



BIOTECHNOLOGY
& LIFE SCIENCES

YOUR FUTURE BUILT TODAY

At INTI, our mission is to bridge the needs of tomorrow through the competencies our students gain today, empowering them to become the leaders, innovators and game changers of the future. We are committed towards ensuring our students gain the competencies needed for the workplace of the future, and to work alongside the digital transformations driving today's global businesses in the **Fourth Industrial Revolution**.

FROM ASIA'S FINEST TO THE WORLD'S ELITE

RANKED IN THE **TOP 600** UNIVERSITIES IN THE WORLD



2024



RANKED IN THE **2023 QS WORLD UNIVERSITY RANKINGS: ASIA**



35+
years of empowering young minds

4
campuses across Malaysia

13,000+
students currently served

1,000+
employees nationwide

86,000+
graduates whose lives we have touched

INTI GRADUATE EMPLOYABILITY SURVEY 2017 VALIDATED BY BDO

99%

of INTI graduates are employed within **6 MONTHS** of graduation

91%

of INTI graduates are **PAID HIGHER** than the market minimum average

60%

of INTI graduates **get job offers BEFORE** they graduate

WHY INTI?



800+ Industry Partners

INTI collaborates with more than 800 industry partners including local and global organisations such as IBM, Google, FedEx, Shell, Unilever, Intel, Microsoft, Huawei, SAS, DELL and more.



100% Internship Placement

Good academic results are no longer sufficient to ensure the employability of students, therefore work experience in the form of internships is steadily becoming more important.



1000+ World Class Employer Projects

More than 1000 world class employer projects since 2010



Broad Range of Innovative Programmes

Accredited by the Malaysian Ministry of Education, INTI offers a wide range of innovative programmes from Pre-University to Postgraduate programmes.



Career Development

INTI Leadership Series – One of INTI's signature events that features top leaders from highly successful companies speaking to INTI students on topics related to leadership, innovation, entrepreneurship and strategies relevant to today's business.



Beyond Academic

INTI provides an enriching experience that enables students to find their true passion through on-campus events and activities organised by numerous clubs and societies. Through these activities, students are able to enhance their soft skills and talents.



Vibrant Community

Immerse yourself in a diverse and vibrant international community of over 13,000 students from 100+ countries.



World-Class Facilities

Experience unparalleled learning and growth in our signature world-class facilities and enjoy top-notch sports and recreational amenities for your well-being.

SUCCEED GLOBALLY WITH THE INTI EDGE

THE INTI EDGE



We Are INTERNATIONAL

Our internationally recognised education will enrich you with the right skills and attributes to excel at whatever you do and wherever you go.

WORLD RENOWNED COLLABORATIONS WITH PRESTIGIOUS UNIVERSITIES

INTI offers exclusive franchise degrees and dual award degree programmes in partnership with some of the world's highest rated universities. These partnerships help to enhance your academic credentials and offer you access to some of the most prestigious institutions of higher learning globally.



INNOVATIVE Teaching & Learning

INTI integrates an array of proven approaches to teaching combined with revolutionary applications of technology in the classroom such as the innovative Canvas Learning Management System.



CANVAS LMS

Canvas is INTI's online Learning Management System (LMS), where a variety of built-in tools can be customised to provide students and lecturers with unique and accessible teaching and learning experiences.

This technologically advanced and user-friendly system provides an excellent platform to build interconnected and collaborative digital teaching and learning opportunities that foster a holistic educational experience. With Canvas desktop and mobile versions, learning can take place anywhere and at any time.

Supplementary Learning and Assessment Tools Used:

- RAPTIVITY: Interactive Building Software ranging from games, quizzes, simulations, presentations and more
- iSTUDIO: Personal Presentation System for real-time video production role-play



INDIVIDUAL Development

INTI endeavours to include practical experiences in every programme it offers. From practical workshops taught by local and international guest lecturers and industry practitioners who share the ins and outs of the working world, to hands-on practical projects initiated by potential employers.



THE MENTOR-MENTEE PROGRAMME

Expand your social circles and future horizons



PARENT / TEACHER MEETINGS

Get valuable feedback and grow



LINKEDIN

Building your personal brand and your link to a world of opportunities

COLLABORATION WITH INDUSTRY PARTNERS

Over the years, INTI has cultivated a strong engagement with multinational companies and large local organisations on diverse platforms to foster innovation curricula and develop future-ready graduates.



The platforms include:

- Industry Awards / Scholarships
- Employer Projects
- Boot Camps and Career Workshops
- INTI Leadership Series
- Faculty Industry Attachments
- Industry Advisory Boards
- Industry Skills Certifications
- Employer Centric Curricula
- Internships and Job Placements
- Coaching and Mentoring



DISCOVER THE NEXT BIG BREAKTHROUGH

One of the most exciting areas of scientific research, biotechnology is the in-depth study and mastery of all aspects of living organisms down to the cellular level and the knowledge of how to derive and apply useful applications from organic systems to resolve all manner of problems across multiple fields of human endeavour.

Biotechnology graduates are able to contribute their talents across a diverse scope of industries ranging from manufacturing, the service industry and even environmental management. In medicine, an INTI Biotechnology and Life Sciences graduate is able to participate in the production of antibiotics and vaccines to cure diseases.



In agriculture, graduates are able to contribute by helping to genetically engineer and create more resilient, better crops and livestock to resolve food shortages. In forensics, INTI biotechnologists are able to assist with a detailed analysis of genetic material samples collected at crime scenes.

A rigorous industry-relevant curriculum along with extensive opportunities for internship programmes with the world's leading biotechnology and molecular bioscience companies ensures that graduates remain at the forefront of the latest developments with exceptional employability. Make your mark and contribute to science and humanity in a meaningful way.

INDUSTRY CONNECTIONS AND NETWORKING

Learn directly and gain real-world knowledge from the industry. Our strong partnerships with businesses and employers offer you the opportunities to take part in Employer Projects and field trips, all of which will stand you in good stead when you graduate. At INTI, it is simply more than just studying life under a microscope as we will get you ready for the working world.

CAREER-READY INTERNSHIP PROGRAMME

Partnering with biotechnology and molecular bioscience companies, we provide you with an excellent opportunity to put all your theoretical knowledge and laboratory skills to good use, and acquaint yourself with the industry's stringent requirements hence, boosting your employability.

ELEVATE YOUR EDUCATION EXPERIENCE

If you pursue an Australian Degree Transfer Programme (Science) or Bachelor of Biotechnology (Hons), you can choose to transfer to a reputable, highly-ranked university in Australia, such as the University of Adelaide, The University of Queensland and the University of South Australia.

PROVEN RECORD OF EXCELLENCE

Our Australian Degree Transfer Programme has been consistently successful in producing First-Class and Upper Second-class degree holders in the field of Biotechnology and Life Sciences. On hand to guide you to your success is a team of academicians and industry professionals who are highly dedicated and experienced.

POPULAR MAJORS

BIOCHEMISTRY

Decipher the structures and functions of proteins, carbohydrates, lipids, nucleic acids and other bio-molecules, the mechanisms of enzyme action, elucidation of metabolic pathways and their control, and the understanding of life processes through the laws of chemistry. It also include in-depth study of the molecular basis of genetics.

BIOMEDICAL SCIENCE

This study allows students to specialise in scientific areas related to the normal functions or diseases of humans. Learn how the body operates and gain an understanding of current medical research aimed at improving diagnosis, prevention and treatment of diseases.

BIOTECHNOLOGY

Involves the use of advanced genetic techniques to construct novel microbial, plant and animal strains, obtain site-directed mutants to improve the quantity or quality of products, or obtain other desired phenotypes. It spans a variety of activities, from optimisation of processes such as those involved in producing antibiotics, vaccines, monoclonal antibodies, and genetically engineered transgenic plants and animals, to carrying out gene therapy, improving water and land management, and remedying pollution.

FOOD SCIENCE

This subject involves the basic chemical, physical, biochemical and biophysical properties of foods and their constituents, and of the changes that these may undergo during handling, preservation, processing, storage, distribution and preparation for consumption. Activities include the development of new food products, design of processes to produce these foods, choice of packaging materials, shelf-life studies, sensory evaluation of the product with trained expert panels or potential consumers, as well as microbiological and chemical testing.

GENETICS

Genetics identifies the molecular, cellular, and organismal aspects of heredity in animals and plants. It also considers the hereditary mechanisms of micro-organisms, human hereditary disorders and DNA technology.

MICROBIOLOGY & IMMUNOLOGY

This subject involves the study of microscopic organisms such as bacteria, yeasts, moulds, viruses, rickettsia and protozoa. It also examines the diversity, structure, function, growth, reproduction, genetics, physiology, preservation and control of these micro-organisms. Mutation, gene mapping and structure, means of transferring genetic information and applications of genetic modifications and the study of the immune system in human and other organisms are also covered.

MOLECULAR BIOLOGY

The study of molecular foundations of living organisms, especially DNA; how it is used to define an organism, how genes are regulated, and how human beings are related to other organisms. Like Biochemistry, it underlies many aspects of genetic engineering, protein engineering, and other new approaches to improving upon nature.

NUTRITION

This examines the effects of food components on the metabolism, health, performance, and disease resistance of humans and animals. It also includes the study of human behaviour related to foods.

PRESTIGIOUS PARTNER UNIVERSITIES

Via extensive agreements with some of the most renowned universities, students may electively transfer their credits and complete their course overseas which hosts some of the world's institutions at the forefront of research in biotechnology and molecular science. These partner universities are consistently ranked among the top 200 universities worldwide by The Times Higher Education along with the rigorously assessed QS World University Rankings.



THE UNIVERSITY OF ADELAIDE

The School of Biological Sciences, the University of Adelaide was formed in 2015 to coordinate and consolidate the University's cutting edge and world-class research and teaching in Ecology & Environmental Science; Genetics & Evolution; and Molecular & Cellular Biology. The School has in excess of 600 people in research, teaching and support staff, postgraduates and honours students. World-class research and teaching is conducted in the School of Biological Sciences which covers a range of subject matter notable in its breadth and scale.



THE UNIVERSITY OF QUEENSLAND

The University of Queensland understands that academic interests are as diverse as their students. They provide choices to give you flexibility in your learning process. Offering a breadth of study that leads the way in Australia, you can choose a degree to match your interests, passions and career goals.



UNIVERSITY OF SOUTH AUSTRALIA

The School offers undergraduate programmes in pharmacy, pharmaceutical science (including a double degree in pharmaceutical science/pharmacy), nutrition and food sciences, medical science, and the only laboratory medicine degree to be fully accredited by the Australian Institute of Medical Scientists in South Australia. The School has strong links to the Sansom Institute for Health Research bringing together internationally recognised research concentrations in quality use of medicines, molecular and cell biology, drug development, cancer research, pharmaceutical science, neuroscience and nutrition and dietetics.



UNIVERSITY OF LEEDS

The Faculty of Biological Sciences at the University of Leeds have a long-established reputation in delivering research-led student education with a strong suite of programmes covering biological sciences with a continued portfolio development being informed by an active Industrial Advisory Board. Our teaching and research are delivered via three Schools - School of Biology, School of Biomedical Sciences and School of Molecular and Cellular Biology. We are a leading faculty within the life sciences in terms of our research power, subject diversity and interdisciplinarity, for example, through our contributions to the internationally renowned Astbury Centre, medical research and emerging Global Food and Environment Institute.

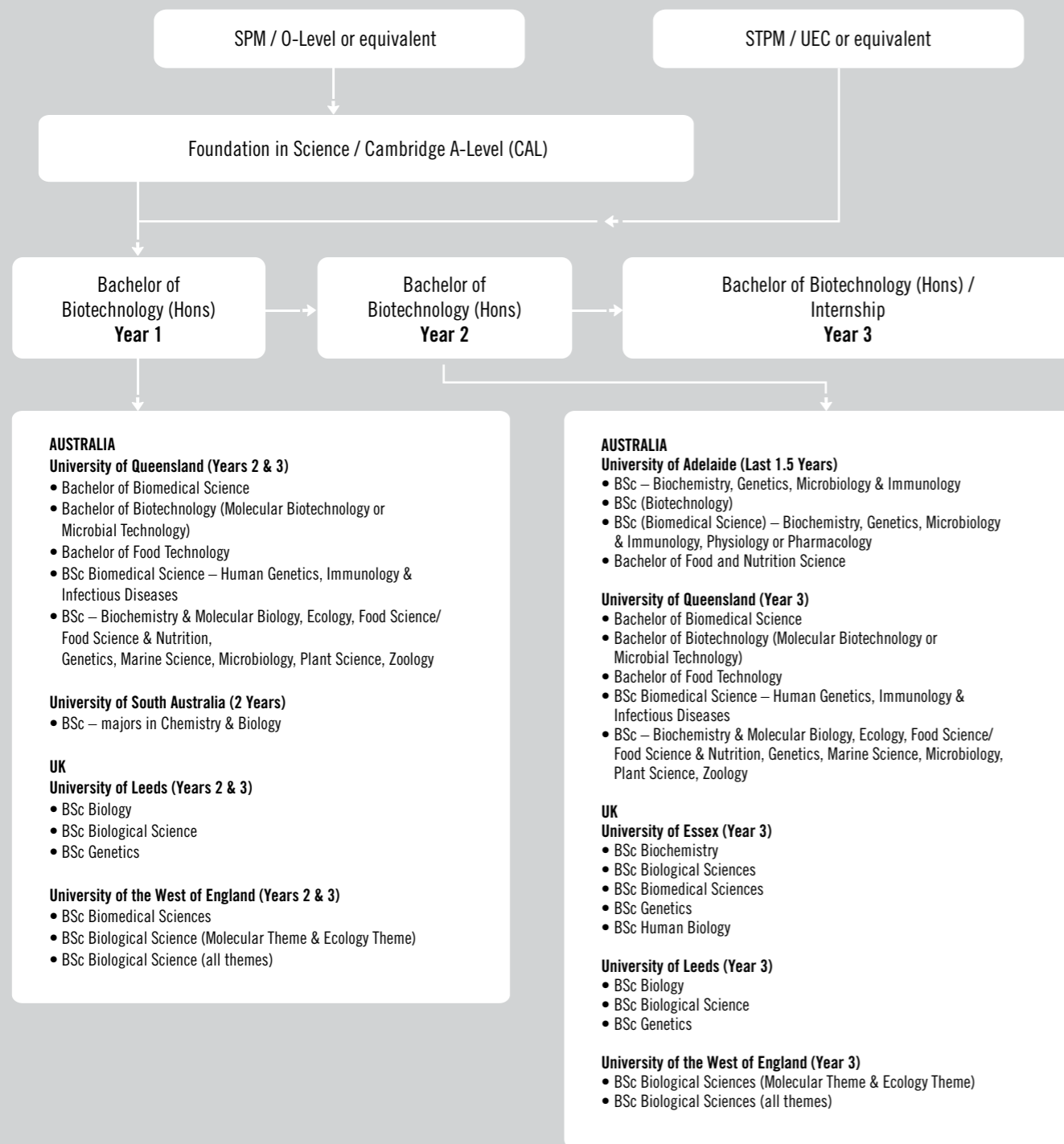


UNIVERSITY OF ESSEX

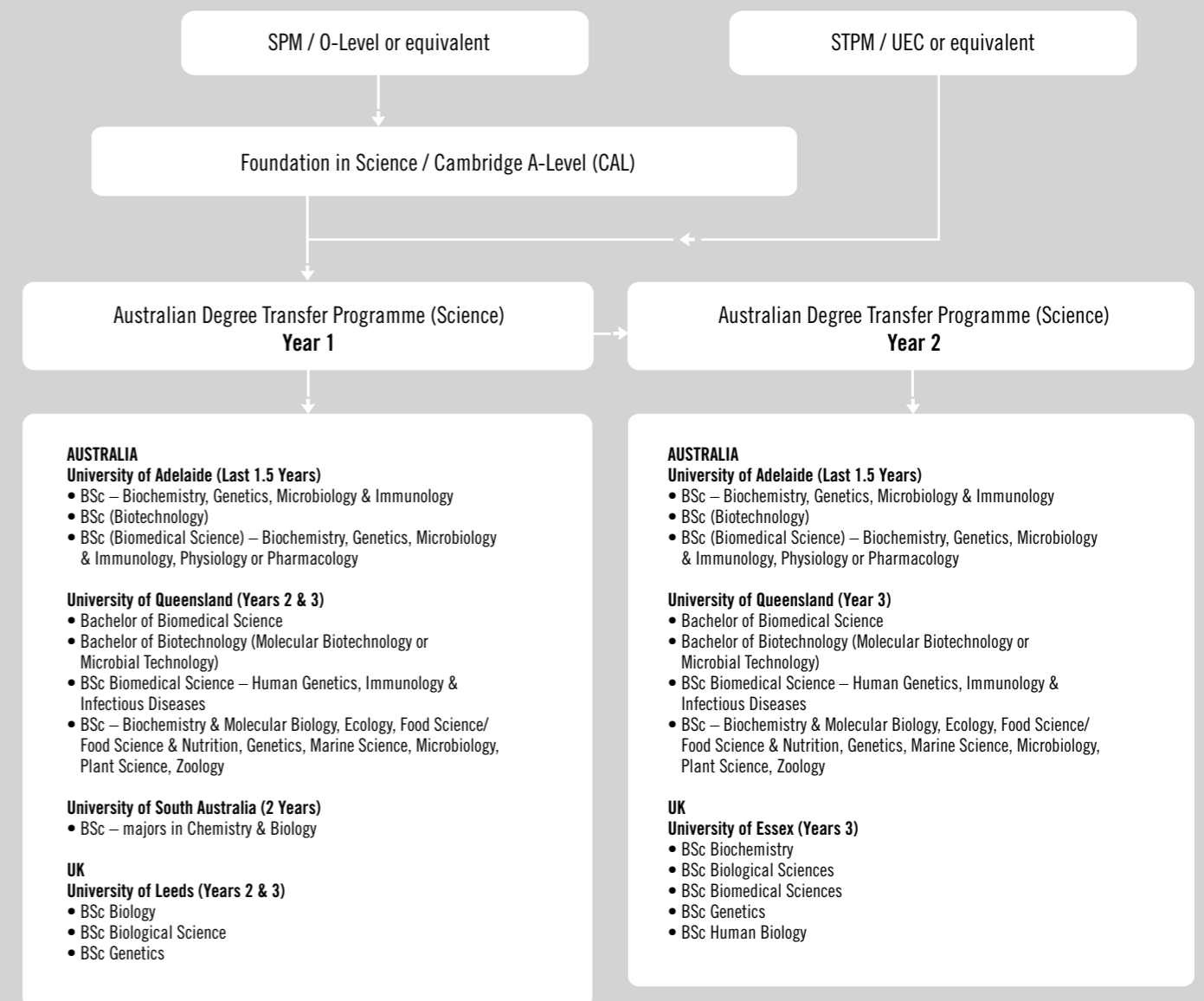
At Essex you can study a wide and exciting range of subjects including biomedical science, marine biology, biochemistry, biological sciences, genetics or genomics. The curriculum is constantly evolving, so you have the freedom to explore what interests you most from its diverse selection of modules. Whatever you choose, the University equips you with everything you need to build a successful and satisfying career.

INTI BIOTECHNOLOGY PATHWAY

BACHELOR OF
BIOTECHNOLOGY (HONS)



AUSTRALIAN DEGREE TRANSFER PROGRAMME (SCIENCE)





ENTRY REQUIREMENTS

Foundation in Science

Pure Science/ Other Science Area Pathway

SPM / O-Level / Equivalent:

5 credits including Mathematics and two other Pure Science subjects and a pass in Bahasa Malaysia and English

UEC / Equivalent:

3Bs including Mathematics, two other Science subjects and a pass in English

Biological Science/Bioscience Pathway:

Depending on the final degree choice (Medicine, Dentistry, Pharmacy, Health Science and Allied Health). Please refer to the Head of Programme for further information on the requirements.

Bachelor of Biotechnology (Hons)

Foundation

Completion of Foundation Programme with a CGPA of 2.00, or its equivalent, and possess SPM with 3 credit in Mathematics, 1 science subject and 1 any other subject, or its equivalent

A-Level

A-Level with minimum grade D (NGMP 2.0) in 2 subjects and possess SPM/O-Level with 3 credits in Mathematics, 1 science subject and 1 any other subject, or its equivalent.

STPM

2 grade C in any 2 subjects, or its equivalent; and possess SPM with 3 credits in Mathematics, 1 science subject and 1 any other subject, or its equivalent

SACE International

(formerly known as South Australian Matriculation (SAM))

ATAR of 70 and possess SPM/ its equivalent with 3 credits in Mathematics, 1 science subject and 1 any other subject, or its equivalent

NSW (HSC)

ATAR of 70 and possess SPM/ its equivalent with 3 credits in Mathematics, 1 science subject and 1 any other subject, or its equivalent

Australian Year 12

ATAR of 70 and possess SPM/ its equivalent with 3 credits in Mathematics, 1 science subject and 1 any other subject, or its equivalent

UEC

5Bs including Mathematics and 1 science subject

Canadian Pre-U (Ontario Senior Secondary Diploma)

6 subjects with minimum average score of 68 and possess SPM/its equivalent with 3 credits in Mathematics, 1 science subject and 1 any other subject, or its equivalent

Matriculation in related fields

Programme with a CGPA of 2.00, or its equivalent, and possess SPM with 3 credit in Mathematics, 1 science subject and 1 any other subject, or its equivalent

Diploma

Completion of Diploma with a minimum CGPA of 2.00, or its equivalent.

MUFY

4 subjects with minimum average score of 61

Others

Other equivalent qualifications as recognised by the Malaysian government

Australian Degree Transfer Programme (Science)

Foundation

Completion of Foundation Programme with a CGPA of 2.00, or its equivalent, and possess SPM with 3 credit in Mathematics, 1 science subject and 1 any other subject, or its equivalent

STPM

2 grade C in any 2 subjects, or its equivalent; and possess SPM with 3 credits in Mathematics, 1 science subject and 1 any other subject, or its equivalent

SACE International

(formerly known as South Australian Matriculation (SAM))

ATAR of 70 and possess SPM/ its equivalent with 3 credits in Mathematics, 1 science subject and 1 any other subject, or its equivalent

NSW (HSC)

ATAR of 70 and possess SPM/ its equivalent with 3 credits in Mathematics, 1 science subject and 1 any other subject, or its equivalent

Australian Year 12

ATAR of 70 and possess SPM/ its equivalent with 3 credits in Mathematics, 1 science subject and 1 any other subject, or its equivalent

UEC

5Bs including Mathematics and 1 science subject

Canadian Pre-U (Ontario Senior Secondary Diploma)

6 subjects with minimum average score of 68 and possess SPM/its equivalent with 3 credits in Mathematics, 1 science subject and 1 any other subject, or its equivalent

Matriculation in related fields

Programme with a CGPA of 2.00, or its equivalent, and possess SPM with 3 credit in Mathematics, 1 science subject and 1 any other subject, or its equivalent

Others

Other equivalent qualifications as recognised by the Malaysian government

A-Level

2 principal passes in any of 2 science subjects

Note:
The credit requirement at SPM level can be exempted should the grades obtained are equivalent / higher.
Student must obtain 5Bs at UEC AND credit in Mathematics and 1 science subject at SPM.

FOUNDATION IN SCIENCE

This programme prepares students for admission into science-related degrees in INTI. It is designed to equip students with a solid fundamental knowledge of their field of study, which includes Physics, Chemistry, Mathematics, English and Basic Computing.

Learning approach

Students will be introduced to various active learning methodologies such as Problem-based Learning, group discussions and projects, helping them to develop academically in areas like study skills, presentation skills, research skills and time management, which are all prerequisites for academic success. This will further enhance their critical and analytical skills, preparing them for the demands of the workplace.

Assessment

Assessment of individual courses in the Foundation Programme consists of two components:

- Continuous course work (50%)
- Final examination (50%)

The continuous course work component comprises different assessment tasks such as projects, assignments, laboratory work, presentations, tests, and others as assigned throughout each semester. The final examination is conducted at the end of each semester. The assessments are subject to quality assurance procedures to maintain high standards and ensure fair assessment.

Offered at

INTI International University
(R2/010/3/0198)(03/24)(A10019)

INTAKES: JAN, MAY & AUG

INTI International College Subang
(R/010/3/0445)(04/27)(MQA/FA8898)

INTI International College Penang
(R/010/3/0422)(09/28)(MQA/FA8334)

INTAKES: JAN, APR & AUG

Duration

1 Year

* Applicable to INTI International University only.

Programme structure

Year 1

- Chemistry 1
- Chemistry 2*
- English Language Skills 1
- English Language Skills 2*
- General Studies
- Mathematics 1
- Mathematics 2*
- Self-Development Skills
- Skills for Creative Thinking

Elective papers for Biological Science/ Bioscience[#] Pathway

- Basic Computing
- Biology 1
- Biology 2
- Statistics

Elective papers for Pure Science / Other Science Area[#] Pathway

- Biology 1
- Biology 2
- Physics 1
- Physics 2

Elective papers for Engineering Pathway

- Physics 1
- Physics 2
- Engineering Mechanics
- Basic Computing

* Prerequisite applies

BACHELOR OF BIOTECHNOLOGY (HONS)

This programme provides training in the practical application of organisms, or their cellular components, to manufacturing, service industries and environmental management. It provides sound training in core Molecular Biosciences (Biochemistry, Genetics, Microbiology, Molecular Biology and Immunology), leading to different areas of Biotechnology. Furthermore, electives are being offered in the fields of business and mass communication to give options to the students to gain more insights into business and entrepreneurship. Compulsory Biotechnology projects as well as internships with biotechnology and molecular bioscience companies will further enhance the employability of graduates. We are currently offering electives in the fields of Business Administration and Communication as well.

* Biotechnology electives.

** For Malaysian students who do not have a credit in SPM BM.

Highlights

- The programme spans a variety of key biotechnology areas from optimisation of processes such as those involved in producing antibiotics, vaccines, monoclonal antibodies, and genetically engineered transgenic plants and animals, to carrying out gene therapy, improving water and land management, and remedying pollution
- Well-equipped labs, where all Biotechnology undergraduates will have the opportunity to use advanced equipment such as the Real-Time PCR, HPLC, Bioreactor, Sonicator and Inverted Microscope
- Students may transfer to partner universities in Australia or the UK upon completing 1 or 2 years at INTI International University
- Students may change their majors when transferring to partner universities
- Collaborations with prestigious partner universities such as the University of Adelaide, University of Queensland and the University of South Australia, University of Essex, University of Leeds or University of the West of England

Career opportunities

- Science Officer, Science Researcher, Clinical and Regulatory Executive or Officer, Field Application Specialist, Technical Support Executive or Officer, Service Engineer, Quality Assurance Officer (Executive, Supervisor or Analyst), Quality Control Officer (Supervisor, Assistant or Analyst), Safety Specialist
- Industries in the public or private sector: biotechnology, food and drink (including brewing), health and beauty care, chemical and pharmaceutical manufacturing companies, research companies (including companies conducting clinical trials), clinical diagnostic laboratories, analytical and testing laboratories, environmental pollution control companies, hospitals, patent companies, various government research agencies and facilities (medicine, farming and agriculture, fisheries, forestry, etc.), forensic services and universities

Offered at

INTI International University
(R3/545/6/0009)(05/27)(A7640)

INTAKES: JAN, JUNE & AUG

Duration

3 Years (9 semesters)

Programme structure

Year 1

- Biology of Organisms
- Chemistry 1
- Chemistry 2
- Introduction to Biotechnology
- Mathematics & Statistics
- Molecular & Cell Biology
- Organisation & Management*

Year 2

- Analysis of Genetic Inheritance
- Biochemistry of Biomolecules & Enzymes
- Bioinstrumentation & Analytical Techniques
- Biotechnology Laboratory 1
- Cell & Tissue Culture
- Cellular & Metabolic Biochemistry
- Chromosomes, Gene Regulation & Evolution
- Fermentation Technology
- Immunology*
- Microbiology
- Recombinant DNA Technology

Year 3

- Agrobiotechnology*
- Bioethics
- Bioinformatics
- Biotechnology Laboratory 2*
- Biotechnology Laboratory 3*
- Biotechnology Practice
- Biotechnology Project
- Environmental Biotechnology
- Industrial Biotechnology*
- Internship
- Medical Biotechnology*
- Methods & Skills in Research

Students are allowed to choose ONLY one of the following three elective pathways:

i) Biotechnology Electives

- Organisation & Management
- Immunology
- Biotechnology Laboratory 2
- Biotechnology Laboratory 3
- Agrobiotechnology*
- Medical Biotechnology*
- Industrial Biotechnology*

*Students are required to choose one out of three from Agrobiotechnology, Medical Biotechnology, and Industrial Biotechnology.

ii) Business Electives:

- Managing Organisation
- Principle of Marketing
- Organizational Behaviour
- University English

iii) Mass Communication Electives:

- Introduction to Mass Communication
- Introduction to Advertising
- Principles of Public Relations
- Mass Media and Society

MPU subjects

1. Compulsory

- Bahasa Kebangsaan A**
- Community Service
- Integrity and Anti-Corruption
- Philosophy and Current Issue
- Appreciation of Ethics and Civilisations (Local students) / Communicating in Malay (International students)

2. Electives (Choose one)

- Design Thinking
- Corporate Social Responsibility
- Presentation Skills

AUSTRALIAN DEGREE TRANSFER PROGRAMME (SCIENCE)

Students can pursue Biotechnology, Life Sciences, Molecular Biosciences or Biomedical Sciences for up to the first two years of the degree programme. Successful students can transfer to partner universities in Australia or the United Kingdom to complete the degree. It is noteworthy that a number of the collaboration universities are consistently ranked among the top 200 universities worldwide by The Times Higher Education. On the QS World University Rankings are the University of Adelaide, University of South Australia, University of Queensland, University of Essex and University of Leeds. In Year 1, students take up the core basic sciences in Chemistry and Molecular & Cell Biology, supported by courses in Mathematics, Management, and Computing. In Year 2, they proceed to “cornerstone” courses in Biochemistry, Biotechnology, Genetics, Microbiology, and Immunology.

Highlights

- Well-equipped labs, where all Australian Degree Transfer Programme (Science) students will have the opportunity to use advanced equipment such as the Real-Time PCR, HPLC, Bioreactor, Sonicator and Inverted Microscope
- Collaboration with prestigious partner universities like the University of Adelaide, University of South Australia, University of Queensland, University of Essex and University of Leeds.

Career opportunities

- Science Officer, Researcher, Clinical and Regulatory Executive, Regulatory Officer, Field Application Specialist, Technical Support Executive (Officer), Service Engineer, Quality Assurance Officer (Executive or Supervisor or Analyst), Quality Control Officer (Supervisor, Assistant or Analyst), Safety Specialist
- Industries in the public or private sector: biotechnology, food and drink (including brewing), farming and agriculture, health and beauty care, research companies, medical and scientific instruments companies, chemical and pharmaceutical manufacturing companies, research companies (including companies conducting clinical trials), clinical diagnostic laboratories, analytical and testing laboratories, environmental pollution control companies, hospitals, blood banking services, government research agencies and facilities (medicine, farming and agriculture, fisheries, forestry, etc.), forensic services and universities

Offered at

INTI International University
(R2/440/6/0017)(06/24)(A10501)

INTAKES: JAN, MAY & AUG

Duration

2 Years (6 semesters)

Programme structure

Level 1

- Biology of Organisms
- Chemistry 1
- Chemistry 2
- Computing
- Introduction to Biotechnology
- Mathematics and Statistics
- Molecular and Cell Biology
- Organisation and Management

Level 2

- Biochemistry 1
- Biochemistry 2
- Biotechnology Laboratory
- Bioinstrumentation & Analytical Techniques
- Cell and Tissue Culture
- Fermentation Technology
- Genetics 1
- Genetics 2
- Immunology
- Microbiology
- Recombinant DNA Technology

MPU subjects

1. Compulsory

- Bahasa Kebangsaan A*
- Community Service
- Integrity and Anti-Corruption
- Philosophy and Current Issue
- Appreciation of Ethics and Civilisations (Local students) / Communicating in Malay (International students)

2. Electives (Choose one)

- Design Thinking
- Corporate Social Responsibility
- Presentation Skills

MASTER OF BIOTECHNOLOGICAL INNOVATIONS AND APPLICATION (BY RESEARCH)

This Master of Biotechnological Innovations and Application programme is designed to meet industrial demands by nurturing creative approaches in biotechnology research among students which will prepare them to adopt and apply current practices in the industry in innovative ways.

This programme deepens the understanding of fundamental and applied concepts of specific fields in biotechnology such as agricultural biotechnology, industrial biotechnology, medical biotechnology, and bioinformatics.

This is a research-based programme suitable for anyone interested in pursuing a Master's Degree. It is flexible and open to all eligible graduates and working adults.

Career opportunities

Academicians, Biotechnology Product Specialist, Microbiologist, Research and Development Manager, Biotechnology Product Analyst, Process Development Scientists and many more.

Offered at

INTI International University
(N/0510/7/0001)(08/27)(MQA/PA15848)

INTAKES: JAN, MAY & SEPT

Duration

Full-time: 2 Years
Part-time: 3 Years

Programme structure

- Research Methodology
- Proposal Defense
- Research Thesis
- Viva Voce in the final year
- Students are required to produce a thesis to fulfill graduation requirements

Entry Requirements

- A Bachelor's Degree in the field or related fields with a minimum CGPA of 2.75 or equivalent, as accepted by the Higher Education Provider (HEP) Senate; or
- A Bachelor's Degree in the field or related fields or equivalent with a minimum CGPA of 2.50 and not meeting CGPA of 2.75, can be accepted subject to rigorous internal assessment; or
- A Bachelor's Degree in the field or related fields or equivalent with minimum CGPA of 2.00 and not meeting CGPA of 2.50, can be accepted subject to a minimum of 5 years working experience in the relevant field.
- International students are required to achieve a minimum score of 5.5 in International English Language Testing System (IELTS) or Band 3 in Malaysian University English Test (MUET) or its equivalent.

Note: Candidates without a qualification in the related fields or relevant working experience must undergo appropriate prerequisite courses determined by the HEP and meet the minimum CGPA based on (i) to (iii).

*For Malaysian students who do not have a credit in SPM BM.

BIOTECHNOLOGY COMPETITIONS AND STUDENT ACTIVITIES

▼ YOUNG SOUTH EAST ASIAN LEADERSHIP INITIATIVE (YSEALI) WORLD OF FOOD INNOVATION CHALLENGE BY THE U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT (USAID)

INTI won 3rd place in YSEALI World of Food Innovation Challenge. The challenge aimed to collect innovative technology solutions and addressed some of South East Asia's most complex challenges in the fields of agriculture, aquaculture and fisheries. INTI's team started their quest with an information-based mobile application which aimed to provide live data from fish farms and information about fish diseases to the farm operators. In addition to that, the application was designed to connect buyers and sellers through a marketplace, including a forum for the farm operators to communicate with government agencies, universities, and fish experts.



▼ BIOTECHNOLOGY STUDENTS WON SILVER MEDAL IN INIIC (INTERNATIONAL INVENTION AND INNOVATIVE COMPETITION)

More than 90 teams from Malaysia, Thailand, Indonesia and Hong Kong joined the competition. Competing with other top research universities in the region, our biotechnology students' innovation, the Contaminant Free Glove, won the silver medal. Their innovation was subsequently highlighted in the prestigious Innovative Scientific Journal (ISJ).



▼ THE INTERNATIONAL INNOVATION FESTIVAL ORGANISED BY UNIVERSITI TEKNIKAL MALAYSIA MELAKA (UTEM) IN COLLABORATION WITH THE MINISTRY OF EDUCATION (MOE) AND THE MINISTRY OF SCIENCE, TECHNOLOGY AND INNOVATION MALAYSIA (MOSTI)

INTI won silver medal in a competition where students showcased their creativity and innovation through the products designed. The team's creation - My Pollution Detector (My-PD) - a smartphone with the special ability to detect air pollutants, caught the attention of judges and visitors. The product has great market potential given its low setup cost, high demand for the detection of pollutants, multi-purpose functions, immediate reading and easy single-click start up.



▼ GROW-OUR-FOOD: A UNIVERSITY SOCIAL RESPONSIBILITY PROJECT

Students volunteered their time in a CSR project that aimed to instill environmental awareness and promote responsible practices among kindergarten children, fostering a sense of appreciation for nature and the importance of locally sourced, fresh produce. By introducing the hydroponic method of growing vegetables, the students not only offered a hands-on learning experience but also showcased an innovative and eco-friendly approach to agriculture. This project reflects INTI's commitment to Environmental, Social, and Corporate Governance (ESG) and the United Nations Sustainable Development Goals (SDGs) by incorporating sustainable practices into the educational curriculum and promoting responsible behavior at an early age.



HEAR WHAT OUR ALUMNI SAY



“My experience at INTI has been fantastic. Kudos to the lecturers! They are very supportive and always willing to listen to us and guide us. I admire their constant dedication and unwavering determination. There are endless opportunities to grow at INTI. I have gained many great experiences studying here and I would highly recommend INTI to everyone.”

MUSKAN KARMANI
Business Development Executive, Putra Wijaya Maju
Bachelor of Biotechnology (Hons)

“I joined INTI because it had one of the most established and reputable Biotechnology programmes. What I really liked was the integrated learning experience which went way beyond doing coursework. Subsequently, INTI Career Services was instrumental in helping me secure a internship opportunity that led to a permanent position as a research scientist. I know I am very fortunate to be in a career that I love.”

ARUTHELVAM BALAKRISHNAN
Senior Scientist at Sime Darby Technology Centre
Bachelor of Biotechnology (Hons)



“One of the best things about INTI was its diverse student population. Interacting with them offered priceless insights into cultures from all over the world. The experience groomed me to cope better in the working world, where everyday you will face adversity or challenges.”

LEW ZIEN
Management Associate at Ant Futurtes a.k.a Ento Malaysia
Bachelor of Biotechnology (Hons)

“Looking back, my INTI journey was a pivotal stepping stone to some of my greatest accomplishments. After completing my Biotechnology programme, I realized I had a passion for food science, so I decided to pursue my Masters in Food Science and Innovation at Manchester Metropolitan University. In the UK, I participated in a host of interesting projects – from developing beer from bakery products to collaborating with one of UK’s biggest supermarket chains and getting my food safety HACCP certification. Can’t wait to make my mark in the food industry!”

LIEW ZEH SAN
Bachelor of Biotechnology (Hons)



“INTI has offered a life-changing experience with a focus on personal growth, academic exploration, and career readiness. As I reflect on my time at INTI, I am filled with gratitude for the lifelong memories, enduring friendships, and the firm foundation it has laid for my future endeavours.”

TAN XIN YI
Product Specialist, DKSH Malaysia Sdn Bhd
Bachelor of Biotechnology (Hons)

EMPLOYER PROJECTS

INTI has established close ties with leading companies in the industry to develop employer projects to enable students to gain real, hands-on work experience while studying. Through these projects, students are presented with immediate challenges faced by businesses, and are required to work together in teams to develop and present their proposals. Projects are based on real-life business issues that will help students to develop their knowledge and apply their soft skills in actual business scenarios.

Some employer projects undertaken by our students:

THE OPTIMISATION OF GROWTH FACTORS FOR PLANT CULTURE WITH HIGH DECORATIVE VALUE

TerraLiving Enterprise

The growth of plants in outdoor greenhouses has proven to be challenging due to temperature fluctuation, inconsistent sunlight exposure and pest outbreaks. Students from the Bachelor of Biotechnology programme collaborated with TerraLiving Enterprise to find the best way to grow plants with high decorative value in an outdoor greenhouse e.g. moss and lower plants (*Leucobryum glaucum*, *Hypnum plumaforme*, *Bryum sp.*) If the current breed of plants could not adapt to the indoor environment, an artificial selection of plant would be used to perform.

The students put together a collaborative study to come up with practical ways of cultivating indoor plants, using different growth parameters and applied knowledge gained in Agrobiotechnology to determine the best parameters for the study. The creative and highly motivated students also utilised knowledge and entrepreneurial skills obtained in Industrial Biotechnology to propose the commercial aspects of indoor plant cultivation that could reduce overall cost for TerraLiving.



THE OPTIMISATION OF SUBSTRATES FOR THE CULTIVATION OF MUSHROOMS WITH HIGH COMMERCIAL VALUE

Nas Agro Farm

The objective of this project was to determine the commercial and scientific benefit of using an alternative green and renewable source as a substrate for the cultivation of oyster mushrooms.

INTI students were required to identify a readily available resource to be tested as a potential substrate for mushroom cultivation, substituting sawdust, a conventional mushroom growing medium which is not environmental friendly. Thus, a new medium is pressingly needed for the sustainable development of the industry. The students successfully identified an alternative green and renewable source, with the correct formulation, as a potential replacement for the current medium.



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