply)
<b>SIBLING'S REBATE</b>	Open to 2 <sup>nd</sup> and subsequent sibling of a current Swinburne student enrolled in a full-time award-bearing program of study.	10% rebate off 1 <sup>st</sup> year's tuition fee
<b>DIPLOMA PATHWAY BURSARY</b>	Open to students who have successfully completed a Swinburne Sarawak diploma program.	15% rebate off 1 <sup>st</sup> year's tuition fee
<b>DIPLOMA PATHWAY SCHOLARSHIP</b>	Open to students who had successfully completed a Diploma program from other institutions of higher learning.	10% off from the 1 <sup>st</sup> year's tuition fees
<b>SWINBURNE SARAWAK TRANSITION GRANT</b>	This grant is to help offset any costs incurred for when a student enrol into any program of study at Swinburne Sarawak.	RM4,000 (Malaysian) RM5,000 (International)
<b>BP40 BURSARY SCHEME</b>	This bursary scheme is offered by Yayasan Sarawak to students wishing to enrol into Swinburne Sarawak's program of studies.	Tuition fee rebates and a Yayasan Sarawak study loan

For more information, and Terms & Conditions, visit [swinburne.edu.my/scholarships](http://swinburne.edu.my/scholarships)

# SWINBURNE AT A GLANCE



DOWNLOAD



Kuching VR  
from Google Play or  
Apple App store

**A** Chancellery Building

**B** Faculty of Business, Design & Arts

**C** Multipurpose Hall

**D** Lecture Theatre

**E** Faculty of Engineering, Computing & Science

**F** Multistorey Carpark

**G** Block G & Centre for Digital Futures

**H** Hostel

**I** Cafeteria

**J** Student Leisure Centre & Chillin' Crib



# TOP 10

Jobstreet Preferred  
Private Universities

# KUCHING. MELBOURNE. OR BOTH.

An Australian education  
at 1/3 the tuition fee. Or  
transfer to Melbourne  
after your 1<sup>st</sup> year

# TOP 3%

Among World's Top  
Universities  
(QS World University  
Rankings 2020)



Food &  
Beverage  
Outlets

**1** Swinburne  
University of  
Technology  
Sarawak Campus

**2** Borneo  
Medical Centre

**3** Off-campus  
Residence-  
Victoria Hall

**4** Immigration  
Department @  
Federal Offices  
Complex

**5** RHB  
Bank Bhd

**6** The Spring  
Shopping  
Mall

**7** Kuching  
District Police  
Headquarters

**8** Mosque-  
Masjid Darul  
Ittihaad

**9** Hotel-  
Citadines  
Uplands  
Kuching

# HOW MUCH DOES A BIOTECHNOLOGY GRADUATE MAKE?


The average starting salary for a Science graduate depends on which organisation you work for and which industry you work in.

## THE AVERAGE MONTHLY SALARY FOR A SCIENCE GRADUATE WORKING IN MALAYSIA.

Field	Entry (< 3 years)	Average (< 7 years)	Senior (> 10 years)
R&D Associate or Research Officer	RM3,500 – RM5,000	RM5,500 – RM8,000	RM8,500 – RM10,000
Biotechnologist	RM4,500 – RM6,000	RM6,500 – RM9,000	RM10,000 – RM13,000

Source: [www.salaryexpert.com](http://www.salaryexpert.com)



A close-up photograph of a laboratory experiment. A clear plastic pipette is positioned vertically, dispensing a single drop of bright blue liquid into a small, clear plastic microcentrifuge tube. The tube is placed in one of the wells of a multi-well plate. The background is softly blurred, showing other similar tubes and a warm, yellowish light source, creating a professional and scientific atmosphere.

“We’ll continue to heal human bodies through biotechnology but we’ll also increasingly feed, clothe and house the world through bioengineered systems.”

- Ryan Bethencourt, CEO of Wild Earth

“The proper use of science is not to conquer nature but to live in it.”

- Barry Commoner, founder of modern ecology

## CAMPUS

### **Swinburne University of Technology Sarawak Campus**

Jalan Simpang Tiga  
93350 Kuching,  
Sarawak, Malaysia

## FURTHER INFORMATION

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The information contained in this course guide was correct at the time of publication, March 2020.  
The university reserves the right to alter or amend the material contained in this guide.

For the most up-to-date course information please visit our website.

