Be part of an industry that’s transforming the world we live in.

Advances in information technology have led to a more connected world where information sharing, decision making, and online communication is continually evolving.

Our degrees have been developed by our award winning staff in close consultation with industry, to ensure they meet real-world needs and professional accreditation standards. From week one, you will commence an integrated study experience with relevant workplace learning.

Your lecturers have industry experience and include national award winners for Artificial Intelligence and Image Processing. Staff are continually researching and unlocking new opportunities and challenges in areas where IT can provide solutions.

Our diversity of courses means you can acquire a broad skill base and also specialise, equipping you for a career that will take you anywhere.

Professional Recognition
Many of our IT programs are accredited by national professional bodies.

- Our undergraduate degrees are accredited at the professional level by the Australian Computer Society (ACS);
- TAFE IT programs are recognised by ASQA.

We also deliver nationally accredited training packages.
Entry Requirements
Entry Requirements will be determined by your background.

Recent Secondary Education: Current Year 12 students, including applicants who have completed Year 12 within the previous two years (and have not undertaken Higher Education or VET studies), must meet Year 12 prerequisite entry requirements. Eligible applicants will be ranked for admission based on their ATAR and ATAR Adjustment Factors – e.g. Special Entry Access Scheme (SEAS) and Subject Adjustments. Applicants will be selected in order of ranking and the number of offers made to applicants will be based on course specific quotas.

Non year 12 applicants are people who have undertaken Higher Education or VET studies; completed Year 12 more than 2 years previously, or those who are being considered based on other work/life experience. These applicants will be considered based on relevant background, as well as demonstrated ability to undertake further studies.

Some courses have extra requirements during the application process. Depending on the study area, this may be an interview, folio or audition, test or additional form. These are essential requirements and must be completed in order to be considered for selection.

FedUni offers a range of admission pathways for students who do not meet specified entry requirements.

How to apply
You can apply to FedUni via VTAC or direct application. How you apply, and the subsequent entry requirements will be determined by your applicant background.

Higher Education applicants: Current Year 12 students and applicants applying for more than one institution must apply through VTAC. Non Year 12 students only applying to FedUni can submit a direct application form to FedUni.

TAFE applicants: Please check individual courses as application requirements may vary.

Study modes
You may study full-time or part-time, on-campus, or online (where applicable), or a blend of study modes where available.

Student fees
Fees will vary dependent on your circumstances and what course you apply for.

Scholarships, grants and bursaries
Scholarships, grants and bursaries are available to eligible students and may be awarded based on academic merit, indigenous background, financial challenges and hardship or relocation support.

Get online to find out all of the information you need on courses, campuses, scholarships, fees, applying and getting started at FedUni.

federation.edu.au/courseguide
Admission pathways

Year 10 or Year 11, or VCE or equivalent, or VCAL

VCE or equivalent or P-Tech

Foundation Access Studies Program (FAST)
NOTE: FAST is an alternative entry option for most FedUni undergraduate courses.

There are many ways for you to achieve the qualification you need for your chosen career.
FedUni offers study at various levels — from VET and undergraduate study through to postgraduate and research. Use the above diagram to see how the levels of study work together, and where each course is on your path to success.
Visit federation.edu.au/pathways

FAST is FedUni’s admission pathway method into degree level studies if you don’t have prerequisite entry requirements. FAST will give you the academic preparation you need to make the most of your higher education opportunities.
The FAST course runs for one semester, and successful completion will guarantee you a place in one of FedUni’s degree courses.
To find out more visit federation.edu.au/fast

Cert III in Info, Digital Media and Tech.
NCC: ICT30115

OR

Cert III in Screen and Media
NCC: CUA31015

Cert IV in Info Tech
NCC: ICT40115

OR

Cert IV in Dig Media Tech
NCC: ICT40815

OR

Cert IV in Info Tech Support
NCC: ICT40215

Diploma of Info Tech
NCC: ICT50115

OR

Diploma of Digital Media Tech
NCC: ICT50915

Other relevant diploma

Bachelor of Information Technology

Bachelor of Information Technology
(Professional Practice)

Bachelor of Information Technology
(Big Data and Analytics)

Bachelor of Information Technology
(Business Information Systems)

Bachelor of Information Technology
(Cloud and Enterprise Computing)

Bachelor of Information Technology
(Games Development)

Bachelor of Information Technology
(Mobile App Development)

Bachelor of Information Technology
(Networking and Security)

Bachelor of Information Technology
(Software Development)

Or

Other relevant degree

Bachelor of Science (Honours)

Master of Computing

Doctor of Philosophy

Grad. Diploma

Master of Technology
(Software Engineering)

Grad. Diploma

Master of Technology
(Enterprise Systems and Business Analytics)

Master of Technology (Research)

NCC = National Course Code

Academic support programs
We understand that starting your life as a university student is exciting, but that it also involves change with a challenge or two along the way.
To help you meet these challenges, and to succeed, we have a range of student-focused programs and services available.
To find out more visit federation.edu.au/student-support
Industry Placement Program

The Industry Placement Program (IPP)* is an opportunity for you to gain valuable and relevant workplace experience while working towards your degree. You will take part in a two-year professional development program within the field of your degree, receiving up to 26 weeks industry placement, and an industry funded scholarship payment of up to $15,000.

Throughout your placement, you’ll apply the knowledge learnt in the classroom, while developing the hands-on employment skills that are sought by employers. federation.edu.au/ipp

*Eligibility requirements apply. Not available across all courses.

Tung Phan
Bachelor of Information Technology; Data Analyst, Reporting and Information Products, Australian Securities and Investments Commission (ASIC)

“The placement gave me the opportunity to work in a large organisation and gain valuable work experience, in a practical environment related to my area of expertise as well as learning new skill sets”.

Careers in Information Technology

Industry sectors

IT infrastructure at varying levels of complexity is present in all industries and most organisations, from small and medium enterprises (SMEs), to large multinational corporations. Industry sectors which employ information technology specialists include:

- Banking and finance
- Communication
- Education
- Entertainment
- Health
- Local, state and federal government
- Logistics
- Manufacturing
- Resources
- Security and defence
- Small business
- Sporting
- Travel

A degree in IT will empower you to pursue exciting and diverse opportunities in a range of sectors, from small businesses and self-employment, to large multinational companies and government.

IT is an undeniable part of our lives and is essential to fields as diverse as medicine and health, tourism and transport, finance and banking, education, entertainment ... the list is endless.

IT has become an integral part of our everyday lives, consider how you travel — in a vehicle which is fitted with a computer, carrying your mobile phone, following directions from a digital map. All of these experiences are underpinned by developments in IT.

The applications we use every day are made possible by the experts in IT. These creative and inquisitive individuals and teams research and apply their ideas to make a real difference in the lives of people on a global scale. By studying IT, you will also be empowered to contribute and make a difference in the world.

FedUni offers you choice and opportunity, with courses that provide the foundation for sustaining and progressing developments in IT, and opportunities to undertake study in specialist areas that are in demand. The breadth of study includes courses in cyber security, data analytics and visualization, IT strategy and governance, programming and scripting, wireless communications and user interface, agile coding and computer games design.

Furthering research and development in IT is vital for the future of our world. FedUni’s Centre for Multimedia Computing, Communications, and Artificial Intelligence Research (MCCAIR) and Centre for Informatics and Applied Optimization (CIAO) bring together teams from cross-disciplinary backgrounds to transform lives and enhance communities.

As IT evolves, it provides opportunities for clever and creative people studying Information Technology to not only apply their knowledge, but make a difference in the world.

IT infrastructure at varying levels of complexity is present in all industries and most organisations, from small and medium enterprises (SMEs), to large multinational corporations. Industry sectors which employ information technology specialists include:

- Banking and finance
- Communication
- Education
- Entertainment
- Health
- Local, state and federal government
- Logistics
- Manufacturing
- Resources
- Security and defence
- Small business
- Sporting
- Travel

A degree in IT will empower you to pursue exciting and diverse opportunities in a range of sectors, from small businesses and self-employment, to large multinational companies and government.

IT is an undeniable part of our lives and is essential to fields as diverse as medicine and health, tourism and transport, finance and banking, education, entertainment ... the list is endless.

IT has become an integral part of our everyday lives, consider how you travel — in a vehicle which is fitted with a computer, carrying your mobile phone, following directions from a digital map. All of these experiences are underpinned by developments in IT.

The applications we use every day are made possible by the experts in IT. These creative and inquisitive individuals and teams research and apply their ideas to make a real difference in the lives of people on a global scale. By studying IT, you will also be empowered to contribute and make a difference in the world.

FedUni offers you choice and opportunity, with courses that provide the foundation for sustaining and progressing developments in IT, and opportunities to undertake study in specialist areas that are in demand. The breadth of study includes courses in cyber security, data analytics and visualization, IT strategy and governance, programming and scripting, wireless communications and user interface, agile coding and computer games design.

Furthering research and development in IT is vital for the future of our world. FedUni’s Centre for Multimedia Computing, Communications, and Artificial Intelligence Research (MCCAIR) and Centre for Informatics and Applied Optimization (CIAO) bring together teams from cross-disciplinary backgrounds to transform lives and enhance communities.

As IT evolves, it provides opportunities for clever and creative people studying Information Technology to not only apply their knowledge, but make a difference in the world.

Tung Phan
Bachelor of Information Technology; Data Analyst, Reporting and Information Products, Australian Securities and Investments Commission (ASIC)

“The placement gave me the opportunity to work in a large organisation and gain valuable work experience, in a practical environment related to my area of expertise as well as learning new skill sets”.

Careers in Information Technology

Industry sectors

IT infrastructure at varying levels of complexity is present in all industries and most organisations, from small and medium enterprises (SMEs), to large multinational corporations. Industry sectors which employ information technology specialists include:

- Banking and finance
- Communication
- Education
- Entertainment
- Health
- Local, state and federal government
- Logistics
- Manufacturing
- Resources
- Security and defence
- Small business
- Sporting
- Travel

A degree in IT will empower you to pursue exciting and diverse opportunities in a range of sectors, from small businesses and self-employment, to large multinational companies and government.

IT is an undeniable part of our lives and is essential to fields as diverse as medicine and health, tourism and transport, finance and banking, education, entertainment ... the list is endless.

IT has become an integral part of our everyday lives, consider how you travel — in a vehicle which is fitted with a computer, carrying your mobile phone, following directions from a digital map. All of these experiences are underpinned by developments in IT.

The applications we use every day are made possible by the experts in IT. These creative and inquisitive individuals and teams research and apply their ideas to make a real difference in the lives of people on a global scale. By studying IT, you will also be empowered to contribute and make a difference in the world.

FedUni offers you choice and opportunity, with courses that provide the foundation for sustaining and progressing developments in IT, and opportunities to undertake study in specialist areas that are in demand. The breadth of study includes courses in cyber security, data analytics and visualization, IT strategy and governance, programming and scripting, wireless communications and user interface, agile coding and computer games design.

Furthering research and development in IT is vital for the future of our world. FedUni’s Centre for Multimedia Computing, Communications, and Artificial Intelligence Research (MCCAIR) and Centre for Informatics and Applied Optimization (CIAO) bring together teams from cross-disciplinary backgrounds to transform lives and enhance communities.

As IT evolves, it provides opportunities for clever and creative people studying Information Technology to not only apply their knowledge, but make a difference in the world.

Tung Phan
Bachelor of Information Technology; Data Analyst, Reporting and Information Products, Australian Securities and Investments Commission (ASIC)

“The placement gave me the opportunity to work in a large organisation and gain valuable work experience, in a practical environment related to my area of expertise as well as learning new skill sets”.

Careers in Information Technology

Industry sectors

IT infrastructure at varying levels of complexity is present in all industries and most organisations, from small and medium enterprises (SMEs), to large multinational corporations. Industry sectors which employ information technology specialists include:

- Banking and finance
- Communication
- Education
- Entertainment
- Health
- Local, state and federal government
- Logistics
- Manufacturing
- Resources
- Security and defence
- Small business
- Sporting
- Travel

A degree in IT will empower you to pursue exciting and diverse opportunities in a range of sectors, from small businesses and self-employment, to large multinational companies and government.

IT is an undeniable part of our lives and is essential to fields as diverse as medicine and health, tourism and transport, finance and banking, education, entertainment ... the list is endless.

IT has become an integral part of our everyday lives, consider how you travel — in a vehicle which is fitted with a computer, carrying your mobile phone, following directions from a digital map. All of these experiences are underpinned by developments in IT.

The applications we use every day are made possible by the experts in IT. These creative and inquisitive individuals and teams research and apply their ideas to make a real difference in the lives of people on a global scale. By studying IT, you will also be empowered to contribute and make a difference in the world.

FedUni offers you choice and opportunity, with courses that provide the foundation for sustaining and progressing developments in IT, and opportunities to undertake study in specialist areas that are in demand. The breadth of study includes courses in cyber security, data analytics and visualization, IT strategy and governance, programming and scripting, wireless communications and user interface, agile coding and computer games design.

Furthering research and development in IT is vital for the future of our world. FedUni’s Centre for Multimedia Computing, Communications, and Artificial Intelligence Research (MCCAIR) and Centre for Informatics and Applied Optimization (CIAO) bring together teams from cross-disciplinary backgrounds to transform lives and enhance communities.

As IT evolves, it provides opportunities for clever and creative people studying Information Technology to not only apply their knowledge, but make a difference in the world.
P-Tech

Location  SMB Campus (Ballarat)
Application  Direct
Entry Requirements  (Refer to page 1 for full details)
Satisfactory completion of Year 9

Extra Requirements
Registration of interest form should be completed and lodged.
For more information, see federation.edu.au/ptech

Be supported by industry mentors as you work towards an information technology qualification in addition to your senior secondary qualifications.

P-Tech allows you to complete a senior secondary qualification, and also undertake an industry supported qualification pathway. P-Tech takes you from Year 10 through to an Advanced Diploma (in 4-6 years), including senior secondary (Year 12). P-Tech students commence study with Foundation VCAL and a vocational Certificate II, and continue to senior VCAL (Year 12) and an Advanced Diploma in a IT area. Study is combined with work placements, mentoring and experiences with IBM®.

Career opportunities
Graduates gain significant industry experience and an appreciation of the culture of work as an IT professional, allowing you to pursue a wide variety of career opportunities in small, medium and large businesses, industry and government.

Pathways/Further study options
- Bachelor of Information Technology
- Bachelor of Information Technology (Professional Practice)

Certificate III in Information, Digital Media and Technology

Duration  1 year FT or PT equivalent or 1 year (min) traineeship
Location  Mt Helen Campus (Ballarat)
Application  Direct
National Course Code  ICT30115
Entry Requirements  (Refer to page 1 for full details)
Secondary school studies in the relevant area or Certificate II in Digital Media Technology or equivalent. Note: May also be undertaken as a Traineeship.

Extra Requirements
Minimum 18 years of age; and be able to participate in group environments.

Continue to build your skills and knowledge, and develop your self-sufficiency as an ICT user.

Become competent in a wide range of general information and communications technology technical functions. Increase your knowledge of industry-standard applications, learn about more advanced features in operating systems, fault-finding, creating basic web pages, customising packaged software applications and more. Get to know more advanced features in operating systems, and develop your troubleshooting skills. This certificate can lead you to work in basic personal computer support, network/system administration or in first level help desk roles.

Career opportunities
- Information technology support
- Help desk officer
- Help desk assistant
- ICT operations support
- ICT user support
- PC support
- Technical support

Further study options
- Certificate IV in Information Technology
### Certificate III in Screen and Media

<table>
<thead>
<tr>
<th>Duration</th>
<th>1 year FT or PT equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
<td>Wimmera Campus (Horsham)</td>
</tr>
<tr>
<td>Application</td>
<td>Direct</td>
</tr>
<tr>
<td>National Course Code</td>
<td>CUA31015</td>
</tr>
</tbody>
</table>

**Entry Requirements**: (Refer to page 1 for full details)

There are no formal entry requirements — however, applicants should be at least 18 years of age (at the discretion of the Program Coordinator) and be able to participate in adult group environments.

**Extra Requirements**

Interview.

**Become a skilled operator in digital video, radio and online content creation, or a skilled assistant in film and television production services.**

This entry level certificate will teach you how to work effectively in the creative arts industry, as well as offering you a range of electives which may include 2D and 3D digital animation and developing drawing skills.

**Career opportunities**

- Occupations relating to games design and development
- Website design and administration
- Production assistant animation and interactive design
- Multimedia content developer

**Further study options**

- Certificate IV in Information Technology
- Certificate IV in Digital Media Technologies

### Certificate IV in Information Technology Support – Traineeship

<table>
<thead>
<tr>
<th>Duration</th>
<th>2 year traineeship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
<td>External location</td>
</tr>
<tr>
<td>Application</td>
<td>Direct</td>
</tr>
<tr>
<td>National Course Code</td>
<td>ICT40215</td>
</tr>
</tbody>
</table>

**Entry Requirements**: (Refer to page 1 for full details)

Applicants must have employment in a relevant field and have contacted an AASN prior to commencement; interview.

**Combine your employment with training to achieve a nationally recognised qualification.**

This traineeship has been designed for those requiring on the job training in IT specialising in Network Management. With a focus on intermediate to advanced network support, diagnostics of system hardware and software and most importantly, working with clients.

Combine your employment with training to achieve a nationally recognised qualification. This traineeship is practical and hands-on, teaching you the skills and knowledge to be competent in the IT field.

**Career opportunities**

- Basic networking
- Database development
- Programming and web development support
- Working safely and ethically in a sustainable work environment

**Further study options**

- Diploma of Information Technology
Certificate IV or Diploma of Information Technology

You would like a varied ICT career and the choice to work across security and defence, the entertainment industry, sporting industry and more.

You’re interested in learning more about the latest information and communication technologies. You’ll learn about software development, how to produce and edit digital media, how to design websites and more.

Certificate IV in Information Technology

Your subjects are hands-on and include programming, software apps and systems testing.

This qualification provides you with skills and knowledge to be competent to administer and manage information and communications technology (ICT) support small to medium enterprises (SMEs) using a wide range of general ICT technologies. This diploma combines aspects of the CISCO CCNA curriculum with practical teacher led learning.

Graduates from this qualification could work in areas that provide a broader rather than specialised ICT support function, applying a wide range of higher level technical skills in ICT areas such as networking, IT support, database development, programming and web development.

Diploma of Information Technology

Learn about software development, how to produce and edit digital media, how to design websites and more. Your subjects are hands-on and include programming, software apps and systems.

Further study options

• Bachelor of Information Technology

Career opportunities

Certificate IV

• Computer/network operations technician
• Customer/PC support
• Customer support professional
• Systems administrator/operator
• Systems/technical support
• User support technician

Diploma

• Information systems office manager
• Office systems administrator
• IT office manager
• IT systems administrator
• Systems manager
Certificate IV or Diploma of Digital Media Technologies

Become an animator, designer or media developer. Digital media is an exciting and evolving industry.

Certificate IV in Digital Media Technologies

This course is an introduction to digital media technologies. You’ll begin learning how to design, develop and refine digital media technologies and you’ll start to learn about 3D and 2D animation, digital imaging, web design, digital video, special effects and game development for PC and an introduction to mobile.

The software you will be learning is the Adobe suite, Autodesk suites, Unity 5 and Unreal engine 4. When you graduate, you’ll be ready to start your career or you may want to develop your skills further with the Diploma of Digital Media Technologies. Either way, you will be preparing for a career developing the latest digital technologies for experts and everyday people alike. Your classes will be hands on and interactive, working with the most recent technologies. We also ensure you have the business skills needed to cut it in the workplace. You’ll study important topics like project management, working with clients and presenting your work.

Areas of study include: 3D modelling, 3D animation, 2D animation, Motion graphics, 2D games, 3D games, Game design theory, introduction to game programming, application for mobile devices, building websites, web design, UI and UX design, digital design.

You can study this course over either 6 or 12 months. The 6 month delivery will require approximately 23 hours per week of on-campus study plus approx 10 hours per week of independent study. The 12 month delivery will require approx 12 hours per week of on-campus study plus approx 10 hours of independent study per week.

Diploma of Digital Media Technologies

Continue to improve your skills, following completion of the Certificate IV in Digital Media Technologies. You’ll grow your skills in how to design, develop and refine digital media technologies. You’ll develop your knowledge of 3D and 2D animation, digital imaging, web design, digital video, special effects and game development for PC and mobile.

The software you will be learning is the Adobe suite, Autodesk suites, Unity 5 and Unreal engine 4. When you graduate, you’ll be ready for a career developing the latest digital technologies for experts and everyday people alike. Your classes will be hands on and interactive, working with the most recent technologies. We also ensure you have the business skills needed to cut it in the workplace. You’ll study important topics like project management, working with clients and presenting your work. Part of your study will be to develop a project with your own client.

Areas of study include: 3D modelling, 3D animation, 2D animation, Motion graphics, 2D games, 3D games, Game design theory, game programming, application for mobile devices, building websites, web design, UI and UX design, digital design.

Further study options

- Bachelor of Information Technology
- Bachelor of Information Technology (Games Development)
- Bachelor of Information Technology (Mobile App Development)
Bachelor of Information Technology

IT is an integral element of our lives, and continues to evolve and impact upon society and our futures.

Our newly restructured IT degree gives you the flexibility to complete a stand-alone core along with an in-depth specialisation of your choice. You can enrol in electives from across the university, complementing your IT studies to tailor your own unique study plan.

We support you to develop strong communication, academic and problem solving skills; critical attributes for success in the IT sector. You will learn programming skills to facilitate smooth communication with software developers, and explore web design, systems modelling and user experience. All provide you with the foundations to pursue your desired IT career, or to move on to a specialisation.

Participation in our professional engagement course gives you the opportunity to network and enhance your knowledge of the IT industry. You will also build awareness of the latest research and developments, and explore the extent to which IT is embedded in areas as diverse as health, education, industry and more.

Professional Recognition
This degree holds Professional Level accreditation with the Australian Computer Society (ACS).

Further study options
- Bachelor of Science (Honours)
- Master of Technology

What will you study?

Areas of study

- Big Data & Analytics
- Cloud & Enterprise Computing
- Communications & Technology
- Data Modelling
- Game Development Fundamentals
- IT Problem Solving
- IT Professional Engagement
- IT Project Management Techniques
- Mobile Development Fundamentals
- Networking & Security
- Professionalism & Entrepreneurship
- Systems Modelling
- Understanding the Digital Revolution
- User Experience
- Web Design
- IT Project – undertaken over two semesters where you execute, monitor and document an IT Industry project.
- Four computing electives and four general electives from any area of the university.

Correct at time of printing. A 'general elective' may be taken from any area of the University. Study areas and majors are subject to change. Please refer to study.federation.edu.au
Bachelor of Information Technology (Professional Practice)

Combine study and practical industry experience.

This degree has a real edge for those looking to work in IT. With the opportunity of employment with IBM®* or another of our industry sponsors upon completion, our unique ‘Earn as You Learn Program’ is designed to ensure you are ‘industry ready’ when you graduate. You will earn a minimum of $35,500 as you study as well as obtaining priceless work experience.

Developed in conjunction with IBM, the degree is designed to produce graduates who have an appreciation of the culture of work as an entrepreneur and business IT professional. Practical experience in a Fortune 500 company – previously these have included IBM, Westpac, CBA, ANZ and Allianz, completed while you study, can give you a significant competitive advantage. You will gain significant industry experience and an appreciation of the culture of work as an IT professional.

You will utilise summer semesters for your industry experience and course work. Second and third year studies include courses aligned with your agreed industry focus area: Software Developments focussed or Cloud and Mainframe focussed.

The University is proud of its strong relationship with IBM – in fact much of IBM’s Ballarat workforce comprises either graduates or students of FedUni. The contacts you make at IBM or at our other industry sponsors may become your future colleagues, managers or mentors.

This degree qualifies graduates as ACS accredited IT professionals with broad IT knowledge, as well as advanced knowledge in Data Modelling and either Software Development or Cloud/Mainframe Infrastructure.

*Students must meet IBM graduate recruitment requirements and be eligible to work in Australia.

Professional recognition
This degree holds Professional Level accreditation with the Australian Computer Society (ACS).

What will you study?

Correct at time of printing. Study areas and majors are subject to change. Please refer to study.federation.edu.au

<table>
<thead>
<tr>
<th>Areas of study</th>
<th>Extra Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agile Coding; or Contemporary Mainframes</td>
<td>Year 12 applicants will be ranked for admission based on ATAR and relevant adjustments. Refer to page 1 for details.</td>
</tr>
<tr>
<td>Big Data &amp; Analytics</td>
<td></td>
</tr>
<tr>
<td>Cloud and Enterprise Computing</td>
<td></td>
</tr>
<tr>
<td>Cloud Infrastructure and Services</td>
<td></td>
</tr>
<tr>
<td>Communications and Technology</td>
<td></td>
</tr>
<tr>
<td>Data Modelling</td>
<td></td>
</tr>
<tr>
<td>Game Development Fundamentals</td>
<td></td>
</tr>
<tr>
<td>Industry Experience</td>
<td></td>
</tr>
<tr>
<td>Information Security</td>
<td></td>
</tr>
<tr>
<td>IT Problem Solving</td>
<td></td>
</tr>
<tr>
<td>IT Professional Engagement</td>
<td></td>
</tr>
<tr>
<td>IT Project Management Techniques</td>
<td></td>
</tr>
<tr>
<td>Mobile Development Fundamentals</td>
<td></td>
</tr>
<tr>
<td>Mobile Device Programming; or Mainframe Systems and Services</td>
<td></td>
</tr>
<tr>
<td>Mobile User Interface Design &amp; Development</td>
<td></td>
</tr>
<tr>
<td>Networking and Security</td>
<td></td>
</tr>
<tr>
<td>Professionalism and entrepreneurship</td>
<td></td>
</tr>
<tr>
<td>Software Engineering; or Big Data Management</td>
<td></td>
</tr>
<tr>
<td>Systems Modelling</td>
<td></td>
</tr>
<tr>
<td>Understanding the Digital Revolution</td>
<td></td>
</tr>
<tr>
<td>Web Design</td>
<td></td>
</tr>
<tr>
<td>IT Project – undertaken over two semesters where you execute, monitor and document an IT Industry project.</td>
<td></td>
</tr>
</tbody>
</table>

Career opportunities
- Database administrator/developer
- IT project manager
- Information application officer
- Multimedia application developer
- Network manager/engineer
- Programmer
- Web designer
- Business intelligence officer
- Systems manager/administrator/designer

Industry experience
Industry experience is a key and compulsory component of this course — you will undertake 1600 hours of industry experience with IBM (and/or other industry sponsors). Your industry experience, or work experience, is completed in years 2, and 3 of your degree. In years 2 and 3, you will also study in summer semester.

Further study options
- Bachelor of Science (Honours)
- Master of Technology

Duration | 3 years FT
Location | Mt Helen Campus (Ballarat)
Application | VTAC/Direct
Entry Requirements (Refer to page 1 for full details)
Year 12: Units 1 and 2: satisfactory completion in two units (any study combination) of Maths: General Mathematics or Maths: Mathematical Methods or Units 3 and 4: any Mathematics; and Units 3 and 4: a study score of at least 20 in any English; or interstate/overseas equivalent.
Non-Year 12: HSC, VET and/or work/life experience.
Extra Requirements
Year 12: Interview*; Non-Year 12: Applicants applying based on work/life experience must complete a personal statement. Interview**

* Refer to specific information at study.federation.edu.au
** Year 12 applicants will be ranked for admission based on ATAR and relevant adjustments. Refer to page 1 for details.

Earn as you Learn
Earn over $35,500 while studying this innovative industry focused degree.
Bachelor of Information Technology
(Big Data and Analytics)

Apply fundamental scientific principles to the analysis of large, complex data sets. Develop expertise in core disciplines as well as highly developed critical thinking, problem-solving and communication skills.

Businesses collect huge volumes of data – it’s everywhere. There is a real need for people who have the skills to identify, interpret and analyse trends from the collected data. In health, education, government, in small and large businesses, big data is used to make informed decisions. Banks look for unusual transactions, hospitals look for trends in admissions, and schools for patterns in student progress.

You will study areas such as information and data analysis, allowing you to discover and quantify patterns using statistics, statistical inference, regression analysis, and machine learning. You are introduced to the appropriate methods and tools that are applied to retrieve, transform, organise, visualise, and analyse data. You will develop technical knowledge in a range of topics including statistics, statistical inference, high performance computing, and visualisation.

Your final year project will give you the opportunity to put your learning into practice as you analyse large data sets. You may uncover hidden patterns, unknown correlations, market trends, customer preferences and other useful business information. Your analytical findings can lead to more effective marketing, new revenue opportunities, better customer service, improved operational efficiency, competitive advantages over rival organizations and other business benefits.

On completion, you can look forward to careers where you retrieve, clean, transform, and visualise data, and build predictive data products that inform business decisions.

Professional recognition

This degree holds Professional Level accreditation with the Australian Computer Society (ACS).

Further study options

- Bachelor of Science (Honours)
- Master of Technology

Career opportunities

- Data scientist
- Big data manager
- SAP consultant
- Data analyst
- Networking and security officer
- Business analyst

Correct at time of printing. A ‘general elective’ may be taken from any area of the University. Study areas and majors are subject to change. Please refer to study.federation.edu.au

federation.edu.au/it
Bachelor of Information Technology
(Business Information Systems)

Harness technology to help organisations achieve a competitive advantage. Develop skills in business processes, data and information management, enterprise systems and business intelligence.

Business information systems courses enable you to develop skills in business processes, and study courses in data and information management, enterprise systems and business intelligence, which are essential in employers from hospitals to government, engineering to logistics and more.

You’ll learn the skills, the appropriate knowledge and values to be effective in modern business environments. You will develop an understanding of the organisational settings in which information systems are used, and recognise the threats and opportunities of technology in business.

This degree examines the organisational and technological issues that are needed for the analysis and design of business information systems. It provides a state-of-the-art degree that considers modern principles and theories of computing together with the practical applications of technology.

You’ll explore information security, multimedia, knowledge management, databases, emerging technologies in business and more. You will become familiar with the latest developments in IT, the different types of tools and their applications. By choosing electives to compliment your study in IT, you can also build your business acumen with subjects including the theory and practice of managing people, and build knowledge on understanding and analysing workplace behaviour.

Professional recognition
This degree holds Professional Level accreditation with the Australian Computer Society (ACS).

Further study options
• Bachelor of Science (Honours)
• Master of Technology

What will you study?

Areas of study
• Analysing the Modern Business
• Big Data & Analytics
• Business Analytics & Decision Support
• Cloud & Enterprise Computing
• Communications & Technology
• Data Modelling
• Emerging Information Systems
• Game Development Fundamentals
• IT Problem Solving
• IT Professional Engagement
• IT Project Management Techniques
• IT Strategy & Governance
• Mobile Development Fundamentals
• Networking & Security
• Professionalism & Entrepreneurship
• Systems Modelling
• Understanding the Digital Revolution
• User Experience
• Web Design

Correct at time of printing. A ‘general elective’ may be taken from any area of the University. Study areas and majors are subject to change. Please refer to study.federation.edu.au

federation.edu.au/it

VISIT federation.edu.au

11
Bachelor of Information Technology (Cloud and Enterprise Computing)

Build the technical and communication skills needed for success in careers relating to mainframe and cloud computing, virtual information technology, and systems deployment.

Learn about world class hardware and operating systems that can support thousands of workloads concurrently while delivering service levels to meet the most demanding customer requirements.

IBM z Systems used for cloud services provide the best protection, lowest security risk, high availability and superior performance therefore are considered the best possible business solution.

Cloud computing is a critical component of modern business operations. Enterprises with an interest in supplying services via the cloud, as well as those that utilise large data centres, will seek your skills in modelling and design, analysis and deployment. With leading edge availability, security, and scale, z System mainframes serve the needs of the largest banks, financial institutions, healthcare providers, insurance companies, defence forces, service organisations and more. The degree exposes you to a breadth of mainframe and cloud computing topics including mainframe hardware, system Z operating systems, batch/online programming, transactional services, and security.

You will be prepared for a broad range of rewarding mainframe and cloud computing IT careers upon graduation.

Professional recognition
This degree holds Professional Level accreditation with the Australian Computer Society (ACS).

Further study options
- Bachelor of Science (Honours)
- Master of Technology

Career opportunities
- System administrator
- Contemporary mainframe administrator
- Mainframe services technician
- Cloud computing engineer
- Cloud security technician
- Cloud system administrator

Duration: 3 years FT or PT equivalent
Location: Mt Helen Campus (Ballarat)
Application: VTAC/Direct
Entry Requirements: Refer to page 1 for full details
Non-Year 12: HE, VET and/or work/life experience.

Extra Requirements
Non-Year 12: Applicants applying based on work/life experience must complete a personal statement.

Year 12 applicants will be ranked for admission based on ATAR and relevant adjustments. Refer to page 1 for details.

What will you study?

Areas of study
- Big Data & Analytics
- Cloud & Enterprise Computing
- Cloud and Mobile Security
- Cloud Infrastructure & Services
- Communications & Technology
- Contemporary Mainframes
- Data Modelling
- Game Development Fundamentals
- IT Problem Solving
- IT Professional Engagement
- IT Project Management Techniques
- Mainframe Systems & Services
- Mobile Development Fundamentals
- Networking & Security
- Professionalism & Entrepreneurship
- Systems Modelling
- Understanding the Digital Revolution
- User Experience
- Web Design

Correct at time of printing. A ‘general elective’ may be taken from any area of the University. Study areas and majors are subject to change. Please refer to study.federation.edu.au.

federation.edu.au/it
Bachelor of Information Technology (Games Development)

Design, create, and produce computer and video games. Test, innovate and develop engaging worlds, stories and characters. Refine digital media technologies, and devise animation and sound to enhance the gaming experience.

Games developers design, create and produce computer and video games and other graphically based software in a range of industries. You will work in development teams as an artist, programmer, producer or animator, creating detailed design plans, preparing and designing graphics, animations and images for editing, and testing.

Your subjects cover all major technical aspects of the games development process from design to production. The course provides you with a solid understanding of game technologies including programming, applied maths, computer graphics and game engines. You are supported to expand your knowledge and skills to include mobile and web app development, 3D modelling, and undertake professional development.

This degree also prepares you for work outside of games and digital media to give you broad career options. You can work in health, defence forces, education and automotive, and could join our graduates who are designing everything from simulators to medical imaging.

Professional recognition
This degree holds Professional Level accreditation with the Australian Computer Society (ACS).

Further study options
• Bachelor of Science (Honours)
• Master of Technology

Career opportunities
• 3D modeller
• Animator
• Consultant
• Games developer or designer
• Games level designer
• Games or digital designer
• Games tester and quality assurance
• Interactive entertainment developer
• Multimedia developer
• Programmer
• Project manager

What will you study?

Areas of study
• 3D Modelling & Animation
• Agile Coding
• Big Data & Analytics
• Cloud & Enterprise Computing
• Communications & Technology
• Computer Games Design
• Data Modelling
• Game Development Fundamentals
• Game Programming
• IT Problem Solving
• IT Professional Engagement
• IT Project Management Techniques
• Mobile Development Fundamentals
• Networking & Security
• Professionalism & Entrepreneurship
• Systems Modelling
• Understanding the Digital Revolution
• User Experience
• Web Design

• IT Project – undertaken over two semesters where you execute, monitor and document an IT Industry project.
• Four general electives from any area of the university.

Correct at time of printing. A ‘general elective’ may be taken from any area of the University.
Study areas and majors are subject to change. Please refer to study.federation.edu.au

Duration 3 years FT or PT equivalent
Location Mt Helen Campus (Ballarat) Off-campus/Online
Application VTAC/Direct
Entry Requirements (Refer to page 1 for full details)
Year 12: Units 3 and 4: a study score of at least 20 in any English; and a study score of at least 20 in one of Maths: Mathematical Methods or Maths: Specialist Mathematics; or interstate/overseas equivalent.
Non-Year 12: HE, VET and/or work/life experience.
Extra Requirements
Non-Year 12: Applicants applying based on work/life experience must complete a personal statement.
Year 12 applicants will be ranked for admission based on ATAR and relevant adjustments. Refer to page 1 for details.

federation.edu.au/it

VISIT federation.edu.au

13
Bachelor of Information Technology (Mobile App Development)

Smart phones and other mobile devices are growing more powerful to satisfy changing consumer needs. Be the creative mind behind the apps that perform specific tasks, or create the underlying systems that run the device or control network.

The mobile application industry is rapidly growing – with millions of people using apps each day the industry needs innovative, creative and skilled professionals. Companies want employees to help them create ‘the next big thing’ in mobile app technology. Demand for high quality mobile apps continues to grow and to create these apps requires expertise in the latest technologies.

On graduation, you can move into Honours in IT or straight into employment. Chances are, the job you’ll end up having doesn’t even exist today. The degree will place you at the forefront in this industry with a particular focus on developing apps for mobile platforms such as Android – the most popular mobile operating system in the world – as well as the security implications of mobile development. The degree has been designed to provide you with the key IT knowledge and skills you’ll need in the workplace. You’ll obtain a core of basic skills, common to all branches of IT, while at the same time developing extensive expertise in wireless communications, mobile networks, cloud computing, programming, system architecture, design, user experience, and networking and security.

Professional recognition
This degree holds Professional Level accreditation with the Australian Computer Society (ACS).

Further study options
• Bachelor of Science (Honours)
• Master of Technology

What will you study?

Areas of study

- Agile Coding
- Big Data & Analytics
- Cloud & Enterprise Computing
- Communications & Technology
- Data Modelling
- Game Development Fundamentals
- IT Problem Solving
- IT Professional Engagement
- IT Project Management Techniques
- Mobile Development Fundamentals
- Mobile Device Programming
- Mobile Network & Wireless Communications
- Mobile User Interface Design & Development
- Networking & Security
- Professionalism & Entrepreneurship
- Systems Modelling
- Understanding the Digital Revolution
- User Experience
- Web Design
- IT Project – undertaken over two semesters where you execute, monitor and document an IT Industry project.
- Four general electives from any area of the university.

Correct at time of printing. A ‘general elective’ may be taken from any area of the University. Study areas and majors are subject to change. Please refer to study.federation.edu.au
Bachelor of Information Technology (Networking and Security)

Equip yourself with crucial knowledge in data and network security. Apply strategic creativity and innovation to protect data using ethical hacking to test systems and security protocols.

Learn how to defend business, government and individuals databases which hold sensitive data. Employment in this area has experienced strong growth over the last ten years, and is forecast to continue to do so.

Your specialisation in security will allow you to be on the frontline of the war in cyberspace and to become familiar with the methods attackers use. You learn to investigate how security breaches occur, how private information is vulnerable and ways to protect it.

You will develop an understanding of the security models provided by the major operating systems involved in modern computer networks. Through lecture and lab work you will delve into networks, their protocols and hardware and investigate how these systems can be vulnerable to a malicious attack. Your problem solving skills will come to the fore, a part of your role may include ethical hacking – testing a system to break-in or to find weak points.

As a network architect, or an IT security specialist, you can look forward to a varied career in information security, IT operations and more.

Professional recognition
This degree holds Professional Level accreditation with the Australian Computer Society (ACS).

Further study options
• Bachelor of Science (Honours)
• Master of Technology

What will you study?

Areas of study
• Big Data & Analytics
• Cloud & Enterprise Computing
• Cloud & Mobile Security
• Communications & Technology
• Data Modelling
• Game Development Fundamentals
• Information Security
• IT Problem Solving
• IT Professional Engagement
• IT Project Management Techniques
• Mobile Development Fundamentals
• Mobile Network & Wireless Communications
• Network Architecture & Design
• Networking & Security
• Professionalism & Entrepreneurship
• Systems Modelling
• Understanding the Digital Revolution
• User Experience
• Web Design
• IT Project – undertaken over two semesters where you execute, monitor and document an IT Industry project.
• Four general electives from any area of the university.

Correct at time of printing. A ‘general elective’ may be taken from any area of the University. Study areas and majors are subject to change. Please refer to study.federation.edu.au
Bachelor of Information Technology (Software Development)

Develop and implement solutions. Go beyond design and coding to the broader scope of computer programming or even a speciality in project managing. Test, correct, analyse, interpret and execute to achieve a well-engineered result.

Knowledgeable, high profile professionals are the backbone of the IT industry, and this degree gives you the opportunity to learn new programming languages, architecture, and paradigms to create new software applications.

You will complete courses in dynamic web development, data structures and algorithms, agile coding and more. There are also electives that enable you to add breadth or depth to your studies. The material covered in this degree reflects the current and future needs of practicing software developers, and your skills will be enhanced as you apply your learning in your final year project.

On completion, you can seek employment in a role where you contribute to identifying new areas of software process improvement within an organisation, or carry out a software process improvement assignment to produce measurable business benefits. Your communication skills will be an asset in this area, as you report on project progress, anomalies, risks and issues.

Graduates may also be involved in software release and post-release activities, including product launches, and implementation roles such as installation, configuration, programming/customisation, integration and data migration.

Professional recognition
This degree holds Professional Level accreditation with the Australian Computer Society (ACS).

Further study options
• Bachelor of Science (Honours)
• Master of Technology

What will you study?

Areas of study

- Agile Coding
- Big Data & Analytics
- Cloud & Enterprise Computing
- Communications & Technology
- Data Modelling
- Data Structures & Algorithms
- Dynamic Web Development
- Game Development Fundamentals
- IT Problem Solving
- IT Professional Engagement
- IT Project Management Techniques
- Mobile Development Fundamentals
- Networking & Security
- Professionalism & Entrepreneurship
- Software Engineering
- Systems Modelling
- Understanding the Digital Revolution
- User Experience
- Web Design

Correct at time of printing. A ‘general elective’ may be taken from any area of the University. Study areas and majors are subject to change. Please refer to study.federation.edu.au
Bachelor of Science (Honours)

**Duration**
1 year FT or PT equivalent

**Location**
Mt Helen Campus (Ballarat)
Gippsland Campus (Churchill)

**Application**
Direct

**Entry Requirements (Refer to page 1 for full details)**
An undergraduate degree with a major study in computing with distinction or higher in the third year or the relevant major sequence.

An honours year is designed to provide graduates with advanced studies in computing at a professional level. It offers an introduction to a research program and provides access to research degrees at universities throughout Australia and internationally by providing preparatory studies for PhD study.

Master of Computing

**Duration**
1.5 years to 2 years

**Location**
Mt Helen Campus (Ballarat), Brisbane (Masters program only)

**Application**
Direct

**Entry Requirements (Refer to page 1 for full details)**
A four year Honours Bachelor degree, Degree with Honours, or equivalent

**Extra Requirements**
Research Proposal Form

This Masters by Research is awarded on the basis of an externally examined thesis. The thesis must demonstrate a command of the knowledge and skills pertinent to the area of investigation as well as a critical appreciation and understanding of the relationship of the work to that of others. Upon completion of this Masters, you are likely to gain employment in research positions within government or industry.

Master of Technology (Software Engineering)

**Duration**
You can enrol in the 2 year Masters, or the 1.5 year Graduate Diploma.

**Location**
Mt Helen Campus (Ballarat), Brisbane (Masters program only)

**Application**
Direct

**Entry Requirements (Refer to page 1 for full details)**
Completion of a 3 year Bachelor degree

You will develop the specialist knowledge required to understand and implement advanced software engineering techniques – design, implement and maintain IT systems using a well-informed software engineering approach and create high quality software in a systematic and efficient manner.

Master of Technology (Research)

**Duration**
2 years

**Location**
Mt Helen Campus (Ballarat)

**Application**
Direct

**Entry Requirements (Refer to page 1 for full details)**
Completion of a 3 year Bachelor degree

**Extra Requirements**
Research Proposal Form

This course provides you with a pathway to a research career in IT. Your undergraduate degree does not need to be in IT, as you will gain both the background IT knowledge plus the research skills to go on to further research oriented study.

Master of Technology (Enterprise Systems and Business Analytics)

**Duration**
You can enrol in the 2 year Masters, or the 1.5 year Graduate Diploma.

**Location**
Mt Helen Campus (Ballarat), Brisbane (Masters program only)

**Application**
Direct

**Entry Requirements (Refer to page 1 for full details)**
Completion of a 3 year Bachelor degree

These courses are designed to prepare you for a role that uses Enterprise System (ES) Technology to manage, integrate and expand business endeavours.

You will benefit from hands on experience, as study areas in this program are embedded with software from leading ES vendors like SAP.

You will have the opportunity to prepare for SAP certifications related to business processes, business intelligence and HANA, giving you the competitive advantage in the job market.

**Professional recognition**
The Master of Technology (Enterprise Systems and Business Analytics), and the Master of Technology (Software Engineering) hold Professional Level accreditation with the Australian Computer Society (ACS).
Open Day 2018
Sunday, 26 August 2018
Ballarat, Berwick and Gippsland