Master of Information Technology (Advanced) (Security) (IT44)

Year offered: 2010
Admissions: Yes
CRICOS code: 053123F
Course duration (full-time): 2 years
Course duration (part-time): 4 years
Domestic fees (indicative): 2010: Full fee tuition $7,250 (indicative) per semester
International Fees (indicative): 2010: $12,250 (indicative) per semester
Domestic Entry: February and July
International Entry: February and July
Total credit points: 192
Standard credit points per full-time semester: 48
Standard credit points per part-time semester: 24
Course coordinator: Dr Ernest Foo
Campus: Gardens Point

Overview
This course offers advanced studies in information security, both in the business and technical sense. You are introduced to a range of information security issues and its broad context; the people, processes and technologies involved with interacting in this new online era. You will explore these topics through participation in the form of projects (research related and industry related) and practice in the community (small groups focusing on particular advanced topics). You will be exposed to the research and industry best-practice environment within QUT’s Information Security Institute (ISI) through collaboration with its staff and students. Students will graduate with an understanding and appreciation of what it means to be a security professional in contemporary global environments.

Why study this Major?
IT systems are increasingly used to store, process and exchange information ranging from e-commerce applications to critical infrastructure such as utilities, financial institutions, transport and telecommunications networks. Security breaches are routinely reported in the mainstream media, making security assurance no longer a choice but a requirement. Associated with this increased awareness and organisational compliance requirement is a growth in demand for IT personnel with management expertise and technical skills in information security.

Career Progression
Careers include information security specialist, information consultant, information assurance professional, information manager and progression to research career in information security.

Entry requirements
To be eligible for this Masters Coursework program, students must meet one of the following criteria:

- the Australian equivalent of a bachelor’s degree in any discipline with a grade point average of at least 4.5 (on a 7-point scale)

OR

- evidence of recognised prior higher learning in the field of Information and Information Technology (e.g. at least five years of relevant full-time work experience). Industry certification alone is not sufficient evidence.

International students must complete the above requirements and also achieve an IELTS overall band score of 6.5 or more with no sub-band below 6.0.

International students with an IELTS overall band score between 6.0 and 6.5 with no sub-band below 5.0 are permitted to complete communication units offered by QUT International College as elective units within their Masters degree. These units must be successfully completed in the first semester of the Masters program.

Course completion rules
Students should meet the following requirements before they are able to complete the Masters Advanced program:

- Students are required to complete 192 credit points of units.
- Students are required to complete the specified core unit.
- Students seeking a single area of specialisation must complete the specific unit requirements for a major.
- Students not seeking a single area of specialisation may graduate with no major.
- Students must complete 48 credit points of project or advanced research units.
- Students may be allowed to take up to four units of electives. These units may be selected from postgraduate units outside of the Faculty of Science and Technology.

Early exit options
Students enrolled in this course may be eligible to exit their courses with a Graduate Certificate (IT85), after successful completion of an approved 48 credit points, or with a Graduate Diploma (IT37), after successful completion of an approved 96 credit points, or with a Masters (IT43) after successful completion of an approved 144 credit points.
Further Information
For further information about this course, please contact:

Ernest Foo
Phone: +61 7 3138 2782
Email: enquiry.scitech@qut.edu.au

Course structure

Core
INN500 PRINCE2 (R) Project Management

All of the following units:
INN255 Security
INN651 Security Technologies

In addition, select 5 of the following units:
INN355 Cryptology and Protocols
INN550 Computer Forensics
INN600 Advanced Readings 1
INN601 Advanced Readings 2
INN602 Advanced Readings 3
INN605 Advanced Research 1
INN606 Advanced Research 2
INN607 Advanced Research 3
INN652 Advanced Cryptology
INN690 Minor Project 1
INN691 Minor Project 2
INN693 Project
INN694-1 Project 1
INN694-2 Project
INN695 Major Project
INN696-1 Major Project 1
INN696-2 Major Project 2
INN700 Introduction To Research
AYN410 Business Law and Ethics
GSN440 Risk Management 1
JSN106 Analytical Methods of Intelligence
JSN114 Cybercrime
LWN125 Electronic Commerce Law
LWN139 Privacy Law
MAN778 Applications of Discrete Mathematics
MGN423 Contemporary Strategic Analysis
MGN433 Managing High-Performance Organisations

MGN524 Special Topic in Management 1
INN701 Advanced Research Topics

Students who begin a multi-component unit set (eg. INN694 or INN696) must complete the entire set.

Elective Units
Select any four Postgraduate Units

Advanced Research Units (Project Units)
Students of IT44 are required to complete 48cp of advanced research/project units in the forms of a 48cp Dissertation or two 24cp Projects.

Postgraduate IT Units

Unit List:
INN101 Impact of IT
INN120 Corporate Systems
INN122 Organisational Databases
INN124 Information Systems Development
INN180 Computer Systems Development
INN181 Introduction to Games Production
INN210 Databases
INN220 Business Analysis
INN221 Technology Management
INN230 Business Analysis
INN250 Computer Architectures and Systems
INN251 Networks
INN255 Security
INN270 Programming
INN271 The Web
INN272 Interaction Design
INN280 Fundamentals of Game Design
INN311 Enterprise Systems
INN312 Enterprise Systems Applications
INN313 Electronic Commerce Site Development
INN320 Business Process Modelling
INN321 Business Process Management
INN322 Information Systems Consulting
INN323 Smart Services
INN330 Information Management
INN331 Management Issues for Information Professionals
INN332 Information Retrieval
UNIT SYNOPTES

AYN410 BUSINESS LAW AND ETHICS
This unit provides an introduction to business law and to morality in the business context. It includes the following: the legal framework for business interpretation of statutes; law of torts; contract law and agency; morality and how it
works as an aspect of the business community; the origins of moral belief; and the motives that lead people to abide by what they believe to be morally right and to persuade others to do likewise with special emphasis on business aspects of morality.

**Antirequisites:** GSN412, GSN422 and GSZ412  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point

**GSN440 RISK MANAGEMENT 1**
This unit examines the role of risk management in contemporary management theory and practice. Key decision areas of risk (eg financial, human resource, physical - asset management etc) are considered in the context of the general management of the organisation.

**Credit points:** 6  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2010 6TP5

**INN101 IMPACT OF IT**
You will gain an appreciation of the massive and positive impact that IT has had on a wide range of fields including business, science, engineering, education and health. You will learn about the benefits of increased productivity due to IT. You will consider ethical issues and possible negative impacts of IT. You will raise your awareness of the social implications of IT systems for society at the global, local and personal levels. You will develop an informed position on issues, and justify your reasoning with considered supportive arguments.

**Antirequisites:** INB101, ITB361, ITN361  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2010 SEM-1 and 2010 SEM-2

**INN120 CORPORATE SYSTEMS**
Corporate Systems Management is a growing area where people can make a difference to the way organisations and societies operate. In key business domains, such as Government, Health, Finance, Utilities and Primary Industries, Corporate Systems Managers play a vital role in directing the socio-technical systems that affect everyone’s lives. This unit will help students to gain an overview of these major roles and key business domains in order to set the scene for their future studies and help them to match their emerging professional interests with potential career directions.

**Antirequisites:** ITN360 and INB120  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2010 SEM-1

**INN122 ORGANISATIONAL DATABASES**
Databases are a key feature in modern organisational systems. Stores of data are the prerequisite for organisational knowledge and are the substance of technology applications. Databases underpin all technologies, platforms and application areas such as online transactions (e.g. shopping), health information systems, web services, e-government, banking and geographical information systems. Corporate Systems Managers understand how databases are used in business domains and the benefits gained from capturing, storing and retrieving quality data to assist organisational planning and decision making. Professionals who understand the privacy and legislative requirements as they pertain to database security and management are increasingly in demand.

**Antirequisites:** INB122, ITB362, ITN365  
**Equivalents:** ITN122  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2010 SEM-1

**INN124 INFORMATION SYSTEMS DEVELOPMENT**
IT professionals work with a wide variety of information systems and are increasingly required to interact with other professionals and understand business domains. In many cases it is necessary to develop custom systems to satisfy business requirements. Problem solving and communication skills and an understanding of programming concepts and logic are required to effectively work with information systems developers. In this dynamic industry, self-managed learning is necessary to remain abreast of technology innovations.

**Antirequisites:** INB124  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2010 SEM-2

**INN180 COMPUTER GAMES STUDIES**
This unit is designed to give you a clear understanding of the socio-cultural issues that affect the computer game industry. Through critical review of games and games industry literature, playing games and actively participating in classroom discussion you will develop your capacity to join in the discourse about the design, impact and future direction of computer games in our society.

**Antirequisites:** INB180, ITB750  
**Equivalents:** ITN750  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2010 SEM-1

**INN181 INTRODUCTION TO GAMES PRODUCTION**
This subject will provide you with knowledge and skills in games production. By gaining an overview of the production process, you will learn how the technology and the people involved integrate into a coherent and efficient manufacturing process. By the end of this subject you will have the knowledge to conceive, create, integrate and optimise tools and personnel into a complete games production system.
st={{\text{students}}}
\text{with the ability to} \text{design and implement} \text{information retrieval systems that are designed to operate} \text{in range of environments, from PC based single user systems} \text{to web based search engines operating over distributed} \text{collections. The unit is also intended to teach the specific} \text{design and programming skills that will enable you to solve} \text{IR problems using database and web technology.}

\textbf{Antirequisites: INB230} \textbf{Credit points: 12} \textbf{Contact hours: 3 per week} \textbf{Campus: Gardens Point}

\textbf{INN250 COMPUTER ARCHITECTURES AND SYSTEMS}

\text{Contemporary computer-based systems are built from a} \text{wide range of technologies working at different levels of} \text{abstraction, from microprocessor hardware, to operating} \text{system and application software, to entire communications} \text{networks. At each abstraction level different techniques are} \text{needed to understand emergent properties of the system.} \text{This unit introduces some of the foundational principles} \text{commonly used to reason about the behaviour of computer-} \text{dependent systems at different levels of abstraction. Such} \text{techniques are especially important in the context of safety-} \text{security- or mission-critical systems.}

\textbf{Antirequisites: INB250} \textbf{Assumed knowledge: Basic familiarity with set theory (Venn diagrams and set} \text{operators), elementary algebra (polynomial and summation} \text{expressions, exponents and logarithms, etc) and simple} \text{probability concepts (permutations and combinations).} \textbf{Credit points: 12} \textbf{Contact hours: 3 per week} \textbf{Campus: Gardens Point} \textbf{Teaching period: 2010 SEM-2}

\textbf{INN251 NETWORKS}

\text{Computer systems and communications networks are} \text{essential to the activities of modern organisations. When} \text{you graduate from a course in Information Technology,} \text{employers expect you to have a sound understanding of the} \text{terminology and concepts of computer systems,} \text{communications networks, and network services. This unit} \text{provides you with an introductory study of communications} \text{network technologies and network applications. The unit} \text{serves as an entry point to further specialised studies in} \text{the field of computer network systems.}

\textbf{Antirequisites: INB251} \textbf{Credit points: 12} \textbf{Contact hours: 3 per week} \textbf{Campus: Gardens Point} \textbf{Teaching period: 2010 SEM-2}

\textbf{INN255 SECURITY}

\text{This unit aims to give you an understanding of the major} \text{issues in information security. You will be able to identify} \text{critical information security concepts and determine the} \text{information security implications of interactions between} \text{entities. You will have knowledge of a range of techniques} \text{for protecting information, and understand the limitations of}
these techniques. You will be aware of international information security management standards.

**Antirequisites:** INB255    **Equivalents:** ITB161, ITB523, ITB623, ITB730, ITN161, ITN511, ITN523, ITN623, ITN663, ITN730    **Credit points:** 12    **Contact hours:** 3 per week    **Campus:** Gardens Point    **Teaching period:** 2010 SEM-1

**INN270 PROGRAMMING**

This unit aims to give you a positive introduction to the skills required in solving computational problems and implementing solutions in a programming or scripting language. Although some theoretical aspects of computer programming are introduced briefly, the overall emphasis of the unit is programming practice. The unit emphasises generic programming concepts and related problem-solving strategies. The skills you learn in this unit will be applicable to a wide variety of commonly-used, industrially-significant programming and scripting languages.

**Antirequisites:** INB270    **Equivalents:** ITN700    **Credit points:** 12    **Contact hours:** 3 per week    **Campus:** Gardens Point    **Teaching period:** 2010 SEM-2

**INN271 THE WEB**

The aims of the unit are to give you a thorough understanding of what the web is, how it works and what it has to offer. Additionally, the unit aims to give you a general understanding and basic skills in developing dynamic web applications, including an appreciation of the variety of implementation technologies available. Through an understanding of how web technologies have evolved to date, you will appreciate the necessity for lifelong learning and become an insightful predictor of future developments in this area. You will learn to critically analyse technological alternatives in order to adapt to and innovate with technologies that presently do not exist. You will appreciate the business or organizational context within which web applications exist and be skilled in communicating within that environment. You will appreciate the social and ethical issues relating to web based systems including accessibility, globalization, privacy, and piracy.

**Antirequisites:** INB271    **Assumed knowledge:** Basic programming knowledge is assumed.    **Equivalents:** ITB007, ITB227, ITN007, ITN277    **Credit points:** 12    **Contact hours:** 3 per week    **Campus:** Gardens Point    **Teaching period:** 2010 SEM-1

**INN272 INTERACTION DESIGN**

The aim of this unit is to provide you with an understanding of the theory, practices and challenges associated with the development of creative interactive design and human computer interaction.

**Antirequisites:** INB311    **Credit points:** 12    **Contact hours:** 3 per week    **Campus:** Gardens Point    **Teaching period:** 2010 SEM-2

**INN280 FUNDAMENTALS OF GAME DESIGN**

Modern games production is a complex process involving various businesses and organisations, working with budgets in the tens of millions. One of the roles within a game production team is that of the game designer. It is crucial that a game designer understands how to create a game world, the rules that govern game play and other high level design tasks. This subject provides an introduction to game design, by starting with high level conceptual design tasks before moving to more concrete tasks.

**Antirequisites:** ITB016and INB280    **Equivalents:** ITN016    **Credit points:** 12    **Contact hours:** 3 per week    **Campus:** Gardens Point    **Teaching period:** 2010 SEM-2

**INN281 ADVANCED GAME DESIGN**

This unit will provide you with theoretical and practical knowledge of advanced games design concepts; that is, specific activities undertaken by game designers and their purpose. By the end of this unit you will have the knowledge to identify problems and suggest solutions for innovative game designs, as well as understand how to carry out the process of designing a game yourself. You will possess practical and theoretical knowledge of game design issues such as: how to design a game level, how to design a task and reward a player for completing it, how to ensure that the player knows how to progress through the game and how to design characters whose behaviour and dialogue provide clues and prompts to the player.

**Prerequisites:** INN280    **Antirequisites:** ITB017 and INB281    **Equivalents:** ITN017    **Credit points:** 12    **Contact hours:** 3 per week    **Campus:** Gardens Point    **Teaching period:** 2010 SEM-1

**INN311 ENTERPRISE SYSTEMS**

The unit presents and discusses the Enterprise Systems Lifecycle model, orienting students to the requirements of addressing total cost of ownership, change management requirements and process modelling requirements in order to achieve business benefits. Concepts of Enterprise Systems success and associated enablers and barriers are also introduced. This unit introduces the technical architecture of complex 3-tiered client server environments. It seeks to show how an integrated complex database environment meets common business needs, and yet fails to meet the total Information Systems requirements.

**Antirequisites:** INB311    **Credit points:** 12    **Contact hours:** 3 per week    **Campus:** Gardens Point    **Teaching period:** 2010 SEM-2
INN312 ENTERPRISE SYSTEMS APPLICATIONS
The aim of this unit is to introduce one of the more complex and comprehensive Enterprise Systems applications. This unit introduces the business perspective and application processes of modules (such as FI, CO, PP, MM and S&D) and investigates the support provided by these systems and the integration between modules by following some of the major processes in a business. The unit enables you to experience both the business analyst view and the user's view of the system across a number of business processes.

Antirequisites: INB312, ITB233  
Equivalents: ITN233  
Credit points: 12  
Contact hours: 3 per week  
Campus: Gardens Point  
Teaching period: 2010 SEM-1

INN313 ELECTRONIC COMMERCE SITE DEVELOPMENT
This unit will enable you to specify, design, implement and maintain effective e-commerce applications. You will obtain a broad understanding of the potential of e-commerce and how it can be employed to benefit an organisation. You will get direct experience of creating an e-commerce storefront following a business to business (B to B) or business to consumer (B to C) model. You will also have an understanding of the computer systems that underpin e-commerce including payment systems and secure transactions.

Antirequisites: INB313 and ITB260  
Equivalents: ITN260  
Credit points: 12  
Contact hours: 3 per week  
Campus: Gardens Point  
Teaching period: 2010 SEM-2

INN320 BUSINESS PROCESS MODELLING
The aim of this unit is to introduce you to modern methods and tools of business process management. These skills will be applied to the most complex, comprehensive and relevant IT applications. This unit also seeks to develop logical thinking and the capability to understand and deal with complex systems, within a business management framework. The content will focus strongly on business process modelling, as a fundamental technique to manage the complexity associated with process management tasks within various contexts.

Antirequisites: ITB298 and ITB320  
Equivalents: ITN301  
Credit points: 12  
Contact hours: 3 per week  
Campus: Gardens Point  
Teaching period: 2010 SEM-2

INN321 BUSINESS PROCESS MANAGEMENT
The aim of this unit is to introduce you to modern methodologies of Business Process Management. A main objective is to increase your awareness of the close link between business requirements and IT capabilities, and the related fundamental role of business processes. This unit also seeks to develop logical thinking, an appreciation for conceptual models, and the capability to understand and deal with complex systems.

Antirequisites: INB321  
Equivalents: ITN298  
Credit points: 12  
Contact hours: 3 per week  
Campus: Gardens Point  
Teaching period: 2010 SEM-1

INN322 INFORMATION SYSTEMS CONSULTING
The aim of the unit is to develop your skills in the consulting engagement process. This unit will give you an appreciation of the management of consulting practices and an understanding of the consulting sector generally. This unit presents the tactical and strategic issues involved in management consulting, and in particular: client engagement. In the unit there is an emphasis on Information Systems (IS) related work. IS constitutes a substantial portion of consulting activity and cuts across all areas of business expertise. The unit examines the dynamics of IS consulting within the context of large consulting firms and familiarises students with the consulting engagement lifecycle.

Antirequisites: INN335, ITN332, INB322  
Assumed knowledge: Good knowledge of professional oral and written communication practices and team work processes is assumed.  
Equivalents: ITN273  
Credit points: 12  
Contact hours: 3 per week  
Campus: Gardens Point  
Teaching period: 2010 SEM-1

INN323 SMART SERVICES
This unit gives you the opportunity to apply, under appropriate guidance, the knowledge and skills gained in your course to date and to execute a substantial development project. The ability to apply technical knowledge and skills to real-life situations is essential for information technology professionals. A substantial project, under academic supervision, will develop your initiative and ability to apply your knowledge and skills in a professional capacity. Completing the project will also enable you to appreciate the complementary nature of the course material in total, particularly the need for careful project management.

Prerequisite(s): Nil  
Corequisite(s): Nil  
Credit points: 12  
Contact hours: 3 per week  
Campus: Gardens Point  
Teaching period: 2009 SEM-2  
Incompatible with: Nil

INN330 INFORMATION MANAGEMENT
The aim of this unit is to provide you with an awareness of the activities in which IM professionals are engaged within various organisational contexts. You will use case studies and introduce yourself to the strategic and analytic elements that comprise information management activities. These activities include the alignment of enterprise information and
business planning, enterprise information policy, evaluation of information resources & systems and applications of the information inventory.

**Antirequisites:** INB330  **Equivalents:** ITN266  **Credit points:** 12  **Contact hours:** 3 per week  **Campus:** Gardens Point  **Teaching period:** 2010 SEM-2

**INN331 MANAGEMENT ISSUES FOR INFORMATION PROFESSIONALS**
The overall aim is to enable you to identify and resolve selected key management issues within a particular type of organisation of your choice. Using an integrated approach the subject draws from the field of organisational behaviour, business management literature, IT-management, and other readings appropriate to your interest. A further emphasis will be on case studies of actual practices in the type of organisation or enterprise environment setting that you have chosen to investigate.

**Antirequisites:** INB331  **Equivalents:** ITN274  **Credit points:** 12  **Contact hours:** 3 per week  **Campus:** Gardens Point  **Teaching period:** 2010 SEM-1

**INN332 INFORMATION RETRIEVAL**
The ability to quickly learn and expertly use new information resources and concepts is a vital skill for the modern day library and information professional. This unit will help you to understand the structure of the information environment, to reflect upon the information resources you discover, and to develop the ability to find appropriate information for future problem solving. You will develop your skills in identifying, accessing, evaluating and retrieving information resources to meet specific needs. The unit will also help you develop skills in teamwork and oral and written communication.

**Antirequisites:** INN335, ITN322  **Equivalents:** ITN273  **Credit points:** 12  **Contact hours:** 3 per week  **Campus:** Gardens Point  **Teaching period:** 2010 SEM-1

**INN333 INFORMATION PROGRAMS**
The unit encompasses the planning, implementation and evaluation of an information product or service for a particular community of use. The community may be anything from a specialised professional or business group, to community members with special needs etc. Emphasis is on identification of user needs, creating an information product or program and marketing or promoting its use. The unit also explores the impact of web 2.0 technologies (e.g. blogs, wikis, facebook, YouTube, flickr) and concepts such as creative commons and open access on program and product design and delivery are explored.

**Antirequisites:** ITN330  **Credit points:** 12  **Contact hours:** 3 per week  **Campus:** Gardens Point  **Teaching period:** 2010 SEM-2

**INN334 INFORMATION ISSUES AND VALUES**
The overall aim is to enable you to identify and critically discuss key issues (ie social, economic, political, cultural, legal, psychological) that impact upon the role and use of information and IT in different contexts of the information society (ie academic, professional, personal). You will critically consider the role of information and IT professionals in dealing ethically and legally with the many issues evolving within the emerging information society. The unit draws from the fields of psychology, business, library and information science, IT, education, sociology and law.

**Antirequisites:** INB334  **Equivalents:** ITN330  **Credit points:** 12  **Contact hours:** 3 per week  **Campus:** Gardens Point  **Teaching period:** 2010 SEM-2

**INN335 INFORMATION RESOURCES**
This unit will help you to understand the structure of the information environment, to reflect upon the information resources you discover, and to develop the ability to find appropriate information for future problem solving. You will develop your skills in identifying, accessing, evaluating and retrieving information resources to meet specific information needs. The unit will also help you develop skills in teamwork and oral and written communication.

**Prerequisite(s):** Nil  **Corequisite(s):** Nil  **Credit points:** 12  **Contact hours:** 3 per week  **Campus:** Gardens Point  **Teaching period:** 2009 SEM-2  **Incompatible with:** Nil

**INN340 DATABASE DESIGN**
The aim of this unit is to help you develop your knowledge, understand a formal specification tool (ORM) for modelling information systems unambiguously and to apply this formal technique to conceptualise information systems found in many real world application domains.

**Antirequisites:** INB340  **Assumed knowledge:** INN210 or ITN200  **Credit points:** 12  **Campus:** Gardens Point  **Teaching period:** 2010 SEM-1

**INN341 SOFTWARE DEVELOPMENT WITH ORACLE**
This unit aims to develop a sound understanding of database creation, installation, administration, management, security, back up/recovery and application development. The unit aims to develop practical skills in each of these elements, using appropriate Oracle software.

**Prerequisite(s):** INN210 or ITN200 or INN122 or ITB004  **Antirequisites:** INB341, ITB223  **Credit points:** 12  **Contact hours:** 3 per week  **Campus:** Gardens Point  **Teaching period:** 2010 SEM-2
INN342 ENTERPRISE DATA MINING AND DATA ANALYSIS
This unit will provide a comprehensive theoretical coverage of various topics in data and web mining. In addition there will be a significant practical component using hands on tools to solve real-world problems. Specifically, we will consider techniques from machine learning, data mining, text mining, and information retrieval to extract useful knowledge from data which are used for business intelligence, document databases, site management, personalization, and user profiling. This unit will first cover a detailed overview of the mining process and techniques, and then concentrate on applications of these techniques to web, e-commerce, document databases and data from advanced applications.

Prerequisites: INN210 or INN340 or INN122
Antirequisites: ITB239, INB342
Credit points: 12
Contact hours: 3 per week
Campus: Gardens Point
Teaching period: 2010 SEM-2

INN345 MOBILE DEVICES
This unit provides the opportunity for exploring new and emerging mobile devices and wireless technology including iPhone, Netbook, 3G, WiMax, and RFID. Students will critically review and understand how they can be used for current contexts such as government, business, education and social community, as well as emerging ‘wilderness’ environments with no power and wired communication.

Prerequisites: INB345
Credit points: 12
Contact hours: 3 per week
Campus: Gardens Point
Teaching period: 2010 SEM-1

INN346 ENTERPRISE 2.0
This unit will help you to acquire the skills and knowledge required to critically explore and utilise applications within diverse contexts and organisations.

Prerequisites: INB346
Credit points: 12
Contact hours: 3 per week
Campus: Gardens Point
Teaching period: 2010 SEM-2

INN347 WEB 2.0 APPLICATIONS
Web 2.0 applications enable the user to be control. The unit will provide the opportunity for students to explore web 2.0 applications including blogs, wikis, social networking, social tagging, podcasts, gaming, storytelling and virtual worlds such as second life. Students will critically consider the many and varied web applications and how they can be used in different contexts such as government, small and medium size businesses, non-profit organisations, educational institutions and community groups.

Antirequisites: INB347
Credit points: 12
Contact hours: 3 per week
Campus: Gardens Point
Teaching period: 2010 SEM-1

INN350 INTERNET PROTOCOLS AND SERVICES
An understanding of the theoretical and practical concepts of network protocols and services is highly useful and relevant to network engineers and others working in the Information Processing industries. This unit introduces you to Internet protocols and the design, implementation and operation of network based applications. Theory and practical skills taught in this unit will be useful if you intend undertaking further networking units.

Antirequisites: INB350, ITB624, ITB629, ITB720, ITN524, ITN529, ITN667
Assumed knowledge: INN251 is assumed knowledge.
Credit points: 12
Contact hours: 3 per week
Campus: Gardens Point
Teaching period: 2010 SEM-1

INN351 UNIX NETWORK ADMINISTRATION
The aim of this unit is to provide students with a working knowledge of the technical aspects and theory of network administration and management. The unit uses the Unix environment as the learning platform for attaining technical skills and for the development of problem solving skills necessary to be a successful networking professional.

Prerequisites: INN350
Antirequisites: INB351
Credit points: 12
Contact hours: 3 per week
Campus: Gardens Point
Teaching period: 2010 SEM-2

INN352 NETWORK PLANNING
The unit draws together subject matter from a number of different networking-related areas. The aim of the unit is to assemble the previously acquired knowledge and techniques and apply it in a cohesive fashion to the task of network planning.

Antirequisites: INB352, ITN722, ITN551, ITB628, ITB551, ITB722
Credit points: 12
Contact hours: 3 per week
Campus: Gardens Point
Teaching period: 2010 SEM-2

INN353 WIRELESS AND MOBILE NETWORKS
This unit provides you with the skills to be able to design and understand the issues involved with different types of wireless communications systems. It develops your knowledge of Wide Area Networks (WANs), Local Area Networks (LANs) and Personal Area Networks (PANs) as well as skills in programming for mobile handsets. You will also develop knowledge of the different types of wireless
communications technologies available and when each is most applicable in a particular situation.

**Antirequisites:** INB353  
**Assumed knowledge:** INN251 is assumed knowledge.  
**Equivalents:** ITB723, ITN723  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2010 SEM-1

**INN355 CRYPTOLOGY AND PROTOCOLS**

Cryptographic techniques are widely used to implement computer and network security. As an IT security professional you may be required either to evaluate or implement information systems using cryptographic algorithms and protocols. This elective unit covers the main cryptographic technical concepts including encryption, digital signatures and cryptographic protocols.

**Antirequisites:** INB355  
**Assumed knowledge:** Maths B or equivalent (e.g. MAB105) is assumed knowledge.  
**Equivalents:** ITB548, ITB566, ITB646, ITB732, ITN566, ITN512, ITN581, ITN732  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2010 SEM-1

**INN365 SYSTEMS PROGRAMMING**

Systems programming is an essential part of any computer-science education. This unit uses operating system concepts to teach the foundations of systems programming and advanced concepts for producing softwares that provide services to computer hardware. Through this study, you will be able to demonstrate knowledge of the principles and techniques of process management, memory and file management, protection & security, and distributed systems.

**Prerequisites:** INB270 or INN270  
**Antirequisites:** ITB706, ITB745, INB365  
**Assumed knowledge:** Fundamentals of computer architecture; high level programming languages (such as C, C++, C#, Java, python) is assumed knowledge  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2010 SEM-2

**INN370 SOFTWARE DEVELOPMENT**

Understanding software development is an integral part of the IT industry for software engineers. Software development relies on object technologies, programming techniques and numerous code libraries provided by language developers and third party vendors. Integrated Development Environments, unit testing frameworks, automated and continuous build tools and versioning systems are all becoming part of the tool set modern software developers must be familiar with. This unit is designed to introduce these technologies and techniques to show how software can be rapidly developed.

**Antirequisites:** INB373  
**Assumed knowledge:** INN271 is assumed knowledge.  
**Equivalents:** ITB716, ITN716  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2010 SEM-1

**INN371 DATA STRUCTURES AND ALGORITHMS**

The purpose of this unit is to ensure that you have a sound knowledge of modern programming techniques and their use in providing medium-scale software solutions. This unit will teach you to decompose a problem and produce a modular solution to a programming task. The principles to analyse algorithms for efficiency will also be introduced. In addition, you will acquire the necessary skills for you to use the tools available in common development environments, such as Microsoft Visual Studio.

**Prerequisites:** INN270 or INB270  
**Antirequisites:** INB371, INB372, ITB702, ITB711, ITN711  
**Equivalents:** ITN702  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2010 SEM-1

**INN372 AGILE SOFTWARE DEVELOPMENT**

This unit introduces you to the software development process. You will look at each of the major activities involved in developing a software system. You will also learn how to manage and control the software development process for a large project when a number of team members are involved in the development. This unit develops the professional practice of working on large software systems.

**Prerequisites:** INN370  
**Antirequisites:** INB372, ITB712, ITN662, ITN712, ITB612  
**Assumed knowledge:** Good programming, debugging, testing and software development skills.  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2010 SEM-2

**INN373 WEB APPLICATION DEVELOPMENT**

This unit will provide you with an understanding of the issues, structure and technologies used for developing web-based systems. The unit will provide you with the theoretical and practical skills needed to develop enterprise critical applications designed with an n-tier architecture using state of the art technologies. A comparative technology approach is taken, including an analysis of how web technologies have evolved to date, in order to identify common themes and to better enable you to comprehend and critically evaluate future web technology offerings.

**Antirequisites:** INB373  
**Assumed knowledge:** INN271 is assumed knowledge.  
**Equivalents:** ITB716, ITN716  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2010 SEM-1
INN374 ENTERPRISE SOFTWARE ARCHITECTURE
This unit aims to introduce you to the field of enterprise architecture. It attempts to give you a grounding in the basic knowledge and skills required by an enterprise architect. This includes a solid understanding of the IT challenges currently facing medium to large size organizations, the theory and technologies currently used to address them and an appreciation of the business imperative for which they are utilized.

Prerequisites: INN270, INB270, ITN700, or ITB003
Antirequisites: INB374 and ITB717
Credit points: 12
Contact hours: 3 per week
Campus: Gardens Point
Teaching period: 2010 SEM-2

INN380 GAMES PROJECT
This unit seeks to give you the opportunity to apply, under appropriate guidance, the knowledge and skills gained in your course to date and to execute a substantial related project. The unit also aims to allow you to develop the critical professional skills of working within a cross-disciplinary team and, through implementation of your project, develop the understanding of the role of careful planning, scope control and task management in ensuring that the project is successful.

Prerequisite(s): Students undertaking this unit must be enrolled in the Bachelor of Games and Interactive Entertainment and have completed ITB009
Corequisite(s): Nil
Contact hours: 3 per week
Campus: Gardens Point
Incompatible with: ITB020

INN381 MODELLING AND ANIMATION TECHNIQUES
The unit will provide you with the knowledge and skills to use an industry standard graphics API to implement graphics applications and to develop a basic real time animation system using an industry standard language.

Prerequisites: INB371 or INN371, and MAB281
Antirequisites: INN381, ITB441, ITB460, ITB648, ITB649, ITB746
Credit equivalents: ITN440, ITN460, ITN746
Credit points: 12
Contact hours: 3 per week
Campus: Gardens Point
Teaching period: 2010 SEM-1 and 2010 SEM-2

INN382 REAL TIME RENDERING TECHNIQUES
This unit will provide you with knowledge and skills in basic to advanced techniques in real-time rendering using shading languages. You will be able to implement a high-quality real-time rendering system in an industry standard API.

Prerequisites: INN381 and MAB281
Antirequisites:

INB382
Credit points: 12
Campus: Gardens Point
Teaching period: 2010 SEM-2

INN385 MULTIMEDIA SYSTEMS
This unit will explore the concepts underpinning multimedia systems and the role played by these technologies in the overall knowledge of a computer professional. You will learn to: design and develop different kinds of interactive multimedia applications; understand the bank of knowledge in cultural developments surrounding the emergence of multimedia technologies; analyse design and processes that contribute to the production of a creative work, using contemporary hardware and software technologies; develop the creative potential of temporal media forms and their placement and use within new media works; understand principles and conventions associated with the interpretation and production of meaning through interactive visual representation.

Antirequisites: INB385
Assumed knowledge: INN271 is assumed knowledge. INN272 should be enrolled in the same teaching period.
Credit points: 12
Contact hours: 3 per week
Campus: Gardens Point
Teaching period: 2010 SEM-1

INN386 ADVANCED MULTIMEDIA SYSTEMS
This advanced level unit will give you high level design and development skills in some of the current and emerging areas of the new media. Web delivered applications, stand-alone systems and installations will be included. It will endeavour to give you an in-depth understanding of interactive Multimedia Systems. You will be given the theoretical basis and practical skills to motivate you in the design and creation of a state-of-the-art system in this discipline. In the process it will encourage a professional team approach appropriate to the industry environment.

Prerequisites: INN385
Antirequisites: INB386 and ITB259
Credit points: 12
Contact hours: 3 per week
Campus: Gardens Point
Teaching period: 2010 SEM-2

INN500 PRINCE2 (R) PROJECT MANAGEMENT
The majority of information technology (IT) initiatives, such as systems developments and implementations, are introduced into organizations through projects, and the success of these projects depends on their effective management. This unit covers the integration of the multi-disciplinary skills that students would have acquired at stage in the course required to manage IT projects successfully. Specifically, it covers the administrative, technical, communication and socio-political demands placed on modern IT project managers. The unit covers practical, relevant and topical IT project management issues delivered through practical tutorials and lectures.
Prerequisites: Completion of 36 credit points of Postgraduate units (INN% or PUN% or GSN%)
Antirequisites: INB123, ITB365, ITB272
Credit points: 12
Contact hours: 4 per week
Campus: Gardens Point
Teaching period: 2010 SEM-1 and 2010 SEM-2

INN530 WEB CONTENT RELIABILITY
The primary aim of this unit is a capstone experience for you, to prepare you for entry to your profession. While the primary aim is the development of your professional skills, you will also have the opportunity to listen to and learn from real world work experiences from industry experts working in this field. You will have the opportunity to reflect on how your studies or previous life experiences have prepared you for this type of work. Through this observation and reflection process you will develop an introductory knowledge of the principles of web content management as they are applied in organisations today. You will develop an appreciation of the tasks, issues, practices, principles and policies required for dynamic forms of web architecture, and you will begin to explore the development of skills required to work with and manage content management systems.

Prerequisites: INN330
Equivalents: ITN278
Credit points: 12
Campus: Gardens Point
Teaching period: 2010 SEM-1

INN531 INFORMATION SERVICES
This unit seeks to develop your understanding of the key issues involved in developing and managing a contemporary and innovative information service. In particular you will be given the opportunity to become familiar with the methods and tools used in the selection and acquisition of information resources and the creation of information programmes to meet the specific needs of a community or client group. You will also be developing a working knowledge of the skills and techniques essential for critically evaluating the resources and programmes created. The unit further seeks to develop your oral and written communication skills, critical thinking, teamwork skills and project management abilities.

Prerequisite(s): Nil
Corequisite(s): Nil
Credit points: 12
Contact hours: 3 per week
Campus: Gardens Point
Teaching period: 2009 SEM-2
Incompatible with: Nil

INN532 INFORMATION LITERACY EDUCATION
This unit aims to develop your understanding of information literacy and information literacy education and how these concepts can be applied according to the needs of client group(s) of your choice. As a professional you may engage in policy development, advocacy, research, developing and implementing instruction programs or managing staff who undertake these activities. New professionals and other educators can become heavily involved in teaching information literacy and skills to learners in a range of environment including academic, workplace or community programs. This unit provides the opportunity for theoretical and practical work in contexts of your choice to suit your individual interests.

Equivalents: ITN279
Credit points: 12
Contact hours: 3 per week
Campus: Gardens Point
Teaching period: 2010 SEM-1

INN533 INFORMATION ORGANISATION
The aim of this unit is to develop an understanding of the principles and practices of information organisation as applied to description and classification of knowledge contained in a range of information resources utilised in different contexts.

Equivalents: ITN275
Credit points: 12
Contact hours: 3 per week
Campus: Gardens Point
Teaching period: 2010 SEM-2

INN540 USER EXPERIENCE
The aim of this unit is to critically evaluate technologies within the context of the user’s experience.
Assumed knowledge: 24 credit points of INN units
Credit points: 12
Contact hours: 3 per week
Campus: Gardens Point
Teaching period: 2010 SEM-2

INN545 INTRODUCTION TO HEALTH TECHNOLOGY
This unit introduces health practitioners, health technologists and information specialists to common framework by which they can describe, discuss, apply and manage Health Technology enabling better health outcomes in the sector and the community. Technology types covered will include, inter alia, user devices, clinical and administrative systems, and diagnostic and treatment systems across modalities as well as support systems such as asset management, tracking, and logistics. We anticipate considerable industry involvement in this unit including site visits and presentations from industry managers and possibly vendors.

Credit points: 12
Contact hours: 3 per week
Campus: Gardens Point

INN546 MAJOR ISSUES IN HEALTH TECHNOLOGY
This unit introduces health practitioners, health technologists and information specialists to major issues related to managing Health Technology enabling better health outcomes in the sector and the community. Technology types covered will include, inter alia, user devices, clinical and administrative systems, and diagnostic and treatment systems across modalities as well as support systems such as asset management, tracking, and logistics.
INN550 COMPUTER FORENSICS
This unit aims to give you instruction in the principles of Computer Forensics, and the principles that need to be observed by the computer forensic investigator in order to successfully identify, secure, analyse and present digital evidence. In this advanced level elective unit we focus on the principles which direct the collection, analysis and presentation of the electronic or digital evidence available to a forensic investigator, and the techniques that are used in order to ensure that those principles are met for evidentiary requirements.

Assumed knowledge: INN255 is assumed knowledge. INN250 and INN251 should be enrolled in the same teaching period. Equivalents: ITN774 Credit points: 12 Contact hours: 3 per week Campus: Gardens Point Teaching period: 2010 SEM-1

INN570 INTERNATIONALISATION OF SOFTWARE
Software is now a global market, and developers need to be able to produce applications that can be used in many different cultures and nations. There is a significant body of enabling technology that allows efficient and cost effective development of applications that can be used in diverse contexts. Understanding the principles and the technologies involved in internationalisation and localisation is essential for companies seeking to go global or that are already global.

Credit points: 12 Contact hours: 3 per week Campus: Gardens Point Teaching period: 2010 SEM-2

INN600 ADVANCED READINGS 1
The aim of this unit is to broaden your understanding of potential research topics and methods and support you in developing essential skills that enable clarity and focus in investigating IT research; rigour in evaluating claims and accuracy in your understanding of domain problems, related theories and methodologies appropriate to your specialist area.

Assumed knowledge: Completion of at least 48 credit points of Postgraduate level IT units is assumed knowledge. Credit points: 12 Campus: Gardens Point Teaching period: 2010 SEM-1, 2010 SEM-2 and 2010 SUM

INN601 ADVANCED READINGS 2
The aim of this unit is to broaden your understanding of potential research topics and methods and support you in developing essential skills that enable clarity and focus in investigating IT research; rigour in evaluating claims and accuracy in your understanding of domain problems, related theories and methodologies appropriate to your specialist area.

Assumed knowledge: Completion of at least 48 credit points of Postgraduate level IT units is assumed knowledge. Credit points: 12 Campus: Gardens Point Teaching period: 2010 SEM-1, 2010 SEM-2 and 2010 SUM

INN602 ADVANCED READINGS 3
The aim of this unit is to broaden your understanding of potential research topics and methods and support you in developing essential skills that enable clarity and focus in investigating IT research; rigour in evaluating claims and accuracy in your understanding of domain problems, related theories and methodologies appropriate to your specialist area.

Assumed knowledge: Completion of at least 48 credit points of Postgraduate level IT units is assumed knowledge. Credit points: 12 Campus: Gardens Point

INN605 ADVANCED RESEARCH 1
The aim of this unit is to broaden your understanding of potential research topics and methods and support you in developing essential skills that enable clarity and focus in investigating IT research; rigour in evaluating claims and accuracy in your understanding of domain problems, related theories and methodologies appropriate to your specialist area.

Assumed knowledge: Completion of 48 credit points of Postgraduate IT units is assumed knowledge. Credit points: 12 Campus: Gardens Point Teaching period: 2010 SEM-1 and 2010 SEM-2

INN606 ADVANCED RESEARCH 2
The aim of this unit is to broaden your understanding of potential research topics and methods and support you in developing essential skills that enable clarity and focus in investigating IT research; rigour in evaluating claims and accuracy in your understanding of domain problems, related theories and methodologies appropriate to your specialist area.

Assumed knowledge: Completion of 48 credit points of Postgraduate IT units is assumed knowledge. Credit points: 12 Campus: Gardens Point Teaching period: 2010 SEM-1 and 2010 SEM-2

INN607 ADVANCED RESEARCH 3
The aim of this unit is to broaden your understanding of potential research topics and methods and support you in developing essential skills that enable clarity and focus in
investigating IT research; rigour in evaluating claims and accuracy in your understanding of domain problems, related theories and methodologies appropriate to your specialist area.

Assumed knowledge: Completion of 48 credit points of Postgraduate IT units is assumed knowledge. Credit points: 12 Campus: Gardens Point Teaching period: 2010 SEM-1 and 2010 SEM-2

INN610 CASE STUDIES IN ENTERPRISE SYSTEMS
This unit seeks to develop business process analysts capable of working as consultants. It seeks to develop the generic skills expected in graduates and in particular to develop better interpersonal skills, better written and oral communication skills, skills in conflict resolution, negotiation, project planning and project management. You will learn to identify, analyse and consider interdependencies. You will increase your awareness for the challenges of teamwork. The projects also allow you to apply the theoretical knowledge gained in the pre-requisite unit to real practical problems. Overall, you will get insights into the skills, tools and services of consultants.

Credit points: 12 Campus: Gardens Point Teaching period: 2010 SEM-2

INN630 EVIDENCE BASED PRACTICE
This unit is designed to enable individuals to come to a better understanding of their capacities as professionals and future managers and leaders, using evidence based practices.

*The semester offering will be during Winter and the unit is run as an intensive short course.*
Prerequisite(s): Nil Corequisite(s): Nil Credit points: 12 Campus: Gardens Point Teaching period: 2009 6TP4 Incompatible with: Nil

INN631 EXECUTIVE COACHING
This unit has been developed as an overarching unit in the Executive Information Practice program, to establish meaningful links between the various units of study and to introduce you to key aspects of management and leadership as well as personal and professional development as you continue along your career journey. This unit is designed to enable individuals to come to a better understanding of their capacities as professionals and future managers and leaders. The unit is structured as a sequence of six modules, completed as you progress through the course.

Credit points: 12 Campus: Gardens Point

INN632 PROFESSIONAL PRACTICE
This unit has been developed as an overarching unit in the IT70 Master of Information Management program, to establish meaningful links between the various units of study and to introduce you to contemporary professional practice in information agencies. The unit focuses on your own personal and professional development, enabling you to participate in industry seminars, fieldtrips, work placements and career mentoring. The development of your understanding of reflective practice will help you build your own Student ePortfolio to document your insights into and your experiences in the information profession. The unit is structured as a sequence of six modules, completed as you progress through the course.

Equivalents: ITN280-6 Credit points: 2 Campus: Gardens Point Teaching period: 2010 SEM-1, 2010 SEM-2 and 2010 SUM

INN632 PROFESSIONAL PRACTICE
This unit has been developed as an overarching unit in the IT70 Master of Information Management program, to establish meaningful links between the various units of study and to introduce you to contemporary professional practice in information agencies. The unit focuses on your own personal and professional development, enabling you to participate in industry seminars, fieldtrips, work placements and career mentoring. The development of your understanding of reflective practice will help you build your own Student ePortfolio to document your insights into and your experiences in the information profession. The unit is structured as a sequence of six modules, completed as you progress through the course.

Equivalents: ITN280-3 Credit points: 2 Campus: Gardens Point Teaching period: 2010 SEM-1, 2010 SEM-2 and 2010 SUM

INN632 PROFESSIONAL PRACTICE
This unit has been developed as an overarching unit in the IT70 Master of Information Management program, to establish meaningful links between the various units of study and to introduce you to contemporary professional practice in information agencies. The unit focuses on your own personal and professional development, enabling you to participate in industry seminars, fieldtrips, work placements and career mentoring. The development of your understanding of reflective practice will help you build your own Student ePortfolio to document your insights into and your experiences in the information profession. The unit is structured as a sequence of six modules, completed as you progress through the course.

Equivalents: ITN280-1 Credit points: 2 Campus: Gardens Point Teaching period: 2010 SEM-1, 2010 SEM-2 and 2010 SUM
INN632 PROFESSIONAL PRACTICE
This unit has been developed as an overarching unit in the IT70 Master of Information Management program, to establish meaningful links between the various units of study and to introduce you to contemporary professional practice in information agencies. The unit focuses on your own personal and professional development, enabling you to participate in industry seminars, fieldtrips, work placements and career mentoring. The development of your understanding of reflective practice will help you build your own Student ePortfolio to document your insights into and your experiences in the information profession. The unit is structured as a sequence of six modules, completed as you progress through the course.

Equivalent: ITN280-4 Credit points: 2 Campus: Gardens Point Teaching period: 2010 SEM-1, 2010 SEM-2 and 2010 SUM

INN632 PROFESSIONAL PRACTICE
This unit has been developed as an overarching unit in the IT70 Master of Information Management program, to establish meaningful links between the various units of study and to introduce you to contemporary professional practice in information agencies. The unit focuses on your own personal and professional development, enabling you to participate in industry seminars, fieldtrips, work placements and career mentoring. The development of your understanding of reflective practice will help you build your own Student ePortfolio to document your insights into and your experiences in the information profession. The unit is structured as a sequence of six modules, completed as you progress through the course.

Equivalent: ITN280-2 Credit points: 2 Campus: Gardens Point Teaching period: 2010 SEM-1, 2010 SEM-2 and 2010 SUM

INN632 PROFESSIONAL PRACTICE
This unit has been developed as an overarching unit in the IT70 Master of Information Management program, to establish meaningful links between the various units of study and to introduce you to contemporary professional practice in information agencies. The unit focuses on your own personal and professional development, enabling you to participate in industry seminars, fieldtrips, work placements and career mentoring. The development of your understanding of reflective practice will help you build your own Student ePortfolio to document your insights into and your experiences in the information profession. The unit is structured as a sequence of six modules, completed as you progress through the course.

Equivalent: ITN280-5 Credit points: 2 Campus: Gardens Point Teaching period: 2010 SEM-1, 2010 SEM-2 and 2010 SUM

INN650 ADVANCED NETWORK MANAGEMENT
Computer networks are an essential component of modern civilization. Students undertaking this unit will have previously learned the fundamental theory and practical aspects of network administration and management. This unit builds upon that foundation and extends the knowledge and skills to enterprise wide networks which are significantly more complex than small networks. Security of enterprise wide networks is an important issue in this unit, along with network management systems.

Assumed knowledge: INB351, INN351, ITN721 or ITB721 is assumed knowledge. Equivalent: ITN771 Credit points: 12 Campus: Gardens Point Teaching period: 2010 SEM-1

INN651 SECURITY TECHNOLOGIES
This unit aims to provide you with the knowledge to investigate and determine the security requirements for computer systems and networks and to understand the underlying issues and problems. In addition, this unit aims to enable you to investigate, evaluate and select the most appropriate security technologies for specific situations.

Antirequisites: ITB731, ITN731 Assumed knowledge: It is an advantage that the student has knowledge of the basic principles and technologies for information security, such as those taught in INN255 Security. Credit points: 12 Campus: Gardens Point Teaching period: 2010 SEM-2

INN652 ADVANCED CRYPTOLOGY
This unit gives you the opportunity to apply, under appropriate guidance, the knowledge and skills gained in your course to date and to execute a substantial development project in advanced cryptology. The ability to apply technical knowledge and skills to real-life situations is essential for information technology professionals. A substantial project, under academic supervision, will develop your initiative and ability to apply your knowledge and skills in a professional capacity. Completing the project will also enable you to appreciate the complementary nature of the course material in total, particularly the need for careful project management.

Credit points: 12 Campus: Gardens Point Teaching period: 2010 SEM-2

INN690 MINOR PROJECT 1
The aims of this unit are to help you acquire necessary skills in a problem domain, and to enable you to conduct a well-defined project with specific outcomes within a precisely defined project plan. This unit also teaches you how to prepare a well written project report.

Assumed knowledge: Completion of at least 48 credit
In this unit, the aims are to help you acquire necessary skills in a problem domain, and to enable you to conduct a well-defined project with specific outcomes within a precisely defined project plan. This unit also teaches you how to prepare a well-written project report.

Assumed knowledge: Completion of at least 48 credit points of Postgraduate level IT units is assumed knowledge.

Credit points: 12  Campus: Gardens Point  Teaching period: 2010 SEM-1, 2010 SEM-2 and 2010 SUM

INN692 MINOR PROJECT 3
The aims of this unit are to help you acquire necessary skills in a problem domain, and to enable you to conduct a well-defined project with specific outcomes within a precisely defined project plan. This unit also teaches you how to prepare a well-written project report.

Assumed knowledge: Completion of at least 48 credit points of Postgraduate level IT units is assumed knowledge.

Credit points: 12  Campus: Gardens Point  Teaching period: 2010 SEM-1, 2010 SEM-2 and 2010 SUM

INN693 PROJECT
The aims of this unit are to help you acquire necessary skills in a problem domain, and to enable you to conduct a well-defined project with specific outcomes within a precisely defined project plan. This unit also teaches you how to prepare a well-written project report.

Assumed knowledge: Completion of at least 48 credit points of Postgraduate level IT units is assumed knowledge.

Credit points: 24  Campus: Gardens Point  Teaching period: 2010 SEM-1, 2010 SEM-2 and 2010 SUM

INN694 PROJECT
This unit gives you the opportunity to apply, under appropriate guidance, the knowledge and skills gained in your course to date and to execute a substantial development project. The ability to apply technical knowledge and skills to real-life situations is essential for information technology professionals. A substantial project, under academic supervision, will develop your initiative and ability to apply your knowledge and skills in a professional capacity. Completing the project will also enable you to appreciate the complementary nature of the course material in total, particularly the need for careful project management.

Prerequisites: INN694-1  Assumed knowledge: Completion of at least 48 credit points of Postgraduate level IT units is assumed knowledge.

Credit points: 12  Campus: Gardens Point  Teaching period: 2010 SEM-1, 2010 SEM-2 and 2010 SUM

INN695 MAJOR PROJECT
The aims of this unit are to help you acquire necessary skills in a problem domain, and to enable you to conduct a well-defined project with specific outcomes within a precisely defined project plan. This unit also teaches you how to prepare a well-written project report.

Assumed knowledge: Completion of at least 48 credit points of Postgraduate level IT units is assumed knowledge.

Credit points: 48  Campus: Gardens Point  Teaching period: 2010 SEM-1, 2010 SEM-2 and 2010 SUM

INN696 MAJOR PROJECT 1
The aims of this unit are to help you acquire necessary skills in a problem domain, and to enable you to conduct a well-defined project with specific outcomes within a precisely defined project plan. This unit also teaches you how to prepare a well-written project report.

Assumed knowledge: Completion of at least 48 credit points of Postgraduate level IT units is assumed knowledge.

Other requisites: Students must complete INN694-2 to receive a grade for this unit.

Credit points: 24  Campus: Gardens Point  Teaching period: 2010 SEM-1, 2010 SEM-2 and 2010 SUM

INN696 MAJOR PROJECT 2
The aims of this unit are to help you acquire necessary skills in a problem domain, and to enable you to conduct a well-
INN700 INTRODUCTION TO RESEARCH
This unit is aimed at those seeking to undertake a major research project. Except in unusual circumstances, you should have a project in mind and have organised a supervisor.

Assumed knowledge: Must be con-currently enrolled in either full-time or part-time Higher Research Degree (i.e. PhD, ProDoc, Research Masters, or Honours) or, if coursework masters then a 48cp research project. In all instances, must have a formal Principle Supervisor
Equivalents: ITN100 Other requisites: Unit Coordinator Approval and a course GPA of at least 5.5 is required to enrol. Credit points: 12 Campus: Gardens Point Teaching period: 2010 SEM-1, 2010 SEM-2 and 2010 SUM

INN701 ADVANCED RESEARCH TOPICS
This unit is designed to allow for the significant development of, or emphasis in, information systems not dealt with in other course units. Selected topics and study areas are offered as required and when the expertise is available. See School of Information Systems announcements for details of topics being offered.

Equivalents: ITN269 Credit points: 12 Campus: Gardens Point Teaching period: 2010 SEM-1, 2010 SEM-2 and 2010 SUM

INS040 PROFESSIONAL EXPERIENCE (POSTGRADUATE)
Advanced Standing may be applied for Professional/Industry Experience. For application instructions, please refer to: www.scitech.qut.edu.au/documents/study/courses/vre/INS040.pdf
Credit points: 12 Campus: Gardens Point Teaching period: 2010 SEM-1

INS450 CCNA 1 AND 2 NETWORK FUNDAMENTALS AND ROUTING
This unit provides in-demand Internet technology skills for designing, building and maintaining networks. Combining instructor-led, online education with hands-on laboratory exercises, the curriculum enables students to apply what they learn in class while working on actual networks. From building basic networking skills to advanced VLAN troubleshooting, the Networking Academy curriculum prepares students for industry certification that lead to lifelong opportunities. Particular emphasis is given to using decision-making and problem-solving techniques in the application of science, mathematics, communication and social studies concepts to solve networking problems.

Prerequisites: INN696-1 Assumed knowledge: Completion of at least 48 credit points of Postgraduate level IT units Credit points: 24 Campus: Gardens Point Teaching period: 2010 SEM-1, 2010 SEM-2 and 2010 SUM

INS451 CCNP 1: BUILDING SCALABLE INTERNETWORKS
This unit is the second step to a Cisco career certification path. It provides more knowledge and practical skills on Wide Area Network through various routing protocols and layer 2 related technologies. This unit provides you with advanced level of study on WAN technologies.

Prerequisites: INS450 which can be studied in the same teaching period as INS451 Antirequisites: INS351 Equivalents: ITS701, ITS601, ITB011, ITN011 Credit points: 12 Campus: Gardens Point Teaching period: 2010 SEM-1 and 2010 SEM-2

INS452 CCNP 2: BUILDING MULTI LAYERED SWITCHED NETWORKS
This unit provides more knowledge and practical skills on building multi-layered switched networks. The aim of the unit is to provide professional knowledge and skills focusing on multi layer switching networks.

Prerequisites: INS452 Antirequisites: INS353 Equivalents: ITS704 Credit points: 12 Contact hours: 3 per week Campus: Gardens Point Teaching period:
2010 SEM-2

**INS454 CCNP3: BUILDING MULTI LAYERED SWITCHED NETWORKS**
This unit is the second step to a Cisco career certification path. It provides more knowledge and practical skills on securing enterprise networks with various security technologies. The aim of this unit is to provide professional knowledge and skills focusing on securing LANs and WANs environment.

**Prerequisites:** INS451  **Antirequisites:** INS354  
**Equivalents:** ITS705  **Credit points:** 12  
**Contact hours:** 3 per week  **Campus:** Gardens Point  **Teaching period:** 2010 SEM-1

**INS455 CCNP4: OPTIMISING CONVERGED NETWORKS**
This unit provides more knowledge and practical skills on optimising converged networks. The aim of the unit is to provide professional knowledge and skills focusing on converged networks.

**Prerequisites:** INS454  **Antirequisites:** INS355  
**Credit points:** 12  **Contact hours:** 3 per week  
**Campus:** Gardens Point  **Teaching period:** 2010 SEM-2

**JSN106 ANALYTICAL METHODS OF INTELLIGENCE**
Over the last decade or so selected technological advances have enhanced the ability of policing and intelligence agencies to collate and analyse large amounts of data and then display the links and associations in a visual manner. By doing this the respective gaps and areas requiring additional input of information become evident, thus enhancing the gathering of information and promoting the success of the investigation. As the use of the available computer software is the contemporary professional standard it is incumbent on individuals employed within this environment to utilise the data analysis software.

**Prerequisite(s):** Nil  **Corequisite(s):** Nil  
**Credit points:** 12  
**Campus:** Gardens Point  **Teaching period:** 2009 SEM-2  **Incompatible with:** Nil

**JSN114 CYBERCRIME**
**Antirequisites:** JSB974  
**Credit points:** 12  
**Campus:** Internet and External  **Teaching period:** 2010 SEM-1

**LWN125 ELECTRONIC COMMERCE LAW**
It is vital for any participant in the digital age to gain a thorough knowledge of how the information economy is regulated for the benefit of individuals, corporations and the State, nationally and internationally. In order to be able to participate as a lawyer or other professional in this new environment it is important to have an understanding of the laws relating to privacy, e-security, consumer regulation, electronic payment and taxation systems, electronic contracts, and Public Key Infrastructure.

**Credit points:** 12  
**Teaching period:** 2009 SEM-1

**MAN778 APPLICATIONS OF DISCRETE MATHEMATICS**
This unit has two main areas of study. One is the application of graph theory to a number of practical problems including trees and shortest path algorithms. The other area is advanced number theory and includes the topics of divisibility, congruence, multiplicative functions, primitive roots, quadratic residues and applications to cryptology including the RSA algorithm.

**Prerequisites:** MAN461 or MAB621  
**Credit points:** 12  
**Teaching period:** 2010 SEM-1

**MGN423 CONTEMPORARY STRATEGIC ANALYSIS**
This unit focuses upon developing managers' understanding of the strategy concept and placing the fundamental elements of strategy in a framework for use in the decision making process. Taking the perspective that many managers make decisions that can have strategic implications, the emphasis is upon studying those issues that can affect the strategic positioning of the organisation. This involves creating an understanding of the universal building blocks of competitive advantage at the business, corporate and international levels. By understanding the nature and determinants of competitive and comparative advantages, students will be well positioned to take a more strategic perspective in their organisational activities.

**Antirequisites:** BSN407 and MGN504  
**Credit points:** 12  
**Teaching period:** 2010 SEM-2

**MGN433 MANAGING HIGH-PERFORMANCE ORGANISATIONS**
Managing High-Performance Organisations is designed to provide a bridge between HRM-discipline specific and strategic/general management perspectives. The unit is therefore a centrepiece of the postgraduate HRM program. The unit serves the vitally important role of locating HRM in...
to its broader organisational and general management context. It also aims to develop advanced level business knowledge and skill and develop conceptual frameworks for integration and high level impact of HRM with business success and performance.

**Prerequisites:** MGN409  
**Credit points:** 12  
**Contact hours:** 3  
**Campus:** Gardens Point  
**Teaching period:** 2010 SEM-1 and 2010 SEM-2

**MGN524 SPECIAL TOPIC IN MANAGEMENT 1**

In this unit students undertake specialised study on a topic area relevant to particular needs. It permits an in-depth examination of an issue of importance. The content varies depending on the issue examined and the academic member(s) involved (including short-term visiting academics).

**Credit points:** 12  
**Contact hours:** Flexible Mode  
**Campus:** Gardens Point