Bachelor of Information Technology - Dean's Scholars Program (IT23)

Year offered: 2011
Admissions: Yes
CRICOS code: 012656E
Course duration (full-time): 3 years
Domestic Fees (indicative): 2011: CSP $3,886 (indicative) per semester
International Fees (indicative): 2011: $11,375 (indicative) per semester
Domestic Entry: February: Fixed closing date - 26th November, 2010
International Entry: February: Fixed closing date - 26th November, 2010. This course is only available to international students completing Year 12 in Australia
QTAC code: 41802
Past rank cut-off: 97 plus successful questionnaire and interview.
Past OP cut-off: 2 plus successful questionnaire and interview.
Assumed knowledge: English (4, SA) and Maths A, B or C (4, SA)
Preparatory studies: For information on acquiring assumed knowledge visit
http://www.qut.edu.au/assumed-knowledge
Course coordinator: Richard Thomas
Campus: Gardens Point

Prerequisites
Must be a current Year 12 student or a student returning from a gap year who completed their Year 12 education in Australia; successful questionnaire; interview.

Additional Entry Requirements
The questionnaire is available from Additional entry requirements or phone (07) 3138 2782. Shortlisted registrants may be required to attend an interview in December and will be notified of date and venue after registrations close.

Fixed closing date
Applications and questionnaires must be submitted by 30 November.

Financial support
Domestic students offered a place in the Dean's Scholars Program will have their undergraduate HECS paid by the Faculty and those proceeding to Honours will also receive full HECS support.

International students will have one-third of their tuition fees paid by the faculty for the undergraduate and honours programs.

Students are responsible for all other costs associated with their program.

OP guarantee
The OP Guarantee does not apply to this program.

Cooperative Education Program
The School of IT’s Cooperative Education Program gives you the opportunity of 6 or 12 months paid industry placement during your course where you can integrate real experience with what you are learning in your degree.

Find out more about the Cooperative Education Program.

Professional Recognition
As a graduate of the Dean's Scholars Program you will be qualified for professional accreditation and employment in fields relevant to your specialisation.

Deferment
QUT’s deferment policy does not apply to this course.

Further Information
For further information about this course, please contact:

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

Unit Incompatibility/Translation Information
Details on the translation and incompatibility of old and new units is located here:
Undergraduate Translation Table
If you have completed the unit(s) listed under the “Translation Unit Codes” column you are not permitted to enrol in the listed new code

Course structure 2011

<table>
<thead>
<tr>
<th>Year 1, Semester 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>INB101</td>
</tr>
<tr>
<td>INB102</td>
</tr>
<tr>
<td>INB103</td>
</tr>
<tr>
<td>INB104</td>
</tr>
</tbody>
</table>

<p>| Year 1, Semester 2 |</p>
<table>
<thead>
<tr>
<th>Year</th>
<th>Semester</th>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1, Semester 1</td>
<td>INB101</td>
<td>Impact of IT</td>
<td></td>
</tr>
<tr>
<td>Year 1, Semester 1</td>
<td>INB102</td>
<td>Emerging Technology</td>
<td></td>
</tr>
<tr>
<td>Year 1, Semester 1</td>
<td>INB103</td>
<td>Industry Insights</td>
<td></td>
</tr>
<tr>
<td>Year 2, Summer</td>
<td>INB302</td>
<td>Capstone Project</td>
<td></td>
</tr>
<tr>
<td>Year 2, Semester 1</td>
<td>INB201</td>
<td>Scalable Systems Development</td>
<td></td>
</tr>
<tr>
<td>Year 2, Semester 1</td>
<td>INB300</td>
<td>Professional Practice in IT</td>
<td></td>
</tr>
<tr>
<td>Year 2, Semester 1</td>
<td>INB301</td>
<td>The Business of IT</td>
<td></td>
</tr>
<tr>
<td>Year 2, Semester 2</td>
<td>INN700</td>
<td>Introduction To Research</td>
<td></td>
</tr>
<tr>
<td>Year 2, Semester 2</td>
<td>INN701</td>
<td>Advanced Research Topics</td>
<td></td>
</tr>
<tr>
<td>Year 2, Summer</td>
<td>INN401</td>
<td>Honours Dissertation 1</td>
<td></td>
</tr>
<tr>
<td>Year 3, Semester 1</td>
<td>INB300</td>
<td>Professional Practice in IT</td>
<td></td>
</tr>
<tr>
<td>Year 3, Semester 1</td>
<td>INB302</td>
<td>IT Capstone Project</td>
<td></td>
</tr>
<tr>
<td>Year 3, Semester 1</td>
<td>INN700</td>
<td>Introduction To Research</td>
<td></td>
</tr>
<tr>
<td>Year 3, Semester 1</td>
<td>INN701</td>
<td>Advanced Research Topics</td>
<td></td>
</tr>
<tr>
<td>Year 3, Semester 2</td>
<td>INN401</td>
<td>Honours Dissertation 1</td>
<td></td>
</tr>
<tr>
<td>Year 3, Semester 2</td>
<td>INN402</td>
<td>Honours Dissertation 2</td>
<td></td>
</tr>
<tr>
<td>Year 3, Semester 2</td>
<td>INN403</td>
<td>Honours Dissertation 3</td>
<td></td>
</tr>
<tr>
<td>Year 3, Summer</td>
<td>INN404</td>
<td>Honours Dissertation 4</td>
<td></td>
</tr>
</tbody>
</table>
### Year 3, Semester 2

<table>
<thead>
<tr>
<th>Unit Code</th>
<th>Unit Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>INN700</td>
<td>Introduction To Research</td>
</tr>
<tr>
<td></td>
<td>INN Elective</td>
</tr>
<tr>
<td>INN Elective</td>
<td>Honours Dissertation 1</td>
</tr>
</tbody>
</table>

### Year 3, Summer

- Honours Dissertation 2
- Honours Dissertation 3
- Honours Dissertation 4

### IT Breadth Option Unit List

**IT Breadth Option Units**

You must complete four (4) units from the following list. You should not commence these units until you have completed INB101, INB102, INB103 and INB104.

<table>
<thead>
<tr>
<th>Unit Code</th>
<th>Unit Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>INB120</td>
<td>Corporate Systems</td>
</tr>
<tr>
<td>INB210</td>
<td>Databases</td>
</tr>
<tr>
<td>INB220</td>
<td>Business Analysis</td>
</tr>
<tr>
<td>INB250</td>
<td>Foundations of Computer Science</td>
</tr>
<tr>
<td>INB251</td>
<td>Networks</td>
</tr>
<tr>
<td>INB255</td>
<td>Security</td>
</tr>
<tr>
<td>INB270</td>
<td>Programming</td>
</tr>
<tr>
<td>INB271</td>
<td>The Web</td>
</tr>
<tr>
<td>INB272</td>
<td>Interaction Design</td>
</tr>
</tbody>
</table>

### IT Specialisation Option Unit List

**IT Specialist Option Units**

You must complete four (4) units from the following list. Please ensure you have completed a minimum of 36 credit points (3 units) of IT Breadth Option Units before commencing these units. The units are grouped in areas to assist you in focusing your studies.

1. **BUSINESS PROCESS MANAGEMENT:**
   - INB320 Business Process Modelling
   - INB321 Business Process Management
   - INB322 Information Systems Consulting
   - INB123 Project Management Practice

2. **DATA WAREHOUSING:**
   - INB340 Database Design
   - INB341 Software Development With Oracle
   - INB342 Enterprise Data Mining and Data Analysis
   - INB343 Advanced Data Mining and Data Warehousing
   - INB344 Search Engine Technology

3. **DIGITAL ENVIRONMENTS:**
   - INB345 Mobile Devices
   - INB346 Enterprise 2.0
   - INB347 Web 2.0 Applications
   - INB335 Information Resources

4. **ENTERPRISE SYSTEMS:**
   - INB123 Project Management Practice
   - INB221 Technology Management
   - INB311 Enterprise Systems
   - INB312 Enterprise Systems Applications

5. **NETWORK SYSTEMS:**
   - INB350 Internet Protocols and Services
   - INB351 Unix Network Administration
   - INB352 Network Planning
   - INB353 Wireless and Mobile Networks

6. **SOFTWARE ENGINEERING:**
   - INB370 Software Development
   - INB371 Data Structures and Algorithms
   - INB372 Agile Software Development
   - INB374 Enterprise Software Architecture

7. **WEB TECHNOLOGIES:**
   - INB313 Electronic Commerce Site Development
   - INB373 Web Application Development
   - INB374 Enterprise Software Architecture
   - INB385 Multimedia Systems
   - INB386 Advanced Multimedia Systems

8. **UNGROUPED:**
   - INB204 Special Topic 1
   - INB205 Special Topic 2
   - INB304 Special Topic 3
   - INB305 Special Topic 4
   - INB306 Project 1
   - INB307 Project 2
   - INB308 Project 3
   - INB355 Cryptology and Protocols
   - INB365 Systems Programming
   - INB381 Modelling and Animation Techniques
   - INB382 Real Time Rendering Techniques
   - INB860 Computational Intelligence for Control and Embedded Systems
IT - Complementary Study Unit List

Complementary Study Units: A maximum of 84 credit points can be chosen from:

1. The list of Breadth and Specialisation units.
2. Students can also choose from the range of CISCO units including INS350, INS351, INS352, INS354, INS356 and INS357.
3. Undergraduate units from other IT related degrees (e.g. INB124, INB180, INB181, INB182, INB280 or INB383).
4. Undergraduate units available with other QUT faculties.
5. Enrolment in INB830 or INB870 will NOT be counted towards completion of IT23.

NOTE: A maximum of 48 credit points of Advanced Standing for professional certifications is permitted towards completion of IT23 (including INS5XX CISCO Units).

CISCO Units

Students can choose from the following CISCO units as part of the Complementary Study Units (CISCO units located under Information Technology University Wide Unit Options on e-Student.)

INS350 CCNA 1&2 Network Fundamentals and Routing
INS351 CCNA 3&4 Lan Switching
INS352 CCNP1: Building Scalable Internetworks
INS354 CCNP3: Building Multi Layered Switched Networks
INS356 Voice Over IP 1
INS357 CISCO VOIP

Postgraduate IT Units

Unit List:

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
INN605 Advanced Research 1
INN606 Advanced Research 2
INN607 Advanced Research 3
INN610 Case Studies in Business Process Management
INN650 Advanced Network Management
INN651 Security Technologies
INN652 Advanced Cryptology

Students must first seek permission from the Course Coordinator to enrol in the following:

INN690 Minor Project 1
INN691 Minor Project 2
INN692 Minor Project 3
INN693 Project
INN694-1 Project 1
INN694-2 Project
INN695 Major Project
INN696-1 Major Project 1
INN696-2 Major Project 2

UNIT SYNOPSISES

INB101 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: INN101 Credit points: 12 Contact hours: 3 per week Campus: Gardens Point Teaching period: 2011 SEM-1 and 2011 SEM-2

INB101 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: INN101 Credit points: 12 Contact hours: 3 per week Campus: Gardens Point Teaching period: 2011 SEM-1 and 2011 SEM-2

INB102 EMERGING TECHNOLOGY
The aim of this unit is to provide you with a conceptual framework so that you clearly identify Information Technologies and their purpose. This task will be fun as it covers a wide spectrum of ideas and allows us to examine some currently popular technologies. Information Technology has become so entwined with everyday life that identifying its scope is difficult, which also makes it difficult to identify opportunities where IT might further infiltrate into our daily lives for work and play. To achieve these aims, the unit introduces you to some of the theories and engineering practicalities that have already resulted in technological advances in the area of information technology. Concepts leading to existing technologies are introduced during lectures, which are followed by laboratory sessions where students will be encouraged to discuss social change, future information tools and explore the concepts required for constructing these technologies.

Equivalents: ITB005 Credit points: 12 Contact hours: 3 per week Campus: Gardens Point Teaching period: 2010 SEM-1 and 2010 SEM-2

INB103 INDUSTRY INSIGHTS
This unit aims to develop your awareness of the career possibilities in the ICT industry and to equip you with some
of the essential skills required of an ICT professional. The unit helps you to derive a roadmap for your career; to enable you to identify the qualities, skills and interests you need to possess, to plan your career path. The unit will also introduce you the inter-disciplinary nature of ICT careers.

Equivalents: ITB002 Credit points: 12 Contact hours: 3 per week Campus: Gardens Point Teaching period: 2010 SEM-1 and 2010 SEM-2

**INB103 INDUSTRY INSIGHTS**

This unit aims to develop your awareness of the career possibilities in the ICT industry and to equip you with some of the essential skills required of an ICT professional. The unit helps you to derive a roadmap for your career; to enable you to identify the qualities, skills and interests you need to possess, to plan your career path. The unit will also introduce you the inter-disciplinary nature of ICT careers.

Equivalents: ITB002 Credit points: 12 Contact hours: 3 per week Campus: Gardens Point Teaching period: 2010 SEM-1 and 2010 SEM-2

**INB104 BUILDING IT SYSTEMS**

Today’s modern integrated technology is built on IT systems which run in a range of contexts (e.g. mobile computing, robotics, and web-based systems) using a range of technological solutions such as programming and scripting, databases, web development and network programming. This unit is an integrated introduction to information technology designed to engage, inspire and inform and will demonstrate the important role that technical system design and development plays in achieving robust operation of a large variety of technological solutions. This unit will give you substantial hands-on, practical learning experiences and will motivate you through engagement in the creative, explorative and meaningful development of technological artefacts that operate in real world contexts.

Equivalents: ITB001 Credit points: 12 Contact hours: 3 per week Campus: Gardens Point Teaching period: 2010 SEM-1 and 2010 SEM-2

**INB120 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: ITB360 Credit points: 12 Contact hours: 3 per week Campus: Gardens Point Teaching period: 2011 SEM-1

**INB123 PROJECT MANAGEMENT PRACTICE**

In your information technology career it is very likely that you will work on and lead project teams to achieve business outcomes. You will achieve more effective outcomes by employing a project management method. The aim of this course is to familiarise you with the PRINCE2® method so that you could successfully work within and lead project teams. At the conclusion of this unit you will may be eligible to sit the externally provided PRINCE2® Foundation and Practitioner accreditation examinations.

Antirequisites: INN500 Assumed knowledge: Completion of 48 credit points of an Undergraduate study is assumed knowledge. Credit points: 12 Contact hours: 3 per week Campus: Gardens Point Teaching period: 2011 SEM-1 and 2011 SEM-2

**INB201 SCALABLE SYSTEMS DEVELOPMENT**

TBA

Prerequisites: (INB102 or ITB005) and (INB104 or ITB001) Assumed knowledge: Completion of 36cp of Breadth units is assumed knowledge. Equivalents: ITB007 Credit points: 12 Contact hours: 3 per week Campus: Gardens Point Teaching period: 2010 SEM-1

**INB201 SCALABLE SYSTEMS DEVELOPMENT**

Information technology is a key enabling tool in a rapidly evolving global economy. IT systems underpin innovation across a range of application areas including business, economics, science, engineering, education and the arts. In order to educate graduates in this climate, Scalable Systems Development adopts an integrated approach to provide broad hands-on experiences designed to orient students to the range of possibilities within the IT discipline.
This team-based unit is an extension of project work introduced in Building IT Systems. Within a concrete, project-based context students will encounter the practical challenges of designing and implementing a substantial IT system. The unit aims to increase students' awareness of the potential of IT in enabling innovation through providing active, constructive and challenging problem-based learning experiences.

**Prerequisites:** (INB102 or ITB005) and (INB104 or ITB001)  
**Assumed knowledge:** Completion of 36cp of Breadth units is assumed knowledge  
**Equivalents:** ITB007  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-1

**INB204 SPECIAL TOPIC 1**  
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:** INB371  
**Assumed knowledge:** Knowledge of programming in Java, C# or C++. Knowledge of basic data structures (stacks, queues, trees, linked lists, hash tables), complexity analysis  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-1 and 2011 SEM-2

**INB205 SPECIAL TOPIC 2**  
This unit introduces computational techniques involving numerical simulations and visualization. These skills will be applied to solve problems in a range of application areas. The programming language MATLAB will be used, along with the simulation environment NetLogo.

**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-1 and 2011 SEM-2

**INB210 DATABASES**  
Databases and database systems are essential items that support many aspects of everyday life in modern society. All graduates from a course in Information Technology will be expected by employers to understand the concepts and terminology of databases. The aim of this unit is to introduce you to the structure and role of databases in modern organisations.

**Antirequisites:** INN210  
**Equivalents:** ITB004  
**Credit points:** 12
Contact hours: 3 per week  Campus: Gardens Point  
Teaching period: 2011 SEM-2

INB251 NETWORKS
Computer systems and communications networks are essential to the activities of modern organisations. When you graduate from a course in Information Technology, employers expect you to have a sound understanding of the terminology and concepts of computer systems, communications networks, and network services. This unit provides you with an introductory study of communications network technologies and network applications. The unit serves as an entry point to further specialised studies in the field of computer network systems.

Antirequisites: INN251
Equivalents: ITB006
Credit points: 12
Contact hours: 3 per week  Campus: Gardens Point  
Teaching period: 2011 SEM-2

INB255 SECURITY
This unit aims to give you an understanding of the major issues in information security. You will be able to identify critical information security concepts and determine the information security implications of interactions between entities. You will have knowledge of a range of techniques for protecting information, and understand the limitations of these techniques. You will be aware of international information security management standards.

Antirequisites: ITB161, ITB523, ITB623, ITN161 and INN255
Equivalents: ITB730
Credit points: 12
Contact hours: 3 per week  Campus: Gardens Point  
Teaching period: 2011 SEM-1

INB270 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.

Prerequisites: INB104 or ENB246
Antirequisites: INN270
Equivalents: ITB003
Credit points: 12
Contact hours: 3 per week  Campus: Gardens Point  
Teaching period: 2011 SEM-1 and 2011 SEM-2

INB271 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, globalisation, privacy, and piracy.

Prerequisites: INB104
Antirequisites: INB373 and INN251
Credit points: 12
Contact hours: 3 per week  Campus: Gardens Point  
Teaching period: 2011 SEM-2

INB272 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.

Prerequisites: INB103 or INB181
Equivalents: ITB254
Credit points: 12
Contact hours: 3 per week  Campus: Gardens Point  
Teaching period: 2011 SEM-1

INB300 PROFESSIONAL PRACTICE IN IT
In this unit you will have the opportunity to experience real world work experiences and to reflect on how your studies have prepared you for the work environment. This will give you the opportunity to plan on how to best take advantage of your remaining studies to prepare for your planned career. To help you to understand your future career you will be working in a team and/or group environments, seeing firsthand the challenges and constraints that arise during professional practice in a real world industry environment. You will develop a richer appreciation of the graduate capabilities required of all information technology professionals, particularly skills such as communication, negotiation and problem-solving strategies.

Prerequisites: INB201
Antirequisites: ITS020, INS010, INS011, INS012, INS020
Assumed knowledge: To be taken in your final year of the BIT. You must have completed at least 132 CPs of IT units, including at least two specialisation units. Normally you should have completed at least 192 CPs in a single degree or 288 CPs in a double degree
Credit points: 12
Contact hours: 3 per week  Campus: Gardens Point  
Teaching period: 2010 SEM-1, 2010 SEM-2 and 2010 SUM
INB300 PROFESSIONAL PRACTICE IN IT
In this unit you will have the opportunity to experience real world work experiences and to reflect on how your studies have prepared you for the work environment. This will give you the opportunity to plan on how to best take advantage of your remaining studies to prepare for your planned career. To help you to understand your future career you will be working in a team and/or group environments, seeing firsthand the challenges and constraints that arise during professional practice in a real world industry environment.

You will develop a richer appreciation of the graduate capabilities required of all information technology professionals, particularly skills such as communication, negotiation and problem-solving strategies.

Prerequisites: INB201
Antirequisites: ITS020, INS010, INS011, INS012, INS020
Assumed knowledge: To be taken in your final year of the BIT. You must have completed at least 132 CPs of IT units, including at least two specialisation units. Normally you should have completed at least 192 CPs in a single degree or 288 CPs in a double degree
Credit points: 12
Contact hours: 3 per week
Campus: Gardens Point
Teaching period: 2011 SEM-1, 2011 SEM-2 and 2011 SUM

INB301 THE BUSINESS OF IT
As an IT professional you are more and more evaluated in terms of the business value that you produce. This unit will prepare you for professional practice by making you “business savvy,” i.e. giving you the business knowledge and skills that will help you with your future career and job. In particular the unit will address three themes: (1) career planning and job applications, (2) entrepreneurship & innovation, and (3) business and IT strategy. You will be introduced to career development tools that enable you to self-manage your career and life. You will learn how to critically think about the requirements of a job and reflect upon your own experiences and learn how to communicate them. You will also learn about the entrepreneurial process of identifying a business opportunity and how to take advantage of that opportunity. In addition, you will gain an understanding of core strategic concepts and models, discuss typical strategy tools and then apply them to the ‘Business of IT’.

Antirequisites: ITB009
Assumed knowledge: Completion of 120 credit points within BIT is assumed
Credit points: 12
Contact hours: 4 per week
Campus: Gardens Point
Teaching period: 2010 SEM-1, 2010 SEM-2 and 2010 SUM

INB302 CAPSTONE PROJECT
Students are to work together in a team of 4-5 on a project that addresses one of the following three types of problems: real business problems, real market needs, real research problems. This unit extends students’ development of the professional, technical and teamwork skills required by IT professionals in practice. Students will extend their knowledge and skills in the areas of IT project management through completing professional project documentation and managing the team project. Students will also gain a greater understanding and skill level in analysis and design, and their significance in delivering successful business or research outcome. The unit also focuses on furthering students’ professional skills in report writing, oral communication, and visual communication.

Prerequisites: INB301
Equivalents: ITB010
Credit points: 12
Contact hours: 3 per week
Campus: Gardens Point
Teaching period: 2010 SEM-1, 2010 SEM-2 and 2010 SUM

INB302 IT CAPSTONE PROJECT
Students are to work together in a team of 4-5 on a project that addresses one of the following three types of problems: real business problems, real market needs, real research problems. This unit extends students’ development of the professional, technical and teamwork skills required by IT professionals in practice. Students will extend their knowledge and skills in the areas of IT project management through completing professional project documentation and managing the team project. Students will also gain a greater understanding and skill level in analysis and design, and their significance in delivering successful business or research outcome. The unit also focuses on furthering students’ professional skills in report writing, oral communication, and visual communication.
Prerequisites: INB301  Assumed knowledge: Students are expected to have a solid IT background knowledge (e.g., completion of at least 192 credit points)
Equivalents: ITB010  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2011 SEM-2 and 2011 SUM

INB304 SPECIAL TOPIC 3
Traditional Artificial Intelligence (AI) aims at satisfying the Turing test, that is, it aims at making computers indistinguishable from humans. Computer games AI is a special area of study that deals with algorithmic approaches to entertainment affects in NPC. Students will develop in this unit an understanding of problems, solutions and algorithms that generally defines the current state of computer game AI. The aim of this unit is to provide students with an intermediate level course in computer game AI that involves a set of the most relevant algorithms and their applications in the interactive entertainment and game industries.

Prerequisites: INB210 or ITB004 or INB122  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2011 SEM-1 and 2011 SEM-2

INB305 SPECIAL TOPIC 4
INB305 BGIE Project Design Phase (P1) extends your work on the role, design, and plan of a computer game concept. The unit covers the conceptualisation and game design stages up to the game design pitch. If the project is given a green light by the assessment panel, it may be developed later in the P2 unit.

Prerequisites: INB371  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2011 SEM-1 and 2011 SEM-2

INB306 PROJECT 1
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: INB101, INB102, INB103, INB104 and INB201  Assumed knowledge: As a minimum requirement you must have completed at least 132 credit points of IT units, including INB101, INB102, INB103, INB104, INB201, four breadth units, and at least two specialisation units.
Equivalents: ITB230  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2011 SEM-1, 2011 SEM-2 and 2011 SUM

INB307 PROJECT 2
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.

Assumed knowledge: Assumed knowledge is completion of 192cp of which at least 144cp must be IT units
Equivalents: ITB791  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2011 SEM-1, 2011 SEM-2 and 2011 SUM

INB308 PROJECT 3
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.

Assumed knowledge: Assumed knowledge is completion of 192 credit points of which at least 144 credit points must be for IT units  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2011 SEM-1, 2011 SEM-2 and 2011 SUM

INB311 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:** INN311  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-2

**INB312 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:** ITB233, INN312  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-1

**INB313 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.

**Equivalents:** ITB260  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-2

**INB320 BUSINESS PROCESS MODELLING**
The aim of this unit is to introduce you to modern methodologies of business process modelling. A main objective is to increase your awareness of the conceptual foundation of modelling and for the capabilities of BPMN and available tools. You will learn how to use grammars and tools to build, maintain and communicate practically relevant process models.

**Equivalents:** ITB298  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-2

**INB321 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:** INN321  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-1

**INB322 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:** ITB264, ITN264  
**Assumed knowledge:** Completion of 96 credit points of an Undergraduate study is assumed knowledge  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-1

**INB335 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.

**Antirequisites:** INN335  
**Equivalents:** ITB322  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-2

**INB340 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.

**Prerequisites:** INB210 or ITB004  
**Antirequisites:** ITB229  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-1

**INB342 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:** INB122 or INB210 or INB340 or AYB114  
**Antirequisites:** INN342  
**Equivalents:** ITB239  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-2

**INB343 ADVANCED DATA MINING AND DATA WAREHOUSING**  
Data warehousing and mining have been well recognized as the dominating techniques for using databases in the future. This unit discusses the concepts, structures and algorithms of data warehousing and mining, e.g., data architecture and quality, data warehouse and data mart, data cubes, OLAP, patterns, association rules and decision tables. Through this study, students will be able to demonstrate knowledge and skills of designing, developing and implementing data warehousing components in SQL environments. It also enables students to design systems and tools that provide services to data management and analysis, such as data warehouses, data mining tools, business intelligence based systems, smart information use systems, and data processing systems.

**Prerequisites:** INB210  
**Antirequisites:** INN343  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-1

**INB344 SEARCH ENGINE TECHNOLOGY**  
**Prerequisites:** INB371  
**Assumed knowledge:** Intermediate programming experience with intermediate-level knowledge of data structures and algorithms  
**Credit points:** 12  
**Teaching period:** 2011 SEM-1

**INB345 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. Students will appreciate the impacts of these devices and be inspired for the current and future opportunities in ICT usage trends.

**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-1

**INB346 ENTERPRISE 2.0**  
Web technologies and applications are reshaping contemporary organisations. By 2009 it has been predicted that more than 80% of organisations will have blogs and more than 50% of organisations will have wikis as part of their business solutions and strategies. Furthermore, with the advent of Cloud Computing, many companies are outsourcing key business functions to external web applications. The successful contemporary organisation requires expertise in not just business and management practice but in the critical design, use and consequences of new and emerging technologies. This unit will explore the ways in which IT has impacted on how organisations design and deliver activities and services internally and externally. The aim of this unit is to provide you with an understanding of how web 2.0 is changing the way contemporary organisations function.

**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-2

**INB347 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.

**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-1

### INB350 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.

**Prerequisites:** INB251 or ITB006 or ITB510  
**Antirequisites:** ITB624, ITB629, ITB720, ITN525, ITN667, ITN720  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-1

### INB351 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:** INB350  
**Equivalents:** ITB721, ITB625, ITB535, ITB525  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-2

### INB352 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.

**Prerequisites:** INB350  
**Antirequisites:** ITB551, ITB628, ITB722, INN352, ITN551, ITN722, ENN523  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-2

### INB353 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.

**Prerequisites:** INB251 or ITB006  
**Antirequisites:** ITN723  
**Assumed knowledge:** Networks or equivalent networking knowledge is assumed knowledge  
**Equivalents:** ITB723  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-1

### INB355 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:** ITB646, ITB548, ITB566  
**Assumed knowledge:** Maths B or equivalent is assumed knowledge.  
**Equivalents:** ITB732  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-1

### INB365 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 ITB003 or INB371  
**Antirequisites:** ITB745, ITB706, INN365  
**Assumed knowledge:** Fundamentals of computer architecture; high level programming languages (such as C, C++, Java, Python) is assumed knowledge.  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-2

### INB370 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.

**Prerequisites:** INB270 or ITB003  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-1

**INB371 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:** INB270 or ITB003  
**Antirequisites:** ITB711, ITB702, INN371  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-1

**INB372 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:** INB370  
**Antirequisites:** INN372, ITB612, ITB712  
**Assumed knowledge:** Good programming, debugging, testing and software development skills.  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-2

**INB373 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.

**Prerequisites:** INB271 or ITB007  
**Antirequisites:** INN271, INN373  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-1

**INB374 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:** INB270 or ITB003  
**Equivalents:** ITB717  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-2

**INB381 MODELLING AND ANIMATION TECHNIQUES**  
The development of computer graphics tools is a significant application within the IT, Games and related industries, relying heavily on software engineering methodologies. These tools, such as CAD systems, 3D modelling systems and games engines, are used in such industries as advertising, engineering, manufacturing, simulation for education and training, computer games, film special effects, etc. Modelling techniques are intrinsic to a 3D graphics system, especially one used for real time animation. With increased CPU and GPU power, the ability to animate in real time is allowing more sophisticated interaction and the merger of games/simulation and film. 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 and MAB281  
**Equivalents:** ITB746  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-2

**INB382 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:** INB371, INB381 and MAB281  
**Antirequisites:** ITB648 and ITB649  
**Equivalents:** ITB747  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-1
INB385 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; analyze 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.

Prerequisites: INB103 or ITB002  Antirequisites: ITB257
Credit points: 12  Contact hours: 3 per week
Campus: Gardens Point  Teaching period: 2011 SEM-1

INB386 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: INB385 (Special considerations may apply)  Equivalents: ITB259, ITN259  Credit points: 12
Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2011 SEM-2

INB860 COMPUTATIONAL INTELLIGENCE FOR CONTROL AND EMBEDDED SYSTEMS
This is a specialisation unit in the area of Infomechatronics that introduces five methods from the field of computational intelligence and relates them to applications on real time control and embedded systems. The methods are: Knowledge Base Systems, Fuzzy Control, Neural Networks, Reinforcement Learning and Evolutionary Computation. The unit is also intended to teach the specific design and programming skills that will enable you to solve problems using computational intelligence methods in real-time embedded systems. It is assumed that you already have knowledge of programming.

Assumed knowledge: Knowledge of a programming language like Python, Java or C is assumed.
Equivalents: ITB847  Credit points: 12  Contact hours:

3 per week  Campus: Gardens Point  Teaching period: 2011 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: 2011 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: 2011 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: 2011 SEM-2

INN320 BUSINESS PROCESS MODELLING
The aim of this unit is to introduce you to modern methodologies of business process modelling. A main
objective is to increase your awareness of the conceptual foundation of modelling and for the capabilities of BPMN and available tools. You will learn how to use grammars and tools to build, maintain and communicate practically relevant process models.

Antirequisites: ITB298 and ITB320 
Equivalents: ITN301
Credit points: 12 
Contact hours: 3 per week
Campus: Gardens Point 
Teaching period: 2011 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: 2011 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: 2011 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.

Antirequisites: INN335, ITN322 
Equivalents: ITN273 
Credit points: 12 
Contact hours: 3 per week 
Campus: Gardens Point 
Teaching period: 2011 SEM-1

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: INN330 
Equivalents: ITN266 
Credit points: 12 
Contact hours: 3 per week 
Campus: Gardens Point 
Teaching period: 2011 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: INN331 
Equivalents: ITN274 
Credit points: 12 
Contact hours: 3 per week 
Campus: Gardens Point 
Teaching period: 2011 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: 2011 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: 2011 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

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.

Antirequisites: INB335, INN332, ITN273  Equivalents: ITN332  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2011 SEM-2

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 is assumed knowledge  Equivalents: ITN229
Credit points: 12  Campus: Gardens Point  Teaching period: 2011 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.

Antirequisites: INN210 or ITN200 or INN122 or ITB004  Equivalents: INN341, ITB223
Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2011 SEM-2

INN342 ENTERPRISE DATA MINING
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.

Antirequisites: ITN210 or INN340 or INN122  Equivalents: ITN239
Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2011 SEM-2

INN343 ADVANCED DATA MINING AND DATA WAREHOUSING
Data warehousing and mining have been well recognized as the dominating techniques for using databases in the future. This unit discusses the concepts, structures and algorithms of data warehousing and mining, e.g., data architecture and quality, data warehouse and data mart, data cubes, OLAP, patterns, association rules and decision tables. Through this study, students will be able to demonstrate knowledge and skills of designing, developing and implementing data warehousing components in SQL environments. It also enables students to design systems and tools that provide services to data management and analysis, such as data warehouses, data mining tools, business intelligence based systems, smart information use systems, and data processing systems.

Antirequisites: ITN210  Equivalents: INB343  Credit points: 12  Campus: Gardens Point  Teaching period: 2011 SEM-1
INN344 SEARCH ENGINE TECHNOLOGY

**Antirequisites:** INB344  **Assumed knowledge:** Intermediate programming experience with intermediate-level knowledge of data structures and algorithms  **Credit points:** 12  **Campus:** Gardens Point

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. Students will appreciate the impacts of these devices and be inspired for the current and future opportunities in ICT usage trends.

**Antirequisites:** INB345  **Credit points:** 12  **Contact hours:** 3 per week  **Campus:** Gardens Point  **Teaching period:** 2011 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.

**Antirequisites:** INB346  **Credit points:** 12  **Contact hours:** 3 per week  **Campus:** Gardens Point  **Teaching period:** 2011 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:** 2011 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  **Credit points:** 12  **Contact hours:** 3 per week  **Campus:** Gardens Point  **Teaching period:** 2011 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:** 2011 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, ENN523  **Credit points:** 12  **Contact hours:** 3 per week  **Campus:** Gardens Point  **Teaching period:** 2011 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.  **Credit points:** 12  **Contact hours:** 3 per week  **Campus:** Gardens Point  **Teaching period:** 2011 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:** 2011 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:** INN270 or ITB003 or INB270  
**Antirequisites:** ITB706, ITB745, ITB365  **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:** 2011 SEM-2

**INN370 SOFTWARE DEVELOPMENT**

Understanding software development is an integral part of any 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:** INB370  **Assumed knowledge:** INN270 is assumed knowledge.  **Credit points:** 12  **Contact hours:** 3 per week  **Campus:** Gardens Point  **Teaching period:** 2011 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, TB702, ITB711, ITN711  
**Equivalents:** ITN702  **Credit points:** 12  **Contact hours:** 3 per week  **Campus:** Gardens Point  **Teaching period:** 2011 SEM-1

**INN372 AGILE SOFTWARE DEVELOPMENT**

This unit examines the theory, techniques, and technologies associated with the specification, design, construction and testing of software systems. It integrates specialist knowledge from previous units to prepare you to become a professional software engineer. By the end of this unit, you will have a firm understanding of the principles of software development processes, and the detailed practices of agile methodology. This will extend and refine your knowledge of the traditional software development lifecycle and testing, and putting your new knowledge into practice. You will work together in small teams of four to six people to build a project using an agile methodology and using test-driven development strategies. You will thus be well-prepared to become a member of a professional development team.

**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:** 2011 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.

**Prerequisites:** INN271  **Antirequisites:** INB373  
**Assumed knowledge:** INN271 is assumed knowledge.  **Equivalents:** ITB716, ITN716,  **Credit points:** 12  **Contact hours:** 3 per week  **Campus:** Gardens Point  **Teaching period:** 2011 SEM-1

**INN374 ENTERPRISE SOFTWARE ARCHITECTURE**

This unit introduces you to the field of enterprise and component-based architecture. It provides a grounding in the knowledge and skills required by a software architect to address the future needs of business IT systems. These include a solid understanding of the IT challenges currently facing medium to large organizations, the theory and
technologies used to address them, and an appreciation of the business needs that motivate their use. To enable you to address these challenges you will be exposed to system design methods, and the current technologies, that allow the resulting systems to be adaptive to changing business needs.

**Prerequisites:** INN270, INB270, ITN700, or ITB003

**Antirequisites:** INB374 and ITB717  
**Equivalents:** ITN717

**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-2

### INN381 MODELLING AND ANIMATION TECHNIQUES

The development of computer graphics tools is a significant application within the IT, Games and related industries, relying heavily on software engineering methodologies. These tools, such as CAD systems, 3D modelling systems and games engines, are used in such industries as advertising, engineering, manufacturing, simulation for education and training, computer games, film special effects, etc. Modelling techniques are intrinsic to a 3D graphics system, especially one used for real time animation. With increased CPU and GPU power, the ability to animate in real time is allowing more sophisticated interaction and the merger of games/simulation and film. 

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 or MAN281)  
**Antirequisites:** INB381, ITB441, ITB460, ITB648, ITB649, ITB746  
**Equivalents:** ITN440, ITN460, ITN746  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 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  
**Equivalents:** ITN747  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-1

### INN383 AI FOR GAMES

The aim of this unit is to provide students with an intermediate to advanced level course in computer game AI, involving algorithmic and utility-based approaches to solving a wide range of problems in the interactive entertainment and game industries. You will gain both practical and theoretical knowledge about a range of AI techniques applied in computer games. You will be able to identify and explain different types of AI agents, describe their algorithms using a pseudo code convention, identify and explain different structures and algorithms used to represent and solve a range of problems in computer game AI.

**Antirequisites:** INB383  
**Assumed knowledge:** MAN281, INN371 or equivalent is assumed knowledge  
**Credit points:** 12  
**Contact hours:** 4 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-1

### 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.  
**Equivalents:** ITN257, ITB257  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 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  
**Equivalents:** ITN257, ITB259  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-1

### INN401 HONOURS DISSERTATION 1

Research is about contributing to scientific knowledge. You will be expected to make such a contribution in your honours dissertation, although the size of that contribution will probably be relatively small as this is likely to be your first research project. The principle aim, however, is to provide you with basic research skills that you will be able to apply again in the future in other contexts, be they in a
higher research degree, or applied to real-world problems in an industry setting. You will learn the types of processes, creativity and analytical thinking that leads to such scientific advances and how to communicate such findings in a rigorous scientific manner.

Credit points: 12  Campus: Gardens Point  Teaching period: 2011 SEM-1, 2011 SEM-2 and 2011 SUM

INN402 HONOURS DISSERTATION 2
Research is about contributing to scientific knowledge. You will be expected to make such a contribution in your honours dissertation, although the size of that contribution will probably be relatively small as this is likely to be your first research project. The principle aim, however, is to provide you with basic research skills that you will be able to apply again in the future in other contexts, be they in a higher research degree, or applied to real-world problems in an industry setting. You will learn the types of processes, creativity and analytical thinking that leads to such scientific advances and how to communicate such findings in a rigorous scientific manner.

Credit points: 12  Campus: Gardens Point  Teaching period: 2011 SEM-1, 2011 SEM-2 and 2011 SUM

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 workshops and lectures.

Prerequisites: Completion of 36 credit points of Postgraduate units (INN% or PUN% or GSN%)
Antirequisites: INB123, ITB365, ITB272  Equivalents: ITN272  Credit points: 12  Contact hours: 4 per week
Campus: Gardens Point  Teaching period: 2011 SEM-1 and 2011 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: 2011 SEM-1
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.

Equivalent: ITN276  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point

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 environments 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.

Equivalent: ITN279  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2011 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.

Equivalent: ITN275  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2011 SEM-2

INN540 USER EXPERIENCE
Understanding users and their experiences is a vital dimension of IT professionals’ competence and ethical awareness. People experience information and technology in a wide range of contexts, increasingly digital environments. This subject provides an opportunity for you to explore your own experience as user and also the experience of others. You will explore the experience of others, through engaging with them directly or via technology, and by engaging with a wide range of resources that inform us about users’ experiences. The aim of this unit is to introduce students to understanding and investigating users’ experiences in contexts that interest them, with particular emphasis on digital environments.

Assumed knowledge: 24 credit points of INN units  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2011 SEM-2

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.

Credit points: 12  Campus: Gardens Point

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. Equivalent: ITN774  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2011 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

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: 2011 SEM-1, 2011 SEM-2 and 2011 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: 2011 SEM-1, 2011 SEM-2 and 2011 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  Teaching period: 2011 SEM-1, 2011 SEM-2 and 2011 SUM

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: 2011 SEM-1 and 2011 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: 2011 SEM-1 and 2011 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: 2011 SEM-1 and 2011 SEM-2

INN610 CASE STUDIES IN BUSINESS PROCESS MANAGEMENT
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.

Prerequisites: INN320 or INN321 with a grade of 6 and a GPA of at least 6  
Credit points: 12  Campus: Gardens Point  Teaching period: 2011 SEM-2

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.

Prerequisites: INB351 or INN351  
Assumed knowledge: INB351, INN351, ITN721 or ITB721 is assumed knowledge.
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.

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

Antirequisites: ITB731, ITN731

Credit points: 12
Campus: Gardens Point
Teaching period: 2011 SEM-1, 2011 SEM-2 and 2011 SUM

INN652 ADVANCED CRYPTOLOGY
Cryptography forms a core discipline in the study of information security. This unit concentrates on the latest developments in cryptography. This is a specialised unit that prepares postgraduate students for research in cryptography. The aim of the unit is to explore and understand recent developments in the theory and practice of cryptography. The unit provides fundamental knowledge for students seeking to undertake postgraduate research or work in the area of information security, especially involving cryptography.

Credit points: 12
Campus: Gardens Point
Teaching period: 2011 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 points of Postgraduate level IT units is assumed knowledge.

Credit points: 12
Campus: Gardens Point
Teaching period: 2011 SEM-1, 2011 SEM-2 and 2011 SUM

INN691 MINOR 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-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: 2011 SEM-1, 2011 SEM-2 and 2011 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: 2011 SEM-1, 2011 SEM-2 and 2011 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: 2011 SEM-1, 2011 SEM-2 and 2011 SUM

INN694 PROJECT
This unit enables you to carry out an independent or group project addressing a research question or practical problem in theoretical or practical information technology. It provides an opportunity to individualise your studies by concentrating on a specific problem. 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.

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: 2011 SEM-1, 2011 SEM-2 and 2011 SUM

INN694 PROJECT 1
This unit enables you to carry out an independent or group project addressing a research question or practical problem in theoretical or practical information technology. It provides an opportunity to individualise your studies by concentrating on a specific problem. 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: 2011 SEM-1, 2011 SEM-2 and 2011 SUM

INN694 PROJECT 2
This unit enables you to carry out an independent or group project addressing a research question or practical problem in theoretical or practical information technology. It provides an opportunity to individualise your studies by concentrating on a specific problem. 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: 2011 SEM-1, 2011 SEM-2 and 2011 SUM
Gardens Point  
**Teaching period:** 2011 SEM-1, 2011 SEM-2 and 2011 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:** 2011 SEM-1, 2011 SEM-2 and 2011 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. Students must enrol in INN696-2 to receive a result.  
**Other requisites:** Students must complete INN696-2 to receive a grade for this unit  
**Credit points:** 24  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-1, 2011 SEM-2 and 2011 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-defined project with specific outcomes within a precisely defined project plan. This unit also teaches you how to prepare a well written project report.

**Prerequisites:** INN696-1  
**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:** 2011 SEM-1, 2011 SEM-2 and 2011 SUM

**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:** 2011 SEM-1 and 2011 SEM-2

**INN701 ADVANCED RESEARCH TOPICS**

All research students need an appreciation of a wide variety of potential approaches to conducting research and an understanding of the key issues that bear on such approaches. INN701 is an advanced unit aimed at research students who are soon to complete a detailed, rigorous and defensible design of their intended research project (e.g. Stage 2). Research students, coursework masters students and honours students intending undertaking a major research project should pursue INN701 either subsequent to, or in parallel with INN700.

**Prerequisites:** INN700 which can be studied in the same teaching period as INN701  
**Assumed knowledge:** INN700 may be waived for invited, advanced, high-performing undergrads  
**Equivalents:** ITN269  
**Other requisites:** GPA of at least 5.5 is required to enrol  
**Credit points:** 12  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-1 and 2011 SEM-2

**INS350 CCNA 1&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.

**Antirequisites:** INS450  
**Equivalents:** ITS701, ITS601, ITB011, ITN011  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-1 and 2011 SEM-2

**INS351 CCNA 3&4 LAN SWITCHING**  
This unit is the second step to a Cisco career certification path. The aim of this unit is to prepare students for the topics covered in Interconnecting Cisco Networking Devices Part 2 (ICND2) v1.0 (640-816) and Cisco Certified Network Associate Exam (CCNA 640-802). The ICND exam is one of the two qualifying exams available to candidates pursuing a two-exam option for the Cisco Certified Network Associate (CCNA) certification and CCNA 640-802, single-exam option for the Cisco Certified Network Associate CCNA certification.

**Prerequisites:** INS350  
**Antirequisites:** INS451  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-1 and 2011 SEM-2

**INS352 CCNP1: 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:** INS351  
**Antirequisites:** INS452  
**Assumed knowledge:** INS350, CCNA 1/2/3/4 are recommended prior study  
**Equivalents:** ITS703  
**Credit points:** 12  
**Campus:** Gardens Point

**INS354 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:** INS350 and INS351  
**Assumed knowledge:** INS350 and INS351 are recommended prior study  
**Equivalents:** ITS705  
**Credit points:** 12  
**Campus:** Gardens Point

**INS356 VOICE OVER IP 1**  
**Prerequisites:** INS350  
**Antirequisites:** INS456  
**Credit points:** 12

**INS357 CISCO VOIP**  
This unit provides internet technology skills for converged voice and data networks as well as the challenges faced by its various technologies. This unit presents generic solutions and implementation considerations to address those challenges. Students will learn about PSTN, Voice over IP network architecture, Voice over IP system components, features, and Quality of Service (QoS) technologies. In particular this unit focuses on developing understanding on the latest VoIP technologies and skills to build VoIP network for campus networking environment. The aim of this unit is to prepare students for the topics covered in CISCO CCNA Voice Exam (640-460 IIUC Implementing Cisco IOS Unified Communications OR 642-436 CVOICE 6.0 Cisco Voice Over IP). This unit aims to build important knowledge and skills necessary to build the VoIP integrated campus network.

**Prerequisites:** INS350  
**Credit points:** 12  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-2