

BIOLOGICAL SCIENCE

- Prospectus -
2022

SUNWAY
UNIVERSITY



A CLASS ABOVE



CONTENTS

- 03 ■ Introduction
- 04 ■ Distinctive Sunway Experience
- 08 ■ Entry Requirements
- 09 ■ BSc (Hons) Biology with Psychology
- 10 ■ BSc (Hons) Medical Biotechnology
- 11 ■ BSc (Hons) Biomedicine
- 12 ■ Bringing you further
- 14 ■ Where are our graduates now?
- 15 ■ Students' Achievements & Activities

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

Sunway University is a leading not-for profit private university committed to the pursuit of educational excellence through scholarship, research and enterprise.

The University is ranked among the top 750 universities in the world according to the QS World University Rankings 2021 and is ranked among the top 18% in the QS Asia University Rankings 2022. It has a 5-Star institutional rating in the QS Stars University Ratings in its latest assessment, demonstrating excellence in the individual categories of "Teaching", "Employability", "Facilities", "Inclusiveness" and "Social Responsibility".

The University also enjoys the 5-Star "Excellent" rating in the National SETARA quality assessment, a rating that has been consistently maintained since 2009.

All these accolades bear testament to Sunway's resolve in ensuring high quality teaching, research and service excellence.



United Nations chosen destination for Sustainable Development Goals in Asia



INTRODUCTION

The Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV2) has brought changes in the area of education, and other aspects of our lives in the last 2 years. Yet, at the same time, much can be learnt from this tiny organism. That's the beauty of biology: the study of life.

Biological sciences encompass all the divisions of natural sciences examining various aspects of vital processes. The concept includes anatomy, physiology, cell biology, biochemistry and biophysics, and covers all organisms from microorganisms, animals to plants. Over the past millennia, we were able to harness the knowledge of biology (from studying cells and microorganisms) to innovate new technologies that gave us comfort and security. Technologies that cure diseases, transformation and clean up hazardous wastes or the improvement of taste and quality in food are the many practical examples related to the field of biological sciences. Each day, new discoveries are made that shape our understanding about life and these discoveries have the potential to impact our lives; for the better or worse. This makes biological sciences a dynamic field to pursue for career development.

At Sunway University, the Department of Biological Sciences provides high quality yet exciting education and training in applying biology knowledge for practical application, whether it is for medical sciences, pharmaceutical industry, ecology conservation or science communication. The Department's undergraduate programmes continuously embrace new knowledge and technologies in the field of biological sciences. The objective of the programmes is to equip graduates with 4Cs (Critical thinking, Creativity, Collaboration, Communication), as well as other 21st century skills (Information and technology literacy, leadership) to work in this industry.

In addition to various forms of classroom activities and learning, significant emphasis is placed on industry engagement and training. The Department established industry links with international and local biotechnology companies for internship and future employment. These companies comprise (but not limited to) hospitals, diagnostic laboratories, healthcare organisations, research institutions and medical device companies. Career prospects of biology graduates are broad. Not only can they work in pharmaceutical industries, they can also thrive in other industries that rely on biological science knowledge, such as scientific writing and patent law.

It is the Department's mission to groom prospective undergraduates into competent graduates who will excel in biology and health-related careers.

Real-world applications beyond labs and classrooms



Field trip to Sunway Pharmacy for the Pharmacology and Toxicology subject.



A field visit to Cryocord for the Immunology subject, giving students exposure to how stem cells are extracted, processed and stored for future use.



Fieldwork sample collection of invasive apple snails (genus Pomacea) which are a major pest of wetland rice.

CONTACT:

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SunwayUniversity

@SunwayU

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

VALIDATED BY:
Lancaster University



DISTINCTIVE SUNWAY EXPERIENCE

FACILITIES & LAB

Equipped with state-of-the-art facilities for the best learning experience.

- Precision Microtome**
Used to make thin slices of tissue for microscopy observation
- High Performance Liquid Chromatography**
Sophisticated instrument to separate and identify biological components in a mixture
- Flow cytometry**
Analysis of individual cells tagged with fluorescent antibody
- Electroporation system**
Introducing foreign genetic material into cells as part of cloning experimental works
- High resolution gel imaging**
To capture high quality agarose and protein gels for visualisation and quantification of biological samples
- Microscopes fitted with digital camera**
Visualise biological samples by either taking images or capturing cellular activity on video
- CTL Immunospot S6 Versa**
Analysis of a variety of microtitre plate-based bioassays involving bacteria, yeast, stem cell, viral plaques, and tumor colonies

Future-ready graduates



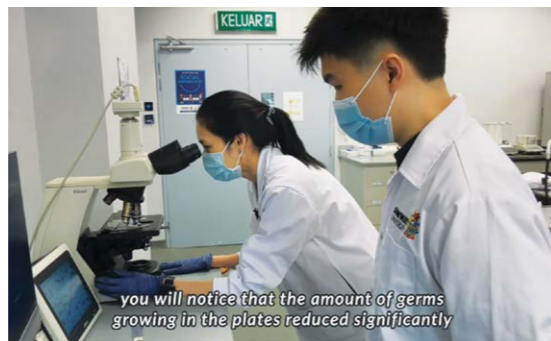
Briefing by internship coordinator to better prepare students for the process and procedures required to secure internship placement. Industry speakers are also invited to guide and equip students via the pre-internship training, shown here is Johnson & Johnson's Country Talent Acquisition Lead.

Extra-curricular activities



The Sunway Biological Society (SBioS) seeks to encourage a deeper passion for scientific research and serve as a networking platform within the scientific community. Past events saw members assisting in an allergy study and participating in seminars.

Engagement with the university community and the public



The department of Biological Sciences in collaboration with The Star demonstrated how face masks reduce the spread of germs.



Producing hand sanitisers in our labs for students and staff

DISTINCTIVE SUNWAY EXPERIENCE

ACADEMIC LEADERS

DEPARTMENT OF BIOLOGICAL SCIENCES ORGANISATION CHART ACADEMIC MEMBERS

Dr Kavita Reginald
Head - Department of Biological Sciences
Immunology
Research interests: Allergens and hypersensitivity; Genetics of asthma and atopy; Hypoallergenic vaccines.

Professor Dr Abhi Veerakumarasivam
Dean, School of Medical and Life Sciences
Medical Genetics/Science Communication & Leadership
Research interests: Medical genetics; Cancer genetics; Research ethics (responsible conduct of research); Science leadership; Science communication.

Professor Dr Gopalasamy Reuben Clements
Associate Dean
(Research and Postgraduate Studies)
Ecology and Conservation
Research interest: Conservation science.

Professor Dr Jeff Tan Kuan Onn
Cancer/Molecular Biology
Research interests: Cancer cell biology; Epithelial biology (skin biology); Natural product research; Experimental therapeutics (anti-cancer drugs); Gene therapy and virology.

Dr Chew Jactty
Associate Dean (Education)
Infectious Disease/Microbiology
Research interests: Bacterial antibiotic resistance; antibacterial development; Bacterial transmission pathogenesis.

Dr Chen Jit Ern
Plant Biology/Biochemistry
Research interests: Algae biology; Genetic engineering; Phylogenetics; Retrotransposons; Heat tolerance.

Dr Babu Ramanathan
Infectious Disease/Virology
Research interests: Peptide vaccines; Antiviral drugs; Next generation sequencing; Dengue immunology; Epitope mapping.

Dr Jane Gew Lai Ti
Chemistry/Nanotechnology
Research interests: Colloid and surface chemistry; Drug delivery; Nanocoating; Green chemistry.

Dr Ong Seng Kai
Genetics/Molecular Biology
Research interests: Cancer genetics; Therapeutic development and discovery for pathogenic microorganisms.

Dr Yow Yoon Yen
Plant Biology/Ecology
Research interests: Application of algae biotechnology in neuroscience; cosmeceuticals; anti-microbial and algal biomaterial.

Dr Ayaz Anwar
Chemistry/Infectious Diseases
Research interests: Cancer cell biology; Epithelial biology (skin biology); Natural product research; Experimental therapeutics (anti-cancer drugs); Gene therapy and virology.

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

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

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

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

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

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

The most happening part of our campus is YOU.

DISTINCTIVE SUNWAY EXPERIENCE

PATHWAYS INTO POSTGRADUATE PROGRAMMES IN SUNWAY

PHD IN BIOLOGY /
PHD IN MEDICAL SCIENCE

MSC IN LIFE SCIENCES /
MSC IN MEDICAL SCIENCE

BSC (HONS) BIOLOGY
WITH PSYCHOLOGY
BSC (HONS) MEDICAL
BIOTECHNOLOGY
BSC (HONS) BIOMEDICINE*

PRE-UNIVERSITY

Sunway Foundation in Science and
Technology / A-Level / Australian
Matriculation / Canadian International
Matriculation Programme / Monash
University Foundation Year / STPM /
UEC or equivalent

OR

DIPLOMA

(Biology or Biotechnology-related)

*Completed 2 science subjects in any Pre-U or
Diploma (Chemistry, Biology and/or Physics)

One of the best things about a degree in biological sciences is that it lends itself to postgraduate study. Specialising by undertaking a master's degree and Doctor of Philosophy (PhD) is almost a natural step forward to an academic career.

AREAS OF RESEARCH IN BIOSCIENCES AT SUNWAY UNIVERSITY



INFECTIOUS DISEASES

- Amoebic diseases
- Viruses (Dengue, HIV-1, HFMD)
- Antibiotic-resistant microorganisms

Did you know?

- Dr Jacty has shown that certain bacteria can survive inside amoeba, allowing them to thrive better in the environment¹.
- Dr Babu has shown that a small change in DNA can cause certain type of bacteria to gain resistance against antibiotics².
- Dr Ayaz has identified different drug-based nanoparticles that are capable of killing parasitic amoeba³.



NON-COMMUNICABLE DISEASES

- Cancer
- Neurodegenerative diseases
- Allergy & Hypersensitivity

Did you know?

- Dr Kavita discovered that Der f 22 protein is a clinically important allergen among dust mite allergic individuals⁴.
- Prof Jeff and his team members have shown how tumor suppressors mediate chemo-sensitization and inhibit the growth of human tumors *in vivo*⁵.
- Dr Yow discovered that a specific species of Malaysian brown algae has potential anti-depression effects⁶.
- Dr Ong has developed a method for identifying side-effect free cancer drug targets⁷.



BIOTECHNOLOGY & HUMAN GENETICS

- Exploring marine algae for cosmeceuticals
- Genetic testing to identify candidate genes of complex diseases
- Unearthing bioactive from natural products with anti-cancer activity

Did you know?

- Han Chinese individuals have a unique genetic risk in developing allergic rhinitis as compared to other ethnic groups worldwide⁸.



ENVIRONMENT & SUSTAINABILITY

- Coral symbiosis interaction and heat tolerance of dinoflagellate algae
- Carbon capture using enzymes from heat-resistant bacteria
- Evaluation of environmental pollution levels using microplastics

Did you know?

- Dr Jane has successfully converted glycerol into diacylglycerol, which is useful in the food industry⁹.
- Dr Chen genetically modified dinoflagellate algae which has the potential to assist coral reefs against bleaching¹⁰.



BIODIVERSITY & CONSERVATION

- Apple snails
- Durian pollination by fruit bats

Did you know?

- Prof Reuben discovered a new land snail genus called *Minute Land Snail (Whittenia vermiculum)*¹¹, which is the only snail in the world that has a shell with four axes of coiling.



R&D ECOSYSTEM

- Science Integrity
- Science Leadership
- Science Communication

Did you know?

- Prof Abhi Veerakumarasivam is a geneticist¹², award-winning science communicator and promotes science through leadership excellence and integrity¹³.

- <https://doi.org/10.1016/j.exppara.2020.107862>
- <https://doi.org/10.1371/journal.pone.0182524>
- <https://doi.org/10.1016/j.exppara.2020.107979>
- <https://doi.org/10.1038/s41598-018-30224-z>
- <https://link.springer.com/article/10.1007/s00432-020-03231-9>
- <https://doi.org/10.1016/j.sjbs.2020.04.042>
- <https://www.nature.com/articles/s41598-018-25042-2>
- <https://onlinelibrary.wiley.com/doi/epdf/10.1111/all.14504>
- <https://pubs.acs.org/doi/10.1021/acs.iecr.0c00298>
- <https://doi.org/10.7554/eLife.45292.001>
- <https://www.macaranga.org/minute-land-snail-whittenia-vermiculum/>
- <https://doi.org/10.1038/s41598-019-50222-z>
- <https://generationt.asia/people/abhi-veerakumarasivam>

Read more about the research areas in our School of Medical and Life Sciences



<https://university.sunway.edu.my/smls/research>



ENTRY REQUIREMENTS

PROGRAMME	ENTRY REQUIREMENTS	SPECIFIC REQUIREMENTS	ENGLISH REQUIREMENTS
BSC (HONS) BIOLOGY WITH PSYCHOLOGY	<p>STPM Average C+ or CGPA 2.33 (Minimum 2 principals)</p> <p>A-Level Minimum 12 points (Minimum Grade D in at least 2 subjects)</p> <p>Australian Matriculation ATAR 60</p> <p>Canadian International Matriculation Programme 60%</p> <p>MUFY 60%</p> <p>Sunway Foundation in Science & Technology CGPA 2.30</p> <p>UEC Maximum 26 points from 5 subjects (all Grade Bs)</p> <p>IB Diploma Completed with minimum 25 points (excluding bonus points)</p> <p>Other qualifications Any other qualifications will be considered on a case-to-case basis</p>	<p>BSC (HONS) BIOLOGY WITH PSYCHOLOGY, BSC (HONS) MEDICAL BIOTECHNOLOGY</p> <p>Minimum 3 credits in Mathematics, 1 Science subject and 1 more subject at SPM or Pre-University or its equivalent</p>	<p>IELTS or equivalent 6.0</p> <p>MUET Band 4</p> <p>SPM English B3 or B+</p> <p>UEC English B4</p> <p>O-Level English (1119) Credit</p> <p>Sunway Intensive English Programme (IEP) Pass Level 4 with minimum 65%</p> <p>ESL/English Satisfactory level in Pre-University programmes, where the medium of instruction is English</p>
BSC (HONS) MEDICAL BIOTECHNOLOGY			
BSC (HONS) BIOMEDICINE		<p>BSC (HONS) BIOMEDICINE</p> <p>STPM/Pre-University 2 principals in two of the following subjects at STPM/Pre-University/Matriculation level in: Biology, Physics/Mathematics or Chemistry</p> <p>A-Level Minimum Grade D in two of the following subjects: Biology, Physics / Mathematics and Chemistry</p> <p>For Malaysian students entering using an entry qualification whereby the medium of instruction is not in English, MQA requires the student to possess a MUET or international English proficiency qualification in order to register for the programme</p>	

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

Note: The credit requirement at SPM level can be waived should the grades obtained at the Pre-University level are equivalent or higher.

INTAKES

- JANUARY
- MARCH
- AUGUST

DURATION

3 YEARS

BSC (HONS) BIOLOGY WITH PSYCHOLOGY

PROGRAMME INTRODUCTION

This innovative biology degree incorporates behavioural sciences to make it more relevant, relatable, and applicable in today's world. With 75% of the subjects focusing on biology, graduates will be equipped with a strong foundation to further their studies at the postgraduate level in the area of neuroscience, and in clinical or pharmaceutical research.

Alongside academic studies, students will be given the opportunity to develop research skills and practical experience through working on innovative independent research projects during the final year, as well as gaining valuable experience working in healthcare or biotechnology industries through internship.

Acquire the skills you need to explore career opportunities in academia, healthcare sector, pharmaceutical industry, food industries, environmental consultancy and related disciplines.

PROGRAMME STRUCTURE - Subjects

Year 1

- Cell Biology
- Human Anatomy
- Human Physiology
- Impact of Microbes on Human Life
- Principles of Genetics
- Introduction to Organic Chemistry
- English for Life Sciences
- Communication Skills
- Introduction to Psychology
- Research Methods in Psychology

Year 2

- Social and Professional Responsibilities
- Community Service
- Research & Publications
- Biochemistry
- Abnormal Psychology
- Biological Psychology
- Cognitive Psychology
- Sensation & Perception

Electives - Biology (choose 1)

- Medical Microbiology
- Cell & Tissue Culture

Electives - Psychology (choose 1)

- Social Psychology
- Developmental Psychology

Year 3

- Immunology
- Neurobiology
- Research Project
- Internship
- Health and Safety in Laboratory Management
- Biodiversity

ADDITIONAL MOHE COMPULSORY GENERAL STUDIES SUBJECTS

For Local students:

- Appreciation of Ethics and Civilisation
- Philosophy and Current Issues
- Bahasa Kebangsaan A (applicable to students who did not sit for SPM or did not obtain a Credit in SPM Bahasa Melayu)

For International students:

- Malay Language for Communication 2
- Appreciation of Ethics and Civilisation

VALIDATED BY:



BSC (HONS) MEDICAL BIOTECHNOLOGY

PROGRAMME INTRODUCTION

Medical Biotechnology is a subset of biotechnology that enriches us with biological knowledge on all living organisms and teaches us how to use these organisms to create products that can help us lead more productive lives and live longer. The world has benefited from many amazing medical discoveries (the past and the present); Dr Edward Jenner for creating the world's first vaccine against smallpox, the use of insulin to treat diabetes, and designing noninvasive small capsules to evaluate gastrointestinal condition.

In the BSc (Hons) Medical Biotechnology programme, the theoretical component of the programme enhances the learning experience through practical application. Graduates will develop critical thinking and learn how to contribute towards developing beneficial products to prevent or treat human diseases, as well as communicating scientific findings to the general public.

VALIDATED BY:



JPT/BPP(U)[R/545/6/0023/FA2463]04/23

PROGRAMME STRUCTURE - Subjects

Year 1

- Cell Biology
- Human Anatomy
- Human Physiology
- Impact of Microbes on Human Life
- Principles of Genetics
- Introduction to Organic Chemistry
- English for Life Sciences
- Communication Skills
- Basic Biostatistics
- Introduction to Medical Biotechnology

Year 2

- Social and Professional Responsibilities
- Community Service
- Research & Publications
- Biochemistry
- Human Molecular Genetics
- Bioinformatics
- Medical Microbiology
- Molecular Biology
- Medical Biotechnology
- Cell & Tissue Culture
- Instrumental Analysis

Year 3

- Immunology
- Neurobiology
- Research Project
- Internship
- Health and Safety in Laboratory Management
- Molecular Diagnostics

Electives (choose 1)

- Biodiversity
- Current Topics in Biomedical Sciences

ADDITIONAL MOHE COMPULSORY GENERAL STUDIES SUBJECTS

For Local students:

- Appreciation of Ethics and Civilisation
- Philosophy and Current Issues
- Bahasa Kebangsaan A (applicable to students who did not sit for SPM or did not obtain a Credit in SPM Bahasa Melayu)

For International students:

- Malay Language for Communication 2
- Appreciation of Ethics and Civilisation

BSC (HONS) BIOMEDICINE

PROGRAMME INTRODUCTION

Get involved in the healthcare sector with this medically-oriented degree. Our biomedicine degree provides an ideal platform for careers in biology and biomedicine, including further postgraduate study.

Biomedicine is a branch of medical science that deals with the development of diagnostic modalities and treatments for current and emerging threats to human health. This programme imparts the knowledge of anatomy, physiology, pharmacology, biochemistry, cell biology, and genetics which are important for modern medicine and public health. Graduates will develop fundamental skills in critical thinking, problem solving, and communication which are invaluable in understanding the global health trends and biomedical research advances.

VALIDATED BY:



PROGRAMME STRUCTURE - Subjects

Year 1

- Cell Biology
- Human Anatomy
- Human Physiology
- Impact of Microbes on Human Life
- Principles of Genetics
- Introduction to Organic Chemistry
- English for Life Sciences
- Communication Skills
- Basic Biostatistics
- Clinical Chemistry
- Ethics in Healthcare Science
- Histology and Histopathology Techniques

Year 2

- Social and Professional Responsibilities
- Community Service
- Research & Publications
- Biochemistry
- Human Molecular Genetics
- Medical Microbiology
- Pathology
- Medical Entomology
- Medical Statistics and Epidemiology
- Histology & Cytology Practice

Elective 1

- Bioinformatics

Year 3

- Immunology
- Neurobiology
- Research Project
- Internship
- Current Topics in Biomedical Sciences
- Haematology & Transfusion Science
- Clinical Biochemistry Practice
- Parasitology & Virology

Elective 2

- Molecular Diagnostics

ADDITIONAL MOHE COMPULSORY GENERAL STUDIES SUBJECTS

For Local students:

- Appreciation of Ethics and Civilisation
- Philosophy and Current Issues
- Bahasa Kebangsaan A (applicable to students who did not sit for SPM or did not obtain a Credit in SPM Bahasa Melayu)

For International students:

- Malay Language for Communication 2
- Appreciation of Ethics and Civilisation

JPT/BPP(U)[N/720/6/0118/PA8832]12/22

BRINGING YOU FURTHER

INTERNSHIP COMPANIES & COMPANIES OUR GRADUATES WENT TO

Biotechnology (Pharmaceutical, Diagnostic lab, medical supply and services, scientific supply)

- Abbott Labs
- Absolute Genetic Technologies
- Acumen Scientific Sdn. Bhd.
- Advance Genomics Sdn. Bhd.
- Agilent Technologies LDA (M) Sdn. Bhd.
- AHS Laboratories Supplies
- AJ Pharma Holding Sdn. Bhd.
- Alpha Fertility Centre
- ALS Technichem (M) Sdn. Bhd.
- Asia Assistance
- AstraZeneca Sdn. Bhd.
- Attest Research Sdn. Bhd.
- Asia Pacific Special Nutrients Sdn. Bhd.
- Boehringer Ingelheim Malaysia
- Biocon Sdn. Bhd.
- Biomarketing Services Sdn. Bhd.

- Biovalence Sdn. Bhd.
- CellSafe International Sdn. Bhd.
- Codon Genomics Sdn. Bhd.
- Compesti Sdn. Bhd.
- Cryocord Sdn. Bhd.
- Ecolab Malaysia Sdn. Bhd.
- Eppendorf Asia-Pacific Sdn. Bhd.
- Fisher Scientific (M) Sdn. Bhd.
- Gribbles Pathology
- IKA Works Sdn. Bhd.
- Interscience Sdn. Bhd.
- IQVIA (Formerly known as QuintilesIMS)
- Klinssel Sdn. Bhd.
- Medi-Life (M) Sdn. Bhd.
- Metro IVF Fertility Center
- Myco Medic Sdn. Bhd.
- Mygenome Sdn. Bhd.
- Neogenix Laboratoire Bhd.
- Next Gene Scientific Sdn. Bhd.
- Peerhealth Malaysia
- SG Global Biotech Sdn. Bhd.

- Speedy Assay Sdn. Bhd.
- TeleMe Technologies Sdn. Bhd.
- Venn Biosciences Sdn. Bhd.
- Vision Diagnostic Centre
- Vivantis Technologies Sdn. Bhd.

Education & Research (Including research institution)

- Burnet Institute, Australia
- Center for Drug Research, USM
- Clinical Research Malaysia
- EcoKnights
- Food and Drug Authority, Maldives
- Galen Centre for Health and Social Policy
- Malaysia Genome Institute
- Malaysian Biotechnology Information Centre (MABIC)
- Monash University Malaysia

- Nepal Health Research Council
- RIMBA
- Sunway Lagoon Wildlife Park
- University of Bristol
- University of Hong Kong
- University of Manchester

Hospital

- Beacon International Specialist Centre
- Biolife Lab Sdn. Bhd.
- Dawn Diagnostic Laboratory, Zambia
- Gribbles Pathology (M) Sdn. Bhd.
- Jerudong Park Medical Centre, Brunei
- Jesselton Medical Centre
- Pantai Premier Pathology
- Pathlab (Pathology & Clinical Laboratory Sdn. Bhd.)
- Prima Lab Sdn. Bhd.
- Subang Jaya Medical Centre
- Sunway Medical Centre

CAREER PROSPECTS

- Academia
- Academia (specialist educators*)
- Clinical research scientist
- Entrepreneurs and marketing professionals
- Food industries (new food manufacturing processes, probiotics formulation)
- Forensics (DNA fingerprinting, paternity identification)
- Healthcare research (research officer in CRO, therapeutic medicines, innovation of diagnostic detection kits)
- Insurance industry (insurance product development)
- Medical and scientific product specialist
- Patent law^ (intellectual property consultants, regulatory affairs specialists)
- Pharmaceutical industries (quality assurance personnel, product specialists, bioprocessing and biomanufacturing executives)
- Pharmaceutical research and development
- Writer (scientific writer, novelist)

MOBILITY & STUDY ABROAD

PROGRAMME	MOBILITY OPTIONS			
	Lancaster University			Korean Summer/Winter programme
	Summer Programme	Study abroad	1+2 articulation	
DURATION	3 weeks	1 year (during year 2)	2 years	2 weeks
MEDICAL BIOTECHNOLOGY	✓	✓	-	✓
BIOMEDICINE	✓	-	✓	✓
BIOLOGY WITH PSYCHOLOGY	✓	-	-	✓

For more information about Lancaster mobility options, visit <https://university.sunway.edu.my/SU-LU>



CHOO SUET YEE
BSC (HONS) BIOLOGY
WITH PSYCHOLOGY

Postgraduate student
at Sunway University
MSc in Life Sciences

Area of specialisation
and research:
Neuroscience research



NAISHA AMINATH
BSC (HONS)
BIOMEDICINE

Company:
Tree Top Hospital,
Maldives

Position:
Medical Laboratory
Technologist



HO KEAT YIE
BSC (HONS)
BIOMEDICINE

Company:
Sunway Medical Centre

Position:
Medical Lab
Scientist I



GOH TZE FUNN
BSC (HONS) MEDICAL
BIOTECHNOLOGY

Company:
Next Gene Scientific
Sdn Bhd

Position:
Product Specialist



HOR SUET LEE
BSC (HONS) BIOLOGY
WITH PSYCHOLOGY

Company:
Public Bank

Position:
Senior Executive
(Acquisition and
Placement)



FOO PAO JIA
BSC (HONS) BIOLOGY
WITH PSYCHOLOGY

Company:
Boehringer Ingelheim

Position:
Medical Sales
Representative



**JORDAN ANTHONY
PINTO**
BSC (HONS) MEDICAL
BIOTECHNOLOGY

Company:
Speedy Assay Sdn Bhd

Position:
Sales Executive



GURPREET KAUR
BSC (HONS) MEDICAL
BIOTECHNOLOGY

Company:
Shell

Position:
Human Resources
Advisor

STUDENTS' ACHIEVEMENTS & ACTIVITIES

**Poster presentation award**

Ms. Arcana Thirumorthy (PhD in Biology) won the Best Poster Presentation Award at the 2nd International Conference on Oral Microbiology & Oral Immunology

**Journal publication**

BSc Medical Biotechnology student, Zoey Soo May Pheng published her work in Acta Tropica, an international journal on infectious diseases, about the zoonotic disease – Leptospirosis, endemic in developing countries, focusing on the risk factors and proposed methods for improved management of leptospirosis.

**Research activities – Allergy study**

Genetic study in collaboration with National University of Singapore to understand the prevalence of allergic diseases in Malaysia. The Sunway Biological Science Society (SBioS) members involved themselves in sample collection for an allergy test analysis and blood draw.

**Students win the 2021 ECO Champions Award**

DBS students Teoh Wan Yi, Bryan George, Tan Yin Ji, and Farhan Rehman Sherief are winners of the 2021 ECO Champions Award, receiving a seed grant of RM2,930 for their Sungai Kuyoh Conservation Project.

**Student achievement**

Esther Erin Wong Yan

- Currently the regional programme officer for the International Network for Government Science Advice (INGSA) Asia Chapter.
- Awarded the "International Life Sciences Institute Young Researcher Award" at the ASEAN Emerging Researchers Conference 2019 for outstanding presentation of her final year research project

**Field visit to a mass spectrometry lab**

As part of the Instrumental Analysis course, BSc (Hons) Medical Biotechnology students visited the liquid chromatography-mass spectrometry laboratory located at the Jeffrey Cheah School of Medicine and Health Sciences, Monash University Malaysia

**Bonding & having fun**

A December to Remember - Some of the 80 attendees at the Christmas dinner-cum-year end gathering for all Department of Biological Sciences members

IN PARTNERSHIP WITH THE WORLD

UNIVERSITY OF CALIFORNIA, BERKELEY

HARVARD UNIVERSITY

MASSACHUSETTS INSTITUTE OF TECHNOLOGY



LANCASTER UNIVERSITY

UNIVERSITY OF OXFORD

UNIVERSITY OF CAMBRIDGE



LE CORDON BLEU

ALIBABA BUSINESS SCHOOL



As part of our nation building ambitions, Sunway University has travelled the world seeking out the finest educational opportunities, bringing them closer to you.

LIVE

Whilst most universities have a campus, only Sunway University has a city. Experience a world-class education right here at Sunway City, Malaysia's model smart-sustainable city enabled by 5G.

LEARN

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LEGACY

Located at Sunway City, Malaysia, Sunway University joins New York & Paris as one of the three United Nations Sustainable Development Solutions Network (SDSN) Centres in the world to coordinate continent-wide sustainable initiatives.

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