



VICTORIA UNIVERSITY OF
WELLINGTON
TE HERENGA WAKA

WHARE HANGANGA

BUILDING SCIENCE AND CONSTRUCTION

Bachelor of Building Science
Bachelor of Construction

2027



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Te Herenga Waka—Victoria University of Wellington has an overall five-stars-plus rating in the QS Stars university rating system, one of only 24 universities worldwide to do so. The University gained a total score of 966 out of a possible 1,000 points across eight audited categories, including maximum points for the employability and inclusiveness categories. Maximum points were awarded for 25 of the more than 30 indicators, including overall

student satisfaction; further study; graduate employment rate; international diversity, support, and collaborations; academic reputation; satisfaction with teaching; campus facilities; accreditations; art and cultural investment and facilities; disabled access; scholarships and bursaries; low-income outreach; and student cohort diversity.

IMPORTANT NOTICE: Te Herenga Waka—Victoria University of Wellington uses all reasonable skill and care to ensure the information contained here was accurate at the time it was prepared. However, matters covered by this publication are subject to change due to a continuous process of review, and to unanticipated circumstances. The University therefore reserves the right to make any changes without notice. So far as the law permits, the University accepts no responsibility for any loss suffered by any person due to reliance (either whole or in part) on the information contained in this publication, whether direct or indirect, and whether foreseeable or not.

WHARE HANGANGA

BUILDING SCIENCE AND CONSTRUCTION

Te Kura Waihanga—School of Architecture offers a unique and comprehensive approach to the science and construction of our world, providing two distinct Bachelor's programmes to address the complex challenges of today and the future.

Te Herenga Waka—Victoria University of Wellington has long been established as an international leader in the field of building science. Our Tohu Paetahi Whare Hangahanga—Bachelor of Building Science (BBSc) is the country's leading programme devoted to the science of buildings. Our Tohu Paetahi o te Hanganga—Bachelor of Construction (BConst) is grounded in this expertise, while branching out into the digital, technological, and people-leadership realms of construction.

Building Science professionals tackle big questions about the science and performance of our buildings and built environment: How do we ensure buildings are durable and comfortable for people, with minimal environmental impact? How can we adapt building practices for climate change?

Construction professionals tackle big questions about how we build: How can we construct infrastructure in a safer and more sustainable way? How can new technology be used in construction? How can people management deliver more productivity?

Studying at the School of Architecture means working in world-class design studios, using cutting-edge digital tools, and learning from global experts in the design and construction of buildings and spaces. Located in Wellington's creative hub off vibrant Cuba Street, you'll benefit from regular engagement with industry professionals, forging crucial career connections. Our programmes are designed to meet the evolving needs of the design and construction sectors, preparing you to shape the future of our natural and built environments.

OUR DEGREES

We offer three three-year undergraduate qualifications: the Tohu Paetahi Waihanga—Bachelor of Architectural Studies (BAS), the Tohu Paetahi Whare Hangahanga—Bachelor of Building Science (BBSc), and the Tohu Paetahi o te Hanganga—Bachelor of Construction (BConst).

The BAS, BBSc, and BConst share most of the first-year core courses, so you'll have the option to choose a major that suits your interests and aspirations before your second year. In your first year, you'll be introduced to a broad range of subjects, including architectural history, building science, construction, design studio work, digital technologies, environmental science, interior architecture, and landscape architecture. These explorations will give you a solid understanding of the built environment.

Conjoint degrees, majors, and minors

You can choose to combine your degree with another in a conjoint degree. For example, you could combine a Bachelor of Building Science with a Bachelor of Construction. This will take you less time than completing two degrees separately. You can also choose a second major or a minor from within the School of Architecture, or from a degree offered at another of the University's schools. Our student advisers can help you make a plan that will work for you.

[wgtn.ac.nz/course-planning](https://www.wgtn.ac.nz/course-planning)



TOHU PAETAHI WHARE HANGAHANGA BACHELOR OF BUILDING SCIENCE

The quality of our buildings is vital to our economy, our environment, our health, and our lifestyles. Take your interest in the process and business of creating great buildings—from construction methods, materials, and systems to project management and contractor relations—and contribute to a more sustainable world.

Te Herenga Waka—Victoria University of Wellington is an international leader in the field of building science, and our Bachelor of Building Science (BBSc) is the country's leading programme devoted to the science of buildings.

You will study building construction and sustainability to promote the construction of durable, economic, and healthy buildings, while being aware of architectural design issues. The BBSc has five majors: Building Surveying, Built and Natural Heritage Conservation, Project Management, Smart Cities and Digital Built Environments, and Sustainable Engineering Systems. It is possible to take two majors, or one major and two minors.

At the end of three years' study, you will have the knowledge and skills to begin a satisfying career in the building industry or to continue your study at postgraduate level. Graduates have expertise in the human factors, science, and technology of building and an understanding of architecture.

[wgtn.ac.nz/bbsc](https://www.wgtn.ac.nz/bbsc)

CAREERS

Building Science graduates have a combination of theoretical knowledge and practical experience that meets an urgent need for building science professionals. You will find careers in diverse areas including acoustics, building research and development, heating, lighting, project management, and sustainable design.

Potential jobs include:

- ▶ acoustician
- ▶ building consent manager
- ▶ building information modelling (BIM) manager
- ▶ building performance analyst
- ▶ building scientist
- ▶ building surveyor
- ▶ compliance officer
- ▶ conservation adviser
- ▶ data analyst
- ▶ digital construction specialist
- ▶ energy efficiency consultant
- ▶ fire consultant
- ▶ green building designer or assessor
- ▶ heating systems engineer
- ▶ heritage consultant
- ▶ heritage policy analyst
- ▶ procurement specialist
- ▶ project coordinator
- ▶ project manager
- ▶ quantity surveyor
- ▶ renewable energy consultant
- ▶ risk manager
- ▶ sustainability consultant
- ▶ sustainable systems engineer
- ▶ zero carbon consultant.

FURTHER STUDY OPPORTUNITIES

At the end of your Bachelor's degree, you can stay on and study for a Master's degree or even a PhD. A BBSc leads to postgraduate study in the one-year (Trimesters 1, 2, and 3) taught-only Master of Building Science (MBildSc) programme, where you can extend your undergraduate major in Project Management or Sustainable Engineering Systems. Alternatively, you can stay for an extra year and take your research to the next level by exploring one of the following topics in a Master of Construction and Building Science (Research) (MCBSc(Res)) thesis:

- ▶ energy analysis
- ▶ lighting
- ▶ project management
- ▶ sustainable design
- ▶ another area that can be supervised in the School of Architecture.

Other recommended postgraduate study options are the Master of Construction, Master of Construction Law, and Master of Urban and Regional Planning.

[wgtn.ac.nz/postgraduate-architecture](https://www.wgtn.ac.nz/postgraduate-architecture)

ENTRY REQUIREMENTS

A broad selection of school subjects is recommended, and these might include design, graphics, English, mathematics, and any science or technology.

For more information, go to [wgtn.ac.nz/study](https://www.wgtn.ac.nz/study)

Information on degrees, course details, and prescriptions is on our website.

[wgtn.ac.nz/bbsc](https://www.wgtn.ac.nz/bbsc)



"My choice to pursue a double major in Building Science meant that most of my courses were predefined. I enjoyed this structure because all my peers were doing the same assignments. Having a group of people to bounce ideas off and collaborate with, both academically and socially, made it easier to work on group assignments and ask for help."

Hannah

Graduate, Bachelor of Building Science
Read more about Hannah at [wgtn.ac.nz/architecture-profiles](https://www.wgtn.ac.nz/architecture-profiles)



DEGREE STRUCTURE

The Bachelor of Building Science is a three-year undergraduate degree.

Your first year

In your first year, you will study four core introductory courses, around which you may select elective courses. You will also select up to two majors, or one major and two minors. The core courses will introduce you to sustainability in the designed environment, design communication, built environment technology, and environmental design sciences. Your elective courses can be chosen from Building Science, Construction, Architectural Studies, or an entirely different area of study

Your second year

This is the year you will start to hone your skills in your selected major(s). You will have two core courses, and fill the rest of your programme with courses from your selected major(s) and electives.

Your third year

By this stage, you'll have developed a good understanding of building science and your major. You will appreciate the important questions related to sustainability, price, quality of construction, and the skill of people involved. At the end of your third year, you'll have the knowledge and skills to begin your career in the building industry or move into postgraduate education.

wgtn.ac.nz/bbsc

BBSc degree structure

Example: BBSc majoring in Building Surveying

YEAR 1		YEAR 2		YEAR 3	
TRIMESTER 1	TRIMESTER 2	TRIMESTER 1	TRIMESTER 2	TRIMESTER 1	TRIMESTER 2
SARC 131 Introduction to Sustainability in the Designed Environment (15 points)	SARC 121 Introduction to Built Environment Technology (15 points)	SARC 221 Building Materials and Construction (15 points)	BILD 202 Building Pathology (15 points)	BILD 364 Building Code Compliance (15 points)	SARC 321 Construction (15 points)
SARC 161 Introduction to Design Communication (15 points)	SARC 122 Introduction to Environmental Design Sciences (15 points)	BILD 222 Structural Systems for Building Science (15 points)	SARC 224 Fire Safety Design (15 points)	SARC 362 Introduction to Practice and Management (15 points)	BILD 301 Cladding Systems and Weathertightness (15 points)
Elective course or second major (15 points)	BILD 101 Introduction to Surveying (15 points)	Elective course or second major (15 points)	Elective course or second major (15 points)	SARC 301 Introduction to Robotics and Drone Technologies (15 points)	BILD 302 Building Simulation Systems (15 points)
Elective course or second major (15 points)	Elective course or second major (15 points)	Elective course or second major (15 points)	Elective course or second major (15 points)*	Elective course or second major (15 points)*	Elective course or second major (15 points)*
60 POINTS	60 POINTS	60 POINTS	60 POINTS	60 POINTS	60 POINTS
120 POINTS		120 POINTS		120 POINTS	

Core courses Major courses Elective courses

Total points required: 360

Total points completed: 360

Core: Core courses are the courses you are required to take to complete a Bachelor of Building Science.

Major: A major is the main subject you'll focus on in your degree.

Elective: Elective courses are courses in other subjects you are interested in and don't need to be related to your major subject.

*One of these electives must be a 200- or 300-level elective.

MAJORS

There are five majors available as part of a BBSc: Building Surveying, Built and Natural Heritage Conservation, Project Management, Smart Cities and Digital Built Environments, and Sustainable Engineering Systems. You can choose one or two majors.

Building Surveying

Majoring in Building Surveying will help you to develop expertise in building codes and regulations, sustainable building practices, and the diagnosis and remediation of building defects. Graduates will contribute to the creation of safe, efficient, and environmentally responsible buildings.

Built and Natural Heritage Conservation

Majoring in Built and Natural Heritage Conservation will provide graduates with a deep understanding of heritage conservation principles and practices. Students will develop skills in the preservation and management of built and natural heritage sites, integrating traditional knowledge with modern techniques to ensure their long-term protection.

Project Management

Majoring in Project Management will give you the skills to manage a design and construction project, including contract management and effective communication. You will also be able to navigate both construction and environmental law and understand issues around supply, demand, costs, risk, and competition.

Smart Cities and Digital Built Environments

Majoring in Smart Cities and Digital Built Environments will give you the skills to apply digital technologies in the creation of sustainable and resilient urban environments. Graduates will gain expertise in artificial intelligence, building information modelling, data analytics, and mixed realities to optimise the design, construction, and operation of smart buildings and infrastructure.

Sustainable Engineering Systems

Majoring in Sustainable Engineering Systems will provide you with the practical and theoretical knowledge you need to work in the design and construction of durable, healthy, and sustainable buildings. You'll get the skills you need to design and contribute to energy-efficient and low-carbon systems that include the efficient use of sustainable materials.

[wgtn.ac.nz/subjects](https://www.wgtn.ac.nz/subjects)

INDUSTRY CONNECTIONS

This programme is closely aligned with the School of Architecture's Bachelor of Construction (BConst) and Bachelor of Architectural Studies (BAS). It also benefits from collaboration with Te Herenga Waka's other faculties, ensuring you have access to interdisciplinary expertise. Graduates will be well prepared to address the challenges facing New Zealand's building industry, from housing shortages to climate-change adaptation.

The BBSc programme has received accreditation with the Royal Institute of Chartered Surveyors for the Building Surveying and Project Management majors.



TOHU PAETAHI O TE HANGANGA BACHELOR OF CONSTRUCTION

The construction industry plays a crucial role in addressing New Zealand's infrastructure needs, from housing and schools to healthcare facilities and transport systems. If you're interested in the process of creating and managing buildings—from modern construction methods and advanced digital technologies to project management and sustainable building practices—the Bachelor of Construction (BConst) at Te Herenga Waka—Victoria University of Wellington is your path to contributing to a more affordable and sustainable built environment.

This degree equips you with the skills to tackle the challenges of modern construction, including housing shortages, infrastructure development, and climate-change adaptation. You will learn about construction management, health, safety, and wellbeing, and sustainable construction, including the latest construction technologies such as artificial intelligence, big data, drones, remote sensing, and robotics. You will develop skills to reduce risks and increase innovation.

The BConst offers three majors—Construction Management, Construction Health and Safety, and Sustainable Construction—designed to meet industry demand. This flexible degree will allow you to take two majors or one major and two minors. Students will be able to take a second major or two minors in areas such as Building Surveying, Built and Natural Heritage Conservation, Project Management, Smart Cities and Digital Built Environments, and Sustainable Engineering Systems from our Bachelor of Building Science. You'll also have opportunities to gain practical experience through industry placements, field trips, and real-world projects, preparing you for a successful career in the construction sector.

Upon graduation, you'll be well positioned to pursue roles such as construction manager, design manager, project manager, or site manager, or continue your studies at postgraduate level. Graduates of the BConst will be well-prepared to meet the growing needs of the construction industry, with the knowledge and skills to lead projects that improve productivity, sustainability, and safety in the sector.



CAREERS

Graduates of the BConst will have the skills and knowledge needed to address the critical shortage of skilled professionals in the construction sector. With expertise in construction management, health, safety, and wellbeing, and sustainable construction, you'll find opportunities across diverse areas. Potential career paths from our majors include:

- ▶ Construction Management—contract administrator, construction manager, construction supervisor, development manager, estimator, project manager, property developer, site manager
- ▶ Sustainable Construction and Construction Health and Safety—environmental manager or consultant, health, safety, and wellbeing manager or consultant, sustainability manager or consultant.

ENTRY REQUIREMENTS

A broad selection of subjects is recommended, including design, economics, English, geography, mathematics, science, and technology, but we welcome all knowledge. For more information, go to our website.

📍 wgtn.ac.nz/construction

DEGREE STRUCTURE

The Bachelor of Construction is a three-year undergraduate programme.

Your first year

In your first year, four core courses will introduce you to the foundations of sustainability in the built environment, key technologies used in modern construction, and design communication. As part of your major, you'll be able to pick courses related to construction management, health, safety, and wellbeing, sustainability, and digital-first construction, among many more.

Your second year

In your second year, you'll deepen your understanding of construction by focusing on core courses related to building materials, construction, and structural systems. You'll build on core competencies to move towards elective choices in advanced topics such as augmented and virtual reality, building services, digital construction technologies, heritage conservation, robotics, sustainability in building practices, and many more.

Your third year

By your third year, you'll be heading towards building skills to manage complex construction projects. You'll study how management of complex projects occurs, as well as the importance of cladding and weathertightness, construction systems, health, safety, and wellbeing practices, and innovative building technologies such as robotics and drones. At the end of the programme, you'll be ready to start your career or pursue postgraduate study.

FURTHER STUDY OPPORTUNITIES

After completing your Bachelor's degree, you may choose to further develop your skills in areas such as construction technologies, health and safety, procurement and logistics, and Māori land and development. Postgraduate options also include the Master of Building Science (MBildSc), Master of Construction (MConst), Master of Construction Law (MConsLaw), or the Master of Urban and Regional Planning (MURPlan).

📍 wgtn.ac.nz/postgraduate-architecture

BConst degree structure

Example: BConst majoring in Construction Management

YEAR 1		YEAR 2		YEAR 3	
TRIMESTER 1	TRIMESTER 2	TRIMESTER 1	TRIMESTER 2	TRIMESTER 1	TRIMESTER 2
CONM 111 Introduction to Construction (15 points)	CONM 122 Digital Tools for Construction (15 points)	BILD 222 Structural Systems for Building Science (15 points)	BILD 251 Contemporary Building Technologies (15 points)	SARC 362 Introduction to Practice and Management (15 points)	SARC 321 Construction (15 points)
SARC 131 Introduction to Sustainability in the Designed Environment (15 points)	SARC 121 Introduction to Built Environment Technology (15 points)	CONM 211 Construction Project Administration and Procurement (15 points)	BILD 262 Building Project Management Cost Planning (15 points)	BILD 362 Construction Law and Contracts (15 points)	CONM 321 Construction Costs, Planning and Scheduling (15 points)
Elective course or second major (15 points)	CONM 112 Construction Health, Safety and Wellbeing (15 points)	SARC 221 Building Materials and Construction (15 points)	Elective course or second major (15 points)	BILD 364 Building Code Compliance (15 points)	Elective course or second major (15 points)
Elective course or second major (15 points)	CONM 121 Introduction to Infrastructure (15 points)	Elective course or second major (15 points)	Elective course or second major (15 points)	Elective course or second major (15 points)	Elective course or second major (15 points)
60 POINTS	60 POINTS	60 POINTS	60 POINTS	60 POINTS	60 POINTS
120 POINTS		120 POINTS		120 POINTS	

Core courses Major courses Elective courses

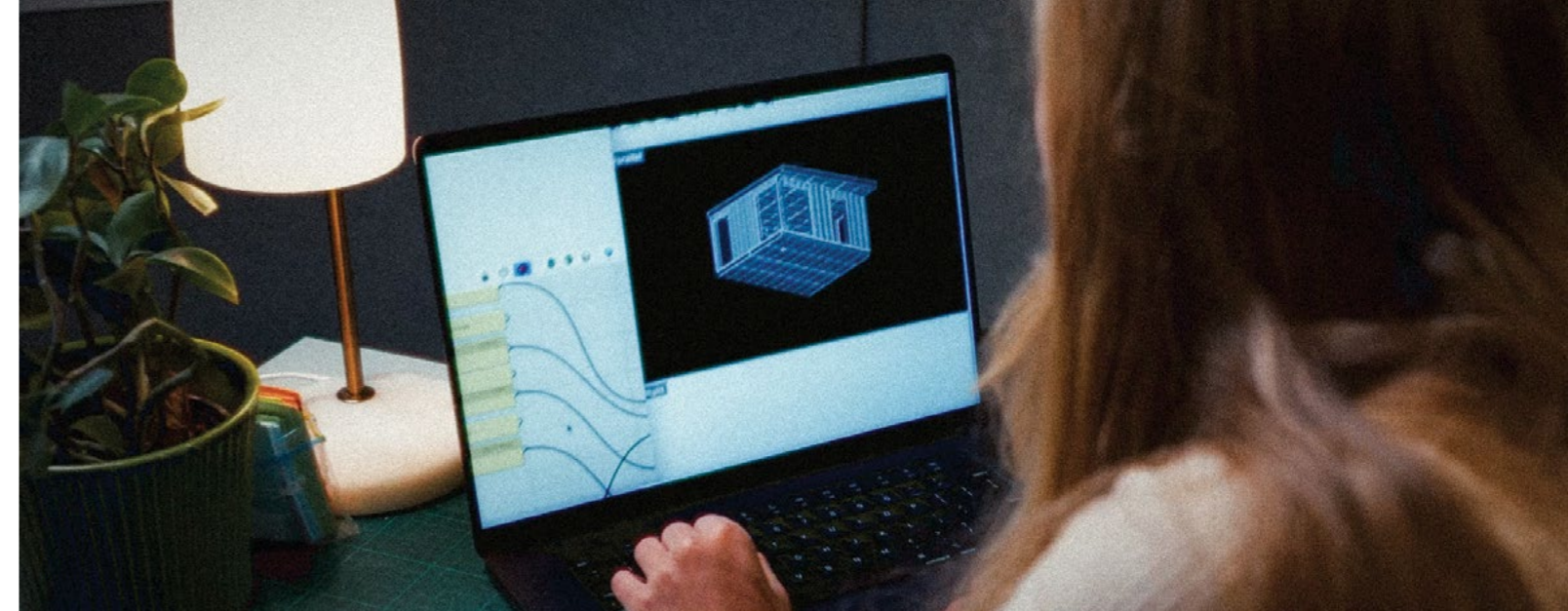
Total points required: 360

Total points completed: 360

Core: Core courses are the courses you are required to take to complete a Bachelor of Construction.

Major: A major is the main subject you'll focus on in your degree.

Elective: Elective courses are courses in other subjects you are interested in and don't need to be related to your major subject.



MAJORS

Construction Health and Safety

Contribute to the development, compliance, and education of a strong safety culture within the construction industry, emphasising proactive hazard prevention and risk mitigation. Advocate for the physical and mental wellbeing of construction workers, promoting safe work practices and a productive work environment.

Construction Management

Be part of the construction revolution, working on complex projects, from skyscrapers to sustainable communities, using cutting-edge technologies to reduce costs and risks. Drive innovation, efficiency, and sustainability in the built environment.

Sustainable Construction

Build a better tomorrow. The major in Sustainable Construction will equip graduates with the knowledge and skills to evaluate and implement sustainable construction practices, contributing to environmentally responsible and socially conscious projects. Be part of leadership in green building, waste reduction, and lower carbon practices for a thriving construction industry.

INDUSTRY CONNECTIONS

This programme is closely aligned with the School of Architecture's Bachelor of Building Science (BBSc) and Bachelor of Architectural Studies (BAS). It also benefits from collaboration with Te Herenga Waka's other faculties, ensuring you have access to interdisciplinary expertise. Graduates will be well prepared to address the challenges facing New Zealand's construction industry, from housing shortages to climate-change adaptation.

The BConst programme is endorsed by Building Institute Aotearoa and provisionally accredited with the Chartered Institute of Architectural Technologists and the Royal Institute of Chartered Surveyors.



FACILITIES AND EQUIPMENT

The Faculty of Architecture and Design Innovation's cutting-edge facilities empower your creative journey. Our purpose-built studios cater to various disciplines, providing the ideal environment for collaborative and individual work.

Across the various studios, you'll find a range of computer-aided design (CAD) workstations, printing and scanning services, and teaching audiovisual equipment, all seamlessly integrated into our student-friendly facilities and supported locally by our own specialist computer and technology technicians. We also have a dedicated first-year studio, fully supported with audiovisual equipment for the different modes of learning in your first year.

The main 3D-modelling workshops boast a range of state-of-the-art digital fabrication equipment, including larger and more complex 3D printers, robotic arms, CNC wood routers, and various laser cutters. You'll also have access to a woodwork and metalwork workshop, a photography studio, 3D digital scanning equipment, quadcopter drones, and more.

The Technical Resource Centre is your go-to hub for all your modelling supplies and specialised materials, reprographics, and wide-format printing services, as well as for borrowing audiovisual, photographic, and building-science test equipment.

ARCHITECTURE AND DESIGN LIBRARY

Immerse yourself in a wealth of knowledge at our Architecture and Design Library. Located at Te Aro campus, it houses an extensive collection of books, periodicals, and theses focused on architecture, design, and building science.

Read more about our facilities at wgtn.ac.nz/wfadi/facilities



▼
“The most valuable aspect of my programme has been developing a strong foundation in architecture and the built environment during my first year. It opened my eyes to how every single component plays a role in the craft of creating a building. I've learnt to look at buildings in a much deeper way—not just as finished structures, but as the result of thoughtful decisions involving design, function, and sustainability.”

Manihera

Student, Bachelor of Building Science in Project Management

FIND OUT MORE

- [wgtn.ac.nz/bbsc](https://www.wgtn.ac.nz/bbsc)
- [wgtn.ac.nz/construction](https://www.wgtn.ac.nz/construction)
- [wgtn.ac.nz/apply](https://www.wgtn.ac.nz/apply)

WHY WELLINGTON?

We're at the heart of New Zealand's creative capital city. You'll find this an exciting, inspirational, and enjoyable place to learn, study, and design. The School of Architecture is home to cutting-edge workshop facilities, extensive media labs, augmented- and virtual-reality research studios, huge 3D printing capability, and the largest robotic design laboratory (and robotic arm) in a New Zealand tertiary institution. You'll have the opportunity to work with, and learn from, our world-class academics and professional staff in our laboratories, studios, and workshops. You'll explore your ideas and build your skills, with multiple opportunities to showcase your work and network with industry professionals at the variety of events and exhibitions we hold each year.

ADMISSION AND ENROLMENT

You can apply for admission up to two years in advance of the year you plan to start studying. Apply through our student portal, Pūaha. Once you have met the requirements, you will receive either a conditional or an unconditional Offer of Place.

After receiving your Offer of Place, you will be invited to select your courses once course enrolment is open. You select courses for one academic year at a time.

We'd love to see you at one of our information events—check our website for dates.

- [wgtn.ac.nz/puaha](https://www.wgtn.ac.nz/puaha)
- [wgtn.ac.nz/information-evenings](https://www.wgtn.ac.nz/information-evenings)

CONTACT US

Te Wāhanga Waihangā-Hoahoa

Faculty of Architecture and Design Innovation

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139 Vivian Street, Te Aro Campus

- [0800 04 04 04](tel:0800040404)
- info@vuw.ac.nz
- [VUWArchitectureandDesign](#)
- [wgtnfadi](#)
- [linkedin.com/company/wellington-faculty-of-architecture-and-design-innovation](https://www.linkedin.com/company/wellington-faculty-of-architecture-and-design-innovation)
- [wgtn.ac.nz/architecture](https://www.wgtn.ac.nz/architecture)

COURSE PLANNING

For help with course planning, contact Te Kahupapa—Future Students.

- [0800 04 04 04](tel:0800040404)
- future-students@vuw.ac.nz
- [wgtn.ac.nz/courses](https://www.wgtn.ac.nz/courses)

OTHER STUDENT RESOURCES

Disability support

- [wgtn.ac.nz/disability](https://www.wgtn.ac.nz/disability)

Māori student support

- [wgtn.ac.nz/awhina](https://www.wgtn.ac.nz/awhina)

Pasifika student success

- [wgtn.ac.nz/pasifika](https://www.wgtn.ac.nz/pasifika)

Rainbow student support

- [wgtn.ac.nz/rainbow](https://www.wgtn.ac.nz/rainbow)

Refugee-background student support

- [wgtn.ac.nz/refugee-background-students](https://www.wgtn.ac.nz/refugee-background-students)

Scholarships

- [wgtn.ac.nz/scholarships](https://www.wgtn.ac.nz/scholarships)

Student services and support

- [wgtn.ac.nz/student-support](https://www.wgtn.ac.nz/student-support)

AVAILABLE MAJORS

BACHELOR OF BUILDING SCIENCE

Building Surveying

Built and Natural Heritage Conservation

Project Management

Smart Cities and Digital Built Environments

Sustainable Engineering Systems

BACHELOR OF CONSTRUCTION

Construction Health and Safety

Construction Management

Sustainable Construction



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