OTAGO POLYTECHNIC
Te Kura Matatini ki Otago

Auckland International Campus
In partnership with Future Skills Academy

Graduate Diploma in Information Technology

Location
Auckland

Level
7

Duration
One year full-time

Start
October

Delivery
On campus

Apply by
Anytime

Credits
120

APPLY

Fee
International fee: $26,572
Fee after scholarship: $23,100

*Fees are approximate, subject to change and exchange rates

Develop your skills for the New Zealand IT and business environment!

Specifically designed for international students, this programme will provide you with the professional skills that you will need to work effectively in the New Zealand IT and business environment.

These industries are constantly evolving and an up-to-date qualification is essential.

Small class sizes allow for better interaction with our experienced teachers and you will have the chance to practise your new skills with a range of excellent equipment and software applications.

This programme is offered by Future Skills Academy due to a sub-contract arrangement with Otago Polytechnic.

Entry requirements

- You must hold a recognised bachelor's degree in computing or a related discipline **OR** an equivalent qualification supported by practical, professional or scholarly experience. Click **here** for your country's equivalent academic entry requirements.
- **If English is not your first language, you must provide**:
  - New Zealand University Entrance **OR**
  - Overall Academic IELTS 6.0 with no individual band score lower than 5.5 (achieved in **one** test completed in the last two years), **OR**
  - Acceptable alternative evidence of the required IELTS (**see here for NZQA proficiency table** and **here for list of recognised proficiency tests**).

You will study

You'll complete 120 credits at Level 5 or above with a minimum 72 credits at Level 7. Studio 6 is a compulsory course for everyone.

The flexibility of the programme design means there will inevitably be a range of customised pathways. You'll discuss your tailored pathway with the Programme Leader during your enrolment process. You may be required to undertake specific courses as pre-requisites to other courses in this qualification.

Level 5 courses

Course name

Credits

What will I learn?

Programming 1

15

Learn about concepts of program design and programming fundamentals.

Programming 2

15

Build event-driven, GUI (Graphical User Interface) applications using pre-built controls. Be introduced to the theoretical issues involved in Object-Oriented analysis, design and programming, and the principles of correct design and implementation for applications of this type.

Fundamentals of Web Development

15

Use basic technologies for the development of web-based functionality. Learn components of web pages and client/server web communication. Develop simple web-based applications using industry relevant client/server-side programming languages. Use industry-relevant tools and workflows to develop web-based applications.

Introduction to Networks

15

Learn about fundamental networking concepts and technologies, by covering the basics of network theory and the skills needed to implement a simple network.

Platforms and Devices

15

Learn to use a range of devices, platforms and concepts utilised within the Information Technology industry.

Digital Numeracy

15

Learn about the mathematical concepts and methods that underpin and are directly applicable to the theory of information systems. This course is primarily sited within the field of discrete mathematics.

Year One Special Topic

15

Pursue an individual course that will focus in-depth on a particular aspect of IT.

Studio 1

15

Learn the fundamentals of professionalism in a technical environment.

Studio 2

15

Be introduced to user-centric and technical project planning techniques to create solutions to simple IT problems.

Unspecified credits

15

This course is intended to act as a repository for "unspecified credits" where you can undertake courses from outside the BIT.

Level 6 courses

Course name

Credits

What will I learn?

Databases 2

15

Learn the fundamentals of relational database theory and how to design, build and use a database on a modern database management system.

Switching, Routing and Wireless Essentials

15

Learn how to describe the architecture, components, and operations of routers and switches in a small network and to configure a router and a switch for basic functionality.

Operating Systems Concepts

15

Learn about the major components of operating systems and the basic organisation of computer systems.

Embedded Systems

15

Be introduced to the core principles of computer hardware and architecture and become acquainted with a range of embedded application contexts.

Automation and Robotics

15

Use microprocessors and sensors to build mobile, context-aware robots. Learn to programme classic robotic behaviours and add wireless communication to explore basic swarm algorithms.

Year Two Special Topic

15

Carry out semi-independent exploration into a specific IT topic.

Studio 3

15

Use an industry-relevant project management approach to produce simple, functional group outputs.

Studio 4

15

Produce a professional, high-quality group project, following industry-relevant quality assurance and ethical practices.

Introductory Application Development Concepts (Dev3)

15

Learn the concepts of application development, including algorithms, data structures and design patterns required to use a simple, industry-relevant development framework.

Intermediate Application Development Concepts (Dev4)

15

Extend the concepts of application development, including algorithms, data structures and design patterns required to use complex, industry-relevant frameworks or libraries.

Operations Engineering 1

15

Gain the knowledge and hands-on skills to perform systems administration tasks securely within different computing platforms, using the command line interface.

Unspecified credits

15

This course is intended to act as a repository for "unspecified credits" where you can undertake courses from outside the BIT.

Level 7 courses

Course name

Credits

What will I learn?

Studio 5

15

Apply technical skills within complex Information Technology projects. Extend professional behaviour through group work, professional development activities and external engagement.

Studio 6

15

Extend your skills within a complex IT project.

Developing Flexible IT Courses

15

Prepares students for the training role that is often performed by information technology professionals.

Databases 3

15

Gain the skills and understanding necessary to design and implement enterprise databases and to administer database management systems. Use a range of tools and platforms for developing large databases and explore current areas of research in database implementation, use and management.

Algorithms in Action: From AI to Blockchain

15

Use a wide variety of advanced algorithms and tools to develop efficient solutions to complex computational problems.

Operations Engineering 2

15

Look at, and practice the configuration, management and troubleshooting of systems within an enterprise network including aspects of both applications and operating system components.

Advanced Cloud Computing

15

An in-depth knowledge and techniques used to efficiently implement, optimise and troubleshoot a virtual infrastructure.

Mobile Application Development

15

Explore the design and implementation of applications for mobile devices.

Advanced Networking

15

Provides students with an understanding of how to evaluate and apply advanced networking protocols, services and concepts to the design, deployment and maintenance of medium to large scale networks.

Year Three Special Topic

15

Carry out an independent exploration into a specific IT topic.

UX Engineering

15

Build on your front-end development skills to design and build screens with inclusive, flexible and sound user experience.

Security

15

Gain the theoretical knowledge and technical skills in the field of information security. Learn to identify security threats and vulnerabilities, then mitigate them by implementing robust, industry-accepted solutions.

Artificial Intelligence and Data Science

15

Choose and deploy the appropriate machine intelligence tool to solve problems that demand a cognitive component. For example: computer vision, natural language processing, recommendation systems, data analytics, anomaly detection, conversational agents (ie chatbots), machine translation, autonomous navigation, robotic control etc.

Advanced Application Development Concepts

15

Build and deploy optimised and efficient applications using a range of advanced industry tools and frameworks.

Quality Assurance and Software Testing

15

Lay the foundation for a potential craeer in the information technology field as a software tester. Understand the fundamental principles and processes of software testing.

Enterprise Networking, Security and Automation

15

Understand and apply knowledge of architectures and considerations related to designing, securing, operating and trouble shooting enterprise scale networks.

Game Development

15

Apply game programming techniques and tools to develop an effective game.

Internet of Things and Cloud Computing

15

Investigate and analyse the applicability of an IoT solution for a real-world problem and develop an IoT application involving cloud computing.

Business Analysis and Intelligence

15

Apply the theories, methods and tools for analysing business processes, and propose solutions for a variety of organisational problems.

Unspecified credits

15

This course is intended to act as a repository for "unspecified credits" where you can undertake courses from outside the BIT.

Your workload

You will be expected to spend about 300 hours per study block on your course work. This includes both scheduled class time and self-directed study. Some of these hours may be spent in a workplace gaining hands-on experience and developing important industry and business connections.

Further study options

Increase your career prospects with postgraduate study in Information Technology in New Zealand.

Cancellation of a programme

Any programme of study, course or course occurrence may be cancelled or postponed where there are insufficient numbers. As far as is practically possible, we avoid cancelling or making other significant changes less than two weeks before the programme starts (or five working days for short courses). If this happens, we will do our best to suggest alternative study options for you. If you don’t want to do the alternative programme, we will give you a full refund. For international students, if a programme change affects your visa status, we will let you know and support you to find an alternative option. We also advise Immigration New Zealand of any programme change that will affect international students.