

# Available Majors from The School of Computing and Mathematics

(Updated 31st March, 2006)

**NOTE TO STUDENTS:** 300094 - Computer Networking Fundamentals and 300086 - Applied Data Communications & Networking are mutually exclusive Units. Only one of these Units would count towards overall credit in any Major or Course. In general, students must NOT do both units.

BUSINESS INFORMATION SYSTEMS - offered at Parramatta and Campbelltown Campuses			
Unit Number	Unit Name	Pre-requisites (if applicable)	Level
300155	Programming Principles 1		100
<b>OR</b>			
300405	Fundamentals of Programming		100
200101	Accounting Information for Managers		100
300131	Introduction to Analysis and Design		100
300118	Enterprise Information Systems		100
300163	Structured Analysis and Design		200
300144	Object Oriented Analysis	300131	200
300146	Object Oriented Design	300144	200
300104	Database Design and Development		200
300154	Procedural Applications Development		200
300106	Decision Support Systems		200
300272	Enterprise Information Management		300
300372	Professional Preparation and Project Management		300

COMPUTER FORENSICS - offered at Penrith Campus			
Unit Number	Unit Name	Pre-requisites (if applicable)	Level
300128	Information Security		200
300143	Network Security	300128	300
300149	Operating Systems	300167	300
300165	Systems Administration Programming	300167 and 300149	300
300447	Computer Forensics Workshop	300149 and 300165 and 300143	300
CP308A	Information Systems Ethics and Law		300
<b>Plus any TWO of the following units:</b>			
300095	Computer Networks and Internets	300094	200
300168	Systems Programming 2	300167	300
300368	Intelligent Systems	200025	300
300115	Distributed Systems and Programming	300167 and 300094	300
300093	Computer Graphics	300103	300

COMPUTER SYSTEMS - offered at Campbelltown Campus			
Unit Number	Unit Name	Pre-requisites (if applicable)	Level
300155	Programming Principles 1		100
<b>OR</b>			
300405	Fundamentals of Programming		100
300114	Digital and Analog Fundamentals		100
300131	Introduction to Analysis and Design		100
300076	Microprocessor Systems	300018	200
300086	Applied Data Communications & Networking		200
300092	Computer Architecture	300096	300
300095	Computer Networks and Internets	300086 or 300094	300
300112	Digital Communication Technology	300086 or 300094	200
300083	Advanced Digital Systems	300114	300

# Available Majors from The School of Computing and IT

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COMPUTING STUDIES - For non Computing & IT students only			
Unit Number	Unit Name	Pre-requisites (if applicable)	Level
300125	Fundamentals of Computer Science		100
<b>300155</b>	Programming Principles 1		100
<b>OR</b>			
<b>300405</b>	Fundamentals of Programming		100
300131	Introduction to Analysis and Design		100
300086	Applied Data Communications & Networking		200
300104	Database Design and Development		200
300157	Social Aspects of Information Technology	300134	300
<b>Plus any TWO of the following units:</b>			
300118	Enterprise Information Systems		100
300129	Interactive Web Site Development		200
300101	Creating and Managing Websites	300134	200
300095	Computer Networks and Internets	300086 or 300094	300
300091	Computer Applications in Research		100

DATA COMMUNICATIONS - offered at Campbelltown and Parramatta Campus			
Unit Number	Unit Name	Pre-requisites (if applicable)	Level
<b>300155</b>	Programming Principles 1		100
<b>OR</b>			
<b>300405</b>	Fundamentals of Programming		100
300129	Interactive Web Site Development		200
<b>300094</b>	Computer Networking Fundamentals		200
<b>OR</b>			
<b>300086</b>	Applied Data Communications & Networking		200
300085	Advanced Web Site Development		300
300095	Computer Networks and Internets	300086 or 300094	300
300112	Digital Communication Technology	300086 or 300094	200
300088	Broadband Networking	300112	300
300084	Advanced Networking Technologies	300095	300

E-BUSINESS - offered at Campbelltown and Parramatta Campuses			
Unit Number	Unit Name	Pre-requisites (if applicable)	Level
<b>300155</b>	Programming Principles 1		100
<b>OR</b>			
<b>300405</b>	Fundamentals of Programming		100
300131	Introduction to Analysis and Design		100
200101	Accounting Information for Managers		100
300129	Interactive Web Site Development		200
300126	E-Business Technologies and Applications		200
300104	Database Design and Development		200
300074	Electronic Payment and Security	300126	300
300119	E-Transformation		300

**RETIRED - FORMAL SOFTWARE ENGINEERING - offered at Penrith Campus NB: This major is only available to continuing students, and can still be completed by the 2nd and 3rd year students.**

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## SYSTEMS ANALYSIS AND DESIGN - offered at Campbelltown and Parramatta Campuses

Unit Number	Unit Name	Pre-requisites (if applicable)	Level
300155 OR 300405	Programming Principles 1		100
200101	Accounting Information for Managers		100
300131	Introduction to Analysis and Design		100
300163	Structured Analysis and Design		200
300144	Object Oriented Analysis	300131	200
300104	Database Design and Development		200
300146	Object Oriented Design	300144	200
<b>Plus any TWO of the following units:</b>			
300372	Professional Preparation and Project Management		300
300159	Software Engineering		300
300158	Soft Systems Development		300
300117	Enterprise Database		300
300097	Computing Project 1		300

## NETWORKED SYSTEMS - offered at Penrith Campus

Unit Number	Unit Name	Pre-requisites (if applicable)	Level
300128	Information Security		200
300095	Computer Networks and Internets	300094	200
300149	Operating Systems	300167	300
300115	Distributed Systems and Programming	300167 and 300094	300
300143	Network Security	300128	300
300166	Systems and Network Management	300095	300
300084	Advanced Networking Technologies	300095	300
<b>Plus any ONE of the following units:</b>			
300129	Interactive Website Development		200
300130	Internet Programming	300147	300
300138	LAN Workshop		200

**RETIRED - NETWORKING** - offered at Penrith Campus NB: This major is only available to continuing students, and can still be completed by the 2nd and 3rd year students.

## SOFTWARE DEVELOPMENT - offered at Campbelltown and Penrith Campuses

**NB:** In Penrith this major is only available to continuing students, and can still be completed by the 2nd and 3rd year students.

Unit Number	Unit Name	Pre-requisites (if applicable)	Level
300155 OR 300405	Programming Principles 1		100
300156 OR 300125	Fundamentals of Programming		100
300156 OR 300125	Programming Principles 2	300155 or 300405	200
300131	Fundamentals of Computer Science		100
300131	Introduction to Analysis and Design		100
300144	Object Oriented Analysis	300131	200
300103	Data Structures and Algorithms	300156 or 300125	200
300154	Procedural Applications Development		200
300104	Database Design and Development		200
300146 OR 300163	Object Oriented Design	300144	200
300163	Structured Analysis and Design		200
300148 OR 300089	Object Oriented Software Development		200
300089 OR 300147	Commercial Applications Development		200
300147	Object Oriented Programming	300155 and (300125 or 300156)	200
300159 or 300404	Software Engineering		300
300160	Formal Software Engineering		300
300160	Software Interface Design		300

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<b>SYSTEMS PROGRAMMING - offered at Penrith Campus</b>			
<b>NB: 2nd and 3rd year students can complete this major by following its former structure.</b>			
Unit Number	Unit Name	Pre-requisites (if applicable)	Level
300128	Information Security		200
300092	Computer Architecture	300096	300
300149	Operating Systems	300167	300
300115	Distributed Systems and Programming	300167 and 300094	300
300165	Systems Administration Programming	300167 and 300149	300
300168	Systems Programming 2	300167	300
<b>Plus any TWO of the following units:</b>			
300169	Theory and Practice of Concurrency	300122	300
300130	Internet Programming	300147	300
300090	Compiler Theory and Practice	300167 and 300103 and 300121	300
300143	Network Security	300128	300

<b>WEB DEVELOPMENT - offered at Campbelltown and Parramatta Campuses</b>			
Unit Number	Unit Name	Pre-requisites (if applicable)	Level
<b>300155</b>	Programming Principles 1		100
<b>OR</b>			
<b>300405</b>	Fundamentals of Programming		100
300131	Introduction to Analysis and Design		100
300104	Database Design and Development		200
300129	Interactive Web Site Development		200
<b>300086</b>	Applied Data Communications and Networking		200
<b>OR</b>			
<b>300094</b>	Computer Networking Fundamentals		
<b>300108</b>	Developing Multimedia for the Internet		200
<b>OR</b>			
<b>300160</b>	Software Interface Design		300
<b>300142</b>	Multimedia Programming for the Internet		300
<b>OR</b>			
<b>300130</b>	Internet Programming	300131	300
<b>OR</b>			
<b>300111</b>	Developing Web Applications with XML	300101	300
<b>300116</b>	Dynamic Data Driven Websites		300
<b>OR</b>			
<b>300085</b>	Advanced Web Site Development		300