



# Information Technology study guide

Course options and  
career opportunities

[swinburne.edu.au/it](https://swinburne.edu.au/it)

# 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.



<p><b>I want to learn</b></p> <p>How to help people communicate online safely and securely</p>	<p><b>I want to learn</b></p> <p>How to solve problems by analysing data from internet-connected devices</p>	<p><b>I want to learn</b></p> <p>How to find meaningful insights in data to inform decisions</p>
<p><b>Study</b></p> <p>Network security</p> <p><b>To learn about</b></p>	<p><b>Study</b></p> <p>The Internet of Things</p> <p><b>To learn about</b></p>	<p><b>Study</b></p> <p>Data science</p> <p><b>To learn about</b></p>
<p><b>With a degree</b></p> <p><b>Bachelor of Computer Science (Professional)</b> with a major in cybersecurity</p> <p><b>Bachelor of Computer Science</b> with a major in cybersecurity</p> <p><b>Bachelor of Information and Communication Technology</b> with a major in network technology</p> <p><b>Bachelor of Cyber Security</b></p> <p><i>Pathway to a degree:</i> <b>Diploma of Information Technology (UniLink)</b></p>	<p><b>With a degree</b></p> <p><b>Bachelor of Computer Science (Professional)</b> with a major in the internet of things</p> <p><b>Bachelor of Computer Science</b> with a major in the internet of things</p> <p><b>Bachelor of Information and Communication Technology</b> with a major in software technology</p> <p><i>Pathway to a degree:</i> <b>Diploma of Information Technology (UniLink)</b></p>	<p><b>With a degree</b></p> <p><b>Bachelor of Computer Science (Professional)</b> with a major in data science</p> <p><b>Bachelor of Computer Science</b> with a major in data science</p> <p><b>Bachelor of Data Science</b></p> <p><i>Pathway to a degree:</i> <b>Diploma of Information Technology (UniLink)</b></p>
<p><b>To become</b></p> <ul style="list-style-type: none"> <li>Security consultant</li> <li>Information security analyst</li> <li>Network or systems administrator</li> <li>Cybersecurity penetration tester</li> </ul>	<p><b>To become</b></p> <ul style="list-style-type: none"> <li>Mobile application developer</li> <li>Full stack software developer</li> <li>Solution architect</li> <li>Consultant</li> <li>Data scientist</li> </ul>	<p><b>To become</b></p> <ul style="list-style-type: none"> <li>Data scientist</li> <li>Data analyst</li> <li>Business intelligence developer</li> <li>Data infrastructure architect</li> </ul>
<p><b>Or a diploma or certificate</b></p> <p><b>Diploma of Information Technology (Game art and design &amp; Game programming) or (Advanced networking and Cyber security) or (Advanced programming) or (Front end web development) (ICT50220)</b></p> <p><b>Certificate IV in Information Technology (Programming) or (Gaming development) or (Web development) (ICT40120)</b></p> <p><b>Certificate IV in Cyber Security (22603VIC)</b></p>	<p><b>Or a diploma or certificate</b></p> <p><b>Diploma of Information Technology (Advanced Programming) (ICT50220)</b></p> <p><b>Certificate IV in Information Technology (Programming) (ICT40120)</b></p>	<p><b>Or a diploma or certificate</b></p> <p><b>Diploma of Information Technology (Advanced Networking, Cybersecurity) or (Advanced Programming) (ICT50220)</b></p> <p><b>Certificate IV in Information Technology (Programming) (ICT40120)</b></p>
<p><b>To become</b></p> <ul style="list-style-type: none"> <li>IT administrator or coordinator</li> <li>Network operations analyst</li> <li>Network security administrator</li> <li>Network or user support technician</li> <li>Network programmer</li> </ul>	<p><b>To become</b></p> <ul style="list-style-type: none"> <li>IT administrator or coordinator</li> <li>Web developer</li> </ul>	<p><b>To become</b></p> <ul style="list-style-type: none"> <li>IT administrator or coordinator</li> <li>Software developer</li> <li>Web developer</li> </ul>

<p><b>I want to learn</b></p> <p>How to simulate human intelligence in machines</p>	<p><b>I want to learn</b></p> <p>How to create software to improve our lives</p>	<p><b>I want to learn</b></p> <p>How to build hardware and program software to solve problems</p>
<p><b>Study</b></p> <p>Artificial intelligence</p> <p><b>To learn about</b></p>	<p><b>Study</b></p> <p>Software development</p> <p><b>To learn about</b></p>	<p><b>Study</b></p> <p>Software engineering</p> <p><b>To learn about</b></p>
<p><b>With a degree</b></p> <p><b>Bachelor of Computer Science (Professional)</b> with a major in artificial intelligence</p> <p><b>Bachelor of Computer Science</b> with a major in artificial intelligence</p> <p><i>Pathway to a degree:</i> <b>Diploma of Information Technology (UniLink)</b></p>	<p><b>With a degree</b></p> <p><b>Bachelor of Computer Science (Professional)</b> with a major in software development</p> <p><b>Bachelor of Computer Science</b> with a major in software development</p> <p><b>Bachelor of Information and Communication Technology</b> with a major in software technology</p> <p><i>Pathway to a degree:</i> <b>Diploma of Information Technology (UniLink)</b></p>	<p><b>With a degree</b></p> <p><b>Bachelor of Engineering (Honours) (Professional)</b> with a major in software</p> <p><b>Bachelor of Engineering (Honours)</b> with a major in software</p> <p><i>Pathway to a degree:</i> <b>Diploma of Engineering (UniLink)</b></p>
<p><b>To become</b></p> <ul style="list-style-type: none"> <li>Machine learning engineer</li> <li>Computer vision engineer</li> <li>Data scientist</li> </ul>	<p><b>To become</b></p> <ul style="list-style-type: none"> <li>Project manager</li> <li>Software designer</li> <li>Systems analyst or designer</li> <li>Web developer</li> </ul>	<p><b>To become</b></p> <ul style="list-style-type: none"> <li>Embedded systems and mobile application engineer</li> <li>Quality assurance engineer</li> <li>Software architect or engineer</li> <li>Software designer or developer</li> <li>Systems engineer</li> </ul>
<p><b>Or a diploma or certificate</b></p> <p><b>Diploma of Information Technology (Advanced Networking, Cybersecurity) or (Advanced Programming) (ICT50220)</b></p> <p><b>Certificate IV in Information Technology (Programming) (ICT40120)</b></p>	<p><b>Or a diploma or certificate</b></p> <p><b>Diploma of Information Technology (Advanced Programming) (ICT50220)</b></p> <p><b>Certificate IV in Information Technology (Programming) or (Web Development) (ICT40120)</b></p>	<p><b>Or a diploma or certificate</b></p> <p><b>Diploma of Information Technology (Game Art and Design, Game Programming) (ICT50220)</b></p> <p><b>Certificate IV in Information Technology (Gaming Development) (ICT40120)</b></p>
<p><b>To become</b></p> <ul style="list-style-type: none"> <li>IT administrator or coordinator</li> <li>Software developer</li> <li>Web developer</li> </ul>	<p><b>To become</b></p> <ul style="list-style-type: none"> <li>IT administrator or coordinator</li> <li>Software developer</li> <li>Web developer</li> </ul>	<p><b>To become</b></p> <ul style="list-style-type: none"> <li>Concept artist</li> <li>2D &amp; 3D games artist</li> <li>3D animator</li> <li>Games developer</li> </ul>

<p><b>I want to learn</b></p> <p>How to code for computer games</p>	<p><b>I want to learn</b></p> <p>How to create game strategy and characters</p>	<p><b>I want to learn</b></p> <p>How to manage information in a business</p>
<p><b>Study</b></p> <p>Games development</p> <p><b>To learn about</b></p>	<p><b>Study</b></p> <p>Games and interactivity</p> <p><b>To learn about</b></p>	<p><b>Study</b></p> <p>Business information systems</p> <p><b>To learn about</b></p>
<p><b>With a degree</b></p> <p><b>Bachelor of Computer Science (Professional)</b> with a major in games development</p> <p><b>Bachelor of Computer Science</b> with a major in games development</p> <p><i>Pathway to a degree:</i> <b>Diploma of Information Technology (UniLink)</b></p>	<p><b>With a degree</b></p> <p><b>Bachelor of Computer Science (Professional)</b> with a major in Games Development</p> <p><b>Bachelor of Computer Science</b> with a major in Games Development</p> <p><b>Bachelor of Games and Interactivity</b></p> <p><i>Pathway to a degree:</i> <b>Diploma of Information Technology (UniLink)</b></p>	<p><b>With a degree</b></p> <p><b>Bachelor of Information Technology</b></p> <p><b>Bachelor of Business Analytics and Analysis</b> with a major in business analytics</p> <p><b>Bachelor of Information and Communication Technology</b> with a major in information technology</p> <p><i>Pathway to a degree:</i> <b>Diploma of Information Technology (UniLink)</b></p>
<p><b>To become</b></p> <ul style="list-style-type: none"> <li>Digital content producer</li> <li>Games designer or programmer</li> <li>Multimedia developer</li> <li>Software designer or developer</li> </ul>	<p><b>To become</b></p> <ul style="list-style-type: none"> <li>Digital content producer</li> <li>Games designer or programmer</li> <li>Multimedia developer</li> <li>Online community manager</li> </ul>	<p><b>To become</b></p> <ul style="list-style-type: none"> <li>Business analyst</li> <li>Business development manager</li> <li>Information architect</li> <li>Project manager</li> </ul>
<p><b>Or a diploma or certificate</b></p> <p><b>Diploma of Information Technology (Game Art and Design, Game Programming) (ICT50220)</b></p> <p><b>Certificate IV in Information Technology (Gaming Development) (ICT40120)</b></p>	<p><b>Or a diploma or certificate</b></p> <p><b>Diploma of Information Technology (Game Art and Design, Game Programming) (ICT50220)</b></p> <p><b>Certificate IV in Information Technology (Gaming Development) (ICT40120)</b></p>	<p><b>Or a diploma or certificate</b></p> <p><b>Diploma of Information Technology (Game Art and Design, Game Programming) (ICT50220)</b></p> <p><b>Certificate IV in Information Technology (Gaming Development) (ICT40120)</b></p>
<p><b>To become</b></p> <ul style="list-style-type: none"> <li>Animator</li> <li>Games designer</li> <li>Games programmer</li> </ul>	<p><b>To become</b></p> <ul style="list-style-type: none"> <li>Animator</li> <li>Games designer</li> <li>Games programmer</li> </ul>	<p><b>To become</b></p> <ul style="list-style-type: none"> <li>Business analyst</li> <li>Business development manager</li> <li>Information architect</li> <li>Project manager</li> </ul>

