

**Bachelor of Applied Information Systems (BAppIS)**

<b>MOE Code</b>	NT5004	<b>Level</b>	7	<b>Duration</b>	3 academic years (full time)
<b>Site(s)</b>	Auckland				
<b>Delivery</b>	Full-time, Intramural/on-line. Part-time option available			<b>Intakes</b>	Semesters 1 and 2
<b>Aim</b>	<p>To produce graduates who will be:</p> <ul style="list-style-type: none"> <li>• Industry-ready so that they can add value to an organisation;</li> <li>• Problem-solvers, who are able to think creatively, act ethically and behave professionally;</li> <li>• Competent in relevant areas of Information Systems; and</li> <li>• Capable of continuing their own learning in other programmes including postgraduate study.</li> </ul>				
<b>Graduate profile</b>	Graduates of the Bachelor of Applied Information Systems will have a firm grasp of all the theoretical aspects of information systems, and will be able to apply their knowledge in practical situations. They will have developed particular aptitude in one area of the discipline, and will be aware of the need, and possess the skills, to keep their knowledge up to date. They will understand enough about scholarship and research methods to be capable of higher study.				
<b>Career options</b>	On completion of this programme, graduates will be well placed to gain career opportunities in the following areas: information systems, project management, systems analysis, systems software engineering, network management and administration, database management, object oriented programming, web distributed processing systems, enterprise intranet, ecommerce and web technologies and implementation.				
<b>Further study</b>	Further study can include Postgraduate study at another tertiary institution, leading to a Master's or Doctoral degree.				
<b>Award(s)</b>	<p>Bachelor of Applied Information Systems  <i>Awarded by Northland Polytechnic</i></p> <p><b>Award of Distinction:</b> Students will be eligible to graduate with "Distinction" if they have attained a grade average of A or higher across all courses at level 6 and Level 7.</p> <p><b>Award of Merit:</b> Students will be eligible to graduate with "Merit" if they have attained a grade average of B+ or higher across all courses at level 6 and Level 7</p>				
<b>Completion requirements</b>	360 credits, as listed in Programme Structure. <i>This programme has been accredited by NZQA. As it does not contain unit standards from the NZQF, credits are not reported to NZQA.</i>				
<b>Entry requirements</b>	<p>Applicants must meet the following criteria:</p> <ul style="list-style-type: none"> <li>• Applicants <b>under 20 years of age</b> require a minimum of NCEA Level 3 with University Entrance.</li> <li>• Applicants aged <b>20 years or over</b> must provide evidence of their ability to successfully study at tertiary level. Level 4 or 5 courses or programmes are preferred.</li> <li>• All applicants must have a level of English sufficient to be able to study at this level. Applicants for whom English is not their first language must achieve an IELTS academic score of no less than 6.0 (with no bands lower than 5.5) or hold an equivalent score from a recognised alternative English Proficiency Test.</li> <li>• All applicants may be required to undertake an internal NorthTec English language placement test to confirm their current level of English proficiency. This will include writing and speaking components.</li> </ul>				
<b>Selection information</b>	Where applicants who meet the admission criteria exceed available places, selection will be based on evidence of interest, motivation and academic achievement.				
<b>Credit recognition</b>	<p>All relevant credits from other approved qualifications will be considered for credit recognition (cross credits, credit transfers, advanced standing and recognition of prior learning) according to Northland Polytechnic's standard policy and procedure.</p> <p>Students who have attained knowledge and skills through work or life experience may apply for Recognition of Prior Learning (RPL). Students need to demonstrate their knowledge in relation to the learning outcomes of each individual course by preparing a portfolio of evidence. An attestation from an independent person that this learning occurred in the work place or through other experience is also required.</p> <p>The student must demonstrate to an assessor appointed by the Pathway Manager that s/he already has the necessary knowledge and skills to meet the learning outcomes for a given course.</p>				
<b>Time limit for completion</b>	10 Years from initial enrolment				
<b>Programme structure</b>					
<b>Code</b>	<b>Title</b>	<b>Credits</b>	<b>Level</b>		
<b>Compulsory courses – Year 1</b>					
704.5I500	Information Systems	15	5		
704.5T550	Computer Systems	15	5		
704.5D520	Programming I	15	5		
704.5O550	Business Communication	15	5		
704.1I530	Introduction to E-Commerce	15	5		
704.6D626	Fundamental Web Programming and Design	15	5		
704.0I560	Social Implications of Computing Technology	15	5		
704.5T507	Application Testing and Maintenance	15	5		
<b>Compulsory Courses Year 2 plus one elective at Level 6 for 120 credits</b>					
704.6D600	Programming II	15	6		
704.6T600	Network Infrastructure	15	6		
704.6I650	Systems Analysis and Design	15	6		
704.6I600	Management of Information Systems	15	6		
704.6O691	IT Project Management	15	6		
704.6T650	Computer Operating Systems	15	6		
704.T655	Mobile Applications Development	15	6		
<b>Compulsory Courses Year 3 plus one elective at Level 6 or level 7 for 120 credits</b>					
704.D720	Data Mining and Knowledge Extraction	15	7		
704.7I700	Information Systems Strategic Planning	15	7		
704.T725	Information Systems Security	15	7		
704.7I798	Applied Project	45	7		
704.7D711	Database Design and Applications	15	7		
<b>Elective courses - Select 2</b>					
Note: A list of elective courses offered in the current year is available from the Pathway Manager.					
704.6D630	Applied Computing	15	6		
704.6D620	Programme Design	15	6		
704.6T660	E-Learning and Presentation	15	6		

Code	Title	Credits	Level
704.7T770	Distributed Systems	15	7
704.7D726	Advanced Web Programming	15	7
704.7T700	Advanced Networks	15	7
704.7I730	Advanced E-Commerce	15	7
704.7I790	Special Topic	15	7
<b>Course prescriptors</b>			
<b>Title</b>	<b>Code</b>	<b>Credits</b>	<b>Level</b>
<b>Advanced E-Commerce</b>	<b>704.7I730</b>	<b>15</b>	<b>7</b>
<p>Aim: To enable students to examine the concepts and requirements of e-commerce as practiced in the marketplace and to construct systems for doing business electronically and to understand the standards used in business to business (B2B) communications and electronic data exchange (EDI).</p> <p><i>Pre-requisite: 704.5I530 Introduction to E-Commerce</i></p>			
<b>Advanced Networks</b>	<b>704.7T700</b>	<b>15</b>	<b>7</b>
<p>Aim: To evaluate network solutions, select an appropriate technology for a given situation, and justify their selection. Learners will also be able to install a network solution and demonstrate an understanding of network administration.</p> <p><i>Pre-requisites: 704.6T600 Network Infrastructure;</i></p>			
<b>Advanced Web Programming</b>	<b>704.7D726</b>	<b>15</b>	<b>7</b>
<p>Aim: To develop advanced web based applications which can interact with databases via the internet.</p> <p><i>Pre-requisite: 704.6D626 Fundamental Web Programming</i></p>			
<b>Application Testing and Maintenance</b>	<b>704.5D507</b>	<b>15</b>	<b>5</b>
<p>Aim: To provide students with the skills to publish a web application, and produce user documentation and training material.</p>			
<b>Applied Computing</b>	<b>704.6D630</b>	<b>15</b>	<b>6</b>
<p>Aim: To develop the skills, competence and confidence to use generic software applications and productivity tools effectively in a business environment.</p> <p><i>Pre-requisite: 704.5T550 Computer Systems</i></p>			
<b>Applied Project</b>	<b>704.7I798</b>	<b>45</b>	<b>7</b>
<p>Aim: To develop an ICT system, including software and/or hardware in accordance with an agreed proposal.</p> <p><i>Pre-requisite: All compulsory Level 5 and 6 courses</i></p>			
<b>Business Communication</b>	<b>704.5O550</b>	<b>15</b>	<b>6</b>
<p>Aim: To apply theories and techniques associated with interpersonal and organisational communication within an information systems context.</p>			
<b>Computer Operating Systems</b>	<b>704.6T650</b>	<b>15</b>	<b>6</b>
<p>Aim: To understand the components of multi-user operating systems, the interaction between those components and the techniques involved in managing and organising the operating systems components; and use the basic commands of a multi-user operating system; and carry out basic systems administration.</p> <p><i>Pre-requisite: 704.5T550 Computer Systems</i></p>			
<b>Computer Systems</b>	<b>704.5T550</b>	<b>15</b>	<b>5</b>
<p>Aim: To provide students with the skills to apply the fundamental knowledge of the architecture and internal operation of a computer system.</p>			
<b>Data Mining and Knowledge Extraction</b>	<b>704.D720</b>	<b>15</b>	<b>7</b>
<p>Aim: To understand and apply different data mining techniques used to extract information from raw data including intelligent algorithms computational paradigms that enables data modelling, prediction / forecasting and the discovery of hidden patterns or anomalies in databases.</p>			
<b>Database Design and Applications</b>	<b>704.7D711</b>	<b>15</b>	<b>7</b>
<p>Aim: To demonstrate basic theoretical and practical knowledge for working with database management systems, data modelling, and data base design, and identifying and resolving security, integrity and recovery issues.</p> <p><i>Pre-requisite: 704.6I650 Systems Analysis and Design</i></p>			
<b>Distributed Systems</b>	<b>704.7T770</b>	<b>15</b>	<b>7</b>
<p>Aim: To evaluate technology and strategies to implement a distributed environment including analysis of requirements, selection of appropriate distributed technologies and justification of selection and technical feasibility of the solution.</p> <p><i>Pre-requisite: 704.6T650 Computer Operating Systems; and 704.6T600 Network Infrastructure</i></p>			
<b>E-Learning and Presentation</b>	<b>704.76T660</b>	<b>15</b>	<b>6</b>
<p>Aim: To plan, develop, deliver and evaluate a computer based interactive training session for a workplace setting</p>			
<b>Fundamental Web Programming and Design</b>	<b>704.6D626</b>	<b>15</b>	<b>6</b>
<p>Aim: To write basic web based programmes, read data from a database and link databases and web pages</p>			
<b>Information Systems</b>	<b>704.5I500</b>	<b>15</b>	<b>5</b>
<p>Aim: To understand the principles and organisation of information systems within organisations; to explain the nature, value and usage of information including privacy issues relating to both implementation and use; and to describe types of information systems and apply information gathering techniques.</p>			
<b>Information Systems Security</b>	<b>704.T725</b>	<b>15</b>	<b>7</b>
<p>Aim: To analyse security policies, models and mechanisms for secrecy, integrity, availability and application.</p> <p><i>Pre-requisites: 704.6T600 Network Infrastructure; and 704.6T650 Computer Operating Systems</i></p>			
<b>Information Systems Strategic Planning</b>	<b>704.7I700</b>	<b>15</b>	<b>7</b>
<p>Aim: To prepare an information systems strategic plan for an organisation defining the way an organisation will use information technology and systems to support its strategic aims, objectives and strategies taking cognisance of the organisational and social impact of information systems, their development and how emerging technologies can be used for competitive advantage.</p> <p><i>Pre-requisite: 704.6I600 Management of Information Systems</i></p>			
<b>Introduction to E-Commerce</b>	<b>704.5I130</b>	<b>15</b>	<b>5</b>
<p>Aim: To develop a basic understanding of the business, legal and technological issues in the field of electronic commerce.</p> <p><i>Co-requisite: 704.5O560 Social Implications of Computing Technology</i></p>			
<b>IT Project Management</b>	<b>704.6O691</b>	<b>15</b>	<b>6</b>
<p>Aim: To understand the requirements of project planning, control and use project management software to manage IT Project tasks.</p>			
<b>Management of Information Systems</b>	<b>704.6I600</b>	<b>15</b>	<b>6</b>
<p>Aim: To understand and apply IT terminology and principles within a business context including competitive advantage and return on investment.</p> <p><i>Pre-requisite: 704.5I500 Information Systems</i></p>			

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<b>Mobile Applications Development</b>	<b>704.T655</b>	<b>15</b>	<b>6</b>
Aim: To understand and apply mobile application development including fundamental programming principles, software architecture and user experiences for handheld software applications and their development environments. <i>Pre-requisites: 704.6D600 Programming II</i>			
<b>Network Infrastructure</b>	<b>704.6T600</b>	<b>15</b>	<b>6</b>
Aim: To install, configure, administer and solve problems related to networks.			
<b>Programme Design</b>	<b>704.6D620</b>	<b>15</b>	<b>6</b>
Aim: To design quality software commonly used in business using a variety of techniques; and to engage with system modelling and the full software engineering life-cycle using case studies, supported by CASE tools, to identify alternative approaches to software development. <i>Pre-requisites: 704.5D520 Programming I</i>			
<b>Programming I</b>	<b>704.5D520</b>	<b>15</b>	<b>5</b>
Aim: To provide students with the fundamental knowledge of scripting to perform typical system management tasks.			
<b>Programming II</b>	<b>704.6D600</b>	<b>15</b>	<b>6</b>
Aim: To write and maintain programs using appropriate design patterns, data structures and algorithms. <i>Pre-requisite: 704.5D520 Programming I</i>			
<b>Social Implications of Computing Technology</b>	<b>704.0560</b>	<b>15</b>	<b>5</b>
Aim: To understand the development, application and consequences of information technology as both a social and technological process including identification of the ethical issues implicit in the computerisation in society. <i>Co-requisite: 704.5I530 Introduction to E-Commerce</i>			
<b>Special Topic</b>	<b>704.7I790</b>	<b>15</b>	<b>7</b>
Aim: To provide students with the opportunity to focus in-depth on a specific technology or area of information technology. This may include technologies used in industry or a technology considered new and innovative. to study topics of current interest and industry relevance. This would generally take the form of action research. <i>Pre-requisites: To be determined by supervisor depending on topic selection</i>			
<b>Systems Analysis and Design</b>	<b>704.6I650</b>	<b>15</b>	<b>6</b>
Aim: To analyse, design and implement moderately complex information systems. To analyse business cases and document the purpose, objective, data requests, data flows, input documents and output documents of common business functions. <i>Pre-requisite: 704.6D626 Fundamentals of Web programming and Design</i>			