Digital Technologies

School of Digital Technologies
Programme Guide 2020
Course of study and programme specific completion requirements.

This programme guide provides you with specific programme information and course summaries for the programmes offered in Digital Technologies. Prior to selecting your courses and occurrences, please ensure that you work with both this enrolment guide (PG4) and the latest version of the relevant timetable. These documents are available online **http://www.manukau.ac.nz/fobitguide**.

For all programmes in this guide we recommend you bring your own laptop. Please see page 25 for the recommended minimum specifications.

PROGRAMMES OFFERED:

*Applies to re-enrolling students only

If you require information about the progress of your enrolment contact:

Ask Me!   Student Services Centre   0800 62 62 52   enquiries@manukau.ac.nz

If you require help planning your course of study:
Chris Mayhew   Academic Lead – Student Experience   975 4637   chris.mayhew@manukau.ac.nz

Some programmes require you to refer to this information during the academic year. We recommend that you file this document for safe keeping.

SCHOOL OF DIGITAL TECHNOLOGIES

MIT Manukau Campus, Ask Me! Atrium, Ground Floor, Corner of
Manukau Station Road and Davies Avenue Private Bag 94 006,
Auckland 2241

0800 62 62 52 | manukau.ac.nz | enquiries@manukau.ac.nz

PROGRAMME GUIDE 4 2020_v5.0

NEW ZEALAND CERTIFICATE IN INFORMATION TECHNOLOGY ESSENTIALS
LEVEL 4 NZ2594

Method of study	Full-time or part-time
Qualification	New Zealand Certificate
Duration	19 weeks (includes 3 weeks of breaks)
Start dates	February, May, July, October
Credits	60
Cost (2020 Fees)	$3400 (approx.)

To graduate with the New Zealand Certificate in Information Technology Essentials (Level 4) you must complete four compulsory 15 credit courses:

563.402	Stepping in IT
566.401	Creating Websites
562.412	Developing Software
563.403	Information Systems Solutions
Total	60 credits

ABOUT THE PROGRAMME

The New Zealand Certificate in Information Technology Essentials consists of four Level 4 courses that can be completed in one quarter of full-time study or over a longer period of part-time study.

You will gain experience with all aspects of IT from computer hardware, operating systems, applications, databases and networks to software development, project management, web, user experience, and interface design. This combination of technical and core skills will prepare you for employment in a range of entry-level support roles or further study in the field of IT Essentials

Graduates who successfully complete this programme can pathway into the New Zealand Diploma in in Information Technology Technical Support (Level 5).

ENTRY REQUIREMENTS

General

Open entry for Domestic students

There are no academic requirements that need to be met to enter this programme.

International students: English Language Entry Requirements

For the minimum English language requirements refer to the requirements set out in the *NZQF Programme and Accreditation Rules*

https://www.nzqa.govt.nz/providers-partners/qa-system-for-teos/english-international-students/

International students will generally be required to provide evidence of English language proficiency, for this programme an IELTS General or Academic score of 5.5 with no band score lower than 5 is required. Equivalent acceptable evidence can be seen at the following NZQA link: https://www.nzqa.govt.nz/about-us/our-role/legislation/nzqa-rules/nzqf-related-rules/the-table/

Provisional Entry

Students who have attained the age of 20 years and do not hold the minimum entry requirements for a programme will be eligible to be enrolled as a student where their previous educational, work or life experience indicates they have a reasonable likelihood of success. Students who have not attained the age of 20 years and do not hold the required minimum entry requirements for a programme may also be eligible to enrol in exceptional circumstances. Such decisions will be made by the Director/Head of School.

Applicants will be accepted in order of application.

NEW ZEALAND DIPLOMA IN INFORMATION TECHNOLOGY TECHNICAL SUPPORT
(LEVEL 5) NZ2596

Method of study	Full-time or part-time
Qualification	New Zealand Diploma
Duration	One year (full-time)
Start dates	February, May, July, October
Credits	120
Cost (2020 Fees)	$6,800 (approx.)

To graduate with the New Zealand Diploma in Information Technology Technical Support (Level 5) you must complete 8 compulsory 15 credit courses:

501.502	IT and Team Communication	
502.521	Fundamentals of Software Development	
561.590	Business Information Systems	
564.532	Introduction to Databases	
565.586	Computer Architecture	
565.587	Computer Networks	
565.588	IT Support and Services	
565.589	Fundamentals of System Administration	
Total	120 credits	

ABOUT THE PROGRAMME

Get ready to play an integral part in maintaining and optimising vital Information Technology (IT) hardware and systems for organisations all over the world.

You'll be able to build from your existing base of knowledge and experience with IT and focus on important technical support issues such as networking, database and systems administration, security and data management and the prevention, troubleshooting and resolution of technical issues. You'll also
be introduced to important service management and customer service skills that will enable you to work well with other team members and customers.

Graduates who successfully complete this programme can pathway into New Zealand Diploma in Systems Administration (Level 6) or New Zealand Bachelor of Digital Technologies (Level 7)*.

*Subject to Head of Digital Technologies approval

ENTRY REQUIREMENTS

General

Open entry for Domestic students

There are no academic requirements that need to be met to enter this programme.

International students: English Language Entry Requirements

For the minimum English language requirements refer to the requirements set out in the *NZQF Programme and Accreditation Rules*

https://www.nzqa.govt.nz/providers-partners/qa-system-for-teos/english-international-students/

International students will generally be required to provide evidence of English language proficiency, for this programme an IELTS General or Academic score of 5.5 with no band score lower than 5 is required. Equivalent acceptable evidence can be seen at the following NZQA link: https://www.nzqa.govt.nz/about-us/our-role/legislation/nzqa-rules/nzqf-related-rules/the-table/

Provisional Entry

Students who have attained the age of 20 years and do not hold the minimum entry requirements for a programme will be eligible to be enrolled as a student where their previous educational, work or life experience indicates they have a reasonable likelihood of success. Students who have not attained the age of 20 years and do not hold the required minimum entry requirements for a programme may also be eligible to enrol in exceptional circumstances. Such decisions will be made by the Director/Head of School.

Applicants will be accepted in order of application.

NEW ZEALAND DIPLOMA IN SYSTEMS ADMINISTRATION
LEVEL 6 NZ2601

Method of study	Full-time or part-time
Qualification	New Zealand Diploma
Duration	One year (full-time)
Start dates	February, May, July, October
Credits	120
Cost (2020 Fees)	$6800 (approx.)

To graduate with the New Zealand Diploma in Systems Administration (Level 6) you must complete 8 compulsory 15 credit courses:

561.645	Professional Practice in IT
561.647	Information Security
562.616	Automated System Deployment
562.617	Messaging and Services
563.683	Change and Project Management in IT
565.689	Advanced Server Services
565.690	Network Infrastructure
565.691	Directory Services
Total	120 credits

ABOUT THE PROGRAMME

Take the lead in managing, developing and securing databases and networks in the fast-paced Information Technology (IT) industry.

You'll be able to apply your analytical and problem-solving skills to systems administration processes and projects such as database management, security, testing new systems, developing new policies and procedures and finding and fixing hardware and software problems. Other core capabilities you'll also be able
to develop includes communication skills that will help you to support your team members whether you're training them to use new software or working together on projects.

This new programme was developed after wide consultation with schools, industry, and community stakeholders to include cutting edge information and communication technologies, IT knowledge and skills. This combination of technical and core skills will prepare you for employment in a range of IT technical support roles or as a pathway more advanced roles or further study.

ENTRY REQUIREMENTS

General

Open entry for Domestic students

There are no academic requirements that need to be met to enter this programme.

International students: English Language Entry Requirements

For the minimum English language requirements refer to the requirements set out in the *NZQF Programme and Accreditation Rules*

https://www.nzqa.govt.nz/providers-partners/qa-system-for-teos/english-international-students/

International students will generally be required to provide evidence of English language proficiency, for this programme an IELTS General or Academic score of 5.5 with no band score lower than 5 is required. Equivalent acceptable evidence can be seen at the following NZQA link: https://www.nzqa.govt.nz/about-us/our-role/legislation/nzqa-rules/nzqf-related-rules/the-table/

Provisional Entry

Students who have attained the age of 20 years and do not hold the minimum entry requirements for a programme will be eligible to be enrolled as a student where their previous educational, work or life experience indicates they have a reasonable likelihood of success. Students who have not attained the age of 20 years and do not hold the required minimum entry requirements for a programme may also be eligible to enrol in exceptional circumstances. Such decisions will be made by the Director/Head of School.

Applicants will be accepted in order of application.

BACHELOR OF DIGITAL TECHNOLOGIES LEVEL 7 MN4563
(Majors in Networking, Software and Web Development, and Data Analytics)

Method of study	Full-time or part-time
Qualification	MIT Degree
Duration	Three years (full-time)
Start dates	February, May, July, October
Credits	360
Cost (2020 Fees)	$6800 (approx.)

To graduate with the Bachelor of Digital Technologies (Level 7) (with or without a major) you must complete:

All compulsory courses (150 core credits which includes 75 major course credits)

A minimum of 120 credits at Level 6

A minimum of 90 credits at Level 7

Total   360 credits

ABOUT THE PROGRAMME

Get training in key information technology (IT) skills and graduate with a degree in high demand by the industry worldwide.

You'll be able to make a practical link between the latest digital technologies and today's business environment ensuring that you're well equipped to take your place in this exciting and constantly changing industry. This degree will provide you with the skills to analyse, design, develop, implement and maintain information systems across a variety of industries and business types.

As well as a strong grounding in analytical, technical and theoretical concepts this degree also uses hands-on practical methods and teaches important people skills like communication and management skills. As the culmination of this programme you'll be able to do a real-world project where you can apply your skills in the workplace.

Choose from three majors

You can enhance your future career or personal goals by complementing the core ICT programme with elective courses from one of the following majors:

Networking

- Use, install and administer at least two widely-used commercial operating systems.
- Use, install, troubleshoot and administer a server-based network.
- Analyse and implement information security requirements.
- Apply cloud computing concepts in the design and implementation of resilient computing systems.

Software and Web Development

- Understand and apply software engineering best practices, development principles, tools and programming languages
- Apply problem solving skills and design software algorithms
- Analyse business processes and design software solutions to solve and improve them
- Implement software solutions for at least two software platforms (such as web, mobile, desktop, and/or cloud, etc.)

Data Analytics:

- Use, design and develop both front-end and back-end data manipulation technologies to support decision making, statistical models and analytics reports that solve business problems
- Analyse security, privacy, risks, opportunities and ethical issues of big data and data analytics
- Design and develop multi-dimensional data warehouses from a range of internal and external databases

ENTRY REQUIREMENTS

Applicants must meet the following entry requirements:

Successfully completed at least 42 NCEA (or equivalent) credits at Level 3 (including 14 credits in each of two subjects from the NZQA Approved Subjects for University Entrance list) **AND**

8 credits in NCEA English Level 2 (four in reading and four in writing from the NZQA Literacy Requirements for University Entrance list) (or equivalent) **AND**

8 credits in NCEA Mathematics (or Pāngarau) Level 2 (or equivalent) **OR**

If the applicant has successfully completed at least 72 credits at NCEA (or equivalent) Level 2 including a minimum of 14 credits in each of two subjects and including 8 credits in each of reading/ writing and mathematics and including 30 credits achieved at Merit or Excellence (see second and third bullet points above) **OR**

If the applicant has at least 60 NZQA recognised credits at Level 5 or higher **OR**

If the applicant can provide evidence of equivalence through practical, professional or educational experience e.g. three-five years' full time work experience [relevant to ICT] they can apply for entry. Evidence of literacy and numeracy will be required. MIT literacy and numeracy assessments are available **AND**

Have English language competence to undertake this programme which is taught and assessed in English.

For applicants whose first language is not English refer to the NZQA website for minimum English language requirements –

http://www.nzqa.govt.nz/about-us/our-role/legislation/nzqa-rules/nzqf-related-rules/programme-approval-and-accreditation/
app-2/the-table/ **and**
http://www.nzqa.govt.nz/about-us/our-role/legislation/
nzqa-rules/nzqf-related-rules/programme-approval-and-accreditation/8/18/

Students who have attained the age of 20 years and do not hold the minimum entry requirements for a programme will be eligible to be enrolled as a student where their previous educational, work or life experience indicates they have a reasonable likelihood of success. Students who have not attained the age of 20 years and do not hold the required minimum entry requirements
for a programme may also be eligible to enrol in exceptional circumstances. Such decisions will be made by the Director/Head of School.

Applicants will be accepted in order of application.

You will need to complete the following compulsory courses:

LEVEL 5 (15 credits each) 561.590

561.590 Business Information Systems

502.521 Fundamentals of Software Development

501.502 IT and Team Communication

564.532 Introduction to Databases

LEVEL 6 (15 credits each)

561.645 Professional Practice in IT

563.683 Change and Project Management in IT

LEVEL 7

563.783 Management of ICT (15 credits)

562.791 BDT Industry Project (45 credits)

Plus one Level 5 or Level 6 Business Elective. Please refer to the Bachelor of Applied Management programme.

You must complete the following courses specific to your chosen major:

NETWORKING MAJOR

LEVEL 5 (15 credits each)

565.586 Computer Architecture

565.587 Computer Networks

565.588 IT Support and Services

565.589 Fundamentals of Computer Systems Administration

LEVEL 6 (15 credits each)

565.689 Advanced Server Services

565.690 Network Infrastructure

565.691 Directory Services

Plus, select four* courses from
562.616 Automated System Deployment

562.617 Messaging Services

565.692 Software Defined Networking

565.693 Wireless Networks

561.647 Information Security

Please note that not all courses are offered every quarter

LEVEL 7 (15 credits each)

565.783 Hot Topic in Networking

565.784 Cloud Computing

SOFTWARE AND WEB DEVELOPMENT MAJOR

LEVEL 5 (15 credits each)

502.522 Object Oriented Programming

502.523 Systems Analysis and Design

502.524 Fundamentals of Business Intelligence

502.525 Front End Web Development

LEVEL 6 (15 credits each)

502.632 Full Stack Web Development

502.633 Software Engineering

502.634 User Experience and User Interface Design

Plus, select four* courses from

564.683 Database Applications Development

562.613 Applied Data Structures

562.614 Applied Software Testing

562.615 Cloud computing for software developers

561.646 Information and Communication Technologies

*Please note that not all courses are offered every quarter

LEVEL 7 (15 credits each)

502.714 Hot Topic in Software

502.715 Mobile Application Development

DATA ANALYTICS MAJOR

LEVEL 5 (15 credits each)

502.522 Object Oriented Programming

502.523 Systems Analysis and Design

502.524 Fundamentals of Business Intelligence

502.525 Front End Web Development

LEVEL 6 (15 credits each)

563.684 Big Data Analysis

563.685 Business Statistics for Decision Modelling

564.683 Data Analytics and Intelligence

Plus, select four* courses from

564.683 Database Applications Development

562.613 Applied Data Structures

562.614 Applied Software Testing

562.615 Cloud Computing for Software Developers

561.646 Information and Communication Technologies

561.647 Information Security

*Please note that not all courses are offered every quarter

LEVEL 7 (15 credits each)

563.785 Hot Topic in Data Analytics

563.784 Advanced Data Analytics

GRADUATE DIPLOMA IN NETWORKING

LEVEL 7 MN4564

Method of study	Full-time or part-time
Qualification	MIT Graduate Diploma
Duration	One year (full-time)
Start dates	February, May, July, October
Level	7
Credits	120
Cost (2020 Fees)	$6800 (approx.)

To graduate with the Graduate Diploma in Networking (Level 7) you must complete:

Level 6 (15 credits each)

565.689 Advanced Server Services

565.690 Network Infrastructure

565.691 Directory Services

Level 7 (15 credits each, excl. Industry Project 30 credits)

565.783 Hot Topic in Networking

565.784 Cloud Computing

563.783 Management of ICT

563.786 GDICT Industry Project

ABOUT THE PROGRAMME

The aim of the Graduate Diploma at Level 7 is to provide students with the knowledge, expertise and specialist skills in subjects related to ICT, as well as produce high quality

ENTRY REQUIREMENTS

Graduates who have a sound understanding of the dynamic and changing environment in which IT professionals operate both locally and internationally.

You will be able to apply knowledge and skills at both organisational and strategic levels in a range of subjects related to ICT. On gaining employment it is expected that students will transition seamlessly and effectively into the workplace as a consequence of having spent time throughout their study in work-based projects.

Applicants for the Graduate Diplomas in Networking, Software and Web Development or Data Analytics must meet the following criteria for admission into the programme:

Successfully completed a bachelor's degree in any field excluding the specific graduate diploma field **OR**

Successfully completed a Level 6 or 7 Diploma and relevant work and/or life experience (equivalent to a Bachelor's degree) **OR**

Evidence of equivalent practical, professional or educational experience e.g. three – five year's full time work experience [relevant to ICT studies] **AND**

Have English language competence to undertake this programme which is taught and assessed in English.

For applicants whose first language is not English refer to the NZQA website for minimum English language requirements –

http://www.nzqa.govt.nz/about-us/our-role/legislation/nzqa-rules/nzqf-related-rules/programme-approval-and-accreditation/app-2/the-table/ **and**
http://www.nzqa.govt.nz/about-us/our-role/legislation/ nzqa-rules/nzqf-related-rules/programme-approval-and-accreditation/8/18/

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for a programme may also be eligible to enrol in exceptional circumstances. Such decisions will be made by the Director/Head of School.

Applicants will be accepted in order of application.

GRADUATE DIPLOMA IN SOFTWARE AND WEB DEVELOPMENT

LEVEL 7 MN4565

Method of study	Full-time or part-time
Qualification	MIT Graduate Diploma
Duration	One year (full-time)
Start dates	February, May, July, October
Level	7
Credits	120
Cost (2020 Fees)	$6800 (approx.)

To graduate with the Graduate Diploma in Software and Web Development (Level 7) you must complete:

Level 6 (15 credits each)

502.632 Full Stack Web Development

502.633 Software Engineering

502.634 UX/UI Design

Level 7 (15 credits each, excl. Industry Project 30 credits)

502.714 Hot Topic in Software

502.715 Mobile Application Development

563.783 Management of ICT

563.786 GDICT Industry Project

ABOUT THE PROGRAMME

The aim of the Graduate Diploma at Level 7 is to provide students with the knowledge, expertise and specialist skills in subjects related to ICT, as well as produce high quality graduates who have a sound understanding of the dynamic and changing environment in which IT professionals operate both locally and internationally.

You will be able to apply knowledge and skills at both organisational and strategic levels in a range of subjects related to ICT. On gaining employment it is expected that students will transition seamlessly and effectively into the workplace as a consequence of having spent time throughout their study in work-based projects.

ENTRY REQUIREMENTS

Applicants for the Graduate Diplomas in Networking, Software and Web Development or Data Analytics must meet the following criteria for admission into the programme:

Successfully completed a bachelor's degree in any field excluding the specific graduate diploma field **OR**

Successfully completed a Level 6 or 7 Diploma and relevant work and/or life experience (equivalent to a Bachelor's degree) **OR**

Evidence of equivalent practical, professional or educational experience e.g. three – five year's full time work experience [relevant to ICT studies] **AND**

Have English language competence to undertake this programme which is taught and assessed in English.

For applicants whose first language is not English refer to the NZQA website for minimum English language requirements –

http://www.nzqa.govt.nz/about-us/our-role/legislation/nzqa-rules/nzqf-related-rules/programme-approval-and-accreditation/app-2/the-table/ **and**
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Students who have attained the age of 20 years and do not hold the minimum entry requirements for a programme will be eligible to be enrolled as a student where their previous educational, work or life experience indicates they have a reasonable likelihood of success. Students who have not attained the age of 20 years and do not hold the required minimum entry requirements
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Applicants will be accepted in order of application.

GRADUATE DIPLOMA IN DATA ANALYTICS

LEVEL 7 MN4566

Method of study	Full-time or part-time
Qualification	MIT Graduate Diploma
Duration	One year (full-time)
Start dates	February, May, July, October
Level	7
Credits	120
Cost (2020 Fees)	$6800 (approx.)

To graduate with the Graduate Diploma in Data Analytics (Level 7) you must complete:

Level 6 (15 credits each)

563.684 Big Data Analysis

563.685 Business Statistics for Decision Modelling

563.686 Data Analytics and Intelligence

Level 7 (15 credits each, excl. Industry Project 30 credits)

563.785 Hot Topic in Data Analytics

563.784 Advanced Data Analytics

563.783 Management of ICT

563.786 GDICT Industry Project

ABOUT THE PROGRAMME

The aim of the Graduate Diploma at Level 7 is to provide students with the knowledge, expertise and specialist skills in subjects related to ICT, as well as produce high quality graduates who have a sound understanding of the dynamic and changing environment in which IT professionals operate both locally and internationally.

You will be able to apply knowledge and skills at both organisational and strategic levels in a range of subjects related to ICT. On gaining employment it is expected that students will transition seamlessly and effectively into the workplace as a consequence of having spent time throughout their study in work-based projects.

ENTRY REQUIREMENTS

Applicants for the Graduate Diplomas in Networking, Software and Web Development or Data Analytics must meet the following criteria for admission into the programme:

Successfully completed a bachelor's degree in any field excluding the specific graduate diploma field **OR**

Successfully completed a Level 6 or 7 Diploma and relevant work and/or life experience (equivalent to a Bachelor's degree) **OR**

Evidence of equivalent practical, professional or educational experience e.g. three – five year's full time work experience [relevant to ICT studies] **AND**

Have English language competence to undertake this programme which is taught and assessed in English.

For applicants whose first language is not English refer to the NZQA website for minimum English language requirements –

http://www.nzqa.govt.nz/about-us/our-role/legislation/nzqa-rules/nzqf-related-rules/programme-approval-and-accreditation/app-2/the-table/ **and**
http://www.nzqa.govt.nz/about-us/our-role/legislation/nzqa-rules/nzqf-related-rules/programme-approval-and-accreditation/8/18/

Students who have attained the age of 20 years and do not hold the minimum entry requirements for a programme will be eligible to be enrolled as a student where their previous educational, work or life experience indicates they have a reasonable likelihood of success. Students who have not attained the age of 20 years and do not hold the required minimum entry requirements
for a programme may also be eligible to enrol in exceptional circumstances. Such decisions will be made by the Director/Head of School.

Applicants will be accepted in order of application.

MAJORS	Level 5 (8 x 15 credits = 120 credits)							
First Year Degree (Networking)	Business Information Systems	Fundamentals of Software Development	IT and Team Communication	Introduction to Databases		Computer Architecture	Computer Networks	IT Support and Services	Fundamentals of Computer Systems Administration

	Level 6 (10 x 15 credits = 150 credits)							
Networking Major and Electives	Professional Practice in IT	Change and Project Management in IT	Business Elective (Level 5/6)	Advanced Server Services	Network Infrastructure	Directory Services	Automated System Deployment	Messaging Services	Information Security
							Software Defined Networking	Wireless Networks	

	Level 7 (3 x 15 credits + 45 credit Project = 90 credits)			
Networking Major	BDT Industry Project	Management of ICT	Hot Topic in Networking	Cloud Computing

COLOUR KEY

Compulsory Papers
Level 5 Diploma and First Year BDT Degree papers
Majors
Optional Papers or Electives

MAJORS	Level 5 (8 x 15 credits = 120 credits)							
First Year Degree (BI & Software)	Business Information Systems	Fundamentals of Software Development	IT and Team Communication		Introduction to Databases		Object Oriented Programming	System Analysis and Design	Fundamentals of Business Intelligence	Front-End Web Development

	Level 6 (10 x 15 credits = 150 credits)									
Software Major and Electives	Professional Practice in IT	Change and Project Management in IT	Business Elective (Level 5/6)	Full Stack Web Development	Software Engineering	User Experience and User Interface Design	Database Application Development	Applied Data Structures	Applied Software Testing	Cloud Computing for Software Developers
									Information and Communication Technologies	

	Level 7 (3 x 15 credits + 45 credit Project = 90 credits)				
Software Major	BDT Industry Project	Management of ICT	Hot Topic in Software	Mo... Applic... Devel...	

COLOUR KEY

Compulsory Papers
Level 5 Diploma and First Year BDT Degree papers
Majors
Optional Papers or Electives

MAJORS	Level 5 (8 x 15 credits = 120 credits)							
First Year Degree (BI & Software)	Business Information Systems	Fundamentals of Software Development	IT and Team Communication	Introduction to Databases	Object Oriented Programming	System Analysis and Design	Fundamentals of Business Intelligence	Front-End Web Development

	Level 6 (10 x 15 credits = 150 credits)									
Data Analytics Major and Electives	Professional Practice in IT	Change and Project Management in IT	Business Elective (Level 5/6)	Big Data Analysis	Business Statistics for Decision Modelling	Data Analytics and Intelligence	Database Application Development	Applied Data Structures	Applied Software Testing	Cloud Computing for Software Developers
									Information Security	
									Information and Communication Technologies	

	Level 7 (3 x 15 credits + 45 credit Project = 90 credits)			
Data Analytics Major	BDT Industry Project	Management of ICT	Advanced Data Analytics	Hot Topic in Data Analytics

COLOUR KEY

Compulsory Papers
Level 5 Diploma and First Year BDT Degree papers
Majors
Optional Papers or Electives

BACHELOR OF INFORMATION AND COMMUNICATION TECHNOLOGIES (BICT)*

LEVEL 7 MN4533* (APPLIES TO RE-ENROLLING STUDENTS ONLY)

The Bachelor of Information and Communications Technology (Level 7) will not be offered to new students after 31 December 2016. All students will need to complete their qualification by 31 December 2022. Individual learning plans will be negotiated by the Head of Digital Technologies .

ABOUT THE PROGRAMME*

The Bachelor of Information and Communication Technologies degree has three parts:

Fourteen Core Courses	240 credits
Five Specialisation Courses and	75 credits
Three Business Elective Courses	45 credits
Total	**360 credits**

- The Core Courses will ensure you have a strong grasp of both the theory and practice of implementing information systems to improve business efficiency and translate to real profits. You will understand where IT systems can provide value, how to execute solutions in practice, and how to integrate solutions with existing systems in any business.
- Specialist Elective Courses let you choose the kind of IT specialist you will become. You may specialise in Software Development, Data Communication and Networking, or Multimedia/Web Development.
- At the same time, business elective courses will help you to round out your degree with non-IT aspects of the professional environment.
- Finally, you will graduate having completed a real-world IT project for a local business, ensuring you possess both skills and hands-on experience when you enter the job market. You will leave MIT not only armed with a degree, but also a portfolio of work as evidence of your ability to turn your training into real-world results.

*Applies to re-enrolling students only

DEGREE STRUCTURE

YEAR 1 LEVEL 5

Your first year of study will consist of eight core courses that are compulsory for all Bachelor of Information and Communication Technologies degree. You will be taught the principles of programming and networking, introduced to programming languages and Linux as an operating system and the basics of developing multimedia web content.

All students complete the following core courses:

501.501	Introduction to Multimedia
502.516	Software Engineering 1A
502.517	Programming Precepts
502.518	Software Engineering 1B
504.510	Computer Architecture
561.588	Information Technology – Concepts and Tools
565.585	Network Operating Systems (Linux)
566.532	Internet Technologies

YEAR 2 LEVEL 6

Your second year will include four core courses, three Specialisation Elective Stream courses (depending on your specialisation pathway), and one business elective course, Professional Communication

The core courses are:

504.609	Alternative Modelling
564.682	Database Management Systems
565.688	Systems Design and Implementation
566.683	Web Site Development

YEAR 3 LEVEL 7

In the final year of your degree, you will complete:

- One core course - Management of ICT
- Two Specialisation Elective Stream courses - determined by your specialisation pathway
- Two business elective courses; Professional Practice and one of your choice
- One hands-on industry project with a local business

SPECIALISING IN SOFTWARE DEVELOPMENT

With a specialisation in Software Development, you will have the skills to recognise opportunities for how computer programming can help a business and the practical skills to develop software solutions for problems and opportunities as you recognise them.

Students taking this specialisation will complete the following three core courses:

502.626	Software Engineering 2
502.627	Best Programming Practices in .NET
502.712	Server Side Web Programming

In addition, you may select two courses from the following:‡

502.629	Best Programming Practice in Java
561.788	Special Topic in ICT

SPECIALISING IN DATA COMMUNICATION AND NETWORKING

With a specialisation in Data Communication and Networking, you will understand the theory and practice of both the digital and physical components of an effective networking solution. You will be able to analyse the needs of a given business set-up, recommend, implement and maintain the ideal network to suit that business's infrastructure and net security needs.

Students taking this specialisation will complete the following three core courses:

512.610	Directory Services
513.626	Network Infrastructure
513.711	Cloud Computing and Security

In addition, all students complete the following:‡

513.627	Applications Infrastructure
561.788	Special Topic in ICT

Please ensure that you meet the pre-requisites before selecting.

‡ Please note that not all Specialisation Courses will be offered each quarter.

BACHELOR OF INFORMATION AND COMMUNICATION TECHNOLOGIES (BICT)
MN4533 (APPLIES TO RE-ENROLLING STUDENTS ONLY)

SOFTWARE DEVELOPMENT SPECIALISATION

Year 1		Year 2		Year 3	
Sem 1	Sem 2	Sem 3	Sem 4	Sem 5	Sem 6
502.516 Software Engineering 1A 15 credits - Level 5	501.501 Introduction to Multimedia 15 credits - Level 5	564.682 Database Management Systems 15 credits - Level 6	565.688 Systems Design and Implementation 15 credits - Level 6	561.785 Management of ICT 15 credits - Level 7	Business Elective 15 credits - Level 5
502.517 Programming Precepts 15 credits - Level 5	502.518 Software Engineering 1B 15 credits - Level 5	566.683 Web Site Development 15 credits - Level 6	181.519 Professional Communication 15 credits - Level 5	502.712 Server Side Web Programming 15 credits - Level 7	
504.510 Computer Architecture 15 credits - Level 5	504.609 Alternative Modelling 15 credits - Level 6	502.627 Best Programming Practice in .NET 15 credits - Level 6	565.585 Network Operating Systems (Linux) 15 credits - Level 5	561.788 Special Topic in ICT 15 credits – Level 7	561.786 BICT Industry Project 45 credits - Level 7
561.588 IT – Concepts and Tools 15 credits - Level 5	566.532 Internet Technologies 15 credits - Level 5	502.626 Software Engineering 2 15 credits - Level 6	502.629 Best Programming Practice in Java 15 credits - Level 6	561.643 Professional Practice 15 credits - Level 6	

BACHELOR OF INFORMATION AND COMMUNICATION TECHNOLOGIES (BICT)

MN4533 (APPLIES TO RE-ENROLLING STUDENTS ONLY)

DATA COMMUNICATIONS AND NETWORKING SPECIALISATION

Year 1		Year 2		Year 3	
Sem 1	**Sem 2**	**Sem 3**	**Sem 4**	**Sem 5**	**Sem 6**
502.516 Software Engineering 1A 15 credits - Level 5	501.501 Introduction to Multimedia 15 credits - Level 5	504.609 Alternative Modelling 15 credits - Level 6	565.688 Systems Design and Implementation 15 credits - Level 6	561.785 Management of ICT 15 credits - Level 7	Business Elective 15 credits - Level 5
502.517 Programming Precepts 15 credits - Level 5	502.518 Software Engineering 1B 15 credits - Level 5	564.682 Database Management Systems 15 credits - Level 6	181.519 Professional Communication 15 credits - Level 5	513.711 Cloud Computing and Security 15 credits - Level 7	561.786 BICT Industry Project 45 credits - Level 7
504.510 Computer Architecture 15 credits - Level 5	565.585 Network Operating Systems (Linux) 15 credits - Level 5	566.683 Web Site Development 15 credits - Level 6	512.610 Directory Services 15 credits - Level 6	561.788 Special Topic in ICT 15 credits – Level 7	
561.588 IT – Concepts and Tools 15 credits - Level 5	566.532 Internet Technologies 15 credits - Level 5	513.626 Network Infrastructure 15 credits - Level 6	513.627 Applications Infrastrucure 15 credits - Level 6	561.643 Professional Practice 15 credits - Level 6	

COURSE SUMMARIES

NEW ZEALAND CERTIFICATE IN INFORMATION TECHNOLOGY ESSENTIALS

LEVEL 4

562.412 Developing Software
Use essential knowledge and concepts of software development to develop basic software applications.

563.402 Stepping in I
Apply basic knowledge and skills of computer hardware and software to equip them for further study.

563.403 Information Systems Solutions
Develop essential knowledge and concepts to provide a foundation for supporting information systems.

566.401 Creating Websites
Build a multimedia website using essential concepts of development and design.

NEW ZEALAND DIPLOMA IN INFORMATION TECHNOLOGY TECHNICAL SUPPORT

LEVEL 5

561.590 Business Information Systems
Apply and practice fundamental concepts of information systems and interaction design to support organisational processes and systems, and to troubleshoot and resolve common system problems.

502.521 Fundamentals of Software Development
Understand the fundamentals of problem solving and software programming. The students will learn how to propose solutions to simple programming problems and code them.

501.502 IT and Team Communication
Gain an increased understanding of IT organisational and work contexts of communication, by investigating communication processes and activities in contemporary work places, while working in and facilitating a diverse team, and completing and reporting on a project.

564.532 Introduction to Databases

Develop the skills and knowledge required to design a relational data model, and to implement a transaction management database system for a simple business operation.

565.586 Computer Architecture

Demonstrate an understanding of the architecture of a computer system and configure an operating system and local area network to meet organizational requirements

565.587 Computer Networks
Gain an understanding of computer networks, associated services and technologies and apply operational knowledge to configure a computer network to meet typical organisational requirements

565.588 IT Support and Services Configure and administer systems and applications and understand service management theory to meet typical organisational IT support and service requirements.

565.589 Fundamentals of System Administration
Demonstrate an operational knowledge of a network operating system and perform basic administration tasks to meet organisational requirements

NEW ZEALAND DIPLOMA IN SYSTEMS ADMINISTRATION

LEVEL 6

561.645 Professional Practice in IT
Students will be provided with the skills and knowledge expected of an IT Professional and give them the opportunity to develop attributes appropriate for working in the IT industry.

561.647 Information Security
Students will demonstrate an understanding of the information security principles, analyse the requirements and implement security measures to meet organizational requirements.

562.616 Automated System Deployment
Students will plan, implement and troubleshoot an automated system and application software deployment to support efficient organisational operations.

562.617 Messaging and Services
Students will implement and administer a messaging and collaboration service in a network infrastructure and apply service management processes to comply with organisational requirements.

563.683 Change and Project Management in IT
Students will able to work in a diverse project team to achieve project outcomes based on an IT client project brief, and critically self-reflect on their personal and team performance.

565.689 Advanced Server Services
Students will demonstrate an understanding of the data storage options and implement a server-based infrastructure with advanced features and data storage to support organisational requirements.

565.690 Network Infrastructure
Students will implement and administer a network infrastructure with associated services and protocols to meet organisational requirements.

565.691 Directory Services
Students will plan, implement and manage a directory service with the protocols, supporting services, and replication mechanisms to meet organizational requirements.

BACHELOR OF DIGITAL TECHNOLOGIES
LEVEL 5
561.590 Business Information Systems
Demonstrate an understanding of fundamental concepts of business and information systems and interaction design to support organisational processes and systems, and to troubleshoot and resolve common system problems.

502.521 Fundamentals of Software Development
Understand the fundamentals of problem solving and software programming. Learn how to propose solutions to simple programming problems and code them.

501.502 IT and Team Communication
Increased understanding of IT organisational and work contexts of communication, by investigating communication processes and activities in contemporary work places, while working in and facilitating a diverse team, and completing and reporting on a project.

564.532 Introduction to Databases
Develop the skills and knowledge required to design a relational data model, and to implement a transaction management database system for a simple business operation.

565.586 Computer Architecture
Demonstrate an understanding of the architecture of a computer system and configure an operating system and local area network to meet organisational requirements

565.587 Computer Networks
Gain an understanding of computer networks, associated services and technologies and apply operational knowledge to configure a computer network to meet typical organisational requirements

565.588 IT Support and Services
Configure and administer systems and applications and understand service management theory to meet typical organisational IT support and service requirements.

565.589 Fundamentals of Computer Systems
Administration Demonstrate an operational knowledge of a network operating system and perform basic administration tasks to meet organisational requirements

502.525 Front End Web Development
Build beautiful and responsive websites. Understand the fundamentals of how the web works and gain a working knowledge of HTML, CSS, and JavaScript

502.524 Fundamentals of Business Intelligence
Understand fundamentals of business intelligence for decision-making, to learn how to produce simple business intelligence reports, and to conduct simple sensitivity analysis for decision support.
Prerequisite Introduction to Database.

502.522 Object Oriented Programming
Understand and code software programs using object-oriented principles. Students are required to have basic programming and problem solving skills before starting this course. By the end of this course they are expected to code object-oriented software solutions using a well-known object-oriented programming language
Prerequisite Fundamentals of Software Development Co requisite System Analysis and Design

502.523 System Analysis and Design
Analyse and design software solutions using object-oriented paradigm. The students are expected to model and present software systems using UML
Co requisite Object Oriented Programming

LEVEL 6

561.645 Professional Practice in IT
To be provided with the skills and knowledge expected of an IT Professional and have the opportunity to develop attributes appropriate for working in the IT industry.
Prerequisite: 501.502 IT and Team Communication and two level 6 BDT courses, or equivalent

563.683 Change and Project Management in IT
Work in a diverse project team to achieve project outcomes based on an IT client project brief, and critically self-reflect on their personal and team performance.

565.689 Advanced Server Services
Demonstrate an understanding of the data storage options and implement a server-based infrastructure with advanced features and data storage to support organizational requirements.
Prerequisite: 565.587 Computer Networks; 565.586 Computer Architecture

565.690 Network Infrastructure
Implement and administer a network infrastructure with associated services and protocols to meet organisational requirements
Prerequisite: 565.587 Computer Networks; 565.586 Computer Architecture

565.691 Directory Services
Plan, implement and manage a directory service with the protocols, supporting services, and replication mechanisms to meet organisational requirements
Prerequisite: 565.587 Computer Networks;

562.616 Automated System Deployment
Plan, implement and troubleshoot an automated system and application software deployment to support efficient organisational operations.
Prerequisite: 565.587 Computer Networks;

562.617 Messaging and Services
Implement and administer a messaging and collaboration service in a network infrastructure and apply service management processes to comply with organisational requirements.
Prerequisite: 565.587 Computer Networks; 565.586 Computer Architecture

561.647 Information Security
Demonstrate an understanding of the information security principles, analyse the requirements and implement security measures to meet organizational requirements.
Prerequisite: 565.587 Computer Networks; 565.586 Computer Architecture

565.693 Wireless Networks
Plan, implement and troubleshoot a wireless network to meet organisational requirements
Prerequisite: 565.587 Computer Networks; 565.586 Computer Architecture

565.692 Software Defined Networking

Demonstrate an understanding of software defined networking (SDN) and implement an SDN to meet organisational requirements
Prerequisite: 565.587 Computer Networks; 565.586 Computer Architecture

562.613 Applied Data Structures

Introduce well-known data structures and to show their applications in software development. So that students are able to identify proper data structure(s) for a given problem(s) and develop software solution(s) that employs the data structure(s). *Prerequisite: 502.522 Object-Oriented Programming 502.634 User Experience and User Interface Design*

562.614 Applied Software Testing

To provide a framework for the fundamentals of Validation & Verification (V&V) and software testing to enable you to apply different test generation techniques and implement automated tests using a unit testing framework
Prerequisite 502.522 Object-Oriented Programming

562.615 Cloud Computing for Software Developers

Demonstrate an understanding of the fundamentals of cloud computing, its benefits and challenges as a software develop to enable students to design and implement a SaaS solution.
Prerequisite: 564.532 Introduction to Databases 502.522 Object-Oriented Programming

502.632 Full Stack Web Development

Build server-side web applications that use relational databases to store data and interact with public APIs
Prerequisite: 502.525 Front End Web Design 564.532 Introduction to Databases 502.522 Object-Oriented Programming

563.684 Big Data Analysis

Understand the concept and challenges of big data, design and implementation of a data warehouse, and to create sophisticated decision models and scenarios.
Prerequisite: 564.532 Introduction to Databases 502.524 Fundamentals of Business Intelligence

563.685 Business Statistics for Decision Modelling

Construct and apply statistical models to assist business decision-making and problem-solving

563.686 Data Analytics and Intelligence

Understand how data analytics create organisational values and to demonstrate visual representation of big data sets for exploring business intelligence and opportunities.
Prerequisite: 502.524 Fundamentals of Business Intelligence

564.683 Database Application Development

Design and develop a transaction management database applications using a mainstream platform and object library to present and manipulate data stored in a relational database, and to process data and generate reports
Prerequisite: 564.532 Introduction to Databases

502.634 User Experience and User Interface Design

Understand the importance of user centric design and implement software user interfaces that promote aesthetics, usability, and ease of use
Prerequisite: 502.522 Object-Oriented Programming 502.523 System Analysis and Design

561.646 Information and Communication Technologies

Develop and apply skills and capabilities in technology areas, for example Web, Multimedia, relevant to communication areas such as news, advocacy, advertising, education, entertainment
Prerequisite: 502.525 Front End Web Development

LEVEL 7

563.783 Management of ICT

Provide an overview of management strategies, action plan, policies, and skills appropriate for the ICT industry, and to prepare ICT risks management plan.
Prerequisite: 561.590 Business Information Systems and 563.683 Change and Project Management in IT

563.785 Hot Topic in Data Analytics

Engage in self-study and research on a specified topic and present the outcomes of the research to a target audience.

563.784 Advanced Data Analytics

Design, develop and implement an advanced business intelligence system from a big data set using a data analytic tool.
Prerequisite: 563.686 Data Analytics and Intelligence

502.633 Software Engineering

Develop skills that will enable students to construct robust software that is reliable, and that is reasonably easy to understand, modify and maintain. Learn about software architecture patterns and styles. *Prerequisite: 563.686 Data Analytics and Intelligence.*

562.791 BDT Industry Project

Give students the opportunity to design, implement and evaluate a project for a client by integrating the theory learnt in underpinning courses and applying this practically in an industry environment.
Prerequisite: Level 7 courses in selected major

502.714 Hot Topic in Software

Prepare students to identify a contemporary problem and implement a software solution to meet a client's needs

502.715 Mobile Application Development

Develop native applications for a mobile/tablet platform to enable students to implement a complete mobile application that interacts with a variety of local and remote data sources, and uses a variety of hardware/software services provided by the device. *Prerequisite: 564.532 Introduction to Databases, 502.522 Object-Oriented Programming*

565.783 Hot Topic In Networking

Identify a contemporary topic in networking, research its possible challenges and design a solution to meet an organisation's requirements

Prerequisite:565.690 Network Infrastructure 565.691 Directory Services

GRADUATE DIPLOMAS IN NETWORKING, SOFTWARE AND WEB DEVELOPMENT AND DATA ANALYTICS

LEVEL 7

565.784 Cloud Computing
Research and apply key cloud computing concepts to meet business requirements and implement a resilient cloud infrastructure for an organisation
Prerequisite: 565.690 Network Infrastructure 565.691 Directory Services

565.783 Hot Topic In Networking
Identify a contemporary topic in networking, research its possible challenges and design a solution to meet an organisation's requirements
Prerequisite: 565.690 Network Infrastructure 565.691 Directory Services

563.785 Hot Topic in Data Analytics
Prepare students to engage in self-study and research on a specified topic and present the outcomes of the research to a target audience

502.714 Hot Topic in Software
Prepare students to identify a contemporary problem and implement a software solution to meet a client's needs. *Prerequisite: None*

563.783 Management of ICT
Provide an overview of management strategies, action plan, policies, and skills appropriate for the ICT industry, and to prepare ICT risks management plan.
Prerequisite: 561.590 Business Information Systems and 563.683 Change and Project Management in IT

563.784 Advanced Data Analytics
Design, develop and implement an advanced Data Analytics system from a big data set using a data analytic tool. *Prerequisite: 563.686 Data Analytics and Intelligence 563.684 Big Data Analytics, 563.685 Business Statistics for Decision Modelling*

502.715 Mobile Application Development
Develop native applications for a mobile/tablet platform to enable students to implement a complete mobile application that interacts with a variety of local and remote data sources, and uses a variety of hardware/software services provided by the device.
Prerequisite: 564.532 Introduction to Databases, 502.522 Object-Oriented Programming, 502.634 User Experience and User Interface Design

563.786 GDICT Industry Project
The opportunity to design, implement and evaluate a project for a client by integrating the theory learnt in underpinning courses and applying this practically in an industry environment.
Prerequisite: Level 7 courses in selected major

BACHELOR OF INFORMATION AND COMMUNICATION TECHNOLOGIES

LEVEL 5

181.519 Professional Communication
Study oral and written communication skills interpersonal communication skills in the New Zealand business context.

501.501 Introduction to Multimedia
Gain an understanding of multimedia fundamentals, common multimedia development tools, multimedia design principles and the practical application of these skills.

502.516 Software Engineering 1A
Be introduced to object oriented programming determining requirements for a software project using class diagrams, and use cases to provide a foundation in providing software sculpted for specific business purposes.

502.518 Software Engineering 1B
Building on the Software Engineering 1A course, further your understanding of object oriented programming, advance your analysis and modelling skills and learn how to develop user interfaces and meet recognised standards.
Pre-requisite: 502.516 Software Engineering 1A

504.510 Computer Architecture
Understand how the physical (hardware) and programming (software) components work separately and as a whole, how to diagnose and address basic errors and combine hardware and software into an effective network.

561.588 Information Technology - Concepts and Tools
Develop your problem analysis and problem solving skills; understand the ethical, social and security issues around ICT; develop research skills, written and oral communication skills relating to ICT.

565.585 Network Operating Systems (Linux)
Linux is an open source operating system common in systems administration. Learn file system maintenance, the use of shell scripts, the configuration of TCP/IP and support systems and command-line commands.
Pre-requisite: 504.510 Computer Architecture

566.532 Internet Technologies Gain a fundamental understanding of internet culture and etiquette, current internet software, security issues, search tools, blogs, wikis and how to create a basic website.

LEVEL 6

502.626 Software Engineering 2
Develop a range of theoretical and practical skills regarding everything necessary to develop and maintain high quality software within a budget. Understand maintenance, software metrics, common design patterns, algorithms and programming language idioms.
Pre-requisite: 502.518 Software Engineering 1B

502.627 Best Programming Practices in .NET
Gain a practical grasp of designing and coding computer programmes in the .NET language, testing and debugging and a clear understanding of the differences between .NET and other programming languages.
Pre-requisite: 502.518 Software Engineering 1B

502.629 Best Programming Practices in Java
Gain a practical grasp of designing and coding computer programmes in the Java language, testing and debugging and a clear understanding of the differences between Java and other programming languages.
Pre-requisite: 502.518 Software Engineering 1B

502.517 Programming Precepts
Enhance your problem solving skills with an advanced grounding in the mathematical foundations of software development.

504.609 Alternative Modelling
Learn how to analyse business challenges and how best to develop solutions through software engineering including modelling and software lifecycles.
Pre-requisite:502.516 Software Engineering 1A

512.610 Directory Services
Gain an understanding of directory services, including security issues, management policies, maintenance and upgrades. *Pre-requisite: 504.510 Computer Architecture*

513.626 Network Infrastructure
Understand the theory and practice of network infrastructure, how DNS and TCP/IP protocols relate to each other and how to deal with network-security issues as they relate to the broader internet.

513.627 Advanced Server Services
Learn how to design and implement file, web and application services, how they relate to server environments and how applications relate to distributed service networks. *Pre-requisite: 504.510 Computer Architecture*

513.628 Systems Administration
Building on the Network Operating Systems (Linux) course, learn how to apply your Linux skills to the design, maintenance and security issues of a robust network and how users connect to it through HTTP, FTP and mail protocols.
Pre-requisite: 565.585 Network Operating Systems (Linux)

561.643 Professional Practice
Learn about current ICT practices; how best to relate to clients, employers and team environments and ICT compliance issues such as IITP, ACM, IEEE, TUANZ and NZISF.

564.682 Database Management Systems
Learn database planning and administration skills, a foundation in SQL database management and the skills to handle issues around web access to databases.
Pre-requisite: 502.516 Software Engineering 1A

565.688 Systems Design and Implementation
Learn how to talk to clients, understand system needs and design effective systems that will meet their requirements, including human/machine elements and trouble-shooting. *Pre-requisite: 502.516 Software Engineering 1A*

566.683 Website Development
Learn how to plan, propose, design and create professional websites, including a practical understanding of CSS, search-engine optimisation and both static and dynamic HTML5.*Pre-requisite: 566.532 Internet Technologies*

LEVEL 7
502.711 Advanced Programming
Build on the programming skills you have developed in Software Engineering 1A and 1B, learning scripting languages like Perl, Python, PHP and Ruby. Learn how to utilise these new languages in solving real business environment problems.
Pre-requisite: 502.626 Software Engineering 2

502.712 Server Side Web Programming
Build on website development, software engineering and database management skills in learning how to set up and maintain

PHP, MySQL and Apache servers and databases. Understand challenges that may arise and how best to address them to maintain an effective system.
Pre-requisites: 566.683 Web Site Development, 564.682 Database Management Systems and 502.518 Software Engineering 1B

513.711 Cloud Computing and Security
Learn how to plan, implement and maintain Enterprise wCloud services and security systems.
Pre-requisites: 512.610 Directory Services and 513.626 Network Infrastructure

561.785 Management of Information and Communication Technologies
Learn the theory of ICT strategies and how they relate to real world business organisations, the roles of people and technology within those systems and how to analyse needs and make recommendations on how to meet them.

Pre-requisites: 504.609 Alternative Modelling and 565.688 Systems Design and Implementation

561.786 BICT Industry Project (45 Credits) Gain the opportunity to work with people in the Information and Communication Technology industry; to design, implement and evaluate a piece of work. Have the opportunity to tie together the learning and experience from different areas of study in an industry environment.
Pre-requisite: 561.785 Management of ICT

561.788 Special Topic in ICT
Investigate (research) and learn about a relevant and current ICT related topic.
Pre-requisite: Head of Digital Technologies Approval

GLOSSARY OF TERMS

Compulsory course

A course which must be studied as part of a programme of study by all students.

Core

A course in a group of courses from which a certain number must be taken.

Co-requisite

One or more specified courses that must be undertaken in conjunction with another course.

Cross credits

A Cross Credit is given to a student when they have successfully completed a course at MIT or another institution, which is equivalent to a course on their present programme.

Occurrence

The time and place that a course is held.

Optional courses

A course which may be taken as part of a programme of study but is not compulsory.

Pre-requisite

One or more specified courses which must be completed before a student is permitted to proceed to another course or programme.

Programme

A set or group of courses that must be passed by a student to meet the requirement of a qualification.

BRING YOUR OWN DEVICE

If you need to purchase a new laptop

If you do not currently own a laptop or are thinking of buying a new one, we recommend you purchase one with the following specifications, or better, to future proof your needs and ensure a great experience.

- Windows 10 (or Mac OS 10.x Yosemite or higher)
- i3 dual core or equivalent processor
  (i5 or equivalent if you are an IT student)
- 4GB RAM (at least 8GB for IT programmes)
- 320GB or greater hard drive
- Wireless capability 802.11n dual band
- At least a 13 inch screen
- Up-to-date anitvirus software

If you currently own a laptop

Be sure that it has these minimum specs or above, to use at MIT Manukau. The minimum specs are;

- A 10 inch screen or larger
- 4GB RAM (at least 8GB for IT programmes)
- 50GB free space minimum
- Windows v7.0 or higher (XP will not work)
- Apple Mac 10.6 (Leopard) or higher
- Wireless capability 802.11n dual band
- CPU meets vendor OS minimum requirements.

  (Please note for IT students CPU must be i5 or

  equivalent).

COMPUTER USER REGULATIONS

The Manukau Institute of Technology Computer User Regulations applies to all students. Please see the Student Handbook Online

https://www.manukau.ac.nz/campus-facilities/campuses/mit-manukau/student-guide

GRADE TABLE

PASS GRADES

A+	90 – 100
A	85 – 89
A-	80 - 84
B +	75 - 79
B	70 - 74
B-	65 - 69
C+	60 - 64
C	55 – 59
C-	50 - 54

FAIL GRADES

D	40 – 49
E	0-39
F	Not passed compulsory assessment
FCW	Failed Course Work

NON-GRADED RESULTS

CP	Conceded Pass
AP	Aegrotat Pass
NC	Did not complete the course
W	Withdrawn from course
X	Exemption
CC	Cross credit from qualification/experience
RPL	Recognition of prior Learning

ACADEMIC TRANSCRIPT

You may request an academic record with the Information and Application Centre either in person at South Campus Main Reception, or email **StudentRecordRequests@manukau.ac.nz** There is a fee for an academic transcript. Payments can be made at the cashier's office at the South Campus (L Block). Visa and MasterCard payments are accepted. The processing time for issue of an academic transcript may be up to five working days however there is an option for an urgent request. There will be an extra charge for this.

> **NOTE:** Every effort is made to ensure that this Programme Guide is correct at the time of printing. However the School of Digital Technologies reserves the right to make any changes that may be necessary.