Prospectus 2020

Information Systems | Software Development
IT Technical Support | Systems Administration | Cloud Management
KIA ORA AND WELCOME!

Deciding on the direction you want to take with your life is exciting and challenging. We spend a lot of time at work during our lifetime – so it is important for you to make a well-informed decision about how you are going to spend your time and money to improve your future.

Tertiary Education is an investment, not only in yourself, but also for your future career. A set of skills becomes an asset that will allow you to advance yourself for the rest of your life.

Internationally, the Information Technology industry is expanding, yet employers still struggle to find graduates with the leading edge and rapidly advancing skills they need in entry level Technical Support roles through to Cloud Engineers, Software Developers and Business Analyst.

This continues to be a concern for employers in New Zealand and around the globe. Since 2004 Techtorium has contributed to creating IT professionals who work in this digital landscape.

In collaboration with our Industry Advisory group and our team of experienced IT trainers, we have real-world computer engineering, networking, server and cloud engineering programmes. We also offer software development and business analysis programmes to provide a wider range of opportunities for people who want to be part of this exciting industry.

Take a leap into your future. The team at Techtorium will be with you all the way into that first job post. Your success is our success.

Techtorium Team

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**TECHTORIUM IN A NUTSHELL**

Techtorium is recognised by NZQA as a Category 1 Tertiary provider.

What does this mean for you? Being recognised as a Category 1 Provider is NZQA’s way of saying “Techtorium displays the highest quality of education”. It is also an indication that NZQA has a great level of confidence in our educational performance, so you can rest assured you’re in safe hands.

It is our focus to teach current IT content, from virtualisation to Cloud provisioning. We take the unknown out of your future by training you for success by ensuring your skills and knowledge are up to date with what employers are looking for.

Our Software Development programme is designed to provide a wide range of skills and knowledge are up to date with what employers are looking for. It is our focus to teach current IT content, from virtualisation to Cloud provisioning.

Our students come from all parts of New Zealand. When arriving at Techtorium you will see young, energetic Kiwis sharing their passion for technology. As you can see, we are ethnically diverse, and this is partly why Employment Partners are so eager to work with us and employ our amazing graduates!

Since 2004 the philosophy behind Techtorium has remained the same - Creating IT professionals through excellence in education. New Zealand is experiencing a digital uprising and the IT industry is one of New Zealand’s fastest-growing sectors. The demand for young IT graduates is extremely high and assures positive long-term job success.

Techtorium is continually adapting the content of our courses to reflect “real life” industry requirements. As a small provider we are able to quickly respond to the needs of industry and our employment partners. You will always work on the latest release of a Windows’ product or server and follow the most recent trends in IT. Techtorium’s objective is to prepare students for now and the future. You will be ahead of the pack in terms of knowledge and experience when you are entering the job market.

Our programmes allow you to prepare for these internationally recognised industry certificates:

**Microsoft Imagine Academy**

Microsoft Certified Solutions Associate (MCSA) certification validates mastery of the core technical skills required to build a sustainable career.

Microsoft Certified Solutions Expert (MCSE) certification demonstrates the ability to build innovative professional solutions across multiple technologies, both on-premises and in the cloud.

Microsoft offers four IT certification standards, from entry-level to expert.

These Microsoft and CompTIA certifications are industry-recognised international. We highly recommend our students add these to their expanding CVs.

* Source: Seek article “Industry spotlight: Information & Communication Technology” 24th March 2016 and “Bridging the gaps in NZ’s technology job market” 18th October 2016.

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**TRAINING IT PROFESSIONALS**

Since 2004 the philosophy behind Techtorium has remained the same - Creating IT professionals through excellence in education. New Zealand is experiencing a digital uprising and the IT industry is one of New Zealand’s fastest-growing sectors. The demand for young IT graduates is extremely high and assures positive long-term job success.

According to the NZ Tech Industry Association, there are more than 28,000 companies employing more than 100,000 people in IT and the number is steadily growing. Demand within New Zealand’s IT sector showed a further boost in February 2016, with SEEK jobs ads increasing by 74% compared to the same time previous year. Everything is now product, app, design and user experience-driven. It is no longer good enough to have something that just works, it needs to look marketable, user-friendly and most importantly, be a platform to realise a commercial outcome.

Our Software Development programme is designed to provide a wide range of skills and languages to give graduates the best start in their coding career.

We have a highly successful Employment Pathways programme that ensures you have access to some of New Zealand’s top technology employers.

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**INNOVATIVE LEARNING ENVIRONMENT**

Once employed, you won’t be sitting in a lecture theatre so why would we subject you to one here?! You can expect to work collaboratively, sharing ideas with your classmates. Our Innovative Learning Environment exposes you to the real working environment. It promotes discussion, thinking critically in a way classroom-based courses usually do not. It also ensures you take responsibility for your learning and pride in your success. Following recommendations from our Industry Advisors, here are some of the reasons why we have implemented this learning environment:

- An Innovative Learning Environment is designed to promote critical thinking and high-level reasoning
- Teaching and learning is collaborative
- Talking with your classmates is encouraged
- Learners work together, sharing ideas
- BYOD (bring your own device) environment, allowing students to study from any location.

**Vocational focus**

We focus on vocational education to provide job-related skills. It focuses on empowering you with real-world skills that help you move straight into employment. You learn by doing. Our courses are practical and hands-on to make you employable.

A typical programme at Techtorium will be in an open-space room. Once you understand the lesson you will get straight into practice! One hands-on lesson after another, you will soon be growing your base of practical skills and be ready to become an IT professional.

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STUDENT LIFE

Like-minded people

We are geeks! – Techtorium is ground-zero for people who get excited about how computers, networks and computer programmes can create a better world. We are a bunch of like-minded people who share a passion for all things digital and we have created the ultimate hub for those who want to be a part of the excitement. We aim to recruit the most passionate IT students in New Zealand.

I enjoyed meeting like-minded people at Techtorium. I have made life-long friends that I would never have met otherwise. Working on projects with my mates was pretty cool.

- Devlyn Papa - Techtorium graduate

Student Engagement

Transitioning into Tertiary study is a major step.

That is why Techtorium has a Student Engagement service to help all students to settle in and thrive in our environment as smoothly as possible.
LAUNCHING YOU INTO AN IT CAREER:

THE EMPLOYMENT PATHWAYS TEAM

The IT industry is constantly evolving in the technologies that are used, and with the skills that are required to be successful. Part of what we do at Techtorium is to be flexible in responding to these changes to maintain the relevance of our graduates in the job market. This is just one aspect of the work done in our Employment Pathways team.

Now into its 15th year of training IT professionals, Techtorium continues to see outstanding levels of success in our graduates finding fulfilling, relevant employment. Our continuous collaboration with the IT industry (including with companies such as Datacom, New Era, Vocus Group etc.) guarantees that we know what is happening in the industry and that students learn employment-centric skills that remain relevant.

HOW DOES EMPLOYMENT PATHWAYS HELP YOU?

1. Equip you with the most in-demand technical skills
2. Deliver workshops to give you confidence and the soft skills employers are looking for
3. Give you the tools you need to craft a winning CV
4. Put you through the ropes with a mock interview – making you ready for the real thing
5. Develop an Individual Plan for your transition into the world of work
6. Get your foot in the door with the best IT companies in the country

95% of our graduates from 2016 to 2018 gain a full-time employment or pursued their tertiary studies

Soft Skills and Personal Development

Soft skills are becoming more and more important in determining success in and out of the classroom. Techtorium aims to develop these skills in young people, with a focus on:

• Communication
• Critical thinking
• Teamwork
• Self-management
• Presentation
• Project management
• Professional etiquette

Success stories: Jayden Paul and Ofelia Lepale

Our Employment Pathways Team prepared Jayden and Ofelia and gave them the opportunity to interview with New Era IT, New Zealand’s Education ICT Specialists. Once classmates, now colleagues.

“I work as a Network Support Technician at Mt Roskill Grammar school under New Era IT. I have just finished my first week and I absolutely love the job. Being able to wake up in the morning and not dread going to work is one thing but looking forward to it is amazing!”
New Zealand Diploma in Information Technology Technical Support

1 year | 120 credits
Term 1: IT Systems & Problem Solving
Term 2: Networking Concepts
Term 3: IT Desktop Support
Term 4: Software Development

Career: IT Support Engineer
Salary average: $46K-$65K per year
(Source: Absolute IT, January 2018)

New Zealand Diploma in Systems Administration

1 year | 120 credits
Term 1: Application, Desktop & Server Deployment
Term 2: Server Setup & Configuration
Term 3: Active Directory Management & Systems Administration
Term 4: Advanced Server Management

Career: Systems Administrator
Salary average: $66K-$90K per year
(Source: Absolute IT, January 2018)

Diploma in Cloud Management

1 year | 120 credits
Term 1: Enterprise Server Infrastructure
Term 2: Private Cloud Design & Deployment
Term 3: Messaging with Microsoft Exchange
Term 4: Cloud Services & Project Management

Career: Cloud Architect
Salary average: $112K-$140K per year
(Source: Absolute IT, March 2018)

New Zealand Diploma in Information Systems

1 year | 120 credits
Semester 1
Programming Principles 1 & Databases
Programming Principles 2 & Core IT skills
Semester 2
Web Development & Professionalism
Digital Asset Management & Business Analysis

Career: Junior Software Developer
Salary average: $46K-$75K per year
(Source: Payscale)

Career: Software Developer
Salary average: $72K-$140K per year
(Source: Absolute IT, March 2018)

Techtorium offers an opportunity to have a first NZ Diploma at Level 5 which will lead directly to the second year of our Level 6 NZ Diploma in Software Development and many, many more...

Students at Techtorium are supported in getting job-ready. We assess each student for their soft and technical skills and then have their profile matched with the most appropriate employer.

Some of our Business partners:

- GORILLA TECHNOLOGY
- VOCUS GROUP
- techtorium
- optimus systems
- DATAcom
- newera
- Connectplay
- LEXEL

And many, many more...
By writing lines of code, you can create websites, mobile apps, video games, artificial intelligence, programme robots – the sky is the limit! Software Development is a very creative and innovative field shaping the technology of tomorrow.
New Zealand Diploma in INFORMATION SYSTEMS

PROGRAMME OUTLINE:

<table>
<thead>
<tr>
<th>Course</th>
<th>Level of expertise</th>
</tr>
</thead>
<tbody>
<tr>
<td>Programming Principles 1 &amp; Databases</td>
<td>Beginner</td>
</tr>
<tr>
<td>Programming Principles 2 &amp; Core IT skills</td>
<td>Skilled</td>
</tr>
<tr>
<td>Web Development &amp; Professionalism</td>
<td>Advanced</td>
</tr>
<tr>
<td>Digital Asset Management &amp; Business Analysis</td>
<td>Beginner</td>
</tr>
</tbody>
</table>

1 year | Start in Feb | 120 credits | NZQA approved

Fees & start dates available on the Techtorium website: www.techtorium.ac.nz/need-to-know

Upon graduation, you will be able to gain entry-level employment in a role such as Junior Software Developer or you will be eligible for the 2nd year of Level 6 New Zealand Diploma in Software Development.

Following this one year diploma you will be able to:

- Learn to code in C# using Visual Studio and deploy simple working applications
- Design and develop for the web using Bootstrap framework including HTML5, CSS3 and Javascript
- Develop user-friendly applications using UI and UX concepts
- Implement Business Process and Data Management using SQL
- Write technical documentation for professional environments
- Implement Project Management using Software Development Life Cycle
- Install, configure and troubleshoot common computer problems
- Apply business ethics and professionalism in Information Technology
- Implement hardware and networking configuration

What is a Junior Software Developer?
Kaihanga Pūmanawa Rorohiko

Software developers develop, test and maintain computer software, websites and software applications. They also prepare the documentation of users and business requirements as well as reports on software testing analysis. They assist their team in each part of the Software Development Life Cycle.

Junior Software Developers are creative and problem solvers.
**New Zealand Diploma in SOFTWARE DEVELOPMENT**

PROGRAMME OUTLINE:

- Software Release Management & Security
- Mobile App & Game Development
- Advanced Programming
- Capstone Project & Emerging Technologies

*Usually a 2 year long diploma, gain direct entry into the 2nd year with the L6 New Zealand Diploma in Information Systems

Start in Feb | 240 credits | NZQA approved

Fees & start dates are available on the Techtorium website: www.techtorium.ac.nz/need-to-know

Upon graduation you will be able to:
- Advance your code in C# using Visual Studio and program in Python which is perfect for data science
- Enhance your Web Developing using ASP.NET
- Learn version control using GitHub and GitKraken
- Develop mobile applications
- Implement advanced UI keeping in mind universal accessibility and software architecture patterns such as MVC (Model View Controller)
- Test your creativity with Game Development and shift from being a gamer to becoming a video game developer
- Apply current best practices in IT Security, Encryption and Privacy
- Discover Emerging Technologies
- Learn about system and application; installation and configuration; network and fundamental troubleshooting

Students will work collaboratively on a Capstone Project. Using Agile project management methodology, teams of students will apply their critical thinking, business logic, project planning and management skills to design, develop and deliver their project.

What is a Software Developer?
Kaihanga Pūmanawa Rorohiko

Software Developers and Engineers write, test, develop and maintain complex computer software programs. For example they may be involved in developing software that helps doctors and hospitals to manage data and allocate work to different specialists; Writing the code that runs on networking devices such as routers and switches; Building custom software for business clients; Creating mobile applications or writing software for aircraft simulators!

There are no limits to what you can do.

Software Developers are creative and have a taste for problem solving.
TESTIMONIALS FROM OUR SOFTWARE DEVELOPMENT STUDENTS

I chose to study Software Development because I felt that coding would bring out my literal and creative side. What I enjoy the most of my course at Techtorium is probably the trainers and my classmates. They are passionate about what we are learning and it is good to be surrounded by people who actually want to learn. The trainers care whether a student turns up or not. They care whether you learn something. They want to help you as much as possible. I also had the opportunity to learn more about 3D printing and turned it into my personal passion-project.

- Madi Watts - Student in L6 NZ Diploma in Software Development

I already had a lot of experience in programming but mainly in Game Design/Programming. I felt like instead of learning more of the same from a game design course, I would try to widen my scope of knowledge on programming as a whole. This will benefit the Game Studio I started as the Lead Programmer.

- Sam Goddard - Student in L6 NZ Diploma in Software Development

Going into Techtorium I believed I had the skills neccessary to get a job and keep it. I soon came to discover that this was not the case. Over the course of study I learned many skills directly related to the Software Development field and I successfully gained an internship at an e-Commerce Web Development business called Solutionists.

- Corey Hampson - Student in L6 NZ Diploma in Software Development currently working part-time at Solutionists

Computer Engineering is the backbone of every business providing connectivity, storage of data, cybersecurity, cloud infrastructure and great customer support.
New Zealand Diploma in INFORMATION TECHNOLOGY TECHNICAL SUPPORT (ITTS)

PROGRAMME OUTLINE:

Term 1: IT Systems & Problem Solving
Term 2: Networking Concepts
Term 3: IT Desktop Support
Term 4: Software Development

1 year | Start in Feb, Apr, Jul or Oct | 120 credits | NZQA approved
Fees & start dates are available on the Techtorium website: www.techtorium.ac.nz/need-to-know

Upon graduation, you will be able to gain entry-level employment in roles such as Helpdesk Engineer, or Desktop Support Analyst. You may also be eligible for Level 6 NZ Diploma in Systems Administration here at Techtorium.

Following this one year diploma you will be able to:

- Assemble, repair and manage network devices
- Implement Cyber Security fundamentals
- Assemble and troubleshoot computer hardware
- Troubleshoot networks, configure routers, Wi-Fi and firewalls
- Configure virtual networks with Hyper-V
- Administering Databases using SQL server
- Deploy server based storage solutions like Redundant Array of Independent Disks (RAID)
- Apply fundamental customer service skills
- Use Ticketing systems and reporting for helpdesk support
- Develop automation scripts with Windows PowerShell
- Introduction to web development and to programming Windows applications using Visual Studio

What is an Information Technology Technical Support Technician?
Kaihangarau Āwhina Hangarau Pārongo

IT support professionals help people, colleagues, clients and customers, which use computer software and hardware, will ensure networks and websites are working well. They often work in teams with other IT professionals, such as Systems Engineers, Network Analysts and Database Administrators. They can progress into more senior technical roles.

IT Technical Support Technicians are hands-on with good communication skills. They also enjoy working in team environments.
New Zealand Diploma in SYSTEMS ADMINISTRATION

PROGRAMME OUTLINE:

Term 1: Desktop & Server Deployment
Term 2: Server Setup & Configuration
Term 3: Active Directory Management
Term 4: Advanced Server Management

1 year | Start in Feb, Apr, Jul or Oct | 120 credits | NZQA approved
Fees & start dates are available on the Techtorium website: www.techtorium.ac.nz/need-to-know

Upon graduation, you will be able to gain entry-level employment in roles such as Systems Administrator or Network and Security Consultant. You may also be eligible for our Level 7 Diploma in Cloud Management.

Following this one year diploma you will be able to:

• Implement Networking Technologies like Domain Name System (DNS), Dynamic Host Configuration Protocol (DHCP), Active Directory Domain Services (ADDS), Active Directory Certificate Services (ADCS) and Group Policy Management (GPM)
• Install, upgrade and migrate devices in a server based network
• Introduction to service management with ITIL
• Deploy server based storage solutions Storage Pools and Storage Area Networks (SAN)
• Apply advanced virtualisation using Microsoft Technologies like Hyper-V and System Center Virtual Machine Manager
• Implement high availability and failover in networked environments
• Implement load balancing in networked environments
• Monitor complex networks
• Manage advanced domain based environments
• Implement core and distributed network solutions
• Apply systems administration practices and procedures in an enterprise environment

What is a Systems Administrator?
Kaiwhakahae Pūnaha

A Systems Administrator plans the implementation of networks and associated server hardware, installs and supports Operating Systems and makes sure that storage, archiving and recovery procedures are functioning correctly. They can also train people to use the organisation’s computer infrastructure and organise external training programmes, particularly for new software.

Systems Administrators require critical thinking and good management skills.
**PROGRAMME OUTLINE:**

<table>
<thead>
<tr>
<th>Term 1: Enterprise Server Infrastructure</th>
<th>Term 2: Private Cloud</th>
<th>Term 3: Cloud Provisioning</th>
<th>Term 4: Deployment &amp; Project Management</th>
</tr>
</thead>
</table>

**1 year | Start in Feb, Apr, Jul or Oct | 120 credits | NZQA approved**

Fees & start dates available on the Techtorium website: [www.techtorium.ac.nz/need-to-know](http://www.techtorium.ac.nz/need-to-know)

Upon graduation, you will be able to gain entry-level employment in roles such as a **Cloud Service Specialist** or **Cloud Engineer**.

**What is a Cloud Services Manager?**
Kaiwhakahaere kapua

A Cloud Services Manager is responsible for the planning, development, installation, configuration, testing, administration, troubleshooting and documentation of Enterprise cloud-based systems. This also includes interfaces, shared components, networking and application level protocols. They will oversee and co-ordinate with cloud service providers to optimise the performance of companies cloud infrastructure.

Cloud Engineers have excellent project management skills and attention to details.

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**Become a Cloud Services Manager**
TESTIMONIALS FROM OUR COMPUTER ENGINEERING STUDENTS

What interests me about IT is the fact that each day is different and filled with heaps of new discoveries. I have to say Techtorium has made my first experience in the industry exciting and even as a full-time student I still have heaps of time to do other things. What gets the ticks is the hands-on approach to learning. Everything is practical and you get to understand its relevance to the real world.

- Rumbie Muzawazi - Student in L6 NZ Diploma in Systems Administration currently employed at Datacom.

Techtorium is an excellent place to gain your IT skills if you are passionate about IT or computers. Do the hard work here and you will definitely get into the job you want.

- Tatuava Tatuava - Student in L6 NZ Diploma in Systems Administration currently employed at Air New Zealand

Computer Engineering and Software Development are vital in any business right now. I cannot name a single business that does not rely on computers in some way. Soft skills have been essential to my current role. Being able to explain complex solutions in a simple way for clients is a soft skill I learnt at Techtorium.

- Devlyn Papa Graduate L7 Diploma in Cloud Management currently employed at Fusion
WHERE TO START
Techtorium provides secondary school students with guidance into tertiary study at Techtorium with taster programmes.

Short-courses for secondary students
As part of our plan to create clear pathways from secondary school right through to the IT industry, we support the Gateway and STAR Programmes. Through any one of our ICE, CODE or BIZ courses, students gain credits that go towards their NCEA Level 2 and 3 qualifications. These courses are designed to give you a small taste of what you would experience in our full-time programmes.

Key benefits for you:
- Only 3 days long, during school holidays or term time
- Gain relevant IT skills and credits that go towards your NCEA Level 2 and Level 3 qualifications
- Meet like-minded geeks, make new friends and have fun! Work hard, play hard
- Transform a passion for technology into a successful IT career

You can get in touch with your Gateway Teacher or Careers Advisor at school, or alternatively you can contact us for more information on our dedicated email: LoveIT@techtorium.ac.nz

HOW TO APPLY

1. Go to our website: www.techtorium.ac.nz
2. Complete the Online Application form
3. We will be in touch with you to arrange a meeting

It’s that simple!

If you have any questions, call us on 0800 529 7523 or email learn@techtorium.ac.nz

To find out if you are eligible for Fees Free, please visit www.feesfree.govt.nz or call us on 0800 529 7523
For more information on student loans and how to apply, visit studylink.govt.nz or contact StudyLink on freephone 0800 00 99 00
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