



Curtin Singapore

2022 COURSE GUIDE

# *IT, Data Science, Cyber Security*

Make tomorrow better.

[curtin.edu.sg](https://curtin.edu.sg)

# Let's make tomorrow better, together

**Curtin is a vibrant, future-focused university where ideas and cultures combine to create a place of enthusiasm, endeavour and achievement.**

When you join Curtin, you join a community of more than 240,000 alumni around the globe, many of whom have made a significant impact in their field. Studying at Curtin is the beginning of a lifelong journey. We look forward to helping you begin yours.

## **Embark on new discoveries**

If you're curious about the forces that make our world work, then Curtin is the place to explore your passion for computing and turn it into a rewarding career.

Our courses are recognised internationally and many are accredited by relevant professional bodies. Depending on your course, you can explore additional interests through elective course units, and there are opportunities to study overseas.

Throughout your course, you will be guided by our dynamic team of academics alongside researchers working on major international projects.

You'll graduate with specialised skills and relevant knowledge that meet the needs of an evolving workforce, and be ready to contribute to scientific discoveries that push the boundaries of understanding.

## **Computing**

As the IT industry changes, product-specific skills can quickly become obsolete. The focus of our computing courses is to convey fundamental knowledge and skills to our students, to help them become life-long learners and build sustainable careers.

Curtin courses are based on the curricula recommendations of two respected professional IT associations: IEEE Computer Society and the Association for Computing Machinery. The courses are developed in consultation with an industry advisory board representing the IT industry, and are accredited by the Australian Computer Society.





**Curtin is ranked in the top one per cent of universities worldwide**  
Academic Ranking of World Universities 2021



**Curtin achieved a 5 star status for student demand, teaching quality, and learning resources.**  
The Good Universities Guide 2022



**Risen to 194th in the world rankings**  
QS World University Rankings 2022



**Curtin Singapore is ranked 3rd in full-time permanent employment rate**  
SkillsFuture Singapore Private Education Institution Graduate Employment Survey 2020/21

# A global education

From tailored study tours to professional internships and short courses, you have access to a large range of international opportunities to gain a truly global educational experience.

## Curtin campuses

We are internationally connected, with campuses located across five countries and partnerships with more than 130 tertiary education institutions worldwide. You'll receive a globally relevant education that encourages you to develop intercultural awareness, visit other countries and add international experience to your résumé.

## Cross-campus

Our academic programs are the same across all Curtin campuses, so if your course is available at a different location, you can study there for a semester with no interruption to your progress.

## The Aberdeen-Curtin Alliance

The Aberdeen-Curtin Alliance was established in early 2017, combining 500 years of academic strength, history and tradition at Scotland's University of Aberdeen with the ambition and innovation of Curtin University.

## Dubai

At Curtin University Dubai you'll study in a city famed for its luxury lifestyle, architecture and geographical importance. The campus provides flexible access to highly regarded programs for students in the Middle East, India, Africa and Central Asia.

## Mauritius

Two thousand kilometres off the south east coast of Africa, the tropical island of Mauritius blends cultures from Europe, Africa and Asia. Here you'll receive an internationally recognised education and can sample a variety of exciting leisure activities and sports.

## Singapore

Curtin Singapore offers a starting point for everyone, delivering a range of pathway diploma, undergraduate, postgraduate, study abroad and English language courses. Curtin Singapore has close to 1,600 students currently enrolled with around half of our students come from a country outside of Singapore, which adds a valuable dimension to your university experience, both in and out of the classroom.

## Malaysia

Located near the city of Miri, Sarawak, on the island of Borneo, Curtin University Malaysia has a beautiful garden campus nestled between the world's oldest rainforest and the South China Sea. You can enjoy warm weather all year, indulge in the local culture and food, and discover the area's natural wonders.

## Kalgoorlie

Curtin Kalgoorlie puts Curtin students in the heart of WA's historic mining region.

## Perth

Perth is a stunning, vibrant and multicultural city and the ideal place to mix study with sports, activities, dining and relaxation.

Curtin Perth is located just six kilometres from the city centre. It is a place of inspiration, with technology-rich learning spaces, high-impact research and a wide range of courses that prepare you for your future career.



# Experience Singapore

Singapore offers a unique concentration of different leisure experiences to enhance your education journey, from its distinctive cultures and dining experiences, to a vibrant arts scene and world-class shopping venues.



## Stay in touch with the people you love

Since Singapore is located in the same time zone as countries like Malaysia, Hong Kong, China and Philippines, it's convenient to contact your loved ones while you study.

Alternatively, why not catch the next flight home? Singapore's international airport is well served by flights connecting the region with the world. Frequent flights and a broad choice of airlines mean it's easy for you to visit home.



## Transport and getting around

Transportation within Singapore is a breeze. A well-connected public transport system and road network enables easy access to Singapore's world-class attractions such as Singapore Zoo, Gardens by the Bay, Clarke Quay and Universal Studios, as well as excellent shopping opportunities.





### Entertainment and culture

Packed with concerts and exciting entertainment options, Singapore's vibrant events calendar means that there is always something to do on this sunny island. Annual highlights include the multicultural dance, music and visual feast at Chingay Parade and the spectacular fireworks finale at Marina Bay Singapore countdown party.



### Diverse range of dining options

A nation of food enthusiasts, the city's culinary landscape has evolved tremendously in recent years and has expanded in range and variety. Beyond the astounding array of authentic street food and an emerging scene of innovative new dining concepts at a vast range of price points, Singapore is also home to interesting venues that provide hands-on culinary experiences. In Singapore, food forms a central part of culture and is always accessible no matter where you are.



# Our facilities

These are just a few of the immersive learning facilities that we provide for our students.



## Campus learning spaces

The campus has workspaces, and teaching and meeting rooms that encourage interactive learning, networking and collaboration.







### Technological convenience

Wi-fi can be accessed across the campus and there's a number of places on campus where you can recharge your devices.



### Computer Labs

The Computer Labs are equipped with work stations and industry leading software to train the next generation of science and engineering innovators.

# Cyber Security

Match your computer career aspirations cyber security.

## DEGREE

Bachelor of Computing (Cyber Security)

## ENTRY REQUIREMENT

GCE A-Levels 8 points or equivalent

## PREREQUISITES

Mathematics including calculus

## ENGLISH ENTRY REQUIREMENT

IELTS 6.0 (no band less than 6.0)  
or equivalent

## CREDIT FOR PREVIOUS STUDY

If you have previously studied in this field, you are encouraged to contact Curtin Singapore to discuss eligibility for Credit for Recognised Learning (credit for unit exemptions)

## INTAKE

February, July and November

## STUDY MODE

Full-time

## DURATION

2 years full-time

## TUITION FEE

Domestic: S\$34,000

International: S\$48,000



## Course description

This course will equip you with high-level knowledge of computer systems and processes involved in software development and maintenance.

It covers aspects of modern computing, commencing with fundamental programming and theoretical knowledge; and followed by specialisation in cyber security.

You'll use C and Java as the tools for learning core concepts such as object orientation and algorithms. Linux skills are taught throughout the course, starting with the basics and progressing to advanced topics.

## Cyber Security

This major focuses on the key concepts and challenges in data protection and computer software security.

You will examine both the high- and low-level practical aspects of computer security. High-level aspects include cryptography theory, data access policy development and security program management. Low-level aspects include computer forensics, network intrusion detection and incident handling.

Graduates have the skills to identify and implement appropriate applications for specific scenarios, as well as an understanding of issues related to the protection of individual rights.

## Career information

### Careers

- Computer programmer
- IT professional
- Computer security professional

### Industries

- Cyber security
- Game design and development
- IT analysis.

# Data Science

Find the key to innovation by analysing Big Data to predict future trends and inform industry decisions.

## DEGREE

Bachelor of Science (Data Science)

## ENTRY REQUIREMENT

GCE A-Levels 8 points or equivalent

## PREREQUISITES

Mathematics including calculus

## ENGLISH ENTRY REQUIREMENT

IELTS 6.0 (no band less than 6.0) or equivalent

## CREDIT FOR PREVIOUS STUDY

If you have previously studied in this field, you are encouraged to contact Curtin Singapore to discuss eligibility for Credit for Recognised Learning (credit for unit exemptions)

## INTAKE

February, July and November

## STUDY MODE

Full-time

## DURATION

2 years full-time

## TUITION FEE

Domestic: S\$34,000

International: S\$48,000

## Course description

Data scientists collate and analyse large volumes of data and communicate their findings to a range of audiences. Their ability to use big data to predict future trends is becoming an essential part of decision making in business and government.

Data is being generated at an unprecedented rate and its availability will continue to increase. Every industry is using large volumes of data – from predicting weather patterns and optimising harvesting in agriculture, to improving patient diagnosis in the health industry, to enhancing the management of remote infrastructure in mining.

This is a multidisciplinary major. It combines studies in computing, emerging internet technologies, media and statistics. You will gain a foundation in programming and statistics, which will form the basis of higher-level studies in data mining, data security and computer simulation.

This course builds your capacity to extract, analyse and visualise large volumes of data and communicate analytical outcomes to a range of

audiences. You'll graduate equipped to enter a range of industries where data science is key to innovation.

In keeping with Curtin's strong links with industry, this course has an industry advisory group that provides guidance about the course content. The group comprises representatives from the resources sector, management consulting, data analytics services and spatial data product developers, and enterprises such as Optika Solutions and PwC.

## Career information

### Careers

- Data analyst
- Data scientist.

### Industries

- Agriculture and environment
- Arts
- Economics, business, banking and finance
- Geographic information science
- Government
- Health science
- Media
- Mining
- Oil and gas
- Supply chain logistics
- Technology.



# Information Technology

Learn the fundamentals of programming and gain security skills of modern computing and computer networks.

## DEGREE

Bachelor of Information Technology

## ENTRY REQUIREMENT

GCE A-Levels 5 points or equivalent

## PREREQUISITES

Mathematics

## ENGLISH ENTRY REQUIREMENT

IELTS 6.0 (no band less than 6.0) or equivalent

## CREDIT FOR PREVIOUS STUDY

If you have previously studied in this field, you are encouraged to contact Curtin Singapore to discuss eligibility for Credit for Recognised Learning (credit for unit exemptions)

## INTAKE

February, July and November

## STUDY MODE

Full-time

## DURATION

2 years full-time

## TUITION FEE

Domestic: S\$34,000

International: S\$48,000

## Course description

This course covers fundamental programming and security skills of modern computing and computer networks, specialising in various aspects of distributed computing.

You will use Python as a tool for learning network and other programming. Linux skills are taught throughout the course, starting with the basics and progressing to advanced topics.



You'll develop a sound knowledge of computer systems and processes involved in software development and maintenance.

Curtin works closely with industry partners to optimise course content and this degree is designed to prepare you for careers in high-demand areas of computing.

## Career information

### Careers

- Computer programmer
- IT professional
- Computer security professional

### Industries

- Cyber security
- IT analysis.

# Pathways

If you don't meet our minimum entry requirements, you may complete a program at Navitas English, Curtin College or both. These pathways enable you to study at different levels and progress to an undergraduate or postgraduate course at Curtin Singapore.



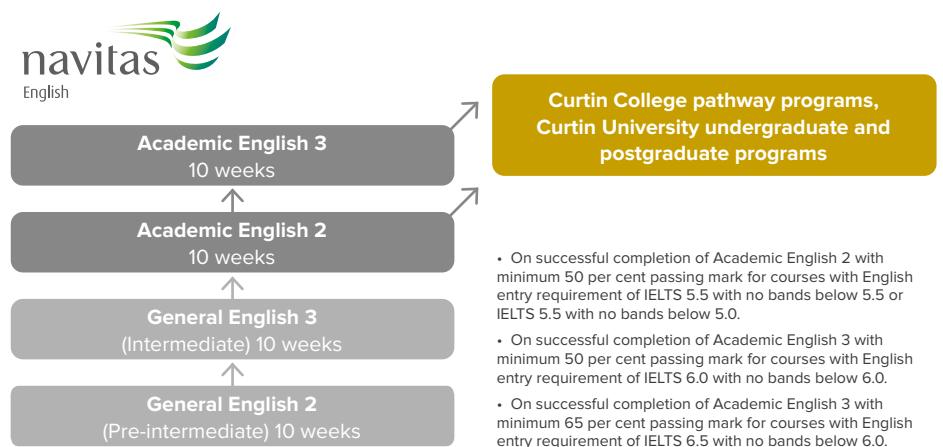
## Pathway

If you don't meet our minimum entry requirements, you may complete a program at Navitas English, Curtin College or both. These pathways enable you to study at a number of different levels and progress to an undergraduate or postgraduate course at Curtin Singapore.

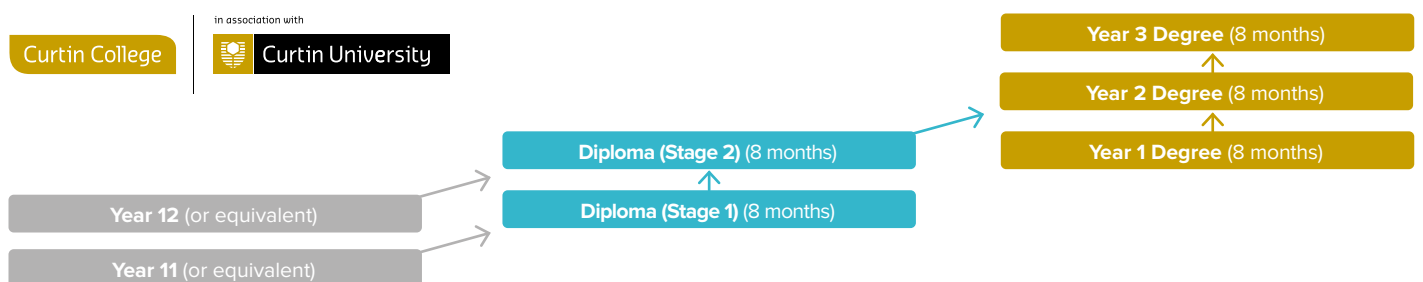
### Navitas English

If you don't meet the English language entry score required for your program, consider first taking the Diploma of English for Academic Purposes program at Navitas English. The Diploma consists of four 10-week modules: two General English modules and two Academic English modules.

## Diploma of English for Academic Purposes progression pathway



## Curtin College Diploma of IT progression pathway



### Curtin College Diploma

If you don't meet the University's academic entry requirements, Curtin College offers an option to transition from Diploma of IT straight into the second year of the corresponding Curtin University bachelor program.

### Diploma of IT (Stage 1)

#### ENTRY REQUIREMENT

GCE O-Level with 4 passes or equivalent

#### ENGLISH ENTRY REQUIREMENT

IELTS 5.5 (no band below 5.0)

#### INTAKE

February, July and November

#### DURATION

8 months full-time

#### TUITION FEE

Domestic: S\$9,920

International: S\$14,160

### Diploma of IT (Stage 2)

#### ENTRY REQUIREMENT

GCE A-Levels 2 points or equivalent

#### ENGLISH ENTRY REQUIREMENT

IELTS 5.5 (no band below 5.5)

#### INTAKE

February, July and November

#### DURATION

8 months full-time

#### TUITION FEE

Domestic: S\$11,333

International: S\$16,000

# Application process



The following information is relevant to you if you are applying directly to Curtin Singapore. If you are using the services of a Curtin registered agent, you should lodge your application via the agent and contact them with any queries throughout the admission process.

## 1. APPLY

### Apply online

#### Visit [apply.curtin.edu.sg](https://apply.curtin.edu.sg)

Documents to be submitted with the application:

- Certified copies of all your previous qualifications (e.g. academic transcripts, grading system descriptions and award certificates).
- English language entry requirements such as academic IELTS and TOEFL (if applicable).
- Identification documents (e.g. NRIC, working pass, or passport).
- Evidence of change of name (if applicable).

## 2. AWAIT YOUR OFFER

Assessment of your application takes one to two weeks.

If we require further documents to assess your application, they will be requested from you.

Assessment of your application will be delayed until we receive these documents.

### Credits for Recognised Learning (CRL)

We will not be able to assess CRL for previous studies without an application and certified copies of all your academic transcripts/statement of marks and award certificates to date.

CRL is granted at the discretion of the school/faculty.





### 3. RECEIVE YOUR OFFER

Your offer package consists of:

- Letter of Offer
- Acceptance of Offer form
- Standard PEI-Student Contract

### 4. ACCEPT YOUR OFFER

#### Steps to accept your offer

##### Step 1

Read your Letter of Offer carefully, ensuring all personal information and course details are correct.

##### Step 2

Meet all conditions on your Letter of Offer if applicable.

##### Step 3

Read and understand all terms and conditions stated in the Standing PEI-Student Contract before signing it. Local students may sign the contract on campus with an Admissions Officer and international students will be provided with a video guide to explain the key elements of the contract.

##### Step 4

Make payment for your course fees and provide proof of payment, including your full name and student ID number to [finance@curtin.edu.sg](mailto:finance@curtin.edu.sg)

### 5. APPLY FOR YOUR VISA

#### International students

Your Student's Pass will be applied by the Admissions Office and the application process takes approximately two to four weeks.

Upon approval, your In-Principle Approval (IPA) letter will be sent to you through email.

The duration of your Student's Pass will vary depending on your course.

### Important dates

#### Navitas English 2022\*

Intakes	Dates
2022	3 Jan, 21 Mar, 6 Jun, 15 Aug, 31 Oct

#### Academic calendar for Trimesters 2022\*

	Trimester 1A 2022	Trimester 2A 2022	Trimester 3A 2022
Orientation week	21 Feb	27 Jun	25 Oct
Trimester commences	28 Feb	4 Jul	31 Oct
Trimester ends	17 Jun	14 Oct	10 Feb 2023

\* All dates are subject to change and may vary depending on the course.

## Curtin Singapore

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For important updates to the information in this publication, including the latest course and fee information, please visit [curtin.edu.sg](https://curtin.edu.sg)

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