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
Our grads earn $1.5K more
Than the national median salary
Graduate Outcomes Survey 2018-2020

#2
in VIC
For student experience according to our graduates
Student Experience Survey 2019 and 2020
I want to learn

How to help people communicate online safely and securely

Study
Network security

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

Pathway to a degree:
Diploma of Information Technology (UniLink)

To become
• Security consultant
• Information security analyst
• Network or systems administrator
• Cybersecurity penetration tester

Or a diploma or certificate
Diploma of Information Technology (Advanced Networking and Cybersecurity) (ICT50220)
Certificate IV in Information Technology (Networking) (ICT40120)

To become
• IT administrator or coordinator
• Network operations analyst
• Network security administrator
• Network or user support technician
• Network programmer

I want to learn

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

Study
The Internet of Things

To learn about

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)

To become
• Mobile application developer
• Full stack software developer
• Solution architect
• Consultant
• Data scientist

Or a diploma or certificate
Diploma of Information Technology (Advanced Programming) (ICT40120)
Certificate IV in Information Technology (Networking) and (Programming) (ICT40120)

To become
• Data scientist
• Data analyst
• Business intelligence developer
• Data infrastructure architect

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 data science
Bachelor of Computer Science with a major in data science
Bachelor of Information and Communication Technology with a major in software technology

Pathway to a degree:
Diploma of Information Technology (UniLink)

To become
• Data scientist
• Data analyst
• Business intelligence developer
• Data infrastructure architect

Or a diploma or certificate
Diploma of Information Technology (Advanced Programming) (ICT40120)
Certificate IV in Information Technology (Networking) and (Programming) (ICT40120)

To become
• IT administrator or coordinator
• Web developer
I want to learn
How to simulate human intelligence in machines

Study
Artificial intelligence
To learn about
Programming
Modelling
Networking and security
Consulting
Design

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)

To become
• Machine learning engineer
• Computer vision engineer
• Data scientist

Or a diploma or certificate
Diploma of Information Technology (Advanced Networking and Cybersecurity) and (Advanced Programming) (ICT40120)
Certificate IV in Information Technology (Networking) and (Programming) (ICT40120)

To become
• IT administrator or coordinator
• Software developer
• Web developer

I want to learn
How to create software to improve our lives

Study
Software development
To learn about
Programming
Consulting
Networking and security
Design

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)

To become
• Project manager
• Software designer
• Systems analyst or designer
• Web developer

Or a diploma or certificate
Diploma of Information Technology (Advanced Networking and Cybersecurity) and (Advanced Programming) (ICT40120)
Certificate IV in Information Technology (Networking) and (Programming) (ICT40120)

To become
• IT administrator or coordinator
• Software developer
• Web developer

I want to learn
How to build hardware and program software to solve problems

Study
Software engineering
To learn about
Programming
Electronics
Consulting
Design

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
• 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 and Cybersecurity) and (Advanced Programming) (ICT40120)
Certificate IV in Information Technology (Networking) and (Programming) (ICT40120)

To become
• IT administrator or coordinator
• Software developer
• Web developer
<table>
<thead>
<tr>
<th>I want to learn</th>
<th>How to code for computer games</th>
<th>How to create game strategy and characters</th>
<th>How to manage information in a business</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study</td>
<td>Games development</td>
<td>Games and interactivity</td>
<td>Business information systems</td>
</tr>
<tr>
<td>To learn about</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Networking and security</td>
<td>Programming</td>
<td>Networking and security</td>
</tr>
<tr>
<td></td>
<td>Design</td>
<td>Consulting</td>
<td>Consulting</td>
</tr>
<tr>
<td>With a degree</td>
<td>Bachelor of Computer Science (Professional) with a major in games development</td>
<td>Bachelor of Media and Communication (Professional) with a major in games and Interactivity</td>
<td>Bachelor of Information Technology</td>
</tr>
<tr>
<td>Pathway to a degree:</td>
<td>Diploma of Information Technology (UniLink)</td>
<td>Diploma of Information Technology (UniLink)</td>
<td>Diploma of Information Technology (UniLink)</td>
</tr>
<tr>
<td>To become</td>
<td>• Digital content producer</td>
<td>• Digital content producer</td>
<td>• Business analyst</td>
</tr>
<tr>
<td></td>
<td>• Games designer or programmer</td>
<td>• Games designer or programmer</td>
<td>• Business development manager</td>
</tr>
<tr>
<td></td>
<td>• Multimedia developer</td>
<td>• Multimedia developer</td>
<td>• Information architect</td>
</tr>
<tr>
<td></td>
<td>• Software designer or developer</td>
<td>• Software designer or developer</td>
<td>• Project manager</td>
</tr>
<tr>
<td>Or a diploma or certificate</td>
<td>Diploma of Information Technology (Game Art and Design &amp; Game Programming) (ICT50220)</td>
<td>Diploma of Information Technology (Game Art and Design &amp; Game Programming) (ICT50220)</td>
<td>Diploma of Information Technology (Game Art and Design &amp; Game Programming) (ICT50220)</td>
</tr>
<tr>
<td>To become</td>
<td>• Concept artist</td>
<td>• Animator</td>
<td>• Business analyst</td>
</tr>
<tr>
<td></td>
<td>• 2D &amp; 3D games artist</td>
<td>• Games designer</td>
<td>• Business development manager</td>
</tr>
<tr>
<td></td>
<td>• 3D animator</td>
<td>• Games programmer</td>
<td>• Information architect</td>
</tr>
<tr>
<td></td>
<td>• Games developer</td>
<td></td>
<td>• Project manager</td>
</tr>
</tbody>
</table>
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 Information Systems/Bachelor of Business
- 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 Laws/Bachelor of Business Information Systems
- Bachelor of Laws/Bachelor of Computer Science

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

The information contained in this study guide was correct at the time of publication, November 2021. The university reserves the right to alter or amend the material contained in this guide. For the most up-to-date course information please visit our website swinburne.edu.au CRICOS 00111D RTO 3059 TEQSA PRV12148 Australian University FSET0004_2111