

CAPL Degree Application

Bachelor of Information and Communication Technologies

BICT

With pathways in:

Networking (Systems Administration)

Information Systems and Strategies

Interactive Multimedia

Software Development

This application pack should be read in conjunction with the degree information pack.

About the Bachelor of Information and Communication Technologies

The Bachelor of Information and Communication Technologies (BICT) is an applied qualification that focuses on all aspects of the business information systems cycle. As such graduates have the skills to function professionally within an industry characterised by constantly changing technology and demands. Graduates also have the skills to analyse, design, develop, implement and maintain business information systems across a variety of industries and business types.

Graduates are employed in a large variety of professional roles, ranging from the very technical to the very business oriented. They may include: consultant programmer, systems analyst, project manager, network manager, webmaster, support specialist, database administrator, web designer, multimedia developer, software engineer.

Graduate Profile

To be assessed for the whole qualification you will have the ability to:

- operate at an academic level that demonstrates the ability to synthesise, think critically, reason, problem solve, self-manage and work both independently and in a team environment appropriate to ICT industry culture
- demonstrate professional behaviours and attitudes appropriate to the constantly changing information and communication technologies industry and business community
- apply best practice industry standards to analyse significant industry challenges/situations and design and report innovative solutions
- demonstrate a wide range of practical computing and information technology skills
- demonstrate a wide range of business and communication skills
- demonstrate a major understanding of Information Systems with an additional specialist understanding in at least one specific elective stream
- complete industry based project work of an applied nature, whether from a business perspective or a technical perspective.

And, depending on the pathway taken, either:

Networking (Systems Administration)

If you choose this specialisation you will also have the ability to:

- use, install and configure at least two stand-alone operating systems that are in wide commercial use
- use, install and configure network operating systems
- analyse the data communications, networking and operating system needs of an organisation
- plan for the introduction of networks in organisations.

Information Systems and Strategies

If you choose this specialisation you will also have the ability to:

- show a broad understanding of the role of IT in business and organisations
- understand the strategic value of IT and develop IT strategic plans
- demonstrate a high level of skills and competency in business analysis and process management
- demonstrate key skills in planning and managing IT projects, including risk and quality assurance assessments.

Interactive Multimedia

If you choose this specialisation you will also have the ability to:

- use a wide range of multimedia application development tools
- develop significant multimedia applications to support industry based requirements
- manage the development of multimedia applications
- evaluate the suitability of multimedia application development tools for particular tasks.

Software Development

If you choose this specialisation you will also have the ability to:

- programme in at least two languages
- apply best practice in industry-standard practices in programme in one or more languages
- adopt and apply new programming languages quickly
- apply sound software engineering processes
- apply the PSP (Personal Software Process).

Core ICT knowledge and skills required

Computer Systems Architecture

You can install and configure IT hardware to meet organisational requirements.

Introduction to Networks

You understand fundamental networking concepts, technologies and basics of network theory and skills needed to implement a simple network.

Operating Systems

You can configure and administer systems and applications to meet typical organisational IT support requirements.

Information Technology - Concepts and Tools

You have developed professional competencies, personal productivity and problem solving skills and can apply the fundamentals of information systems concepts and practice to support and enhance organisational processes and systems. You can communicate effectively and professionally.

Programming Precepts

You can show a level of mathematics to develop software and information technology; and can show problem solving ability.

Software Engineering

You use advanced analysis and design techniques for object oriented programming and apply them in implementation and development. You understand object oriented modelling methodology, can use object-oriented techniques to model various business systems and processes and can use object oriented programming concepts to develop business software.

IT Solutions Department

You have a broad understanding of the role of IT solutions within organisations and understand and can identify the ways in which changes can be introduced in organisations by application of IT solutions. You are familiar with various strategies for solution development and deployment - including methodologies for assessing options and determining most suitable strategies for developing and putting in place IT solutions.

IT Service Management

You can apply both service and project management tools and techniques to efficiently and effectively implement change within the context of an information technology (IT) environment. You can investigate and generate solutions to problems using knowledge in a current or emerging area of IT.

Data Management Systems

You understand the significance of Database Management Systems (DBMS) in business and can design, develop, implement and use a commercial relational database business management system for a simple real-world application.

Management of ICT

You have knowledge of management strategies appropriate for the IT industry, use specific technical and business management skills appropriate for the IT industry and are aware of ICT organisation, risks of ICT solutions in general and management of the portfolio of skills as required within the ICT sector.

Specialised ICT knowledge and skills - four elective requirements for each pathway

Networking (Systems Administration)

Routing and Switching Essentials

You can apply routing configurations and troubleshooting techniques to implement and maintain networks.

Directory Services and Server Administration

You understand current implementation of directory services, including security mechanisms, management policies, supporting services and logical and physical structure.

Network Infrastructure

You can implement and manage a TCP/IP network infrastructure with associated services and protocols.

Cloud Services

You can plan, implement and maintain corporate cloud services.

Information Systems and Strategies

Interactive Media Tools and Concepts

You have a fundamental knowledge of tools and concepts, including interactive media design principles and the interactive media development life cycle stages, to produce interactive media applications.

Business Information Management

You understand the roles of IT and information management in business and can gather and analyse data with the purpose of identifying ways in which IT solutions can add value to a business.

Introduction to Business Analysis

You understand what business analysis is and what the business analyst's role is in an organisation.

Business Analysis

You have the knowledge and skills to undertake a business analyst role in an information system context.

Interactive Multimedia

Interactive Media Tools and Concepts

You have a fundamental knowledge of tools and concepts, including interactive media design principles and the interactive media development life cycle stages, to produce interactive media applications.

Interactive Media Application Development

You can evaluate and apply tools and techniques used in the development of interactive media titles and use appropriate technology to develop an interactive media title.

Software Engineering 2

You use software engineering processes and practices to deliver high quality software at agreed cost and schedule. You can develop, implement and maintain a commercially relevant program. You apply the Personal Software Process to track your code development.

Multimedia Project

You can analyse and document the multimedia needs of a real world client and develop a solution using a relevant commercial authoring tool.

Software Development

Interactive Media Tools and Concepts

You have a fundamental knowledge of tools and concepts, including interactive media design principles and the interactive media development life cycle stages, to produce interactive media applications.

Software Engineering 2

You use software engineering processes and practices to deliver high quality software at agreed cost and schedule. You can develop, implement and maintain a commercially relevant program. You apply the Personal Software Process to track your code development.

Programming Practice

You have the knowledge, understanding and skills to both develop and maintain commercially relevant programs such as Java, .NET, C++ or Multimedia Scripting and follow them through to implementation. You have knowledge of more than one programming language.

Advanced Programming

You can apply more than one programming language. You use scripting language and other techniques for integrating software components and can choose the appropriate mix for a problem and then develop, implement and evaluate a solution.

Application checklist

Please email your application to capl@ara.ac.nz
or post it to:

CAPL
Academic Services Division
Ara Institute of Canterbury
PO BOX 540
Christchurch 8140

How do I apply?

To make a CAPL application you need to send us:

Your Checklist

- | | | |
|---|--|--------------------------|
| 1 | Your completed application form | <input type="checkbox"/> |
| 2 | Your current and detailed Curriculum Vitae (CV) which should contain: <ul style="list-style-type: none">• Relevant work history including your positions, tasks and responsibilities• Knowledge and skills required for you to carry out your job• Formal qualifications eg school, polytechnic, university, trade certificates• Informal qualifications eg 'in house' workplace training workshops• Relevant life experience eg working in teams, managing stress etc | <input type="checkbox"/> |

Your CV may be quite different from this. Please use whatever format is understood by your industry but in depth enough to show your level of skills across your specialisation, with emphasis on the critical thinking/research required.

Examples of your work (a few only as you are not being assessed at this stage). If sending files electronically they must be in a easily readable format (pdf, jpg, rep3, etc, and if large, need to be sent by Drop Box, OneDrive, Google Drive or equivalent, or by CD or DVD)

Applicant details (to be completed by applicant)

Last name:

First name:

Preferred names:

Title: Miss Mrs Ms Mr Dr Date of birth: Gender: M F

Postal address:

City Postcode

Country (if not NZ):

Phone: Home Work Mobile

Email address:

Which degree are you applying for:

If relevant, which specialisation or major are you applying for?

Personal statement which summarises your experience and learning, and which supports this application:

Signature: Date:

Application evaluation (to be completed by Ara staff)

Recommendation:.....
.....

Facilitation course/s:.....

Approved by:..... Date:(Programme Leader)

Approved by:..... Date:(CAPL Manager)