



Information Technology study guide

Course options and
career opportunities

swinburne.edu.au/it



Learning and leading

"Many universities offer academic knowledge, but not all of them prepare you to be an ICT professional, like Swinburne," says Cindy. In her IT Project class, she took on a brief from a real-world client.

In the roles of project leader and database designer, she collaborated with a team of students from other faculties to deliver a solution. Apart from sharpening her programming skills, she says that she has also learnt so much about team dynamics and leadership".

Cindy

Bachelor of Information and Communication Technology

\$1.1M
Cisco
Networking
Academy

Six state-of-the-art labs
and 700 Cisco devices

#1
for
graduate
salary

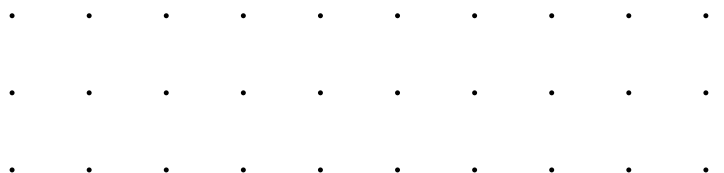
Our IT grads earn the most of
any in Melbourne five years out

Graduates Outcomes Survey 2019-2021

81.5%
found jobs

within 4 months after completing
their course

Graduates Outcomes Survey 2019-2021



Get IT? Got IT? Good!

A degree in IT can take you anywhere.

Look around you. You're surrounded by technology (in a good way, of course). At Swinburne, our IT courses program you with the kind of future-savvy skills that can lead to a career in health, transport, finance, media, manufacturing, energy and so much more.

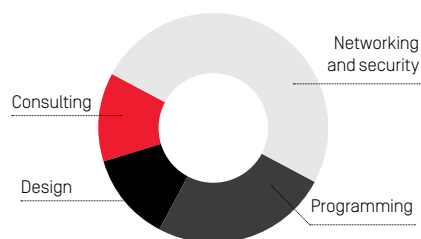
I want to learn

How to help people communicate online safely and securely

Study

Network security

To learn about



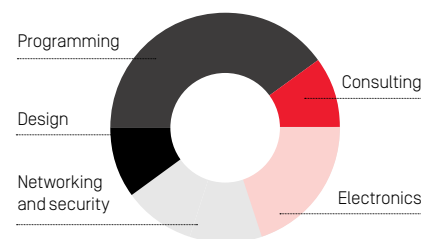
I want to learn

How to solve problems by analysing data from internet-connected devices

Study

The Internet of Things

To learn about



I want to learn

How to find meaningful insights in data to inform decisions

Study

Data science

To learn about



With a degree

Bachelor of Computer Science (Professional) with a major in cybersecurity

Bachelor of Computer Science with a major in cybersecurity

Bachelor of Information and Communication Technology with a major in network technology

Bachelor of Cyber Security

Pathway to a degree:

Diploma of Information Technology (UniLink)

With a degree

Bachelor of Computer Science (Professional) with a major in the internet of things

Bachelor of Computer Science with a major in the internet of things

Bachelor of Information and Communication Technology with a major in software technology

Pathway to a degree:

Diploma of Information Technology (UniLink)

With a degree

Bachelor of Computer Science (Professional) with a major in data science

Bachelor of Computer Science with a major in data science

Bachelor of Data Science

Pathway to a degree:

Diploma of Information Technology (UniLink)

To become

- Security consultant
- Information security analyst
- Network or systems administrator
- Cybersecurity penetration tester

To become

- Mobile application developer
- Full stack software developer
- Solution architect
- Consultant
- Data scientist

To become

- Data scientist
- Data analyst
- Business intelligence developer
- Data infrastructure architect

Or a diploma or certificate

Diploma of Information Technology (Game art and design & Game programming) or **(Advanced networking and Cyber security)** or **(Advanced programming)** or **(Front end web development)** (ICT50220)

Certificate IV in Information Technology (Programming) or **(Gaming development)** or **(Web development)** (ICT40120)

Certificate IV in Cyber Security (22334VIC)

Or a diploma or certificate

Diploma of Information Technology (Advanced Programming) (ICT50220)

Certificate IV in Information Technology (Programming) (ICT40120)

To become

- IT administrator or coordinator
- Network operations analyst
- Network security administrator
- Network or user support technician
- Network programmer

To become

- IT administrator or coordinator
- Web developer



I want to learn

How to simulate human intelligence in machines

I want to learn

How to create software to improve our lives

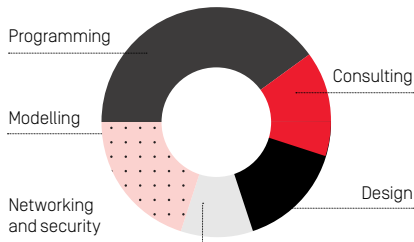
I want to learn

How to build hardware and program software to solve problems

Study

Artificial intelligence

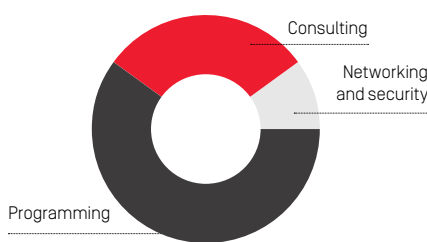
To learn about



Study

Software development

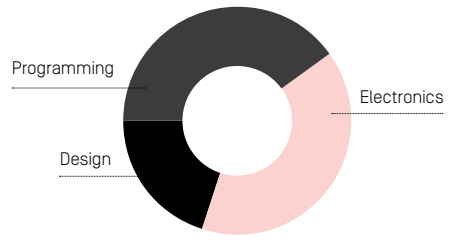
To learn about



Study

Software engineering

To learn about



With a degree

Bachelor of Computer Science (Professional)

with a major in artificial intelligence

Bachelor of Computer Science

with a major in artificial intelligence

Pathway to a degree:

Diploma of Information Technology (UniLink)

With a degree

Bachelor of Computer Science (Professional)

with a major in software development

Bachelor of Computer Science

with a major in software development

Bachelor of Information and Communication Technology

with a major in software technology

Pathway to a degree:

Diploma of Information Technology (UniLink)

With a degree

Bachelor of Engineering (Honours) (Professional)

with a major in software

Bachelor of Engineering (Honours)

with a major in software

Pathway to a degree:

Diploma of Engineering (UniLink)

To become

- Machine learning engineer
- Computer vision engineer
- Data scientist

To become

- Project manager
- Software designer
- Systems analyst or designer
- Web developer

To become

- Embedded systems and mobile application engineer
- Quality assurance engineer
- Software architect or engineer
- Software designer or developer
- Systems engineer

Or a diploma or certificate

Diploma of Information Technology (Advanced Networking, Cybersecurity) or (Advanced Programming) (ICT50220)

Certificate IV in Information Technology (Programming) (ICT40120)

Or a diploma or certificate

Diploma of Information Technology (Advanced Programming) (ICT50220)

Certificate IV in Information Technology (Programming) or (Web Development) (ICT40120)

To become

- IT administrator or coordinator
- Software developer
- Web developer

To become

- IT administrator or coordinator
- Software developer
- Web developer



I want to learn

How to code for computer games

I want to learn

How to create game strategy and characters

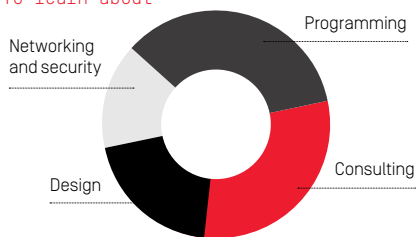
I want to learn

How to manage information in a business

Study

Games development

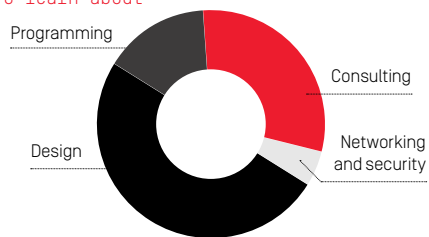
To learn about



Study

Games and interactivity

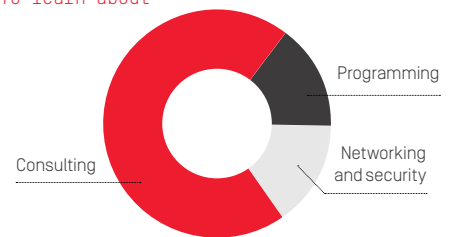
To learn about



Study

Business information systems

To learn about



With a degree

Bachelor of Computer Science (Professional)
with a major in games development

Bachelor of Computer Science
with a major in games development

Pathway to a degree:

Diploma of Information Technology (UniLink)

With a degree

Bachelor of Computer Science (Professional)
with a major in Games Development

Bachelor of Computer Science
with a major in Games Development

Bachelor of Games and Interactivity

Pathway to a degree:

Diploma of Information Technology (UniLink)

With a degree

Bachelor of Information Technology
Bachelor of Business Analytics and Analysis
with a major in business analysis
with a major in business analytics

Bachelor of Information and Communication Technology
with a major in information technology

Pathway to a degree:

Diploma of Information Technology (UniLink)

To become

- Digital content producer
- Games designer or programmer
- Multimedia developer
- Software designer or developer

To become

- Digital content producer
- Games designer or programmer
- Multimedia developer
- Online community manager

To become

- Business analyst
- Business development manager
- Information architect
- Project manager

Or a diploma or certificate

Diploma of Information Technology (Game Art and Design, Game Programming) (ICT50220)

Certificate IV in Information Technology (Gaming Development) (ICT40120)

Or a diploma or certificate

Diploma of Information Technology (Game Art and Design, Game Programming) (ICT50220)

Certificate IV in Information Technology (Gaming Development) (ICT40120)

To become

- Concept artist
- 2D & 3D games artist
- 3D animator
- Games developer

To become

- Animator
- Games designer
- Games programmer

Your next gen_now upgrades

Guaranteed real industry experience

At Swinburne, your education is more than reading; with our Work Integrated Learning program, it's doing. Start building your résumé with placements, internships and industry-linked projects while you study. You'll be able to apply your learning in all of our Computer Science and Bachelor of Information Technology degrees with six industry project units; that's one every semester. Guaranteed.

Visit swinburne.edu.au/workintegratedlearning

Professional degrees

More than a standard bachelor degree, a Professional Degree is a premium university experience you'll graduate from having completed a 12-month full-time work placement. Not only will you apply your knowledge in the workplace, you'll be paid award rates and receive academic credit.

Double degrees

Double degrees are a great way to broaden your study experience and are highly respected by employers. They combine two areas of study and on completion you'll be awarded two degrees.

A double degree is generally only one year longer than a single degree.

Consider combining your IT degree with a degree in another study area by studying:

- Bachelor of Business Analytics and Analysis/Bachelor of Business
- Bachelor of Computer Science/Bachelor of Applied Innovation
- Bachelor of Engineering (Honours)/Bachelor of Computer Science
- Bachelor of Games and Interactivity/Bachelor of Animation
- Bachelor of Games and Interactivity/Bachelor of Computer Science
- Bachelor of Information and Communication Technology/Bachelor of Applied Innovation
- Bachelor of Laws/Bachelor of Business Analytics and Analysis
- Bachelor of Laws/Bachelor of Computer Science

Applied innovation double degree

Don't just graduate, innovate. By pairing our Bachelor of Applied Innovation with your IT degree, you'll learn to think like a creator, find opportunities like an innovator and make moves like an entrepreneur.

Visit swinburne.edu.au/applied-innovation

Deloitte Cyber Academy

Secure the network and your cyber security career with the Deloitte Cyber Academy. Swinburne is partnering with Deloitte to deliver an innovative apprenticeship program launching in 2023.

Blend study with a paid industry employment from your first year and throughout your studies. Build essential cyber security skills, gain valuable industry experience and tap into Deloitte's award-winning graduate program to (seriously) fast track your cyber security career. Pathways to a degree

UniLink diplomas

UniLink diplomas are equivalent to eight units of study (typically one year of full-time study) and can provide a pathway to the second year of a related bachelor degree.

These courses are an option for students who miss direct entry to a degree or who would benefit from a more supportive style of learning.

Vocational education

Diplomas and certificates are vocational qualifications that provide practical teaching and skills for work. A vocational qualification could prepare you for your first job, help you retrain or be the first step in a career change.

Successful completion of a vocational qualification may also allow you to progress to another qualification with advanced standing.

Scholarships

The Vice-Chancellor's Excellence Scholarship is awarded to students in recognition of academic excellence. Recipients will receive \$5000 per annum for the normal duration of their chosen degree, plus a one-off payment of \$2000 towards an international study experience.

Swinburne also offers scholarships to students from indigenous backgrounds, students suffering from financial hardship and students who have relocated from regional areas to study. For a full list of scholarships, including value and eligibility criteria, visit swinburne.edu.au/scholarships