School of Business

Bachelor of **INFORMATION TECHNOLOGY**

EXCELSIA
UNIVERSITY COLLEGE

Bachelor of
INFORMATION TECHNOLOGY

Course duration:	3 years full-time
Intake:	February and July
Class size	Maximum of 35. Maximum of 16 for lab classes
Credit points:	144
Delivery:	On campus with some content delivered online
Available to:	Domestic and international
CRICOS Code:	112836B
IELTS:	6.0
AQF:	Level 7
Financial information:	$8,200 semester/$49,200 total tuition fee FEE-HELP available for domestic students

For more information, refer to our course fees page.

The Bachelor of Information Technology (BIT) aims to provide theoretical and practical knowledge of the role of information technology professionals within the enterprise environment. The BIT can be completed in three years studying full time and is an AQF level 7 qualification. Within the course, students can choose to major in digital transformation, cyber security or business information systems.

Information technology professionals hold specialised technological knowledge and skills in order to effectively run their own business. They also work with organisations and businesses to set up viable computer systems and networks and provide continued support and troubleshooting when needed. This may include working with firewalls, media storage devices, databases, intranets, websites, servers, the internet, or anything else related to computers.

The BIT course structure and content have been carefully aligned to Australian Computer Society (ACS) requirements to cater for theoretical and practical knowledge for careers including ICT business analysts, ICT managers, software and applications programmers, ICT security specialist and systems analysts.

The course structure and content are aligned with the ACS CBoK V3.2, and the Australian Qualifications Framework (AQF). The mapping of the ACS CBoK V3.2 as well as underpinning SFIA against specified graduate professional roles assures course deliverables align with current industry standards and needs. Over the entire course, students will acquire the necessary graduate attributes to distinguish them and help them become industry-ready.

For more details, refer to: excelsia.edu.au/study/business/bachelor-of-information-technology/

ENTRY REQUIREMENTS

EDUCATIONAL PREREQUISITES

- Successful completion of Year 12 or equivalent, or an equivalent secondary qualification either interstate or overseas (in English or see below), or
- Successful completion of an Australian qualification recognised as at least AQF Certificate IV (minimum period of study of 1 school year within the last 2 years), or
- Satisfactory completion of an accredited Tertiary Preparation Program or a Foundation Year Program offered by an Australian university, or
- Satisfactory completion of one year of accredited full-time study at a registered institute of tertiary education at AQF level 4 or above.

SCHOOL LEAVERS

ATAR: 60 **GPA:** 2 out of 4 **STAT:** 120

INTERNATIONAL STUDENTS

The minimum academic entry requirements for admissions to the Bachelor of Information Technology is the completion of a qualification deemed equivalent to Australian Year 12. Applicants may also be required to satisfy specific course requirements such as a minimum overall grade score or prerequisite knowledge.

International students whose first language is not English must demonstrate competency in the English language. The following English language proficiency scores have been allocated for entry to this course for students who have not completed the final two years of secondary schooling with English as the language of instruction.

English Language Test	Requirement
International English Language Testing System (IELTS) – Academic	Overall, 6.0 (no band less than 6)
Pearson Test of English (PTE)	50 (no band less than 50)
Cambridge English Advanced (CAE)	Level B2 (169) (writing not less than 169)

SPECIAL AND/OR ALTERNATIVE ENTRY: non-school leavers (mature-age applicants and/or those who do not hold their HSC or equivalent)

Excelsia's Admissions Framework provides for special consideration to be given to some applicants including Aboriginal and Torres Strait Islander (ATSI) applicants. Academic Board or its delegate may determine alternative admission pathways for these applicants in accordance with relevant policy and procedures.

Core Units

FIRST YEAR SEMESTER ONE

Introduction to Information Technology
This unit will equip students with a comprehensive understanding of a wide range of information technologies and their practical applications in both personal and professional contexts. Students will learn about the essential components of information technology (IT), including the Microsoft 365 suite of applications, basic computer hardware, enterprise information systems, computer system integration, networking and security, and webpage creation. The knowledge and skills gained through this unit will provide students with a solid foundation for future technical units.

Algorithms and Programming Techniques
This unit provides knowledge on the fundamental concepts and terminology of algorithms and computer programming. The applications will be performed using JAVA programming language. The unit will cover topics on data types, objects and classes, control structures, methods, and arrays. Students also gain knowledge on testing, compiling, and debugging a computer program using ECLIPSE which is an integrated development environment (IDE).

Ethical and Social Issues in Information Technology
In this unit, students will develop skills and knowledge in areas of technical practice including identifying, analysing, and managing risk, analysis and reporting of information and emerging technologies. Students are introduced to the central philosophical conceptualisations of ethics, and how to apply it both to theory and practice in IT-based business organisations.

Critical Thinking and Communication for IT Professionals
This unit is designed to provide students with a strong foundation for their ongoing professional development as IT professionals in the workplace. The skills covered in this unit include applying principles and theories of human communication while taking ethical and socio-technical issues into account, effective written and oral communication in IT contexts, expressing technology concepts through visual communication, and leading and participating in team processes. The knowledge and skills acquired in this unit will be beneficial for students in their future careers as they continue to grow and develop as IT professionals.

FIRST YEAR SEMESTER TWO

Computer Networking
This unit focuses on computer networks and provides students with an in-depth understanding of the foundational technologies and methodologies involved in system administration, network applications, hardware components, architectures, and communication protocols. Students will learn how to design and implement computer networks that enable efficient information sharing and communication across various network infrastructures, including local area networks (LANs) and wide area networks (WANs).

Database Management Systems
In this unit, students will learn about important features in relational database administration such as storage architectures, indexing, query strategies, transaction management, and data warehousing. They will also explore ethical considerations related to database systems and relational data models. By the end of the unit, students will have a solid grasp of relational database architecture, query processing and optimisation.

Organisational Behaviour
This unit addresses the crucial role of understanding organisational behaviour in effectively managing people in the workplace. It explores how knowledge of organisational behaviour is essential to managing individuals and groups within an organisation. The unit covers key areas of organisational behaviour, such as managing, motivation, group behaviour, leadership, decision-making, power, conflict, control, organisational culture, and change.

Systems Analysis and Design
The focus of this unit is on comprehending information systems as purposeful solutions to problems, and computing as a means of interpreting and executing these solutions. Additionally, the unit will practically highlight the techniques, tools, and methods of systems analysis in a business context. Students will gain knowledge to effectively communicate with clients, collect relevant information regarding requirements analysis, problem identification, feasibility assessment, data modelling, use case analysis, specifications, and socio-technical issues that are crucial elements of requirements elicitation and user-centric design.

SECOND YEAR SEMESTER ONE

Object Oriented Programming
Students will develop an understanding of the fundamental concepts of object-oriented programming. They will acquire the skills necessary to design, develop, and implement software programs to solve real-world problems. By the end of the unit, students will have a comprehensive understanding of object-oriented programming and be proficient in utilising programming structures such as functions, arrays, classes/objects, iterations, inheritance, and pointers to create practical software applications.

Web Application Development
This unit introduces students to the technologies and tools used in building web applications as well as providing both conceptual understanding and hands-on experiences. Students will learn about communication between client and server, improving responsiveness with rich client technology, and building secure web applications. The unit covers a range of web programming tools and techniques, including Hyper Text Mark-up Language (HTML), Cascading Style Sheets (CSS), and Java Scripts.

Social Media and Digital Marketing
This unit provides students with a comprehensive understanding of digital and social media marketing, including the concepts, tools, and techniques used in various industries. Students will gain practical, real-world experience and learn about the advantages and disadvantages of digital and social media marketing. The unit will focus on creating brand awareness, establishing customer rapport and trust, and designing marketing campaigns that incorporate search engine optimisation (SEO) and content creation tools.

Introduction to Cyber Security
This unit covers the fundamentals of cyber security, including security threats, risk analysis, and risk mitigation strategies. Students will explore key cyber security concepts, security technologies, and industry-standard architectural designs. They will also learn about current methods for maintaining a secure working environment and protecting against cyber threats and attacks. The unit emphasises the protection of data integrity, confidentiality, and availability.

SECOND YEAR SEMESTER TWO

Data Analytics
This unit provides students with a comprehensive introduction to data analytics, covering essential concepts and practices in modern data analysis. Students will learn the fundamentals of the data process chain, data warehousing, descriptive and predictive analyses, business intelligence process flow, and data mining. The unit also provides a solid foundation in various business intelligence frameworks, architectures, applications, tools, and management practices.

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Cloud Computing
This unit provides students with a comprehensive understanding of cloud technology concepts, from both a business and technical perspective. Students will gain knowledge of cloud services, architecture, system integration, connectivity, administration, security, and technical support, with a particular focus on security of cloud-based applications and deployment strategies. After completing this unit, students will have a practical hands-on experience of cloud technologies such as Amazon Web Services (AWS), Google Cloud, and Microsoft Azure and their applications in a variety of business settings.

IT Project Management
This unit teaches students project management principles and techniques in software and information systems development, covering both traditional and agile approaches. Topics include project planning, risk management, communication, quality management, and implementation. The unit also integrates recent developments in understanding the human side of project management, such as leadership, teamwork, stakeholder analysis, and human resources management. The curriculum builds upon the Project Management Body of Knowledge (PMBoK) and emphasises practical application of project management principles in IT projects.

Specialisation Unit 1

THIRD YEAR SEMESTER ONE

IT Service Management
This unit examines best practices and procedures for implementing, delivering, and managing IT services for end users (e.g., employees, customers, or business partners) in a way that meets the stated needs and goals of the business. After completing this unit, students will be able to explain how, with a proper service management framework in place, an organisation can maximise business value from the use of information technology.

Big Data
This unit provides a broad and coherent knowledge of big data technology such as database management using SQL and NoSQL; distributed computing techniques such Hadoop, MapReduce, Spark, and its eco-system; and big data analytical techniques such as exploratory data analysis and predictive modelling. Students will learn the characteristics of big data and the capability to combine and analyse a large volume of data by applying tools and techniques associated with big data analytics to better understand a given real-world problem and to identify practical solutions.

Specialisation Unit 2

Capstone Project A
In this unit, students will be expected to synthesise the theoretical and practical knowledge gained in the BIT program to design and implement an IT project for a small business. Students are expected to work in small teams to complete the analysis and design phases in the first semester (Capstone Project A) and they will extend this work with implementation and post-implementation review phases in the second semester (Capstone Project B). The project will serve as an opportunity for students to integrate various aspects of IT systems and present their findings professionally. The Capstone Project is worth 12 credit points and requires a committed contribution from each team member.

THIRD YEAR SEMESTER TWO

Internet of Things (IoT)
This unit explores the theory, application, and advantages of the Internet of Things (IoT) in various domains such as environmental monitoring, agriculture, medical, habitat, and military surveillance. Students gain practical skills by planning and creating a low-to-medium complexity IoT-based application. The unit covers technologies including sensor and actuator networks, telemetry, data processing, distributed databases, machine vision, AI, analytics, and software frameworks.

IT Strategy, Governance and Risk
In this unit, students will learn the significance of IT governance to ensure that processes and procedures comply with regulatory and industry standards. Students will develop an understanding of the role of the regulatory environment, governmental and organisational controls, audits, standards, professional certifications, and issues related to measuring performance, proving value, and minimising risk.

Specialisation Unit 3

Capstone Project B
See Capstone Project A.

Specialisation Units

DIGITAL TRANSFORMATION

Digital Transformation in Business
This unit teaches students about the various applications of digital technology to transform business and society. It aims to increase students' understanding of the impact of digital technologies on business operations and management, as well as on business relationships with customers, suppliers, and regulators.

Disruptive Technology and Organisational Change
This unit explores the history and impact of disruptive technologies on society, and how new disruptive technologies are expected to shape the corporate world and our daily lives. Students will examine the fundamentals of disruptive innovation and historical processes that have caused entire technologies and industries to be overshadowed rapidly.

Fintech
This unit examines how technology advancements may affect the financial industry's present and future conditions. The goal is to encourage creative and disruptive thinking while reinforcing the idea that recent structural developments in the financial sector provide a variety of beneficial internal and external possibilities.

User Experience
This unit focuses on teaching tools, methodologies, and frameworks to create practical, helpful, and enjoyable designs. Students will learn the importance of user experience (UX) design and how it can be used to solve real-world issues. Through user research, learners will gain insights into how people live and interact, enabling them to create designs that address problems and add value. The unit goes beyond traditional design methods, allowing students to transform routine tasks into memorable experiences.

CYBER SECURITY

Ethical Hacking and Penetration Testing
This unit introduces students to ethical hacking and penetration testing concepts and techniques. Students will gain a deep understanding of the ethical and legal considerations surrounding these practices, as well as the industry standards and various types of penetration testing used in businesses.

Applied Cryptography
In this unit, students will delve into the fascinating world of cryptography – one of the key building blocks of information security. This unit covers the history, evolution, and contemporary techniques used in cryptography. Students will gain an understanding of private key cryptography, Block and Stream ciphers, AES, public key cryptography, Diffie-Hellman cryptographic system, RSA, Hash functions, Digital Signature, PKI system and Elliptic Curve Cryptosystems.

Digital Forensic
This unit provides a comprehensive focus of forensic analysis, covering topics such as the principles of forensic analysis, the legal aspects of forensics, forensics on various types of infrastructure, and the management of forensic methodologies. It covers real-life case studies with practical examples. Students will have the opportunity to apply forensic methods in controlled environments to gain a technical understanding of how to uncover hidden data and metadata that may reveal user behaviour.

Cloud Security and Privacy
This unit focuses on challenges surrounding cloud security and privacy that can compromise the availability of data and business functionality. It will cover concepts on how to protect against unauthorised access and handling security incidents. After completing this unit, students will have a practical understanding of how to respond to, detect, analyse, contain, recover, and eradicate cloud security issues and to present this information using a security incident response plan.

BUSINESS INFORMATION SYSTEMS

Accounting Principles for IT Professionals
This unit provides an overview of accounting principles and practices in Australia, covering topics such as the business environment, accounting information systems, fundamental accounting conventions, the accounting cycle, double entry, and the application of accounting information systems by small to medium-sized enterprises.

Finance for IT Professionals
This unit introduces the principles and basic analytical techniques of business financial management and planning. The unit emphasises the importance of making sound financial decisions by balancing micro- and macro-financial considerations, providing a balanced perspective on risk and opportunity.

Entrepreneurship and New Venture Creation
This unit provides a comprehensive overview of entrepreneurship and enterprise, emphasising the role of the entrepreneur and innovation in the entrepreneurial process. The unit covers the development of growth-oriented businesses, whether for-profit or not-for-profit, and highlights the importance of managing and mitigating uncertainty and risk.

Disruptive Technology and Organisational Change
This unit explores the history and impact of disruptive technologies on society, and how new disruptive technologies are expected to shape the corporate world and our daily lives. Students will examine the fundamentals of disruptive innovation and historical processes that have caused entire technologies and industries to be overshadowed rapidly.

Fintech
This unit examines how technology advancements may affect the financial industry's present and future conditions. The goal is to encourage creative and disruptive thinking while reinforcing the idea that recent structural developments in the financial sector provide a variety of beneficial internal and external possibilities.

Bachelor of Information Technology

Year 1	
Semester 1	**Semester 2**
Introduction to Information Technology	Computer Networking
Algorithms and Programming Techniques	Database Management Systems
Ethical and Social Issues in Information Technology	Organisational Behaviour
Critical Thinking and Communication for IT Professionals	Systems Analysis and Design

Year 2	
Semester 1	**Semester 2**
Object Oriented Programming	Data Analytics
Web Application Development	Cloud Computing
Social Media and Digital Marketing	IT Project Management
Introduction to Cyber Security	Specialisation Unit 1

Year 3	
Semester 1	**Semester 2**
IT Service Management	Internet of Things (IoT)
Big Data	IT Strategy, Governance and Risk
Specialisation Unit 2	Specialisation Unit 3
Capstone Project A	Capstone Project B

SPECIALISATION UNITS Select 3 major units according to your specialisation

DIGITAL TRANSFORMATION	CYBER SECURITY	BUSINESS INFORMATION SYSTEMS
Digital Transformation in Business	Ethical Hacking and Penetration Testing	Accounting Principles for IT Professionals
Disruptive Technology and Organisational Change	Applied Cryptography	Finance for IT Professionals
Fintech	Digital Forensic	Entrepreneurship and New Venture Creation
User Experience	Cloud Security and Privacy	Disruptive Technology and Organisational Change **OR** Fintech

WHERE WILL THIS TAKE ME?

CAREERS	SPECIALISED UNITS
Software Engineering	Algorithms and Programming Techniques, Database Management Systems, Systems Analysis and Design, Object Oriented Programming, Web Application Development, Internet of Things (IoT)
ICT Business Analyst	Ethical and Social Issues in Information Technology, Critical Thinking and Communication for IT Professionals, Database Management Systems, Systems Analysis and Design, Object Oriented Programming, IT Project Management, Big Data, IT Service Management, IT Strategy, Governance and Risk
Computer Network	Computer Networking, Database Management Systems, IT Project Management, Internet of Things (IoT), Capstone Project
Developer Programmer	Algorithms and Programming Techniques, Database Management Systems, Systems Analysis and Design, Object Oriented Programming, Web Application Development, Internet of Things (IoT)
ICT Security Specialist	Introduction to Cyber Security, Cloud Computing, IT Project Management, Cloud Security and Privacy, Applied Cryptography, Digital Forensic

Information about applications is available at: excelsia.edu.au/study/how-to-apply/

Step 1 Select the course
at: excelsia.edu.au/study/

Step 2 Check entry requirements

Step 3 Gather the required documents

Step 4 Complete application form

Step 5 Apply
Once you submit your application, Excelsia staff will contact you shortly to confirm receipt and talk through the next steps in the process.

EXCELSIA
UNIVERSITY COLLEGE

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The information contained in this course guide was accurate at the time of publication. Excelsia reserves the right to amend the material contained in this guide without notice in response to changing circumstances or for any other reason.
For most up-to-date course information please visit our website.

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