

# Innovate with Technology



Creating a brighter future for life in the Tropics and beyond, through education and research that makes a difference locally, and globally.

Townsville | Singapore | Cairns | Brisbane

JNIVERSITY

## The Singapore campus of James Cook University

#### **Established in 2003**

The Singapore campus of James Cook University is fully owned by James Cook University Australia, which is ranked in the top 2% of universities in the world<sup>1</sup>. James Cook University Australia established its Singapore campus in 2003 as part of its expressed intent of internationalising its activities and offers a suite of university level programs at the Singapore campus covering the areas of Business, Information Technology, Psychology, Guidance and Counselling, Science, Commerce, Accounting, Aquaculture, Environmental Science, Games Design, Tourism and Hospitality.

James Cook University offers Higher Degree by Research programs such as Doctor of Philosophy, Master of Philosophy and pathways to a higher degree.

Additionally, the campus offers courses at the pre-university level, specifically designed to provide pathways for students who are unable to immediately meet university entrance standards.

The Singapore campus of James Cook University is located at Sims Drive. The campus provides students with access to a full range of facilities and services to support their learning. These include lecture and seminar rooms, library and associated study facilities, computer laboratories, aquaculture research and teaching facility, financial lab and access to a variety of sporting facilities.

#### James Cook University Inter-campus Exchange Program\*

James Cook University provides the opportunity for students to study in Singapore and in Australia and yet still remain as Singapore based students paying their fees in Singapore currency. This is a unique program designed to ensure that the students get the best possible outcomes from their years of study with the university, which operates across two countries.

#### EduTrust Star

James Cook University has the highest level of quality assurance in Singapore for Private Education Institutions. This is known as EduTrust Star and is a symbol of recognition for outstanding achievement. EduTrust Star is awarded to those institutions for attaining a commendable level of performance in managing their institutions and providing an outstanding quality of education and welfare for their students.

James Cook University is the first organisation with EduTrust Star. By obtaining this award for the third time in 2023, James Cook University has displayed its commitment and focus as a student centric educational institution.

#### **Tropical Futures Institute**

Given that research is a core component of the university, James Cook University established the Tropical Futures Institute to leverage off the university's research capability and strength and that creates substantive value-add to the research ecosystems of Singapore and the ASEAN region. The Tropical Futures Institute is the first research institute established by an Australian university in Singapore.

#### James Cook Institute

James Cook Institute is a wholly-owned subsidiary of James Cook University in Singapore that offers short courses and training programs in Industry 4.0 and areas that fit the needs of the workforce and community. This includes a wide range of short courses and training programs in information technology, digital marketing, communication, and more.

James Cook Institute is committed to further diversifying and enhancing its short course offerings, as well as delivering customised training programs for corporate clients to provide more people with the opportunity to upgrade their skills and stay relevant and employable in today's ever-changing world.

<sup>1</sup> 2024 ShanghaiRanking Academic Ranking of World Universities as a percentage of higher education providers in the International Association of Universities (IAU) database

\* Terms and conditions apply





# Modern business and society are increasingly computer-reliant.

In recent years the Internet and local computer networks have become essential everyday business tools. The people who make this work are called Information Technology (IT) professionals. Not surprisingly, the IT industry is one of the world's fastest-growing industries, and IT graduates can expect exciting and rewarding careers, anywhere in the world.

Note: International students in Singapore on a Student Pass are not permitted to work. For more information please visit www.ica.gov.sg

James Cook University is EduTrust-certified. The EduTrust Certification Scheme (EduTrust) is a quality assurance scheme administered and governed by SkillsFuture Singapore (SSG) for Private Education Institutions (PEIs) in Singapore. The EduTrust Certification Scheme requires all students to be covered under the Fee Protection Scheme (FPS). In James Cook University, this is provided through Fee Protection Scheme Group Insurance. All students from James Cook University are covered hospitalization, surgery and treatment costs in accordance to insurance policy term and conditions under the Group Hospitalisation and Surgical insurance scheme. James Cook University will advise in the Standard Student Contract the total amount of insurance payable.

For more details please visit SkillsFuture Singapore (SSG) website: http://www.skillsfuture.gov.sg/pei

## **Diploma of Higher Education** (Majoring in Information Technology)

Students with Year 12, GCE 'A' Level or its equivalent but do not meet direct entry to a degree program are eligible to pursue this qualification.

Students in this course will be given a tailored program within the allocated study period to acquire the necessary skills needed to progress to an undergraduate degree program. The Diploma of Higher Education (Information Technology) will also provide an exit point for early graduates who wish to undertake advanced skills or paraprofessional work in the industry.

Upon completion, students may be given advanced standing of 8 subjects into the Bachelor of Information Technology Program.



"My course helps me understand how technology and AI are affecting, changing, and being used in the world. Through my research for assignments, I can picture what the future could look like. My experience at James Cook University also gives me opportunities to meet and interact with new people, as well as try different experiences such as public speaking."

Harshini Raghuram Diploma of Higher Education (Majoring in Information Technology), 2025

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## Students are required to complete 8 subjects (24 credit points)

#### Core subjects:

Learning in a Digital environment Developing Academic Skills Essential Maths

#### Choose 5 subjects from the following:

Problem Solving and Programming I Internet Fundamentals Design Thinking I Web Design and Development Introductory Machine Learning and Data Science I Operating Systems and Shell Scripting Preparatory Mathematics

### **Entry Requirements**

#### **Entry Requirements**

Year 12, GCE 'A' Level qualifications or its equivalent (who do not meet direct entry requirement to a degree program).

#### **Exit Requirement**

• Pass all eight subjects

For further information email admissions-singapore@jcu.edu.au

#### Duration:

8 months full-time / 16 months part-time (Commencing in Trimester)

Intakes: Trimester: January, May, September

Course Structure:

4 subjects in Trimester

#### Total Tuition Fees (2025)\*: S\$22,236 (International) S\$21,364 (Domestic)\*\*

\* Effective from 1 March 2025. Tuition fees are subject to change in following years. \*\* Fees apply to all Singapore residents (Singapore Citizens, Permanent Residents and all pass holders excluding those holding a Student Pass).

#### Note:

- All course fees include the corresponding 9% Singapore Goods and Services Tax (GST).
- The details of the instalment breakdown will be provided in your Student Contract. Please contact us for further details.

- Applicants of non-English speaking backgrounds must meet the English language proficiency requirements of IELTS 5.5 (no component lower than 5.0) / TOEFL (Internet Based) 56 (no component less than 16) / Pearson PTE Academic 46 (no component less than 42); or C1 Advanced/C2 Proficiency 162 (no component less than 154) or ISLPR At least 2 in each skill area or AEMG English for Academic Purposes Direct Entry Program (AEAP DEP) Final Exam Overall 60% with no exam sub-score below 60%; or
- Satisfactory completion of James Cook University Singapore English Language Preparatory Program (ELPP); or
- Completing a course of study delivered in English or experience in an English-speaking workplace may help you demonstrate the English language skills you need at JCU.

"I chose James Cook University because of its supportive services and modern campus facilities, which create an ideal learning environment. My journey began with a fascination for technology and its capacity to solve real-world problems. Enrolling in the Bachelor of Information Technology program allows me to combine my passion for technology with practical skills."

Bao Linh Van Bachelor of Information Technology, 2025



## **Bachelor of Information Technology**

This course brings together the knowledge and skills that are essential for professional IT careers along with subjects in interactive visualisation, games, big data and data mining, interactive 2D/3D graphics and web technologies, mobile technologies, programming and design thinking, and programming.

Bachelor of Information Technology graduates will be able to:

- Demonstrate essential knowledge for a career in technology related professions and practice;
- Synthesise industry standard and underlying principles and concepts for decision making;
- Critically evaluate data & resources in the context or relevant academic literature;
- Apply critical thinking to address IT related issues;
- Demonstrate the ability to work collaboratively

This course is accredited by the Australian Computer Society (ACS). Graduates are eligible to apply to join the ACS. As an IT student, you will be entitled to memberships with two professional bodies: The Institute of Electrical and Electronics Engineers (IEEE) and the Singapore Computer Society (SCS).

#### **Duration:** 24 months full-time (Commence

24 months full-time (Commencing in Trimester)

Intakes: Trimester: January, May, September

#### **Course Structure:**

4 subjects in Trimester

Total Tuition Fees (2025)\*: S\$66,708 (International) S\$64,092 (Domestic)\*\*

\* Effective from 1 March 2025. Tuition fees are subject to change in following years. \*\* Fees apply to all Singapore residents (Singapore Citizens, Permanent Residents and all pass holders excluding those holding a Student Pass).

Note

- All course fees include the corresponding 9% Singapore Goods and Services Tax (GST).
- The details of the instalment breakdown will be provided in your Student Contract. Please contact us for further details.

This course is composed of 24 subjects including core subjects and elective as per the study plan.

#### **Core Subjects**

- Problem Solving and Programming I
- Internet Fundamentals
- Design Thinking I
- Programming II
- Web Design and Development
- Introductory Machine Learning and Data Science
- Information Processing and Visualization
- Database Modelling
- Programming III
- Design Thinking II

- Network Security
- Cloud Computing
- Discrete Mathematics for Computing
- Data Mining
- Information Security
- Design Thinking III
- Mobile Computing
- Advanced Software Engineering
- Deep Learning
- Professional Internship or Multi-Disciplinary Project or Independent Project

#### Choose 4 of any undergraduate subject

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#### Career prospects:

Graduates will have the expertise to pursue exciting careers as project manager, network administrator and designer, system analyst, software developer, application developer, IT researcher, IT manager, system administrator, multimedia developer, game designer/tester/reviewer, simulation designer, enterprise architect, consultant, story boarder, web designer, and mobile app developer.



## **Entry Requirements**

#### **Entry Requirements**

- The entry requirements differ from country to country but in general applicants must have satisfactorily completed 12 years of schooling or equivalent
- Successfully complete ten (10) subjects with a minimum pass of 50% per subject and secure an overall 65% of the James Cook University Foundation program will also satisfy the entry requirement.

For further information email admissions-singapore@jcu.edu.au

#### **Advanced Standing**

- Advanced standing of up to 8 subjects will be granted upon successful completion of James Cook University Diploma of Higher Education (Information Technology) program.
- Credit exemption of up to 16 subjects may be granted for students with relevant qualifications from recognised institutions.
- Credit will be granted only for studies completed in the 5 years prior to the commencement of this course.

- Applicants of non-English speaking backgrounds must meet the English language proficiency requirements of IELTS 6 (no component lower than 6.0) / TOEFL (Internet Based) 74 (no component less than 18) / Pearson PTE Academic 52 (no component less than 52); or
- Satisfactory completion of James Cook University Singapore English Language Preparatory Program (ELPP); or
- Successful completion of other qualifications completed in English Language deemed comparable to Australian standards on a case-by-case basis in accordance to JCU admissions guidelines.





"Studying cybersecurity at James Cook University has been one of the best decisions I've made. I've learned so much, gained hands-on experience, and discovered the practical skills I need to prepare for my future career."

Pow Wongtanakarn Bachelor of Cybersecurity, 2024



## **Bachelor of Cybersecurity**

Cybersecurity is a growing industry where demand hugely outstrips supply and currently lacks a specialised workforce able to cover its multifaceted challenges. The relevance of this field cannot be overestimated as it affects all sides of society and industry alike. This is especially relevant in the Tropical and ASEAN region where developing nations are striving to implement new technological solutions to enhance their population's living standards. Such technologies, including IoT, critical infrastructure and even a more general internet infrastructure, need to be secured and monitored at all levels from a constantly rising number of threats.

The Bachelor of Cybersecurity forms professionals with a proper foundation in IT (including software and mobile app development, database design, machine learning etc.) complemented by a strong emphasis in Cybersecurity and related knowledge.

Graduates of the Bachelor of Cybersecurity at James Cook University will be able to:

 Demonstrate essential knowledge for a career in IT and Cybersecurity related professions and practice.

- Synthesise IT and Cybersecurity industry standard and underlying principles and concepts for decision making and risk assessment.
- Critically analyse the core professional obligations, values and operations of organisations, including sustainability.
- Critically evaluate data & resources in the context of industry IT and Cybersecurity practice and/or relevant academic literature.
- Apply critical thinking to address IT and Cybersecurity related issues.
- Convey information clearly and fluently, in high quality written form appropriate for their audience.
- Demonstrate effective oral presentation skills for academic and professional audiences
- Demonstrate the ability to work collaboratively.
- Apply technical skills, including numeracy, necessary for IT and Cybersecurity professional practice.
- Demonstrate an awareness of ethical and social responsibility in professional practice.
- Identify and act upon, learning opportunities and self-improvements.

#### Students are required to complete

#### Core Subjects Level 1:

- Problem Solving and Programming 1
- Internet Fundamentals
- Programming II
- Web Design and Development
- Preparatory Mathematics or Mathematical Foundations
- Foundations of Data Science
- Operating Systems and Shell Scripting
- Cybersecurity and Cryptography Fundamentals

#### Core Subjects Level 2:

- Information Processing and Visualisation
- Database Modelling
- Programming III
- Design Thinking II
- Network Forensics and Data Communications
- Discrete Mathematics for Computing or Machine Learning for Cybersecurity
- · Cloud and Data Centre Security
- Cybersecurity Infrastructure and Management

#### Core Subjects Level 3:

- Data Mining
- · Mobile Computing or Advanced Software Engineering
- Design Thinking III
- Ethical Hacking
- Behavioural Cybersecurity
- Cybersecurity for Operational Technology
- Professional Internship or Best Practices in Cybersecurity **Elective**:

3 credit points (1 subject) of any undergraduate subject

### **Entry Requirements**

#### **Entry Requirements**

- The entry requirements differ from country to country but in general applicants must have satisfactorily completed 12 years of schooling or equivalent
- Successfully complete ten (10) subjects with a minimum pass of 50% per subject and secure an overall 65% of the James Cook University Foundation program will also satisfy the entry requirement

#### **Course Prerequisite**

- English
- Recommended: Mathematical Methods

For further information email admissions-singapore@jcu.edu.au

#### Duration:

24 months full-time / 36 months part-time (Commencing in Trimester)

#### Intakes:

Trimester: January, May, September

Course Structure: 4 subjects in Trimester

#### **Total Tuition Fees (2025)\*:** S\$66,708 (International) S\$64,092 (Domestic)\*\*

\* Effective from 1 March 2025. Tuition fees are subject to change in following years. \*\* Fees apply to all Singapore residents (Singapore Citizens, Permanent Residents and all pass holders excluding those holding a Student Pass).

Note

- All course fees include the corresponding 9% Singapore Goods and Services Tax (GST).
- The details of the instalment breakdown will be provided in your Student Contract. Please contact us for further details.

#### **Career Outcome:**

Graduates will be ready for different entry level jobs in this growing industry including, for example, cybersecurity analyst and penetration tester.

Besides learning technical topics like network infrastructure and security, ethical hacking, machine learning and more, students will also be exposed to higher level concepts, including risk management and strategy and governance, laying down a foundation for career growth and possible later shifts into senior management positions in both public and private sectors.

#### **Advanced Standing**

- Credit exemption of up to 16 subjects may be granted for students with relevant qualifications from recognised institutions.
- Credit will be granted only for subjects completed in the 5 years prior to the commencement of this course.

- Applicants of non-English speaking backgrounds must meet the English language proficiency requirements of IELTS 6 (no component lower than 6.0) / TOEFL (Internet Based) 74 (no component less than 18) / Pearson PTE Academic 52 (no component less than 52); or
- Satisfactory completion of James Cook University Singapore English Language Preparatory Program (ELPP); or
- Successful completion of other qualifications completed in English Language deemed comparable to Australian standards on a case-by-case basis in accordance to JCU admissions guidelines.

"My passion for programming and technology led me to pursue my studies at James Cook University (JCU). I chose JCU because of its diversity, the wide range of majors, and its excellent faculty and strong industry connections."

Nguyen Thanh Long Master of Information Technology, 2025

## **Master of Information Technology**

### Majors

- Business Informatics
- Computing
- Interactive Technologies and Games Design

In the expanding e-Business/e-Commerce industry, there is a growing global demand for graduates skilled with a mix of marketing, management, internet, multimedia, computing, networking, software technologies and business operation skills.

Our Master of Information Technology program provides practical and relevant skills to allow graduates of different disciplines to move into the IT industry.

Students have an opportunity to specialise in Business Informatics, Computing or Interactive Technologies and Games Design.

Our Master of Information Technology program is fully accredited by the Australian Computer Society at the 'Professional Level' (its highest level).

As an IT student, you will be entitled to membership with two professional bodies: The Institute of Electrical and Electronics Engineers (IEEE) and the Singapore Computer Society (SCS).

#### **Duration**:

16 months full-time / 16 months part-time^ (commencing in Trimester)

Intakes: Trimester: January, May, September

#### Course Structure:

4 subjects in Trimester

Total Tuition Fees (2025)\*: S\$57,203.20 (International) S\$55,284.80 (Domestic)\*\*

^ Except for Computing Major

\* Effective from 1 March 2025. Tuition fees are subject to change in following years. \*\* Fees apply to all Singapore residents (Singapore Citizens, Permanent Residents and all pass holders excluding those holding a Student Pass).

Note:

- All course fees include the corresponding 9% Singapore Goods and Services Tax (GST).
- The details of the instalment breakdown will be provided in your Student Contract.
  Please contact us for further details.



This course is composed of 16 subjects including core subjects and elective as per the study plan.

#### **Foundation Subjects**

Internet Fundamentals Problem Solving and Programming I Database Modelling Web Design and Development or e-Strategic Management

#### Core Subjects (All majors)

ICT Project 1: Analysis and Design ICT Project 2: Implementation and Commissioning Advanced E-Security

#### Core Subjects (Major specific)

#### - Business Informatics

E-Business Technologies Enterprise Database Systems - Oracle Advanced Databases and Applications Data Analysis and Decision Modelling Data Mining

#### Computing -

Advanced Mobile Technology Advanced Data Communication Principles Data Mining Advanced Human Computer Interaction Advanced Algorithm Analysis

#### - Interactive Technologies and Games Design

E-Business Technologies Advanced Game Design Advanced Human Computer Interaction Advanced Animation Techniques Intelligent Agents and Simulation

Plus four elective subjects

### Majors

**Business Informatics** is a specialist area of IT that combines information technology, management and business. It encompasses everything from utilising Information Technology, to making informed decisions in business, or to large scale data warehousing.

The **Computing** major is designed for information technology and computer science graduates and recognised IT professionals who seek to further their knowledge and skills in advanced computing, programming, information systems and networking.

Interactive Technologies and Games Design focuses on both the front and back end integration of interactive technologies -Web 2.0 applications, Digital Media, Web/Mobile Technologies and platforms, 2D/3D Graphics, Animation, Games Design, Computation Arts, Interactive Visualisation, Autonomous Simulation and Virtual Worlds.

#### Career prospects:

Depending on the major, the Master of Information Technology equips students with skills for a career in a variety of settings. They can operate as software, database or administration consultants or project managers for IT, education, research and system development projects.

## **Entry Requirements**

#### **Entry Requirements**

 Completion of an AQF level 7 bachelor degree from this or another university; or other qualifications or practical experience recognised by the Pro-Vice-Chancellor of the College of Science and Engineering as equivalent to the above.

#### **English Requirements**

- Applicants of non-English speaking backgrounds must meet the English language proficiency requirements of IELTS 6.5 (no component lower than 6.0) / TOEFL (Internet Based) 86 (no component less than 21) / Pearson PTE Academic 58 (no component less than 54); or
- Satisfactory completion of James Cook University Singapore English Language Preparatory Program (ELPP); or
- Successful completion of other qualifications completed in English Language deemed comparable to Australian standards on a case-by-case basis in accordance to JCU admissions guidelines.

 $\label{eq:constraint} For further information email admissions-singapore@jcu.edu.au$ 

#### **Advanced Standing**

### Advanced Standing from 4 of the Foundation subjects can be considered for:

- Applicants with a minimum 4 years full-time equivalent professional work experience in information and communication sector.
- Applicants with undergraduate degree from cognate discipline such as IT Cognate disciplines: Information Technology, Computer Science, Information Systems or other disciplines where students will have completed study relating to information and communication technologies.
- Credit will be granted only for studies completed in the 4 years prior to the commencement of this course.

#### Advanced standing can also be considered for:

- Applicants with a four-year relevant undergraduate program
- Previous tertiary study where appropriate





## Master of Information Technology -Master of Business Administration

There is a growing demand for graduates skilled in a range of Information Technologies. In addition, there is worldwide demand for graduates with critical business skills and acumen to fully leverage these technical skills into profitable products and services.

This joint degree provides a path for IT graduates seeking to move into the IT and management area. The objective is to provide theory and practical skills in accounting, financial management, marketing, operations management, e-business technologies, multimedia, programming, networking and software development.

#### **Program Features:**

- Prepares students for management responsibilities and career advancement
- Enables students to work more effectively in multidisciplinary teams
- Better equips students to use their IT skills to achieve organisation goals
- A relevant curriculum designed to meet the unique business needs
- Formal business and management education that enhances students' research, report preparation, presentation and people skills

## Students need to complete 16 subjects including core and elective subjects as per the study plan

#### **Core Subjects**

- ICT Project 1: Analysis and Design
- ICT Project 2: Implementation and Commissioning
- Collective Intelligence and Entrepreneurship or Advanced Human Computer Interaction
- Database Modelling **or** Advanced Data Communications Principles
- Advanced E-Security
- Data Mining
- Corporate Strategy
- Business Innovation and Technology Management
- Managing Strategic Resources and Operations
- Leadership Futures
- Digital Marketing or Marketing Essentials
- Innovation and Entrepreneurship
- · Leading and Managing Organisational Change
- Applied Research Project

Plus two elective subjects

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#### Career prospects:

The joint masters program prepares students for a broad range of careers in management, science or as specialist consultants.

#### **Duration**:

16 months full-time (Commencing in Trimester)

#### Intakes:

Trimester: January, May, September

#### Course Structure:

4 subjects in Trimester

#### **Total Tuition Fees (2025)\*:** S\$57,203.20 (International) S\$55,284.80 (Domestic)\*\*

\* Effective from 1 March 2025. Tuition fees are subject to change in following years. \*\* Fees apply to all Singapore residents (Singapore Citizens, Permanent Residents and all pass holders excluding those holding a Student Pass).

#### Note:

- All course fees include the corresponding 9% Singapore Goods and Services Tax (GST).
- The details of the instalment breakdown will be provided in your Student Contract. Please contact us for further details.

## **Entry Requirements**

#### **Entry Requirements**

• Entry requirement requires cognate degree: Completion of an AQF Level 7 Bachelor Degree in Information Technology from this or another University.

For further information email admissions-singapore@jcu.edu.au

- Applicants of non-English speaking backgrounds must meet the English language proficiency requirements of IELTS 6.5 (no component lower than 6.0) / TOEFL (Internet Based) 86 (no component less than 21) / Pearson PTE Academic 58 (no component less than 54); or
- Satisfactory completion of James Cook University Singapore English Language Preparatory Program (ELPP); or
- Successful completion of other qualifications completed in English Language deemed comparable to Australian standards on a case-by-case basis in accordance to JCU admissions guidelines.

Diploma of **Higher Education (Majoring in Information Technology)** Bachelor of **Information Technology** Bachelor of **Cybersecurity** Master of **Information Technology** *Joint Degree:* Master of **Information Technology -** Master of **Business Administration** 

Your Local Representative:	

- James Cook University -

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This publication is intended as a general guide. The information is correct at the time of printing. James Cook University reserves the right to alter any course contents or admission requirements without prior notice. Version SIN02/25