

# **He Puka Whakaaetanga, Whakamana Hōtaka | Socialisation Document**

**Programme of Study:  
New Zealand Diploma in Architectural Technology  
(Level 6)**

**Leading to the award of:  
2416 New Zealand Diploma in Architectural  
Technology (Level 6)**



**Te Pūkenga**

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# 1 New Zealand Diploma in Architectural Technology (Level 6)

## 1.1 Te Tūhono Kawenga Hōtaka | A Unified Portfolio of Programmes

Te Pūkenga aims to develop a unified, sustainable, public network of regionally accessible vocational education programmes that have our ākonga (students) at the centre. This application for programme approval and accreditation forms part of the development of a national network of provision requiring partnerships and cooperation with co-responsibilities for programme delivery. This is consistent with Te Pūkenga academic delivery innovation strategic direction, which is aimed at establishing a coherent portfolio of programmes that will support ākonga, employers and industry to make informed decisions about future study and employment and achieve a sustainable network of ongoing delivery.

In order to develop a coherent portfolio of programmes that supports the above strategic direction, a unification process has been established that is aimed at achieving a future state of (in the main) one programme per qualification that supports and allows for a range of delivery modes, namely blended, distance and work-based learning. Currently, Te Pūkenga needs to work within the parameters of Programmes of Industry Training reporting via the ITR and Programmes of Study reporting via the SDR (as integrated NZ Programmes / Skills Standards and an integrated TEC reporting system are not yet available). The unified programme of study presented here unifies on-campus, blended and distance approaches, reported through the current SDR.

The unification process has been designed to employ a collaborative approach to redevelopment that will ensure that programme design meets the criteria set by [Te Pūkenga Charter](#) and our commitments under [Te Pae Tawhiti](#), our Te Tiriti o Waitangi Excellence Framework, and [Te Rito](#), our Ākonga at the Centre research project and reports. This approach also fulfills the expectations of the emerging Whiria Te Pūkenga (Mātauranga Māori Framework) and Te Pūkenga Ako Framework (Learning and Teaching Framework).

One of Te Pūkenga educational priorities is a relentless focus on equity and ensuring participation. Therefore, equity is integrated and embedded into Te Pūkenga operating model blueprint and business case. Te Pūkenga is also committed to putting ākonga at the centre of all we do, and working towards equity and success for ākonga of all genders, ethnicities, cultures and abilities, as outlined in our [Equity and Ākonga Success Strategy](#).

In 2020, Te Pūkenga commissioned the Ākonga at the Centre research project to gain insights from ākonga (and those that supported them) on the barriers and enablers to their success across the current learner journey. The project applied Te Tiriti o Waitangi inspired principles of excellence and used Critical Bicultural and Human Centred Design methodologies as a new and innovative approach for the public sector. The research led to three [Te Rito reports](#), focusing on Māori, Pacific and Disabled ākonga, respectively. [Te Rito](#) framework builds towards our Equity Outcomes framework, its purpose being to guide Te Pūkenga in its response to the unique needs of all ākonga, with a priority focus on Māori, Pacific and Disabled ākonga.

In accordance with Te Tiriti o Waitangi, Te Pūkenga is focused on ensuring our services work well and respond with excellence to the needs of Māori ākonga and their whānau, and to the aspirations of iwi and Māori communities throughout Aotearoa New Zealand. This objective comes from our Charter, our legislative mandate, and from the will of our Council, and is supported by the opportunities outlined in [Te Rito Report Part One](#). In working to achieve this objective, we know it is not Māori ākonga or communities that need to change to fit with us; rather it is our responsibility to ensure our services improve for the betterment of Māori.

In terms of the needs of Pacific ākonga, [Te Rito Report Part Two](#) indicated a range of opportunities to be taken up by Te Pūkenga. These range from targeted support for the wellbeing of Pacific learners to empowering and bringing effect to Pacific hopes and dreams for intergenerational development and prosperity. Te Pūkenga is committed to ensuring all Pacific ākonga and kaimahi feel that they belong, that their voices are heard, that the use of Pacific languages is normalised and that their cultures are valued.

In terms of the needs of Disabled ākonga, [Te Rito Report Part Three](#) indicated the need for Te Pūkenga to provide appropriate impairment-related learning support for Disabled ākonga to achieve their academic potential and to resolve barriers to learning. The research also indicated the need for mental wellbeing support, the reduction of financial barriers, a focus on the development of digital literacy skills and ensuring access to the physical learning environment. Te Pūkenga has developed a national strategic disability action plan, which incorporates the Enabling Good Lives principles. The National Strategic Disability Action Plan implements the Accessibility Charter across Aotearoa New Zealand and supports consistent data collection on Disabled ākonga, and training. The plan provides a unified national strategy across Te Pūkenga and was developed with ākonga and kaimahi (staff). The plan provides a comprehensive road map towards a vocational system that hears the voices of Disabled ākonga and what they need to succeed.

The unified programme presented here contributes to the ability of Te Pūkenga to offer a coherent portfolio of programmes that responds to the needs of ākonga, industries, iwi, hapū, hāpori, Māori communities and Pacific communities. This also begins to take us towards addressing some of the inequities that exist for priority ākonga.

## **1.2 Te Huanui Whakawhanake i te Hōtaka | Development Approach**

The New Zealand Diploma in Architectural Technology (Level 6) qualification was updated with Version 2 published in April 2021. The last date for assessments to take place for Version 1 of this qualification is 31 December 2023. Therefore, rather than each network partner dedicating time and resource to develop programmes of study for the new version individually, one programme of study was selected and revised to become the unified programme of study.

The programme of study presented here is based on a collaborative design process across the following Te Pūkenga network partners:

- Ara Institute of Canterbury Ltd (ARA)
- Eastern Institute of Technology Ltd (EIT)
- Northland Polytechnic Ltd (NorthTec)
- Otago Polytechnic Ltd (Otago)
- Southern Institute of Technology Ltd (SIT)
- The Open Polytechnic of New Zealand Ltd (TOP)
- Toi Ohomai Institute of Technology Ltd (ToiO)
- Unitec New Zealand Ltd (Unitec)
- Universal College of Learning Ltd (UCOL)
- Waikato Institute of Technology Ltd (Wintec)
- Whitireia Community Polytechnic Ltd and Wellington Institute of Technology Ltd (W&W)
- Western Institute of Technology at Taranaki Ltd (WITT)

The collaborative design process was supported by two groups: (i) a Steering Group with representation from every relevant network partner, i.e., every network partner delivering programmes of study in the broad discipline area of Construction; and (ii) a Working Group tasked specifically with the unification of this programme of study. The Workforce Development Council was included in the Steering Group membership and has thus been engaged in the unification

process. The functions of the Steering Group were defined in a mutually agreed Terms of Reference, and included the following:

- oversight of the development of a single unified programme for each qualification Te Pūkenga delivers in the discipline area
- leading engagement with regional internal and external partners (including (i) relevant regional industry, including Māori and Pacific employers; (ii) communities at a local level, including hapū and iwi, and Pacific communities; (iii) Te Pūkenga kaimahi; and (iv) ākonga)
- steering programme unification work and providing advice and support to Working Groups

The Working Group of members from the collaborating Te Pūkenga network partners listed above selected the ARA programme of study (an existing approved programme) for the programme unification process. The programme selection criteria included the following:

- The programme was developed in close partnership with industry, hapū, iwi and Pacific communities.
- The programme was updated within the past three years.
- Minor updates to the programme will allow it to align with Te Pūkenga Charter.
- The programme already enables multiple modes of delivery.
- Te Tiriti o Waitangi is evident across the programme.
- The programme is ākonga-centred and allows a focus on under-served ākonga (Māori, Pacific, Disabled) and adult and second-chance ākonga).
- Minor updates to the programme will enable it to align with industry and community needs and allow regional flexibility.
- The programme addresses identified future needs of ākonga, industry and community.

### **1.3 Te Whakawhitinga ki te Tūhono Kawenga Hōtaka | Transition to the Unified Programme**

As is clear from the above, the unification of this programme of study was achieved by means of **transition** to a single unified programme, developed on the basis of existing approved programme offerings that were informed by regional/local needs. Thus, programme content and delivery are contextualised, and provide relevant pathways to meet the needs of those local communities.

It should be acknowledged that the selection of a current approved programme as the basis for the unified programme means that aspects of the selected programme will be adopted across the network, such as programme structure, course details, and the ways in which Mātauranga Māori is embedded throughout the programme. A Mātauranga Māori snapshot tool will be applied to this unified programme to identify how contextualised Mātauranga Māori content is evident and what next steps are required to enhance or develop this further.

The unified programme presented here contributes to the ability of Te Pūkenga to offer a coherent portfolio of programmes and takes us a step towards addressing some of the inequities that exist for priority ākonga. Transition arrangements may be required for ākonga who fail to successfully complete courses within the existing programme of any given network partner. To this end, each network partner currently delivering this programme will create its own transition plan based on equivalencies between existing and new courses. Transition pathways will be identified on a case-by-case basis, informed by these course equivalencies, logistics and individual ākonga knowledge gaps. All care will be taken to minimise any ākonga disadvantage by their transition to the new programme, while still maintaining the integrity of the new unified programme.

## Appendix 1: Te Hono o te Kahurangi | Qualification Details

Details for the programme of study	NZQA Reference No.	Version No.	Credits	Level
<b>New Zealand Diploma in Architectural Technology</b>	XXXX	2	240	6

which leads to the award of the following qualification

<b>New Zealand Diploma in Architectural Technology</b>	NZ2416	2	240	6
NZSCED	040199 Architecture and Building>Architecture and Urban Environment>Architecture and Urban Environment not elsewhere classified			
Qualification developer	Waihanga Ara Rau Construction and Infrastructure Workforce Development Council			
Quality assurance body	New Zealand Qualifications Authority			
Next review	30/04/2026			
Next planned consistency review	2022			

### Strategic purpose

The qualification provides the construction industry with graduates who have the essential knowledge and skills required to enter employment as architectural technicians and be able to work on small and medium scale building projects of limited complexity through all stages to completion under the supervision of an experienced architectural technician, designer or architect.

This qualification is designed for people intending to work as architectural technicians, and also provides recognition of knowledge and skills for those already working in the role.

The qualification will provide employers and consumers with the confidence that working drawings are produced that meet the requirements of New Zealand legislation, Codes of Practice, and New Zealand and Australian Standards.

### Graduate profile

Graduates of this qualification will be able to:

1. Apply comprehensive knowledge of construction principles and methodology to evaluate design for small and medium building projects in a design, building or construction related environment.
2. Carry out feasibility studies for small, medium and large buildings.
3. Establish the clients' requirements, develop and communicate a concept and building design, and prepare approval documentation for a building project in accordance with a clients' brief.
4. Evaluate the performance of and select materials and finishes to be used in the building process.
5. Prepare, organise and present architectural documentation for small and medium buildings using manual and digital technologies in accordance with the legislative and regulatory environment.
6. Apply knowledge of the roles and responsibilities, documentation and administrative requirements, including the tendering process to construction contract management processes.
7. Apply organisational principles, use digital technologies and industry best practice to communicate effectively with parties to a construction contract.

## Qualification education pathway

This qualification may build on the following:

- New Zealand Certificate in Frame and Truss Detailing (Level 4) [Ref: 2085]
- New Zealand Diploma in Timber Structure Detailing (Level 5) [Ref: 4377]
- New Zealand Certificate in Carpentry (Level 4) [Ref: 2738]
- New Zealand Certificate in Joinery (Level 4) with strands in Cabinetry, Timber Door and Window, Timber Stairs, Laminate Fabrication, and Cabinetry Installation (with optional strand in Computer Numerical Controlled Machinery) [Ref: 2343]
- New Zealand Diploma in Design (Kitchen Design/Bathroom Design) (Level 5) [Ref: 3221]

This qualification may lead to further higher-level tertiary study in the fields of Construction Management, Quantity Surveying or Architectural Design.

## Employment/cultural/community pathway

Graduates of the New Zealand Diploma in Architectural Technology (Level 6) will be able to work as Architectural Technicians.

## Professional recognition/accreditation

## Other requirements of the qualification (including regulatory body or legislative requirements)

This qualification aligns to the Ministry of Business, Innovation & Employment (MBIE) Licensed Building Practitioner Scheme providing eligibility toward Design Licences 1 and 2 (Category 1 and 2 buildings): information available at [www.lbp.govt.nz](http://www.lbp.govt.nz)

## General conditions for programme

Programmes must be in accordance with the relevant legislation, regulations and standards, including: Legislation accessed at [www.legislation.govt.nz](http://www.legislation.govt.nz)

- Building Act 2004
- Construction Contracts Act 2002
- Consumer Guarantees Act 1993
- Companies Act 1993
- Electricity Act 1992
- Health and Safety at Work Act 2015
- Health and Safety in Employment Act 1992
- Health and Safety in Employment Regulations 1995
- WorkSafe New Zealand Act 2013
- New Zealand Building Code
- Building Regulations 1992
- Limited Partnerships Act 2008
- Housing Accords and Special Housing Areas Act 2013
- Plumbers, Gasfitters, and Drainlayers Act 2006
- Resource Management Act 1991
- Telecommunications Act 2001
- Treaty of Waitangi Act 1975
- Weathertight Homes Resolution Services Act 2006

Standards accessed at [www.standards.govt.nz](http://www.standards.govt.nz)

- AS/NZS 3500 Set
- NZS 3604:2011 Timber-framed buildings
- NZS 4229:2013 Concrete masonry buildings not requiring specific engineering design
- NZS 3902:2004 Housing, alterations and small buildings contract
- NZS 3109:1997 Concrete construction
- NZS 3101.1&2:2006 Concrete structures standard
- NZS 3910:2013 Conditions of contract for building and civil engineering construction
- NZS 3915:2005 Conditions of contract for building and civil engineering construction
- NZS 3916:2013 Conditions of contract for building and civil engineering - Design and construct
- NZS/AS 1100.301:1985 Technical drawing - Architectural drawing,
- NZS/AS 1100.301 SUPP1:1986 Technical drawing, Architectural drawing - Architectural drawings

NZIA SCC 2018 Standard Construction Contract - accessed at [www.nzia.co.nz](http://www.nzia.co.nz)

Programmes leading to this qualification must keep up-to-date with regard to amendments to, and replacements of relevant legislation, regulations and Australia/New Zealand Standards (AS/NZS).

### **Qualification version transition information**

#### **Version Information**

Version 2 of this qualification was published in April 2021 following a scheduled review. Please refer to Qualifications and Assessment Standards Approvals for further information.

The last date for assessment for version 1 of this qualification is 31 December 2023.

People working towards version 1 of this qualification may either complete the requirements of that version by 31 December 2023 or transfer to version 2.

It is the intention that no existing learners should be disadvantaged by these transition arrangements. Any person who considers that they have been disadvantaged may appeal to Building and Construction Industry Training Organisation at the address below. Appeals will be considered on a case-by case basis.

Building and Construction Industry Training Organisation (BCITO)

PO Box 2615

Wellington 6140

Telephone: 04 381 6430

Email: [education@bcito.org.nz](mailto:education@bcito.org.nz)

## Appendix 2: Waeture ā-Hōtaka | Programme Regulations

In the regulations presented here, unless the context otherwise requires, 'delegated authority' refers to an individual or role holder, or in some cases a committee, who has been delegated the authority to make a decision within a specific circumstance. A schedule of the various relevant delegations is maintained by the Programme Committee responsible for the programme. Te Pūkenga aims to enable broad access for ākonga and is committed to providing barrier-free access and participation for Māori, Pacific, Disabled and other equity groups.

### Whakatapoko | Admission

<b>General admission</b>	To be admitted to this programme, applicants must hold one of the following: A minimum of 50 NCEA credits at Level 2 and a minimum of 12 credits in NCEA mathematics (or Pangarau) Level 1 and 12 literacy credits at NCEA Level 1.
<b>Special admission</b>	Any ākonga who is 20 years of age or older and has not reached the general admission requirements for their intended programme is eligible for Special Admission. Te Pūkenga works with the ākonga to ensure they are prepared for their intended programme.
<b>Discretionary admission</b>	Any ākonga who is not yet 20 years of age and has not reached the general admission requirements for their intended programme may be eligible for Discretionary Admission. In assessing whether to grant Discretionary Admission, the delegated authority focuses on the applicant's level of preparedness for their intended programme.
<b>English language requirements</b>	All applicants (international and domestic) for whom English or te reo Māori is not a first language need to provide evidence that they have the necessary English language proficiency required for the programme. International applicants are required to have an IELTS score of 6 (general or academic) with no individual band lower than 5.5 from one test taken in the preceding two years, or an equivalent described in <a href="#">NZQA Rules</a> .

### Tūtukitanga Whakamihi | Credit Recognition

The provisions and procedures for credit recognition through cross credit, credit transfer and recognition of prior learning in this programme are set out in with [Te Kawa Maiororo | Educational Regulatory Framework](#).

## Tohu o te Hōtaka | Award of Qualification

<p><b>Credit requirements</b></p>	<p>To be awarded the <b>New Zealand Diploma in Architectural Technology (Level 6)</b> ākonga must achieve a minimum of 240 credits in the pattern set out in Table 1 below from the courses set out in Table 2 below.</p> <p><b>Table 1: Credit Requirements</b></p> <table border="1"> <thead> <tr> <th>Level</th> <th>Compulsory credits</th> <th>Elective credits</th> <th>Total credits</th> </tr> </thead> <tbody> <tr> <td>5</td> <td>120</td> <td></td> <td>120</td> </tr> <tr> <td>6</td> <td>120</td> <td></td> <td>120</td> </tr> <tr> <td colspan="3"><b>Total credits</b></td> <td><b>240</b></td> </tr> </tbody> </table> <p><b>Table 2: Schedule of Courses</b></p> <table border="1"> <thead> <tr> <th>Course code</th> <th>Course title</th> <th>Credits</th> <th>Pre-requisites</th> </tr> </thead> <tbody> <tr> <td colspan="4"><b>Level 5</b></td> </tr> <tr> <td>ARCH6701</td> <td>Introduction to Construction Studies</td> <td>15</td> <td></td> </tr> <tr> <td>ARCH6702</td> <td>Materials and Structural Principles</td> <td>15</td> <td></td> </tr> <tr> <td>ARCH6703</td> <td>Environment</td> <td>15</td> <td></td> </tr> <tr> <td>ARCH6704</td> <td>Services</td> <td>15</td> <td></td> </tr> <tr> <td>ARCH6705</td> <td>Construction 1 Residential</td> <td>15</td> <td></td> </tr> <tr> <td>ARCH6706</td> <td>Drawing 1</td> <td>15</td> <td></td> </tr> <tr> <td>ARCH6707</td> <td>Scoping and Preliminary Design 1</td> <td>15</td> <td></td> </tr> <tr> <td>ARCH6708</td> <td>Documentation 1</td> <td>15</td> <td></td> </tr> <tr> <td colspan="2"><b>Total compulsory credits @ Level 5</b></td> <td colspan="2"><b>120</b></td> </tr> <tr> <td colspan="4"><b>Level 6</b></td> </tr> <tr> <td>ARCH6709</td> <td>Construction 2 Commercial</td> <td>15</td> <td></td> </tr> <tr> <td>ARCH6710</td> <td>Contract Administration</td> <td>15</td> <td></td> </tr> <tr> <td>ARCH6711</td> <td>Design in the Built Environment</td> <td>15</td> <td></td> </tr> <tr> <td>ARCH6712</td> <td>Detailing</td> <td>15</td> <td></td> </tr> <tr> <td>ARCH6713</td> <td>Documentation 2</td> <td>15</td> <td></td> </tr> <tr> <td>ARCH6714</td> <td>Scoping and Preliminary Design 2</td> <td>15</td> <td></td> </tr> <tr> <td>ARCH6715</td> <td>Virtual Design and Construction</td> <td>15</td> <td></td> </tr> <tr> <td>ARCH6716</td> <td>Industry Project</td> <td>15</td> <td></td> </tr> <tr> <td colspan="2"><b>Total compulsory credits Level 6</b></td> <td colspan="2"><b>120</b></td> </tr> <tr> <td colspan="2"><b>TOTAL CREDITS</b></td> <td colspan="2"><b>240</b></td> </tr> </tbody> </table>	Level	Compulsory credits	Elective credits	Total credits	5	120		120	6	120		120	<b>Total credits</b>			<b>240</b>	Course code	Course title	Credits	Pre-requisites	<b>Level 5</b>				ARCH6701	Introduction to Construction Studies	15		ARCH6702	Materials and Structural Principles	15		ARCH6703	Environment	15		ARCH6704	Services	15		ARCH6705	Construction 1 Residential	15		ARCH6706	Drawing 1	15		ARCH6707	Scoping and Preliminary Design 1	15		ARCH6708	Documentation 1	15		<b>Total compulsory credits @ Level 5</b>		<b>120</b>		<b>Level 6</b>				ARCH6709	Construction 2 Commercial	15		ARCH6710	Contract Administration	15		ARCH6711	Design in the Built Environment	15		ARCH6712	Detailing	15		ARCH6713	Documentation 2	15		ARCH6714	Scoping and Preliminary Design 2	15		ARCH6715	Virtual Design and Construction	15		ARCH6716	Industry Project	15		<b>Total compulsory credits Level 6</b>		<b>120</b>		<b>TOTAL CREDITS</b>		<b>240</b>	
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<p><b>Programme completion</b></p>	<p>The minimum time to complete this programme is 2 years (full-time study) or 4 years (part-time study).</p> <p>The maximum time to complete this programme is 8 years.</p> <p>The delegated authority may approve an alternative maximum completion time.</p>																																																																																																								

## Waeture Aromatawai | Assessment Regulations

<p><b>Grading</b></p>	<p>Assessment in this programme is achievement-based.</p> <p>Grading follows the guidelines in <a href="#">Te Kawa Maiororo   Educational Regulatory Framework</a>.</p> <p>Specific assessment and/or course pass requirements are detailed in programme delivery documentation.</p>
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**Assessment submission and additional opportunities**

Requirements and processes for

- assessment submission,
- resit and/or resubmission opportunities for failed assessments,
- reassessment opportunities for failed courses,
- late submission of assessments, and
- extension of assessment deadlines

are outlined in programme delivery documentation provided to ākonga at the start of their course.

Appendix 3: Ngā Hua o te Ako me te hāngai ki Ngā Putanga Ako a te Taurira | Learning Outcomes and Assessment Mapped to Graduate Profile Outcomes

Course Code & Title		Course Aim & Outcomes		Assessment	GPO 1	GPO 2	GPO 3	GPO 4	GPO 5	GPO 6	GPO 7
ARCH6701	Introduction to Construction Studies	Aim	The aim of this course is to develop knowledge and skills related to construction roles, responsibilities and documentation and communication in the construction environment.		All LOs: Assessment portfolio (100%)						
		LO1	Read and interpret technical literature used in the construction industry.								
		LO2	Define roles, responsibilities and documentation in the construction industry.								
		LO3	Analyse best practice in communication between parties in a construction contract.								
ARCH6702	Materials and Structural Principles	Aim	The aim of this course is to develop knowledge and skills of structural principles and the properties of materials and finishes applicable to small building projects.		All LOs: Assessment portfolio (100%)						
		LO1	Evaluate the performance of materials and finishes used in building projects.								
		LO2	Select materials and finishes for building projects.								
		LO3	Review structural principles and loading of building elements.								
ARCH6703	Environment	Aim	The aim of this course is to develop knowledge and skills to evaluate site and building limitations including environmental impacts and sustainable methods of construction.		All LOs: Assessment portfolio (100%)						
		LO1	Identify implications of site limitations including evaluation of existing buildings.								
		LO2	Analyse the environmental impact of design and construction techniques.								
		LO3	Evaluate examples of sustainable design and construction practice.								
ARCH6704	Services	Aim	The aim of this course is to develop knowledge and skills relevant to the purpose, operating principles, coordination, and legislative requirements required to manage a range of services in small, medium, and large buildings.		All LOs: Assessment portfolio (100%)	√					
		LO1	Evaluate the purpose and operating principles of services for small, medium and large buildings								
		LO2	Analyse coordination and placement of services in small, medium, and large buildings.								
		LO4	Review legislative requirements for services in small, medium, and large buildings.								
ARCH6705	Construction 1 Residential	Aim	The aim of this course is to develop and apply knowledge and skills related to structures, building envelope and the interior for a small building.		All LOs: Assessment portfolio (100%)	√					
		LO1	Identify geotechnical factors and substructures for a small building.								
		LO2	Evaluate building types and structures for a small building.								
		LO3	Evaluate building envelope material, interior linings, joinery, and fitments for a small building.								
ARCH6706	Construction 2 Commercial	Aim	The aim of this course is to develop the knowledge and skills to design foundation methods, structural systems, building envelope and the interior for medium and large buildings.		All LOs: Assessment portfolio (100%)	√					
		LO1	Identify geotechnical factors, foundations and structural systems for medium and large buildings.								
		LO2	Review fire safety systems and egress route requirements for medium and large buildings								
		LO3	Evaluate building envelope, interior lining, joinery and fitments for medium and large buildings.								
ARCH6707	Drawing 1	Aim	The aim of this course is to develop graphical skills and knowledge to prepare design and construction documentation.		All LOs: Assessment portfolio (100%)					√	
		LO1	Review the types of construction drawing documentation								
		LO2	Organise construction drawing documentation								
		LO3	Apply techniques for construction drawing documentation								

Course Code & Title		Course Aim & Outcomes		Assessment	GPO 1	GPO 2	GPO 3	GPO 4	GPO 5	GPO 6	GPO 7
		LO4	Prepare construction drawing documentation							√	
ARCH6708	Scoping and Preliminary Design 1	Aim	The aim of this course is to develop the knowledge and skills to produce the documentation required for the construction of small buildings.								
		LO1	Establish client, site, and regulatory requirements for a small building project	All LOs:			√				
		LO2	Produce a preliminary architectural design from a construction brief	Assessment portfolio (100%)			√				
ARCH6709	Documentation 1	Aim	The aim of this course is to develop the knowledge and skills to prepare the documentation required for the construction of small buildings.								
		LO1	Prepare location, assembly and component drawings, and schedules for a small building project.				√				
ARCH6710	Contract Administration	Aim	The aim of this course is to develop the knowledge and skills to prepare tender documentation, evaluate a tender and complete post tender, construction and post-construction administration.								
		LO1	Assess pre-tender requirements to prepare documentation for a construction project	All LOs:		√					
		LO2	Evaluate a tender for a construction project	Assessment portfolio (100%)		√					
		LO3	Prepare post-tender administration documentation for a construction project			√					
		LO4	Prepare construction and post-construction administration documentation for a construction project			√					
ARCH6711	Design in the Built Environment	Aim	The aim of this course is to develop the knowledge and skills to apply social and cultural factors to the design principles of the built environment.								
		LO1	Evaluate design principles for architectural projects	All LOs:					√		
		LO2	Review the historical development of design eras and features	Assessment portfolio (100%)					√		
		LO3	Identify the impact of cultural differences on the built environment						√		
ARCH6712	Detailing	Aim	The aim of this course is to develop the knowledge and skills to interpret and prepare construction details.								
		LO1	Research design requirements and inter-relationships between building components	All LOs:					√		
		LO2	Produce assembly drawings for critical building components	Assessment portfolio (100%)					√		
ARCH6713	Documentation 2 (Commercial)	Aim	The aim of this course is to develop the knowledge and skills to prepare documentation required for the construction of medium buildings.								
		LO1	Prepare location, assembly and component drawings, schedules and specifications for a medium building project.						√		
ARCH6714	Scoping and Preliminary Design 2	Aim	The aim of this course is to develop the knowledge and skills to prepare building proposals, building design drawings and associated approval documentation.								
		LO1	Develop a building proposal from a preliminary design	All LOs:					√		
		LO2	Produce building design drawings from a preliminary design	Assessment portfolio (100%)					√		
		LO3	Prepare approval documentation to meet client, site, and compliance requirements						√		
ARCH6715	Virtual Design and Construction	Aim	The aim of this course is to develop the knowledge and skills to understand the principles of building information modelling in order to establish design solutions.								
		LO1	Review the principles of building information modelling	All LOs:					√		
		LO2	Interpret, assess, and apply building information modelling data	Assessment portfolio (100%)					√		
		LO3	Develop and integrate design solutions for a project						√		
ARCH6716	Industry Project	Aim	The aim of this course is to develop knowledge and skills to conduct and present the findings of an investigation within the construction industry.								
		LO1	Investigate selected construction aspects of a significant regional or national construction project	All LOs:	√	√	√	√	√	√	√
		LO2	Evaluate the application of a selected advanced construction technology to a sector of the national construction industry.	Assessment portfolio (100%)	√	√	√	√	√	√	√

## Appendix 4: Akoranga | Courses

The following Course Descriptors provide an overview of the content and structure of each course in the programme. Learning and teaching, and assessment activities will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākongā.

INTRODUCTION TO CONSTRUCTION STUDIES					
Course code	ARCH6701	Level	5	Credits	15
Pre-requisites		Co-requisites			
Main programme	New Zealand Diploma in Architectural Technology (Level 6)	Other programmes	New Zealand Diploma in Construction (Level 6)		
Delivery modes	Provider-based Provider-based (extramural)	Total learning hours (See course delivery document for detailed breakdown.)		150	

### Whāinga/He Tauākī Akoranga | Aim/Outcome Statement

The aim of this course is to develop knowledge and skills related to construction roles, responsibilities and documentation.

### Ngā Hua o te Ako | Learning Outcomes

Upon the successful completion of this course, ākongā will be able to...		Graduate outcome alignment
LO1	Read and interpret technical literature used in the construction industry.	7
LO2	Define roles, responsibilities and documentation in the construction industry.	7
LO3	Analyse best practice in communication between parties in a construction contract.	7

### Ngā Tūtohu o te Kiko | Indicative Content

LO1	<ul style="list-style-type: none"> <li>Technical literature: includes working drawings, manufacturers' specifications, instruction drawings and specifications.</li> </ul>
LO2	<ul style="list-style-type: none"> <li>Roles, responsibilities and documentation: Overview of functions and responsibilities. Overview of critical path programming and monitoring, purpose and content of drawings, specifications including consent requirements, schedules of quantities.</li> </ul>
LO3	<ul style="list-style-type: none"> <li>Communication, accuracy and appropriateness of information, meetings, conflict resolution, written and face-to-face interaction, current and emerging technologies, delegation, reporting lines, formal/informal meeting protocols.</li> </ul>

### Ngā Mahi Ako me te Whakaako | Learning & Teaching Activities

Learning and teaching activities will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākonga.

### Aromatawai | Assessment

Assessment in this course is achievement-based. Ākonga will be advised of all matters relating to summative assessment at the start of the course.

Assessment activity	Weighting	Learning outcomes
<b>Assessment portfolio</b> Will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākonga.	100%	All

Ākonga are required to provide sufficient evidence against all learning outcomes in order to pass the course.

### Ngā Rauemi Ako | Learning Resources

All required and recommended resources are advised to ākonga via course outlines.

### Version Tracking

Ver No.	Approved by	Approval date	Effective from	Description of change

## MATERIALS AND STRUCTURAL PRINCIPLES

Course code	ARCH6702	Level	5	Credits	15
Pre-requisites		Co-requisites			
Main programme	New Zealand Diploma in Architectural Technology	Other programmes	New Zealand Diploma in Construction (Level 6)		
Delivery modes	Provider-based Provider-based (extramural)	Total learning hours (See course delivery document for detailed breakdown.)			150

### Whāinga/He Tauākī Akoranga | Aim/Outcome Statement

The aim of this course is to develop knowledge and skills of structural principles and the properties of materials and finishes applicable to small building projects.

### Ngā Hua o te Ako | Learning Outcomes

Upon the successful completion of this course, ākonga will be able to...		Graduate outcome alignment
LO1	Evaluate the performance of materials and finishes used in building projects.	4
LO2	Select materials and finishes for building projects.	4
LO3	Review structural principles and loading of building elements for building projects.	4

### Ngā Tūtohu o te Kiko | Indicative Content

LO1	<ul style="list-style-type: none"> <li>Characteristics, properties, and performance: identification of characteristics and physical properties, environmental factors, and potential hazards; and evaluation of performance relating to function.</li> </ul>
LO2	<ul style="list-style-type: none"> <li>Selection and compatibility: identification and evaluation of compatible elements and environmental impact. Choice of materials and finishes is in accordance with design, function, and construction methods.</li> </ul>
LO3	<ul style="list-style-type: none"> <li>Structural principles and loadings: characteristics and effects of loads, bracing and reinforcing of various building materials. Evaluation of element failure.</li> </ul>

### Ngā Mahi Ako me te Whakaako | Learning & Teaching Activities

Learning and teaching activities will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākonga.

### Aromatawai | Assessment

Assessment in this course is achievement-based. Ākonga will be advised of all matters relating to summative assessment at the start of the course.

Assessment activity	Weighting	Learning outcomes

<p><b>Assessment portfolio</b></p> <p>Will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākonga.</p>	100%	All
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Ākonga are required to provide sufficient evidence against all learning outcomes in order to pass the course.

**Ngā Rauemi Ako | Learning Resources**

All required and recommended resources are advised to ākonga via course outlines.

**Version Tracking**

Ver No.	Approved by	Approval date	Effective from	Description of change

## ENVIRONMENT

Course code	ARCH6703	Level	5	Credits	15
Pre-requisites		Co-requisites			
Main programme	New Zealand Diploma in Architectural Technology (Level 6)	Other programmes		New Zealand Diploma in Construction (Level 6)	
Delivery modes	Provider-based Provider-based (extramural)	Total learning hours (See course delivery document for detailed breakdown.)		150	

### Whāinga/He Tauākī Akoranga | Aim/Outcome Statement

The aim of this course is to develop knowledge and skills to evaluate site and building limitations including environmental impacts and sustainable methods of construction.

### Ngā Hua o te Ako | Learning Outcomes

Upon the successful completion of this course, ākonga will be able to...		Graduate outcome alignment
LO1	Identify implications of site limitations including evaluation of existing buildings.	2
LO2	Analyse the environmental impact of design and construction techniques.	2
LO3	Evaluate examples of sustainable design and construction practice.	2

### Ngā Tūtohu o te Kiko | Indicative Content

LO1	<ul style="list-style-type: none"> <li>Site limitations and existing buildings: Feasibility study - building limitations, future site use and development, evaluation of existing buildings. Overview of Resource Management Act and district/unitary plan.</li> </ul>
LO2	<ul style="list-style-type: none"> <li>Environmental impact: identification of internal and external environmental aspects and their potential impact on a range of building types, including construction methods and provision for services. Environmental impacts of construction activity such as consumption of non-renewable resources and the creation of waste streams.</li> </ul>
LO3	<ul style="list-style-type: none"> <li>Sustainable design and construction practice: sustainable design and construction techniques including methods for evaluating buildings' sustainability such as Green Star ratings, cost implication guidelines and regulatory requirements.</li> </ul>

### Ngā Mahi Ako me te Whakaako | Learning & Teaching Activities

Learning and teaching activities will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākonga.

### Aromatawai | Assessment

Assessment in this course is achievement-based. Ākonga will be advised of all matters relating to summative assessment at the start of the course.

Assessment activity	Weighting	Learning outcomes
<b>Assessment portfolio</b> Will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākongā.	100%	All

Ākongā are required to provide sufficient evidence against all learning outcomes in order to pass the course.

### Ngā Rauemi Ako | Learning Resources

All required and recommended resources are advised to ākongā via course outlines.

#### Version Tracking

Ver No.	Approved by	Approval date	Effective from	Description of change

SERVICES					
Course code	ARCH6704	Level	5	Credits	15
Pre-requisites		Co-requisites			
Main programme	New Zealand Diploma in Architectural Technology (Level 6)	Other programmes		New Zealand Diploma in Construction (Level 6)	
Delivery modes	Provider-based Provider-based (extramural)	Total learning hours (See course delivery document for detailed breakdown.)		150	

### Whāinga/He Tauākī Akoranga | Aim/Outcome Statement

The aim of this course is to develop knowledge and skills relevant to the purpose, operating principles, coordination, and legislative requirements required to manage a range of services in small, medium, and large buildings.

### Ngā Hua o te Ako | Learning Outcomes

Upon the successful completion of this course, ākonga will be able to...		Graduate outcome alignment
LO1	Evaluate the purpose and operating principles of services for small, medium and large buildings.	1
LO2	Analyse coordination and placement of building services in small, medium, and large buildings.	1
LO3	Review legislative requirements for services in small, medium, and large buildings.	1

### Ngā Tūtohu o te Kiko | Indicative Content

LO1	<ul style="list-style-type: none"> <li>Purpose and operating principles: identification of purpose, components, operating principles, and safety features for a range of services.</li> </ul>
LO2	<ul style="list-style-type: none"> <li>Coordination, placement, and reticulation: coordination of consultants. Placement - compatibility, construction, use and service/maintenance. Interpretation of reticulation and service drawings.</li> </ul>
LO3	<ul style="list-style-type: none"> <li>Legislative requirements and responsibilities: analysis of relevant legislation – electrical, plumbing, fire protection, transport systems, HVAC; including installation, service/maintenance requirements and responsibilities.</li> </ul>

### Ngā Mahi Ako me te Whakaako | Learning & Teaching Activities

Learning and teaching activities will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākonga.

### Aromatawai | Assessment

Assessment in this course is achievement-based / competency-based. Ākonga will be advised of all matters relating to summative assessment at the start of the course.

Assessment activity	Weighting	Learning outcomes
<b>Assessment portfolio</b> Will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākongā.	100%	All

Ākongā are required to provide sufficient evidence against all learning outcomes in order to pass the course.

### Ngā Rauemi Ako | Learning Resources

All required and recommended resources are advised to ākongā via course outlines.

#### Version Tracking

Ver No.	Approved by	Approval date	Effective from	Description of change

## CONSTRUCTION 1 RESIDENTIAL

Course code	ARCH6705	Level	5	Credits	15
Pre-requisites		Co-requisites			
Main programme	New Zealand Diploma in Architectural Technology (Level 6)	Other programmes		New Zealand Diploma in Construction (Level 6)	
Delivery modes	Provider-based Provider-based (extramural)	Total learning hours (See course delivery document for detailed breakdown.)		150	

### Whāinga/He Tauākī Akoranga | Aim/Outcome Statement

The aim of this course is to develop and apply knowledge and skills related to structures, building envelope and the interior for a small building.

### Ngā Hua o te Ako | Learning Outcomes

Upon the successful completion of this course, ākonga will be able to...		Graduate outcome alignment
LO1	Identify geotechnical factors and substructures for a small building.	1
LO2	Evaluate building types and structures for a small building.	1
LO3	Evaluate building envelope material, interior linings, joinery, and fitments for a small building.	1
LO4	Create technical sketches for a small building project.	5

### Ngā Tūtohu o te Kiko | Indicative Content

LO1	<ul style="list-style-type: none"> <li>Geotechnical factors and substructures: overview of substructure and design requirements including site constraints, materials, time, and cost. Foundation methods utilising a range of materials – timber, concrete, steel.</li> </ul>
LO2	<ul style="list-style-type: none"> <li>Building types and structure: use and empirical design requirements, provision for services, materials, cladding and finishes. Construction process – site constraints, range of materials, time, and cost implications for specific and non-specific design</li> </ul>
LO3	<ul style="list-style-type: none"> <li>Building envelope: selection and design – wall/roof cladding and openings are in accordance with characteristics of structure. Design principles – typical cladding jointing system. Provision for services, materials, and finishes. Construction process – site constraints, range of materials, time, and cost implications.</li> <li>Interior linings, joinery, fitments</li> </ul>
LO4	<ul style="list-style-type: none"> <li>Technical sketches</li> </ul>

### Ngā Mahi Ako me te Whakaako | Learning & Teaching Activities

Learning and teaching activities will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākonga.

### Aromatawai | Assessment

Assessment in this course is achievement-based / competency-based. Ākonga will be advised of all matters relating to summative assessment at the start of the course.

Assessment activity	Weighting	Learning outcomes
<b>Assessment portfolio</b> Will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākonga.	100%	All

Ākonga are required to provide sufficient evidence against all learning outcomes in order to pass the course.

### Ngā Rauemi Ako | Learning Resources

All required and recommended resources are advised to ākonga via course outlines.

### Version Tracking

Ver No.	Approved by	Approval date	Effective from	Description of change

## DRAWING 1

Course code	ARCH6706	Level	5	Credits	15
Pre-requisites		Co-requisites			
Main programme	New Zealand Diploma in Architectural Technology (Level 6)	Other programmes			
Delivery modes	Provider-based Provider-based (extramural)	Total learning hours (See course delivery document for detailed breakdown.)		150	

### Whāinga/He Tauākī Akoranga | Aim/Outcome Statement

The aim of this course is to develop graphical skills and knowledge to prepare design and construction documentation.

### Ngā Hua o te Ako | Learning Outcomes

Upon the successful completion of this course, ākonga will be able to...		Graduate outcome alignment
LO1	Review the types of construction drawing documentation	6
LO2	Organise construction drawing documentation	6
LO3	Apply techniques for construction drawing documentation	6
LO4	Prepare construction drawing documentation	6

### Ngā Tūtohu o te Kiko | Indicative Content

LO1	<ul style="list-style-type: none"><li>• Concept drawings, architectural drawings, structural drawings, working drawings.</li></ul>
LO2	<ul style="list-style-type: none"><li>• Presentation of accepted construction drawing practice including electronic drawing systems, drawing office practice, relevant drawing standards, storage and recording systems.</li></ul>
LO3	<ul style="list-style-type: none"><li>• Accuracy, relevance to project, terminology and abbreviations, materials, scale and layout, drawing conventions, line weight, text dimensioning, referencing. Sketches and drawings prepared and stored in accordance with workplace practice and to appropriate industry standards.</li></ul>
LO4	<ul style="list-style-type: none"><li>• Content – location, assembly, component, schedule. Overview of line types and symbols. Drawing methods including orthographic projection.</li></ul>

### Ngā Mahi Ako me te Whakaako | Learning & Teaching Activities

Learning and teaching activities will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākonga.

### Aromatawai | Assessment

Assessment in this course is achievement-based. Ākonga will be advised of all matters relating to summative assessment at the start of the course.

Assessment activity	Weighting	Learning outcomes
<b>Assessment portfolio</b> Will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākongā.	100%	All

Ākongā are required to provide sufficient evidence against all learning outcomes in order to pass the course.

### Ngā Rauemi Ako | Learning Resources

All required and recommended resources are advised to ākongā via course outlines.

#### Version Tracking

Ver No.	Approved by	Approval date	Effective from	Description of change

## SCOPING AND PRELIMINARY DESIGN 1

Course code	ARCH6707	Level	6	Credits	15
Pre-requisites		Co-requisites			
Main programme	New Zealand Diploma in Architectural Technology (Level 6)	Other programmes			
Delivery modes	Provider-based Provider-based (extramural)	Total learning hours (See course delivery document for detailed breakdown.)		150	

### Whāinga/He Tauākī Akoranga | Aim/Outcome Statement

The aim of this course is to develop the knowledge and skills to produce the documentation required for the construction of small buildings.

### Ngā Hua o te Ako | Learning Outcomes

Upon the successful completion of this course, ākonga will be able to...		Graduate outcome alignment
LO1	Establish client, site, and regulatory requirements for a small building project	3
LO2	Produce a preliminary architectural design from a construction brief	3

### Ngā Tūtohu o te Kiko | Indicative Content

LO1	<ul style="list-style-type: none"> <li>Client requirements: client – limitations, preferences, space and spatial relationships, budget, sustainability, schedule of requirements.</li> <li>Site opportunities and constraints: site – physical requirements/constraints – services, access, geotechnical, weather, topography, Land Information Memorandum.</li> </ul>
LO2	<ul style="list-style-type: none"> <li>Construction project brief: include client, site, regulatory requirements and constraints – including time, indicative cost, qualities.</li> <li>Development and presentation of a preliminary architectural design: environmental issues, cost estimates. Design proposal function and appearance. Range of sketches clearly depicts information of relevance. Information clearly presented in accordance with design brief and concept plan.</li> </ul>

### Ngā Mahi Ako me te Whakaako | Learning & Teaching Activities

Learning and teaching activities will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākonga.

### Aromatawai | Assessment

Assessment in this course is achievement-based. Ākonga will be advised of all matters relating to summative assessment at the start of the course.

Assessment activity	Weighting	Learning outcomes
<b>Assessment portfolio</b> Will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākonga.	100%	All

Ākonga are required to provide sufficient evidence against all learning outcomes in order to pass the course.

### Ngā Rauemi Ako | Learning Resources

All required and recommended resources are advised to ākonga via course outlines.

### Version Tracking

Ver No.	Approved by	Approval date	Effective from	Description of change

## DOCUMENTATION 1

Course code	ARCH6708	Level	5	Credits	15
Pre-requisites		Co-requisites			
Main programme	New Zealand Diploma in Architectural Technology (Level 6)	Other programmes			
Delivery modes	Provider-based Provider-based (extramural)	Total learning hours (See course delivery document for detailed breakdown.)			

### Whāinga/He Tauākī Akoranga | Aim/Outcome Statement

The aim of this course is to develop the knowledge and skills to prepare the documentation required for the construction of small buildings.

### Ngā Hua o te Ako | Learning Outcomes

Upon the successful completion of this course, ākonga will be able to...		Graduate outcome alignment
LO1	Prepare location, assembly and component drawings, and schedules for a small building project.	3

### Ngā Tūtohu o te Kiko | Indicative Content

LO1	<ul style="list-style-type: none"> <li>Location drawings: locality, site, foundation, floor, roof, framing, bracing, services, symbols/legend, scale, cross-referencing, consent application information.</li> <li>Views – plan, elevation, section. Construction sequence assembly</li> <li>Assembly drawings: range of views and building elements to include details for construction and assembly. Cross-referencing to specifications/drawings.</li> <li>Component drawings: detailed range of window/door components for kitchen or bathroom, including information to enable supply. Cross-referencing to specifications/drawings.</li> <li>Schedules for small buildings: range of schedules including components – interior finishes, timber, risk matrix weather-tightness/bracing calculations. Information to enable estimation of quantities and scope of work.</li> </ul>
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### Ngā Mahi Ako me te Whakaako | Learning & Teaching Activities

Learning and teaching activities will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākonga.

### Aromatawai | Assessment

Assessment in this course is achievement-based. Ākonga will be advised of all matters relating to summative assessment at the start of the course.

Assessment activity	Weighting	Learning outcomes

<b>Assessment portfolio</b> Will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākongā.	100%	All
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Ākongā are required to provide sufficient evidence against all learning outcomes in order to pass the course.

### Ngā Rauemi Ako | Learning Resources

All required and recommended resources are advised to ākongā via course outlines.

### Version Tracking

Ver No.	Approved by	Approval date	Effective from	Description of change

## CONSTRUCTION 2 COMMERCIAL

Course code	ARCH6709	Level	6	Credits	15
Pre-requisites		Co-requisites			
Main programme	New Zealand Diploma in Architectural Technology (Level 6)	Other programmes		New Zealand Diploma in Construction (Level 6)	
Delivery modes	Provider-based Provider-based (extramural)	Total learning hours (See course delivery document for detailed breakdown.)		150	

### Whāinga/He Tauākī Akoranga | Aim/Outcome Statement

The aim of this course is to develop the knowledge and skills to design foundation methods, structural systems, building envelope and the interior for medium and large buildings.

### Ngā Hua o te Ako | Learning Outcomes

Upon the successful completion of this course, ākonga will be able to...		Graduate outcome alignment
LO1	Identify geotechnical factors, substructures, and structural systems for medium and large buildings	1
LO2	Review passive fire protection systems and egress route requirements for medium and large buildings	1
LO3	Evaluate the building envelope, interior linings, joinery, and fitments for medium and large buildings	1
LO4	Create communicate construction information for medium and large building projects	5

### Ngā Tūtohu o te Kiko | Indicative Content

LO1	<ul style="list-style-type: none"> <li>Geotechnical factors, substructures, and structural systems: overview of substructure and design requirements including site constraints, materials, time, and cost. Foundation methods utilising a range of materials – timber, concrete, steel. Structural systems – building type, use and design requirements, provision for services, materials, cladding and finishes. Construction process – site constraints, range of materials, time, and cost implications.</li> </ul>
LO2	<ul style="list-style-type: none"> <li>Passive fire protection systems: selection, materials and design requirements are in accordance with NZ Building Code – fire rated separations, fire doors, fire windows, structural protection, penetrations, egress. Provision for services, materials, cladding and finishes. Construction process - site constraints, range of materials, time, and cost implications.</li> </ul>
LO3	<ul style="list-style-type: none"> <li>Building envelope: selection and design – wall/roof cladding and openings is in accordance with characteristics of structure. Design principles – typical cladding jointing systems. Provision for services, materials and finishes to meet building use and design requirements. Construction process – site constraints, range of materials, time, and cost implications.</li> <li>Interior linings, joinery and fitments</li> </ul>

LO4	<ul style="list-style-type: none"> <li>• Technical sketches</li> </ul>
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### Ngā Mahi Ako me te Whakaako | Learning & Teaching Activities

Learning and teaching activities will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākonga.

### Aromatawai | Assessment

Assessment in this course is achievement-based. Ākonga will be advised of all matters relating to summative assessment at the start of the course.

Assessment activity	Weighting	Learning outcomes
<b>Assessment portfolio</b> Will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākonga.	100%	All

Ākonga are required to provide sufficient evidence against all learning outcomes in order to pass the course.

### Ngā Rauemi Ako | Learning Resources

All required and recommended resources are advised to ākonga via course outlines.

### Version Tracking

Ver No.	Approved by	Approval date	Effective from	Description of change

## CONTRACT ADMINISTRATION

Course code	ARCH6710	Level	6	Credits	15
Pre-requisites		Co-requisites			
Main programme	New Zealand Diploma in Architectural Technology (Level 6)	Other programmes			
Delivery modes	Provider-based Provider-based (extramural)	Total learning hours (See course delivery document for detailed breakdown.)			

### Whāinga/He Tauākī Akoranga | Aim/Outcome Statement

The aim of this course is to develop the knowledge and skills to prepare tender documentation, evaluate a tender and complete post tender, construction and post-construction administration.

### Ngā Hua o te Ako | Learning Outcomes

Upon the successful completion of this course, ākonga will be able to...		Graduate outcome alignment
LO1	Assess pre-tender requirements to prepare documentation for a construction project	2
LO2	Evaluate a tender for a construction project	2
LO3	Prepare post-tender administration documentation for a construction project	2
LO4	Prepare construction and post-construction administration documentation for a construction project	2

### Ngā Tūtohu o te Kiko | Indicative Content

LO1	<ul style="list-style-type: none"> <li>Tender methods – pre-registration, sole source, invited, public.</li> <li>Contract types.</li> <li>Client requirements – format, timing, distribution, people involved.</li> <li>Documentation assembly – invitation, conditions/special conditions of tender, conditions/special conditions of contract, drawings, specification, tender forms.</li> <li>Tender period and timeline.</li> </ul>
LO2	<ul style="list-style-type: none"> <li>Receipt of tenders, treatment of late tenders.</li> <li>Tender evaluation – validity/compliance, tags listed, special conditions, rates/percentages/profit margins, analysis of sub trades and identified anomalies, clarifications as required, tender negotiation, reporting, ranking.</li> </ul>
LO3	<ul style="list-style-type: none"> <li>Post-tender administration – tender acceptance/decline.</li> <li>Legal – bond, formal agreement, contract signed sets.</li> </ul>
LO4	<ul style="list-style-type: none"> <li>Documentation – drawings and register, consents, certificates, health and safety/environmental management plans.</li> <li>Site establishment.</li> <li>Administration – monitoring, systems for instruction, reporting, claims, variations, fluctuations, protocols.</li> </ul>

	<ul style="list-style-type: none"> <li>• Contract completion – commissioning, producer statements, warranties/guarantees, extensions, inspections, certificates, final accounts.</li> <li>• Post-construction documentation – as-built drawings, equipment dossier, maintenance schedule, producer statement and code compliance certificate.</li> </ul>
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### Ngā Mahi Ako me te Whakaako | Learning & Teaching Activities

Learning and teaching activities will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākongā.

### Aromatawai | Assessment

Assessment in this course is achievement-based. Ākongā will be advised of all matters relating to summative assessment at the start of the course.

Assessment activity	Weighting	Learning outcomes
<b>Assessment portfolio</b> Will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākongā.	100%	All

Ākongā are required to provide sufficient evidence against all learning outcomes in order to pass the course.

### Ngā Rauemi Ako | Learning Resources

All required and recommended resources are advised to ākongā via course outlines.

### Version Tracking

Ver No.	Approved by	Approval date	Effective from	Description of change

## DESIGN IN THE BUILT ENVIRONMENT

Course code	ARCH6711	Level	6	Credits	15
Pre-requisites		Co-requisites			
Main programme	New Zealand Diploma in Architectural Technology (Level 6)	Other programmes			
Delivery modes	Provider-based Provider-based (extramural)	Total learning hours (See course delivery document for detailed breakdown.)			

### Whāinga/He Tauākī Akoranga | Aim/Outcome Statement

The aim of this course is to develop the knowledge and skills to apply social and cultural factors to the design principles of the built environment.

### Ngā Hua o te Ako | Learning Outcomes

Upon the successful completion of this course, ākonga will be able to...		Graduate outcome alignment
LO1	Evaluate design principles for architectural projects	5
LO2	Review the historical development of design eras and features	5
LO3	Identify the impact of cultural differences on the built environment	5

### Ngā Tūtohu o te Kiko | Indicative Content

LO1	<ul style="list-style-type: none"> <li>Case studies to demonstrate - architectural terminology and theory, colour theory, aesthetics, proportion and scale, form and function, spatial relationships and organisation, anthropometrics/ergonomics, effect on the built environment, sustainability and environmental impact.</li> </ul>
LO2	<ul style="list-style-type: none"> <li>Building styles – classical, modern, contemporary.</li> <li>Comparative analysis – function, appearance, structure, construction and materials technology, materials availability, social structures and organisation.</li> </ul>
LO3	<ul style="list-style-type: none"> <li>Styles and trends – western, eastern, South Pacific.</li> <li>Comparative analysis – function, appearance, structure, construction and materials technology, materials availability, social structures and organisation, urban planning.</li> </ul>

### Ngā Mahi Ako me te Whakaako | Learning & Teaching Activities

Learning and teaching activities will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākonga.

### Aromatawai | Assessment

Assessment in this course is achievement-based. Ākonga will be advised of all matters relating to summative assessment at the start of the course.

Assessment activity	Weighting	Learning outcomes
<b>Assessment portfolio</b> Will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākongā.	100%	All

Ākongā are required to provide sufficient evidence against all learning outcomes in order to pass the course.

### Ngā Rauemi Ako | Learning Resources

All required and recommended resources are advised to ākongā via course outlines.

#### Version Tracking

Ver No.	Approved by	Approval date	Effective from	Description of change

## DETAILING

Course code	ARCH6712	Level	6	Credits	15
Pre-requisites		Co-requisites			
Main programme	New Zealand Diploma in Architectural Technology (Level 6)	Other programmes			
Delivery modes	Provider-based Provider-based (extramural)	Total learning hours (See course delivery document for detailed breakdown.)			

### Whāinga/He Tauākī Akoranga | Aim/Outcome Statement

The aim of this course is to develop the knowledge and skills to interpret and prepare construction details.

### Ngā Hua o te Ako | Learning Outcomes

Upon the successful completion of this course, ākonga will be able to...		Graduate outcome alignment
LO1	Research design requirements and inter-relationships between building components	5
LO2	Produce assembly drawings for critical building components	5

### Ngā Tūtohu o te Kiko | Indicative Content

LO1	<ul style="list-style-type: none"> <li>Structural components, materials, foundation and substructure, the envelope, mechanical systems.</li> <li>Design requirements for sustainability, durability, appearance, maintenance, practicality for intended use, general cost implications and water/weather tightness, concept of buildability, consent application information.</li> <li>Integration of information from specialist consultants.</li> </ul>
LO2	<ul style="list-style-type: none"> <li>Range of views and building elements to include details for construction and assembly.</li> <li>Integration of information from specialist consultants.</li> <li>Cross-referencing to specifications/drawings.</li> <li>Components may include: windows, doors, structural details, external envelope junctions, services detail, penetrations, mechanical drawings.</li> </ul>

### Ngā Mahi Ako me te Whakaako | Learning & Teaching Activities

Learning and teaching activities will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākonga.

### Aromatawai | Assessment

Assessment in this course is achievement-based. Ākonga will be advised of all matters relating to summative assessment at the start of the course.

Assessment activity	Weighting	Learning outcomes
<b>Assessment portfolio</b> Will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākongā.	100%	All

Ākongā are required to provide sufficient evidence against all learning outcomes in order to pass the course.

### Ngā Rauemi Ako | Learning Resources

All required and recommended resources are advised to ākongā via course outlines.

#### Version Tracking

Ver No.	Approved by	Approval date	Effective from	Description of change

## DOCUMENTATION 2

Course code	ARCH6713	Level	6	Credits	15
Pre-requisites		Co-requisites			
Main programme	New Zealand Diploma in Architectural Technology (Level 6)	Other programmes			
Delivery modes	Provider-based Provider-based (extramural)	Total learning hours (See course delivery document for detailed breakdown.)			

### Whāinga/He Tauākī Akoranga | Aim/Outcome Statement

The aim of this course is to develop the knowledge and skills to prepare documentation required for the construction of medium buildings.

### Ngā Hua o te Ako | Learning Outcomes

Upon the successful completion of this course, ākonga will be able to...		Graduate outcome alignment
LO1	Prepare location, assembly and component drawings, schedules and specifications for a medium building project.	5

### Ngā Tūtohu o te Kiko | Indicative Content

LO1	<ul style="list-style-type: none"> <li>Location drawings: locality, site, foundation, floor, roof, framing, bracing, services, vehicular movement, symbols/legend, scale, cross-referencing, consent application information. Integration of information from specialist consultants. Views – plan, elevation, section. Construction sequence assembly, for a medium building project.</li> <li>Assembly drawings: range of views and building elements to include details for construction and assembly. Integration of information from specialist consultants. Cross-referencing to specifications/drawings, for a medium building project.</li> <li>Component drawings: detailed range of window/door components, stairs, shop fittings, specialist joinery, including information to enable supply. Cross-referencing to specifications/drawings. Range of schedules including components – interior/exterior, door hardware. Integration of information from specialist consultants. Information to enable estimation of quantities, scope of work and standards of finish, for a medium building project.</li> <li>Specifications: compile information and accurately prepare relevant sections of a specification for a medium building project.</li> </ul>
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### Ngā Mahi Ako me te Whakaako | Learning & Teaching Activities

Learning and teaching activities will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākonga.

### Aromatawai | Assessment

Assessment in this course is achievement-based. Ākonga will be advised of all matters relating to summative assessment at the start of the course.

Assessment activity	Weighting	Learning outcomes
<b>Assessment portfolio</b> Will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākongā.	100%	All

Ākongā are required to provide sufficient evidence against all learning outcomes in order to pass the course.

### Ngā Rauemi Ako | Learning Resources

All required and recommended resources are advised to ākongā via course outlines.

### Version Tracking

Ver No.	Approved by	Approval date	Effective from	Description of change

## SCOPING AND PRELIMINARY DESIGN 2

Course code	ARCH6714	Level	6	Credits	15
Pre-requisites		Co-requisites			
Main programme	New Zealand Diploma in Architectural Technology (Level 6)	Other programmes			
Delivery modes	Provider-based Provider-based (extramural)	Total learning hours (See course delivery document for detailed breakdown.)			

### Whāinga/He Tauākī Akoranga | Aim/Outcome Statement

The aim of this course is to develop the knowledge and skills to prepare building proposals, building design drawings and associated approval documentation.

### Ngā Hua o te Ako | Learning Outcomes

Upon the successful completion of this course, ākonga will be able to...		Graduate outcome alignment
LO1	Develop a building proposal for a preliminary design	5
LO2	Produce building design drawings from a preliminary design	5
LO3	Prepare approval documentation to meet client, site, and compliance requirements	5

### Ngā Tūtohu o te Kiko | Indicative Content

LO1	<ul style="list-style-type: none"> <li>Dimensions, construction, materials, finishes, structural requirements, estimated costs including a schedule of elemental costs.</li> <li>Proposal is prepared in accordance with regulatory controls and client feedback.</li> </ul>
LO2	<ul style="list-style-type: none"> <li>Range of drawings developed in accordance with preliminary design.</li> </ul>
LO3	<ul style="list-style-type: none"> <li>Drawings and resource consent application documentation meets client, site and regulatory requirements.</li> </ul>

### Ngā Mahi Ako me te Whakaako | Learning & Teaching Activities

Learning and teaching activities will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākonga.

### Aromatawai | Assessment

Assessment in this course is achievement-based. Ākonga will be advised of all matters relating to summative assessment at the start of the course.

Assessment activity	Weighting	Learning outcomes

<p><b>Assessment portfolio</b></p> <p>Will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākonga.</p>	100%	All
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Ākonga are required to provide sufficient evidence against all learning outcomes in order to pass the course.

**Ngā Rauemi Ako | Learning Resources**

All required and recommended resources are advised to ākonga via course outlines.

**Version Tracking**

Ver No.	Approved by	Approval date	Effective from	Description of change

## VIRTUAL DESIGN AND CONSTRUCTION

Course code	ARCH6715	Level	6	Credits	15
Pre-requisites		Co-requisites			
Main programme	New Zealand Diploma in Architectural Technology (Level 6)	Other programmes			
Delivery modes	Provider-based Provider-based (extramural)	Total learning hours (See course delivery document for detailed breakdown.)			

### Whāinga/He Tauākī Akoranga | Aim/Outcome Statement

The aim of this course is to develop the knowledge and skills to understand the principles of building information modelling in order to establish design solutions.

### Ngā Hua o te Ako | Learning Outcomes

Upon the successful completion of this course, ākonga will be able to...		Graduate outcome alignment
LO1	Review the principles of building information modelling	5
LO2	Interpret, assess, and apply building information modelling data	5
LO3	Develop and integrate design solutions for a project	5

### Ngā Tūtohu o te Kiko | Indicative Content

LO1	<ul style="list-style-type: none"> <li>Overview of building information modelling – including compilation, maintenance and use of BIM data; risks/opportunities/constraints; design solutions; whole life and capital costs; value proposition; investment and return.</li> </ul>
LO2	<ul style="list-style-type: none"> <li>Identification of stakeholder/user/community requirements.</li> <li>Investigation and assessment of – contextual factors, resources, regulatory and legal factors affecting potential developments.</li> <li>Data maintenance.</li> </ul>
LO3	<ul style="list-style-type: none"> <li>Organisational and project applications – including stakeholder requirements, sustainable design solutions, historic and heritage assets, health and safety.</li> <li>Project design recommendations and agreement.</li> <li>Modelling.</li> </ul>

### Ngā Mahi Ako me te Whakaako | Learning & Teaching Activities

Learning and teaching activities will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākonga.

### Aromatawai | Assessment

Assessment in this course is achievement-based. Ākonga will be advised of all matters relating to summative assessment at the start of the course.

Assessment activity	Weighting	Learning outcomes
<b>Assessment portfolio</b> Will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākongā.	100%	All

Ākongā are required to provide sufficient evidence against all learning outcomes in order to pass the course.

### Ngā Rauemi Ako | Learning Resources

All required and recommended resources are advised to ākongā via course outlines.

#### Version Tracking

Ver No.	Approved by	Approval date	Effective from	Description of change

## INDUSTRY PROJECT

Course code	ARCH6716	Level	6	Credits	15
Pre-requisites		Co-requisites			
Main programme	New Zealand Diploma in Architectural Technology (Level 6)	Other programmes			
Delivery modes	Provider-based Provider-based (extramural)	Total learning hours (See course delivery document for detailed breakdown.)			

### Whāinga/He Tauākī Akoranga | Aim/Outcome Statement

The aim of this course is to develop knowledge and skills to conduct and present the findings of an investigation within the construction industry.

### Ngā Hua o te Ako | Learning Outcomes

Upon the successful completion of this course, ākonga will be able to...		Graduate outcome alignment
LO1	Investigate selected construction aspects of a significant regional or national construction project	1-7
LO2	Evaluate the application of a selected advanced construction technology to a sector of the national construction industry.	1-7

### Ngā Tūtohu o te Kiko | Indicative Content

LO1	<ul style="list-style-type: none"> <li>Application of investigation methods to a brief.</li> <li>Data collection, analysis, management and evaluation.</li> <li>Critical reading and evaluation.</li> <li>Formulation of conclusions and recommendations.</li> <li>Effective communication between stakeholders.</li> </ul>
LO2	<ul style="list-style-type: none"> <li>Structured report/response to a brief, presenting the investigative process, analysis and findings.</li> <li>Presentation of project documentation and findings.</li> </ul>

### Ngā Mahi Ako me te Whakaako | Learning & Teaching Activities

Learning and teaching activities will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākonga.

### Aromatawai | Assessment

Assessment in this course is achievement-based. Ākonga will be advised of all matters relating to summative assessment at the start of the course.

Assessment activity	Weighting	Learning outcomes
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<b>Assessment portfolio</b> Will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākonga.	100%	All
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Ākonga are required to provide sufficient evidence against all learning outcomes in order to pass the course.

### Ngā Rauemi Ako | Learning Resources

All required and recommended resources are advised to ākonga via course outlines.

### Version Tracking

Ver No.	Approved by	Approval date	Effective from	Description of change