INFORMATION TECHNOLOGY

BACHELOR OF BUSINESS INFORMATION SYSTEMS

3 B G X Course code: M305

Deakin's Bachelor of Business Information Systems is a passport to a satisfying and professionally rewarding career. Almost all jobs use some form of information systems or information technology for business processes and management, creative output or communication.

In addition to specialist studies in information systems, you can also elect to complete a business major. On completion of the Bachelor of Business Information Systems, graduates will have satisfied requirements for professional membership of the Australian Computer Society (ACS).

CAREER OPPORTUNITIES

Due to the constant need to develop, manage and use information strategically, business information systems professionals have access to employment in just about every Australian industry including all levels of government. This course is designed to give you essential business skills as well as developing expertise in information systems to achieve specialist career roles in corporate businesses and government.

COURSE STRUCTURE

You will complete 24 credit points in total: 8 credit points of core Information Systems units; 4 credit points of core Commerce units; 4 credit points of Information Systems electives and 8 credit points of electives (4 credit points must be from the Faculty of Business and Law). For further information please see page 54.

BACHELOR OF INFORMATION TECHNOLOGY (COMPUTER SCIENCE/SOFTWARE DEVELOPMENT)*

3 B G X Course code: S327

This program meets the requirements for membership of the Australian Computer Society at the 'Professional' level.

Deakin has developed strong industry links with Sun Microsystems, Hewlett Packard (HP) and Microsoft. You will learn using the latest in Microsoft software in laboratories fully supported by Microsoft. Off-campus students are provided with a full suite of Microsoft software for the duration of their studies. A feature of Deakin's course is the hands-on practically oriented learning environment which allows you to put theory into practice.

An honours year is available.

CAREER OPPORTUNITIES

Graduates will be employed in roles such as object-oriented and procedural programmers, database and web designer and managers, network managers, component integrators, project managers, consultants and system analysts.

COURSE STRUCTURE

You must complete 24 credit points comprising eight core units plus the eight stream core units and 8 credit points selected from units offered by any area of the University. Students should note that they must also comply with the following rules:

Level 1—up to 10 credit points;
Levels 2 and 3—at least 14 credit points over both levels;
Level 3—at least 6 credit points of which at least 4 must be in course-grouped units (SIT coded units).

Level 1
SIT101 Fundamentals of Information Technology
SIT102 Introduction to Software Development
SIT103 Database
SIT104 World Wide Web and Internet
SIT131 Object-Oriented Development

Level 2
SIT201 Systems Analysis and Design
SIT202 Computer Networks
SIT221 Classes, Libraries and Algorithms
SIT222 Operating Systems
SIT231 Advanced Database
SIT284 Introduction to IT Security Management

Level 3
SIT301 IT Practice
SIT302 Project
SIT321 Software Engineering
SIT322 Distributed Systems
SIT323 Practical Software Development
plus eight elective units, three at level 2 or 3, with at least one at level 3

BACHELOR OF INFORMATION TECHNOLOGY (IT SECURITY)

3 B Course code: S334

The Bachelor of Information Technology (IT Security) course focuses on providing graduates with practical and theoretical knowledge in this critical aspect of IT, with an emphasis on analysing, investigating, problem solving, programming and technical skills related to forensic IT and IT security. It is the only on-campus course of its type in Victoria.

The course focuses on three key aspects to provide students with a well-rounded degree: a theoretical component, a network/systems security component and a management perspective.

CAREER OPPORTUNITIES

You will study an area in demand—recent surveys show that the IT profession with the highest percentage increase in demand is the Security Specialist. Career options include work as a security analyst, project manager, security system manager, cryptographer, consultant, security system developer or programmer.

COURSE STRUCTURE

You must complete 24 credit points comprising eight core IT units, eight IT Security core units and 8 credit points selected from units offered by any area of the University. Students should note that they must also comply with the following rules:

Level 1—up to 10 credit points;
Levels 2 and 3—at least 14 credit points over both levels;
Level 3—at least 6 credit points of which at least 4 must be in course grouped units (SIT coded units).

Level 1
SIT101 Fundamentals of Information Technology
SIT102 Introduction to Software Development
SIT192 Discrete Mathematics
SIT103 Database
SIT104 World Wide Web and Internet
SIT182 Introduction to Computer Security

Level 2
SIT201 Systems Analysis and Design
SIT281 Introduction to Cryptography
SIT202 Computer Networks
SIT282 Computer Crime and Digital Forensics
SIT284 Introduction to IT Security Management

Level 3
SIT301 IT Practice
SIT302 Project
SIT382 System Security
SIT384 Corporate Computer and Network Security
SIT392 Public-Key Cryptography
plus eight elective units, four at level 2 or 3 and at least three at level 3

* Only available at the Geelong Campus at Waurn Ponds to students with approved advanced standing (credit transfer).

INFORMATION TECHNOLOGY

KEY

3 Course duration
G Geelong Campus at Waurn Ponds
F Geelong Waterfront Campus
B Melbourne Campus at Burwood
W Warrnambool Campus
X Off campus

BACHELOR OF INFORMATION TECHNOLOGY (MULTIMEDIA TECHNOLOGY)

3 B Course code: S331

This course introduces fundamental principles together with tools and techniques needed to design multimedia information and deploy multimedia systems.

You can undertake an optional elective stream in Interactive Media Arts that provides a creative component to the course. A feature of this course is the hands-on practically oriented learning environment which allows you to put theory into practice.

Deakin has developed strong industry links with Sun Microsystems, Hewlett Packard (HP) and Microsoft. You will learn using the latest in Microsoft software in laboratories fully supported by Microsoft. Off-campus students are provided with a full suite of Microsoft software for the duration of their studies.

This program meets the requirements for membership of the Australian Computer Society at the professional level.

An honours year is available.

CAREER OPPORTUNITIES

This course will enable you to develop, implement and maintain information systems, databases and computer networks. You will also be suited to systems programming, software development, data communications, management, maintenance of computer systems and development of information systems.

COURSE STRUCTURE

You must complete 24 credit points comprising eight core units plus the eight stream core units and 8 credit points selected from units offered by any area of the University. Students should note that they must also comply with the following rules:

Level 1—up to 10 credit points;
Levels 2 and 3—at least 14 credit points over both levels;
Level 3—at least 6 credit points of which at least 4 must be in course grouped units (SIT coded units).

Level 1
SIT101 Fundamentals of Information Technology
SIT102 Introduction to Software Development
SIT103 Database
SIT104 World Wide Web and Internet
SIT161 Principles of Interactive Media
SIT162 Design of Interactive Media Systems

Level 2
SIT201 Systems Analysis and Design
SIT202 Computer Networks
SIT253 Audio and Visual Game Elements
SIT262 Authoring of Interactive Media
SIT261 Multimedia Delivery Systems
SIT263 Interface Design of Interactive Media

Level 3
SIT301 IT Practice
SIT302 Project
SIT361 Multimedia Systems and Technology
SIT362 Advances in Interactive Media
plus eight elective units, four at level 2 or 3 with at least two at level 3

BACHELOR OF INFORMATION TECHNOLOGY (GAMES DESIGN AND DEVELOPMENT)

3 G Course code: S333

Deakin's Game Design and Development course develops an understanding of software technology relevant to games as well as scientific concepts from computer science, including: game simulation and modelling, software engineering, human computer interaction, game production, graphic design, and music and sound effects.

You will be exposed to hands-on computer games design and development in a dynamic studio learning environment.

You will have access to games lounges and games studios where you can interact and develop team-based projects or just chill out and test your gaming skills on the latest gaming technology.

This program meets the requirements for membership of the Australian Computer Society at the professional level.

An honours year is available.

CAREER OPPORTUNITIES

You will be qualified to work in a wide range of IT jobs, including game designer, game developer or game programmer, project manager, component integrator, multimedia system designer and developer or consultant.

COURSE STRUCTURE

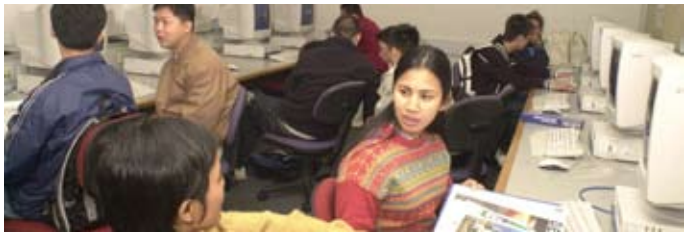
You must complete 24 credit points comprising eight core units plus the eight stream core units and 8 credit points selected from units offered by any area of the University. Students should note that they must also comply with the following rules:

Level 1—up to 10 credit points;
Levels 2 and 3—at least 14 credit points over both levels;
Level 3—at least 6 credit points of which at least 4 must be in course grouped units (SIT coded units).

Level 1
SIT101 Fundamentals of Information Technology
SIT102 Introduction to Software Development
SIT103 Database
SIT104 World Wide Web and Internet
SIT131 Object-Oriented Development
SIT151 Game Fundamentals

Level 2
SIT201 Systems Analysis and Design
SIT202 Computer Networks
SIT221 Classes, Libraries and Algorithms
SIT251 Game Architecture and Design
SIT252 Game Programming
SIT253 Audio and Visual Game Elements

Level 3
SIT301 IT Practice
SIT302 Project
SIT352 Game Production and Society
SIT353 Development of Online and Multi Player Games
plus eight elective units, four at level 2 or 3 with at least two at level 3



BACHELOR OF INFORMATION TECHNOLOGY (WEB AND MOBILE TECHNOLOGIES)

3 G X Course code: S339

This course has been developed in response to the need for a stronger emphasis on the distributed nature of information technology, new programming methodologies and paradigms, the need for providing information to all users, and the development of internet and mobile technologies.

The course's modern and learning-oriented program addresses a broad spectrum of needs in diverse areas including web and mobile technologies (distributed systems and applications), computer networks, web applications and web services development, and information technology (web and mobile use in organisations and computer security).

CAREER OPPORTUNITIES

In addition to a professional accreditation with the Australian Computer Society, graduates can look forward to careers in a wide range of IT jobs where expertise in web and mobile technologies and the development of software, applications and system for the web and mobile systems are well regarded.

COURSE STRUCTURE

The course is comprised of 8 credit points of core Bachelor of Information Technology units, 8 credit points of Web and Mobile Technology units, and 8 credit points of elective units.

Level 1
SIT101 Fundamentals of Information Technology
SIT102 Introduction to Software Development
SIT103 Database
SIT104 World Wide Web and Internet
SIT131 Object-Oriented Development

Level 2
SIT201 Systems Analysis and Design
SIT211 Web and Mobile Systems in Organisations
SIT222 Operating Systems Concepts
SIT202 Computer Networks
SIT212 Information Retrieval for Web and Mobile Systems
SIT284 Introduction to IT Security Management

Level 3
SIT301 IT Practice (online)
SIT322 Distributed Systems and Applications
SIT313 Mobile and Ubiquitous Computing
SIT302 Project
SIT342 Development of Web and Mobile Applications
plus eight elective units, four at level 2 or 3 with at least one at level 3

EQUIPMENT REQUIREMENTS FOR OFF-CAMPUS INFORMATION TECHNOLOGY STUDENTS

Students must have access to a suitable computer and network connection. Information about the hardware and software requirements can be obtained from the School of Engineering and Information Technology, 03 5227 2536 or www.deakin.edu.au/scitech/eit.

BACHELOR OF INFORMATION TECHNOLOGY*

3 B G X Course code: S326

This course will equip you with a highly sought after blend of business skills with a focus on the business applications of information and communication technology.

It prepares students to be the informed business professionals of the future who understand how information and communication technology is used to generate competitive business advantage.

You will graduate with an exciting blend of knowledge and skills, including project-based learning and the ability to develop business solutions for real businesses. You can elect to supplement your studies with a major in an associated business discipline.

Graduates are eligible for professional membership of the Australian Computer Society (ACS).

CAREER OPPORTUNITIES

Graduates can be employed in roles such as object-oriented and procedural programmers, database and web designers and managers, network managers, component integrators, project managers, consultants and system analysts.

COURSE STRUCTURE

Level 1
SIT101 Fundamentals of Information Technology
SIT102 Introduction to Software Development
SIT103 Database
SIT104 World Wide Web and Internet

Level 2
SIT201 Systems Analysis and Design
SIT202 Computer Networks

Level 3
SIT301 IT Practice
SIT302 Project
plus eight IT course-grouped units of which at least two must be at level 3 and eight elective units which may be taken from outside the IT course-grouped units

BACHELOR OF BUSINESS INFORMATION SYSTEMS/ BACHELOR OF INFORMATION TECHNOLOGY

4 B G Course code: D320

Additional admissions requirements: VCE units 3 and 4 – a study score of at least 20 in English (any) and in one of mathematics (any).

This combined degree offers a modern and learning-oriented course in Information Technology and Information Systems. It focuses on the areas of software development, e-systems, multimedia technology, games design and development, the use of systems analysis and design in a business context, systems management and risk and project management.

CAREER OPPORTUNITIES

In today's IT job market multi-skilling, multi-tasking and cross-skilling are highly valued and graduates of the course are well placed for a successful career in management of information technology in business, industry or government. Graduates are qualified for a wide range of positions including IT managers, project managers, analyst/programmers, network managers, internet developers and administrators, information systems project leaders, IT consultants, systems managers and business consultants.

COURSE STRUCTURE

You will complete 32 credit points comprising four information systems core units, five information technology core units, four commerce core units, four information systems course grouped elective units and 11 IT course grouped elective units and four credit points of elective units from the Faculty of Business and Law.
The electives units may form a major in either Accounting Information Systems or Interactive Marketing. Refer to the major sequence structures in the Bachelor of Commerce (M300) course description for details of major requirements and units available.

*Available to international students or as an exit point only

INFORMATION TECHNOLOGY

KEY

- 3 Course duration
- G Geelong Campus at Waurn Ponds
- F Geelong Waterfront Campus
- B Melbourne Campus at Burwood
- W Warrnambool Campus
- X Off campus

Level 1
MAA103 Accounting for Decision Making
MSC120 Business Information Systems
SIT102 Introduction to Software Development
MSC217 Database Management for Business
MMM132 Management
SIT104 World Wide Web and Internet
plus two IT course grouped units from list below

Level 2
MLC101 Business Law
MSC228 Information Systems Analysis and Design
SIT202 Computer Networks
MSQ171 Business Data Analysis
plus one IS course grouped unit from list below and three IT course grouped units from list below

Level 3
MMH299 Business Communication
Plus one IS course grouped unit from list below, four IT course grouped units from list below and two Business and Law units

Level 4
SIT301 IT Practice
SIT302 Project
Plus two IS course grouped units from list below two IT course grouped units from list below and two Business and Law units

Information Systems course grouped units
Select four units from the following, of which two must be at level 3.

MSC220 Small Business Systems
MSC244 Business on the Internet
MSC245 eSystems for Business
MSC273 Business Intelligence
MLL370 Law and the Internet
MSC302 Information Systems Methodologies
MSC345 Advanced Business Systems Development
MSC347 Information Systems Management
MSC349 Business Strategies for the Internet
MSC350 IS Risk, Security and Audit

Information Technology course grouped units
Eleven credit points of units chosen from the following list, but no more than 4 credit points at level 1.
SIT141 Communication Skills for Information Technologists (B, G, X)
SIT151 Game Fundamentals (B, G)
SIT161 Principles of Interactive Media (B)
SIT162 Design of Interactive Media Systems (B)
SIT191 Introduction to Statistics (G, X)
SIT192 Discrete Mathematics (B, G, X)
SIT194 Introduction to Mathematical Modelling (B, G, X)
SIT197 Number and Chance (B, G, W)
SIT198 Patterns in Space (B, G, W)
SIT199 Applied Algebra and Statistics (G, X)
SIT211 Web and Mobile Systems in Organisations (G, X)
SIT212 Information Retrieval for Web and Mobile Systems (G, X)
SIT221 Classes, Libraries and Algorithms (B, G, X)
SIT222 Operating Systems Concepts (B, G, X)
SIT231 Advanced Database (B)
SIT251 Game Architecture and Design (B, G)
SIT252 Game Programming (G)
SIT253 Audio and Visual Game Elements (B, G)
SIT261 Multimedia Delivery Systems (B)
SIT262 Authoring of Interactive Media (B)
SIT263 Interface Design of Interactive Media (B)
SIT272 Internet Core Layers and Routing (B, G)
SIT281 Introduction to Cryptography (B, G, X)
SIT282 Computer Crime and Digital Forensics (B, G, X)
SIT284 Introduction to IT Security Management (B, G, X)
SIT291 Mathematical Methods for Information Modelling (B, X)
SIT313 Mobile and Ubiquitous Computing
SIT321 Software Engineering (B, G, X)
SIT322 Distributed Systems and Applications (B, G, X)
SIT323 Practical Software Development (B, G, X)
SIT342 Development of Web and Mobile Applications (G, X)
SIT352 Game Production and Society (B, G)
SIT353 Development of Online and Multi Player Games (B, G)
SIT361 Multimedia Systems and Technology (B)
SIT362 Advances in Interactive Media (B)
SIT371 Internet Programming (B, X)
SIT372 Data Mining (B, G, X)
SIT374 Information Technology Project Management (online)
SIT377 Network Engineering (B, G)

SEE ALSO

Bachelor of Interactive Media, p.60
Bachelor of Engineering/Bachelor of Information Technology, p.62
Bachelor of Commerce, p.49

INDUSTRY BASED LEARNING

Deakin's Bachelor of Information Technology programs feature Industry Based Learning (IBL), which aims to produce graduates who are employable immediately after graduation. IBL is integrated into the courses, ranging from individual or group industry projects to full semester placements. Our students have undertaken placements in large companies such as IBM and Coles Myer and in Small and Medium Enterprises such as Utelosystems and BCC Computers.

MORE INFORMATION ON INFORMATION TECHNOLOGY

Deakin Information Technology brochure

Information Systems, Commerce + Management

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