Information Systems is the academic discipline that investigates both how people and organisations use information, and how information systems and technology affect us as individuals, organisations, and society. Information is a crucial resource, and how we manage it impacts organisations, how we live our lives, and how democracies function.

Studying Information Systems can lead to a wide range of careers in the field of information management. You could become a business and systems analyst, IT project manager, information and systems architect, application developer, IT consultant, or a data specialist.

What these roles share is that they bring together technology, people, and organisations. For example, a business analyst helps organisations understand their needs, specify, develop (or acquire and customise) and deploy information systems. Information management is therefore not just about technology (hardware and software), but also about people and processes.

Preparing for an information management career deepens and advances your understanding of the opportunities and challenges of the digital age, equipping you with the ability to initiate, innovate, and implement changes in organisations.

The School of Information Management is based in Rutherford House at Victoria University of Wellington’s Pipitea campus. This diverse learning environment provides an exciting university experience, filled with opportunities to work alongside practitioners from various sectors and apply state-of-the-art management practices and technologies.

A Bachelor of Commerce in Information Systems is a passport to a valued and internationally relevant qualification that is in high demand globally.
WHY STUDY INFORMATION SYSTEMS?

VARIETY

Our Bachelor of Commerce in Information Systems (INFO) can help you discover your ability in leadership and creativity. You will also develop analytical thinking and problem-solving skills.

In addition to fundamental Information Systems principles and frameworks, you will learn core and state-of-the-art practices such as prototyping, process and data modelling, business analytics, application development, and digital organisation design, while fine-tuning your academic and report writing skills, critical thinking, and collaborative working techniques.

You will graduate with a set of highly transferable, industry-relevant core competencies.

VERSATILITY

Combining your INFO degree with your other interests is easy. When you take your core INFO courses (135 points), you can complete the rest of your degree requirements with courses from any faculty at Victoria University of Wellington.

The core INFO courses for a major are Introduction to Information Systems (INFO 101), System Analysis (INFO 141), Databases (INFO 151), any three courses at 200 level, INFO 320 or INFO 395, and any other two 300-level courses (see the description of each course on pages 6-11).

To obtain a minor in INFO, you’ll need to complete four courses; three at 200-level and one at 300-level.

When you take INFO in combination with another commerce major, and add the six 100-level core courses, you are free to add as many majors and minors as your schedule allows.

OPPORTUNITY

A major in Information Systems connects you to industry partners and thought leaders. You have opportunities to engage with practitioners before graduation, consider real-world issues related to information systems, learn by doing, build a professional portfolio, and immerse yourself in exciting new knowledge domains and emerging technologies.

Information Systems also allows you to blend your courses with other disciplines to diversify your skillset. Along with many other combinations, an Information Systems major or minor pairs well with Computer Science, Data Science, Management, Marketing, Accounting, Finance, Law, Public Policy, and Social Science.

“Wellington was the second-largest export-revenue generator in tech in New Zealand in 2018, delivering $2.35 billion in revenues, and it was also the top region in tech job growth, creating 798 tech jobs last year.”

(Absolute IT, 2019)
CAREER PATHWAYS

An undergraduate degree in Information Systems can advance your career in a broad range of roles, as listed below.

**IT business analyst: $81,000–$104,000**

IT business analysts analyse business needs, translate them into solutions (generally incorporating information systems), contribute to the design process, and evaluate impacts of the solution. Business analysts are at the centre of change in the organisation, adding value to the organisation.

**IT manager: $107,000–$150,000**

An IT manager proposes, plans, and manages functional and technical evolutions of the information system in the relevant business domain; manages and implements updates to existing applications and maintenance activities guided by the needs, costs, and plans agreed with internal users; ensures quality of service and internal-user satisfaction.

**IT consultant: $50,000–$250,000**

An IT consultant supports understanding of how new ICT technologies add value to a business, informs stakeholders of emergent technologies, anticipates and brings to maturity ICT projects by the introduction of appropriate technology, and communicates the value of new technologies to the business.

**IT project manager: $55,000–$135,000**

Project managers manage the delivery of IT projects from beginning to end, usually improving or adding to the business. They manage the strategic, financial, operational, and technological aspects of projects.

**IT architect: $120,000–$152,000**

Information technology (IT) architects analyse an organisation’s IT needs, recommend solutions, and oversee their delivery and implementation.

(Sourced from: https://www.careers.govt.nz/)
Top 10 IT skills in demand in New Zealand
(Absolute IT, 2019¹)

1. Software development
2. Business analysis
3. Agile
4. Support/help desk
5. Networking and Infrastructure
6. Project management
7. Digital and cloud
8. Testing/QA
9. Architecture
10. Business intelligence

Top 10 skills that IT employers in Wellington want to recruit

1. Business analysis
2. Software development
3. Agile
4. Data/database
5. Project management
6. Digital/cloud
7. Support/helpdesk
8. Testing/QA
9. Networking and Infrastructure
10. Business Intelligence

‘Top 10 most difficult to find’ from IT trend study 2018 by the Society of Information Management
(Kappelman et al., 2019²)

1. Security/cybersecurity
2. Analytics/business intelligence/big data/data science
3. Business analyst
4. Functional area knowledge
5. IT architect
6. Cloud
7. ERP
8. Data/information architect
9. Enterprise architect
10. Software packages/COTS (e.g., ERP, CRM, DBMS.)

Median IT base salaries on the rise

In the period June 2016—July 2018, the national median contracting rate increased by 5 percent every six months over the previous 18 months.

In May 2019, the hourly contracting rate is reportedly at $100/hour; up 5 percent from the January 2018 rate of $95/hour, and up 10 percent from the June 2017 rate of $90/hour.

INFO 101
INTRODUCTION TO INFORMATION SYSTEMS

An examination of the role of information systems in the business operations, managerial decision-making, and strategy of modern organisations. The course introduces the fundamental concepts of computer-based information systems acquisition and use.

**Level:** Introductory  
**Status:** Mandatory  
**Offered in:** Trimesters 1 and 2  
**Pre-requisites:** None

INFO 141
SYSTEMS ANALYSIS

This course covers the business analysis and system analysis activities, from the perspective of a business analyst. It introduces basic techniques for analysing data flows, as well as the strategies used for determining requirements. It introduces object-oriented modelling.

**Level:** Introductory  
**Status:** Mandatory  
**Offered in:** Trimester 2  
**Pre-requisites:** None
INFO 151
DATABASES
This course introduces the principles of database
definition, design, access, and implementation. It shows how databases support modern
data-processing systems. Students will be able
to create a data model from a business situation, implement a database from that data model, and use query language such as SQL to access data.

Level: Introductory
Status: Mandatory
Offered in: Trimesters 1 and 3
Pre-requisites: None

INFO 226
APPLICATION DEVELOPMENT
An introduction to the use of software
languages and tools for rapid application
development. The course takes students through the process of translating business
requirements, expressed with functional and structural models, into business applications.

Level: Intermediate
Status: Mandatory for specialisation in IT Solutions
Offered in: Trimester 1
Pre-requisite: INFO 151

INFO 231
MANAGEMENT OF IT PROJECTS
A detailed examination of IT project management, including scheduling, monitoring, and control techniques. Students will gain an appreciation of IT risk management, change-management strategies for internal and external stakeholders, and social and cultural issues arising in multi-country project team environments.

Level: Intermediate
Status: Mandatory for specialisations in either IT solutions or Business Analysis
Offered in: Trimester 1
Pre-requisites: INFO 101, INFO 141, or INFO 151, or 15 COMP points

INFO 234
BUSINESS PROCESS DESIGN
This course will explore the role and potential of IT to support business-process management and design. Students learn a modern business process-modelling technique, apply that to designing an improved business process, and then test and evaluate their proposed design using simulation software.

Level: Intermediate
Status: Mandatory for specialisation in Business Analysis
Offered in: Trimester 2
Pre-requisites: INFO 101, INFO 141, or INFO 151

INFO 246
USER EXPERIENCE DESIGN
Introduces fundamental principles, standards, and best practices of human-computer interaction, usability, and user experience. Advanced software tools enable students to create low-fidelity and high-fidelity user-interfaces for business websites and applications and covers the full life cycle of user-interface design, from requirements specification to design, prototyping, and evaluation.

Level: Intermediate
Status: Mandatory for specialisation in IT Solutions
Offered in: Trimester 2
Pre-requisites: INFO 101, INFO 141, or INFO 151
INFO 264
BUSINESS ANALYTICS
Covers the techniques of collecting, organising, and analysing historic data to improve business processes and predict customer behaviour. Uses analytical software for data mining, decision support, supply-chain management, simulation, and optimisation.

Level: Intermediate  
Status: Mandatory for specialisation in Business Analysis  
Offered in: Trimester 2  
Pre-requisite: INFO 151

INFO 334
DIGITAL BUSINESS INNOVATION
The course focuses on how businesses can adapt information technologies to add innovation to business models, products, and services. It includes an evaluation of digital strategies to support other corporate initiatives and how to integrate innovative business models such as social media and e-commerce to build customer relationships and improve the customer experience.

Level: Expert  
Status: Optional for specialisation in Business Analysis  
Offered in: Trimester 3  
Pre-requisite: INFO 234
INFO 336
SOCIAL RESPONSIBILITY IN A DIGITAL WORLD

A critical examination of the relationship between digital technologies and systems and concerns centred on sustainability and social justice. Topics will focus on current issues regarding both sustainability (e.g., clean energy, climate change, innovation, and sustainable cities) and ethics (e.g., inequality, digital divide, privacy, and professional codes of conduct) in the context of organisations, communities, government, and society.

Level: Expert
Offered in: Trimester 1
Pre-requisite: 15 200-level INFO or COMP/NWEN/SWEN points
Restrictions: INFO 333, INFO 381 (2018)

INFO 354
DIGITAL STRATEGY

Evaluation of the strategic significance of IS and IT within organisations. The course develops students' ability to think critically about how information technologies and systems can be used to attain their organisation's strategic goals.

Level: Expert
Status: Optional for specialisation in either IT Solutions or Business Analysis
Offered in: Trimester 1
Pre-requisite: 30 200-level INFO points

INFO 376
ENTERPRISE ARCHITECTURE

This course addresses the alignment between enterprise goals and strategy, business processes, data, information systems, and the technical infrastructure. Students learn about enterprise architecture's role in digital transformations; how to analyse, model, design and evaluate enterprise architectures; how to plan the transition from a baseline to a target architecture, and how to create effective governance instruments for successful enterprise architecture management.

Level: Expert
Status: Optional for specialisation in either IT Solutions or Business Analysis
Offered in: Trimester 1
Pre-requisite: 30 200-level INFO points

INFO 377
SYSTEM VERIFICATION

Critically evaluate theory and heuristics of test design, planning, and implementation. Apply the theory of information systems assurance to design and build test plans for specific systems and software requirements. Implement key components of program testing, logic testing, and user-acceptance testing.

Level: Expert
Status: Optional for specialisation in IT Solutions
Offered in: Trimester 2
Pre-requisite: INFO 226
INFO 386
INFORMATION TECHNOLOGY ARCHITECTURE

This course examines conceptual and physical building blocks of current information and communication infrastructures, including distributed, mobile, and pervasive and cloud solutions. It describes how the internet is used as a platform for developing business applications, and uses practical technologies to enable students to model and design IT architectures from a business perspective.

Level: Expert
Status: Optional for specialisation in IT Solutions
Offered in: Trimester 1
Pre-requisite: 30 200-level INFO points

INFO 388
ENTERPRISE SECURITY

This course explores current managerial and technical information security topics. Students will become familiar with contemporary information-security-related threats and risks for organisations. Students will also learn proven information security management approaches, methods, techniques, and tools, and how to apply these to control prevalent threats and risks.

Level: Expert
Status: Optional for specialisation in Business Analysis
Offered in: Trimester 1
Pre-requisite: 30 200-level INFO points
INFO 320
PROJECT IN INFORMATION SYSTEMS

This course provides students with an opportunity to apply their theoretical knowledge to a practical problem in the area of information systems. Students work in teams on real projects for real clients. The course coordinator defines the projects.

Level: Capstone
Status: Mandatory for specialisation in either IT Solutions or Business Analysis
Offered in: Trimester 2
Pre-requisites: B+ or better in any two of INFO 226, 231, 234, 246, 264; and 15 INFO 300-level points

Note: All students will complete either INFO 320 or INFO 395, regardless of whether they seek a specialisation.

INFO 395
CASE STUDIES IN INFORMATION SYSTEMS

A human, organisational, and environmental perspective of the impact of new or existing information systems, including management of IT-induced change.

Level: Capstone
Status: Mandatory for specialisation in IT Solutions
Offered in: Trimester 2
Pre-requisites: 30 200-level INFO points, and 15 300-level INFO points

Note: All students will complete either INFO 320 or INFO 395, regardless of whether they seek a specialisation.
Your studies will lead you toward a particular major or minor. If you’re majoring in INFO, you have the option of also selecting a specialisation in IT Solutions or Business Analysis and adding this specialisation to your academic transcript.

**WHY GET A SPECIALISATION?**

An IT Solutions or Business Analysis specialisation will allow you to become an expert in a particular set of skills, and demonstrate these skills to a future employer.

**THE SPECIALISATIONS**

**IT Solutions**
Have you ever wondered how websites, mobile apps, and information systems are developed and deployed? Through our IT Solutions specialisation, you will thrive in a digital business environment, putting together digital solutions that add value to users and organisations.

Potential career opportunities include:
- application designer ($72,000–$100,000)
- user-experience designer ($55,000–$100,000)
- tester/QA ($70,000–$98,000)
- IT architect ($120,000–$152,000)
- system analyst ($81,000–$104,000)
- IT project manager ($55,000–$135,000)
- IT consultant ($50,000–$250,000).

**Business Analysis**
If you have ambitions to change how we do business now, and in our digital future, the Business Analysis specialisation helps you develop skills in problem analysis and design thinking and transforms you into an innovative and insightful digital leader.

Potential career opportunities include:
- IT business analyst ($81,000–$104,000)
- IT manager ($107,000–$150,000)
- enterprise architect ($92,000–$167,000)
- security analyst ($92,000–$137,000)
- IT consultant ($50,000–$250,000).

**HOW DO I GET A SPECIALISATION?**

Finding out how to get your specialisation is simple: just follow the course prescription for your chosen pathway, choose an additional two courses from the list, and make sure you tick off the major requirements for the INFO degree. You can even tailor your specialisation to fit your dream job. Easy.

**WHAT IF I DON’T WANT A MAJOR OR SPECIALISATION?**

If you find that the major or specialisation options don’t suit you because your interests span across a varied range of courses or disciplines, you can choose INFO courses based on your needs. For example, if you’re interested in IT auditing, you can combine accounting and IS; if you’re interested in entrepreneurship, you can combine management and IS; if you’re interested in the application of IT in your domain (e.g., fashion design, law, and journalism), you can choose any number of IS courses to complement your interests.
## IT SOLUTIONS SPECIALISATIONS

**REQUIRED**
- INFO 226
- INFO 230
- INFO 246
- INFO 320
- INFO 388

**CHOOSE 2**
- INFO 151
- INFO 141
- INFO 334
- INFO 354
- INFO 376
- INFO 386

## BUSINESS ANALYSIS SPECIALISATIONS

**REQUIRED**
- INFO 101
- INFO 151
- INFO 231
- INFO 234
- INFO 264
- INFO 395

**CHOOSE 2**
- INFO 334
- INFO 354
- INFO 376
- INFO 388
When planning your INFO degree you can match the kind of job you'd like to the courses you take, giving you an edge in the job market.
### POPULAR JOB ROLES

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<th>Must-have</th>
<th>Business and system analyst</th>
<th>Security analyst</th>
<th>Analytics specialist</th>
<th>Business manager</th>
<th>IT project manager</th>
<th>IT consultant</th>
<th>Start-up entrepreneur</th>
<th>Enterprise architect</th>
<th>Test/QA</th>
<th>IT architect</th>
<th>Application designer</th>
<th>UX designer</th>
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### INFO COURSE CODES

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**Reference:** The image contains a chart highlighting popular job roles and corresponding course codes, with some roles marked as must-haves or recommended. The chart is designed to provide a visual representation of course offerings and their relevance to various job roles. The specific course codes listed correspond to the recommended courses for each role. This layout aids in understanding the career paths and required education for professionals in the technology sector.
Claudia Sullivan, Current student

I’m from Christchurch initially, but I love Wellington! It’s a fun and vibrant city that has the perfect balance between student and corporate life. After having looked into the business schools around the country, I decided Victoria University of Wellington offered a degree and a culture that aligned most with me.

Initially, I had intentions to complete my degree with a Marketing and Management major, but since taking INFO 101, I decided that Information Systems was better suited to me. Every course since has solidified that interest.

My advice to prospective students would be: Don’t knock it ’til you try it! Even if you don’t love INFO 101 like I loved it, the 200- and 300-level courses are where your INFO degree becomes an exciting and interesting journey.
Manraj Rahi, Current student

What attracted me to studying IS was the belief that this major provides a future-focused education and an understanding of business and the commercial world. I also felt it would complement my Law degree with a unique set of skills through a different learning area.

Choosing my favourite paper was tricky. INFO 141 was the course where I felt I gained an appreciation of what a business analyst would do, and the practical skills required. I found this really valuable. In general, I’ve thoroughly enjoyed the practical elements of the programme; actually being given a chance to apply the skills you learn in lectures meant the INFO degree has lived up to—and exceeded—expectations.

My advice to prospective students would be to make the most of it. Fully engage in your workshops and tutorials and all the opportunities INFO gives you, to connect your degree to the real world.

Patrick Miller, Graduate

Studying INFO 101 was when I was first introduced to Information Systems. After completing the website project, which was something completely different from any other assignments I had to do in my first year, I knew that I wanted to pursue INFO as a major. I decided to study INFO for another three years because each course I took was more and more varied than the last.

It’s tough to say what my favourite course would have been, as all of the 200-level INFO courses were amazing. INFO 226 holds a special place in my heart because after studying it, I came back to tutor it the following year. It’s one of those courses that you get out what you put in. If you enjoy complex problem-solving and the thrill of finally getting something to work after trying and trying, then this is the course for you. It’s extremely rewarding.

My advice to prospective students would be: Do it. One hundred percent do it. You will never regret the decision to study INFO. The lecturers and support staff are really lovely and helpful. Most importantly, the content is relevant and gives you a good understanding to grow in whatever career you pursue.