If you are looking for an applied computing qualification that will give you a wide range of IT skills together with the ability to cope with technological changes in the IT world, then look no further. Your IT future starts here.

The Bachelor of Computing Systems (BCS) will equip you with foundation knowledge of computer hardware, networking communications and security, data and databases, information systems and IT management, systems analysis, design, and development, and internet and mobile technologies. Depending on the stream of courses you select, you will develop the ability to design and implement high quality IT solutions within your specialisation, and apply the professional processes necessary to achieve successful outcomes for organisations.

To graduate with an endorsed degree in one of the following majors, you will need to ensure selection and passes in the required course of study.

**STUDENT PROFILE**

Mithila Kamaraj | India

“I love programming and studying at EIT has enabled me to explore new areas. I have particularly enjoyed working on AI projects and the application of technology to solve everyday problems.”

**CAREER OUTCOMES**

Possible job and career opportunities can include:

- IT Support / Helpdesk
- Systems Analyst
- Web Designer
- Project Management
- Data Analyst
- Network Support
- Database Administrator
- E-commerce
- Software Developer
- IoT Technician

**CAREER OUTLOOK**

Visit the following websites for the latest information about job opportunities in New Zealand for your chosen career path.

CareersNZ offers a range of tools to help you explore jobs and plan your career: careers.govt.nz

For extensive information on labour supply and demand for occupations visit: occupationoutlook.mbie.govt.nz

For information about the Long Term Skill Shortage List visit: skillshortages.immigration.govt.nz

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**Qualification**

Bachelor of Computing Systems (with majors in Systems Development, Support and Infrastructure, Information Systems, Intelligent Systems, or unendorsed)

**Programme level**

Level 7

**Length**

Three years

**Start dates**

17 Feb, 20 July

**Fees**

NZ$ 21,100 per year

**IELTS requirements**

6.0 (academic) with no band score lower than 5.5 or equivalent.

**Total credits**

3 years (360 credits) - 120 credits per year

**Class times**

Classes are scheduled between 8.00am and 5.00pm Monday - Friday. Approximately four classroom hours per course per week

**Study hours**

Approximately two hours for each classroom hour

**Location**

Napier, Gisborne
WHAT YOU WILL LEARN
The BCS programme equips graduates with the skills and practices to achieve entry-level IT positions to pursue a professional career in the industry. In particular, the programme is designed to:

- prepare graduates to be effective in a variety of professional roles, applying the technical expertise required by their endorsed discipline;
- provide a well-defined and relevant curriculum, whilst incorporating flexibility to enable rapid adoption of new technologies;
- promote professionalism and independence in learning;
- provide flexible study modes and the capacity to develop individual study initiatives and directions;
- provide components which incorporate problem solving, analysis and research.

WORK EXPERIENCE
The Bachelor of Computing Systems aims to produce graduates who have a broad range of practical skills. The majority of courses have a significant practical component.

The compulsory Level 7 Project, which is viewed as the "capstone" of the degree, requires students to either complete in internship with an IT company or undertake analysis and development work for a business client. The project is taken in the last semester of study and is equivalent to 450 hours of work.

FACILITIES
In the state-of-the-art Information Technology Complex there are nine networked computer laboratories with between 24 and 30 student stations in each. The rooms are environmentally controlled, with data show equipment in each room. There are specific labs for software development, hardware, multimedia and a room for computer study. The facility also has a 50-seat tiered lecture theatre.

ENTRY CRITERIA

ACADEMIC ENTRY REQUIREMENTS
Students must have successfully completed degree standard qualifications.

ENGLISH LANGUAGE ENTRY REQUIREMENTS
Approved scores on TOEFL or IELTS (6.0 Academic) with no band score lower than 5.5 or equivalent.

FIND OUT MORE:
international@eit.ac.nz
www.international.eit.ac.nz

CONNECT WITH US:

COURSE LIST
To qualify for the BCS, students must have passed degree courses at Level 5 to 7 worth 360 credits, including an industry-based project course of 45 credits, which is taken in the last semester of study. The structure of the degree is summarised in the following table. Please note, compulsory subjects and pre-requisites will apply to some courses.

<table>
<thead>
<tr>
<th>Level</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>5 to 7</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td>Credits</td>
<td>120</td>
<td>120</td>
<td>90</td>
<td>30</td>
<td>360</td>
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LEVEL 5
- ITCS5.100 Computer Systems Architecture 15
- ITCT5.120 IT Concepts and Tools 15
- ITDT5.228 Intro to Data Concepts 15
- ITIS5.450 Information Systems 15
- ITPF5.110 Programme Fundamentals 15
- ITPR5.518 Intro to Object Oriented Programming 15
- ITWD5.130 Website Development 15
- ITUX5.210 UX and UI Fundamentals 15
- ITPM5.240 Agile Projects 15

LEVEL 6
- ITAE6.100 Automation and Embedded Systems 15
- ITDB6.208 Database Management Systems 15
- ITDC6.218 Data Communications and Networking 15
- ITIH6.238 Electronics and Internet of Things Technology 15
- ITKM6.398 Knowledge Management 15
- ITMA6.240 Maths in Information Technology 15
- ITAN6.258 Advanced Network and the Cloud 15
- ITOS6.608 Operating Systems 15
- ITPM6.318 Project Management 15
- ITPR6.358 User Experience & User Interfaces 15
- ITPR6.518 Enterprise Software Development 15
- ITPR6.598 Software Testing 15
- ITSD6.348 Systems Analysis 15
- ITSD6.349 Systems Design 15
- ITWD6.408 Adv. Internet & Web Page Development 15

LEVEL 7
- ITAI7.110 Machine Learning and Artificial Intelligence 15
- ITDA7.240 Data Analytics 15
- ITEC7.398 E-Business Strategies 15
- ITFM7.120 Mechatronics in IT 15
- ITIH7.238 Enterprise Support and Infrastructure 15
- ITIM7.458 IT Management and Professionalism 15
- ITPJ7.390 Project / Internship 45
- ITPR7.508 Business Application Programming 15
- ITSY7.668 Information Systems Security 15
- ITWD7.358 Web Application Programming 15
- ITSY7.408 Special Topic 15
<table>
<thead>
<tr>
<th>LEVEL 5 COURSE NO.</th>
<th>BRIEF DESCRIPTION</th>
<th>CREDITS</th>
<th>NZQA LEVEL</th>
<th>SEMESTER OFFERED</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITCS5.100</td>
<td>Computer Systems Architecture</td>
<td>15</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>ITCT5.120</td>
<td>IT Concepts and Tools</td>
<td>15</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>ITDT5.228</td>
<td>Intro to Data Concepts</td>
<td>15</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>ITIM5.238</td>
<td>Internet and Mobile Technology</td>
<td>15</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>ITIS5.450</td>
<td>Information Systems</td>
<td>15</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>ITPF5.110</td>
<td>Programme Fundamentals</td>
<td>15</td>
<td>5</td>
<td>1 &amp; 2</td>
</tr>
<tr>
<td>ITPR5.518</td>
<td>Intro to Object Oriented Programming</td>
<td>15</td>
<td>5</td>
<td>1 &amp; 2</td>
</tr>
<tr>
<td>ITWS5.130</td>
<td>Website Development</td>
<td>15</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>CODE TBC</td>
<td>User Experience and User Interfaces</td>
<td>15</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>CODE TBC</td>
<td>Agile Projects</td>
<td>15</td>
<td>5</td>
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<table>
<thead>
<tr>
<th>LEVEL 6 COURSE NO.</th>
<th>BRIEF DESCRIPTION</th>
<th>CREDITS</th>
<th>NZQA LEVEL</th>
<th>SEMESTER OFFERED</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITAE6.100</td>
<td>Automation and Embedded Systems</td>
<td>15</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>ITDB6.208</td>
<td>Database Management Systems</td>
<td>15</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>ITDC6.218</td>
<td>Data Communications and Networking</td>
<td>15</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>ITHW6.238</td>
<td>Electronics and Internet of Things Technology</td>
<td>15</td>
<td>6</td>
<td>1</td>
</tr>
</tbody>
</table>

NB: Courses are offered subject to sufficient enrolments being received.

In the following descriptions:
P: Pre-requisite – courses which must be studied before.
C: Co-requisite – courses which can be studied before or at the same time.
<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Semester Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITKM6.398</td>
<td>Knowledge Management</td>
<td>To provide students with the knowledge and skills of explicit mechanisms to retain and use institutional knowledge and the practical strategies to implement KM programmes into the workplace.</td>
<td>15 6 2</td>
</tr>
<tr>
<td>ITMA6.240</td>
<td>Maths in Information Technology</td>
<td>To provide students with the knowledge and skills of mathematics theory and its use in general and applied IT.</td>
<td>15 6 2</td>
</tr>
<tr>
<td>ITNA6.258</td>
<td>Advanced Network and the Cloud</td>
<td>To provide the students with general knowledge of a Network Operating System and the necessary skills to install and carry out various administrative tasks.</td>
<td>15 6 2</td>
</tr>
<tr>
<td>ITOS6.608</td>
<td>Operating Systems</td>
<td>To provide the students with a general understanding of a modern operating system and the necessary skills to install and carry out various administrative tasks.</td>
<td>15 6 2</td>
</tr>
<tr>
<td>ITPM6.318</td>
<td>Project Management</td>
<td>To provide students with the knowledge and skills in formal project methodologies in business and IT and the applications of best-practice project management frameworks and techniques to select, plan, execute, and control projects to successful conclusion.</td>
<td>15 6 1</td>
</tr>
<tr>
<td>ITPR6.358</td>
<td>User Experience &amp; User Interfaces</td>
<td>To provide the students with knowledge and skills of industry based theory and methods for the design and development of successful user interfaces, user experience (UX) design and prototyping.</td>
<td>15 6 1</td>
</tr>
<tr>
<td>ITPR6.508</td>
<td>Adv. Object Oriented Programming</td>
<td>To provide students with the knowledge and skills to design and develop software using all the facilities of an object-oriented programming language and design modelling and concepts.</td>
<td>15 6 1</td>
</tr>
<tr>
<td>ITPR6.518</td>
<td>Enterprise Software Development</td>
<td>To provide students with the knowledge and skills to design, develop, maintain and deploy software to support enterprise systems applications.</td>
<td>15 6 2</td>
</tr>
<tr>
<td>ITPR6.598</td>
<td>Software Testing</td>
<td>To provide students with the knowledge and skills to design, develop, and implement software testing plans and produce meaningful test reports.</td>
<td>15 6 2</td>
</tr>
<tr>
<td>ITSD6.348</td>
<td>Systems Analysis</td>
<td>To provide students with the knowledge and skills to analyse complex information systems, identify problems and requirements as well as document and model these findings using appropriate methods, tools, and diagrams.</td>
<td>15 6 1</td>
</tr>
<tr>
<td>ITSD6.349</td>
<td>Systems Design</td>
<td>To provide students with the knowledge and skills to design and document simple and complex information systems solutions using the appropriate modelling, prototyping, and documentation tools and methods.</td>
<td>15 6 1</td>
</tr>
<tr>
<td>ITWX6.408</td>
<td>Adv. Internet &amp; Web Page Development</td>
<td>To provide the students with the knowledge and skills of the client-side web development and website management.</td>
<td>15 6 2</td>
</tr>
<tr>
<td>COURSE NO.</td>
<td>BRIEF DESCRIPTION</td>
<td>CREDITS</td>
<td>NZQA LEVEL</td>
</tr>
<tr>
<td>------------</td>
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</tr>
</tbody>
</table>
| ITAI7.110 | Machine Learning and Artificial Intelligence  
To provide students with the knowledge and skills to apply machine learning and artificial intelligence theories and technologies to solve real-world problems  
P: ITAE6.100 Automation and Embedded System  
ITHW6.238 Electronics and IoTT | 15 | 7 | 1 & 2 |
| ITDA7.240 | Data Analytics  
To provide students with the knowledge and skills to use industry standard data analysis tools and techniques and present meaningful and useful information.  
P: ITPF5.110 Programming Fundamentals  
ITDT5.228 Introduction to data concepts  
ITDB6.208 Database Management Systems  
ITMA6.240 Maths in IT | 15 | 7 | 1 & 2 |
| ITEC7.398 | E-Business Strategies  
To provide students with the knowledge and skills to evaluate and analyse the drivers of successful e-business strategies for organisations.  
P: ITKM6.398 Knowledge Management | 15 | 7 | 2 |
| ITFM7.120 | Mechatronics in IT  
To provide students with knowledge and skills of feedback control, electro-mechanical system in terfaces, software and electronics that enable robotics.  
P: ITAE6.100 Automation and Embedded System  
ITHW6.238 Electronics and IoTT  
C: ITAI7.110 Machine Learning and artificial intelligence | 15 | 7 | 1 |
| ITHW7.238 | Enterprise Support and Infrastructure  
To provide students with technical knowledge and skills to plan, prepare and manage a range of enterprise technologies, configurations, and infrastructure.  
P: ITET6.238 Electronics and Technology in IT  
ITDC6.218 Data Communications and Networking | 15 | 7 | 1 |
| ITIM7.458 | IT Management and Professionalism  
To provide students with the knowledge and skills to analyse organisations and make informed IT management decisions while maintaining the highest level of professionalism and ethical behaviour expected of IT Professionals.  
P: ITISS5.450 Information Systems  
ITSD6.348 Systems Analysis  
ITSD6.349 Systems Design | 15 | 7 | 1 & 2 |
| ITPJ7.390 | Project/ Internship  
To provide students with the opportunity to apply the knowledge and skills gained during their computing studies in a business environment.  
P: ITPM6.318 Project Management  
ITSD6.348 Systems Analysis  
ITSD6.349 Systems Design  
ITIM7.458 IT Management & Professionalism | 45 | 7 | 1 & 2 |
| ITPR7.508 | Business Application Programming  
To provide students with the knowledge and skills to develop a business application from a specification.  
P: ITPR5.518 Introduction to Object Oriented Programming  
ITPR6.508 Advanced Object Oriented Programming  
ITWD6.408 Advanced Internet and Web Page Development | 15 | 7 | 1 & 2 |
| ITSY7.668 | Information Systems Security  
To provide students with the knowledge and skills to apply information systems security/forensics concepts, identify security risks and make contingency plans and policies.  
P: ITDC6.218 Data Communications & Networking | 15 | 7 | 1 & 2 |
| ITWD7.358 | Web Application Programming  
To provide students with the knowledge and skills to develop client-server web-based applications.  
P: ITPR5.518 Introduction to Object Oriented Programming  
ITIM5.238 Internet and Mobile Technology  
ITWD6.408 Advanced Internet and Web Page Development | 15 | 7 | 1 |