

BACHELOR OF

# BUILDING SCIENCE

The quality of our buildings is vital to our economy, environment, and lifestyle. 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.

Victoria University of Wellington is an international leader in building science, and our Tohu Paetahi Whare Hangahanga—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.

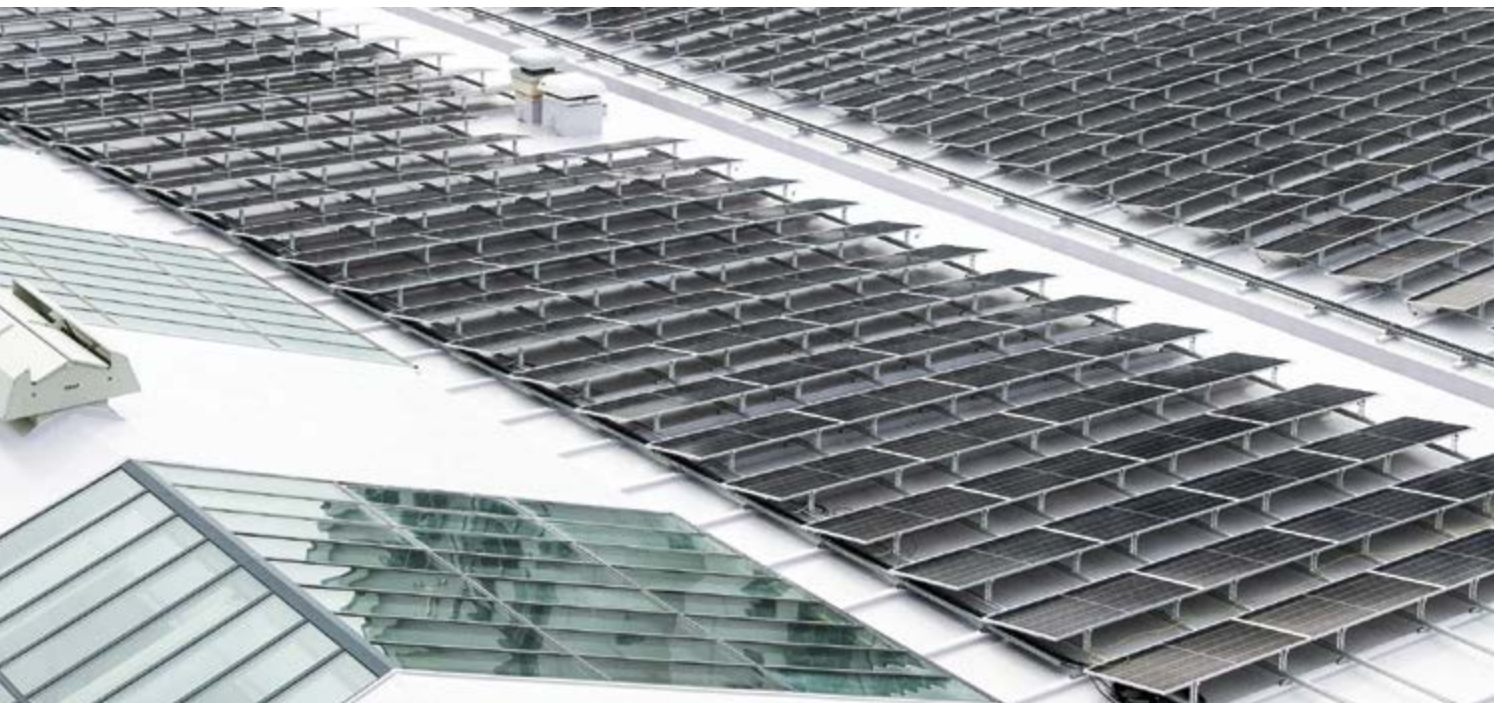
The BBSc is a three-year undergraduate degree with two majors: Project Management and Sustainable Engineering Systems. You may choose to study one or both majors. These majors have been developed in response to the evolving needs of the building industry.

In your first year, you will study core courses alongside students in the first year of the Bachelor of Architectural Studies (BAS). This maximises your exposure to all aspects of built environments and is designed to increase your awareness of the different disciplines contributing to it.

In the following two years, you will study core Building Science topics, including building systems, construction, environmental science, project management, and structures.

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

Note: The BBSc shares a common first year with the Bachelor of Architectural Studies (BAS). If you include SARC 112 as your elective, you can elect to change degrees and choose a major from the BAS from Year 2 (see page 48).



*Photovoltaic panels on the roof of the Wellington Faculty of Architecture and Design Innovation.*



## FIND OUT MORE



[info@vuw.ac.nz](mailto:info@vuw.ac.nz)



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



[www.wgtn.ac.nz/wfadi](http://www.wgtn.ac.nz/wfadi)

## CAREER OPPORTUNITIES

Our Building Science graduates are in high demand with the growing needs of New Zealand's building and construction industry. You will find careers in diverse areas including acoustics, building research and development, heating, lighting, ventilation, project management, and sustainable engineering.

**i** [www.wgtn.ac.nz/careers](http://www.wgtn.ac.nz/careers)

## POSTGRADUATE STUDY

A BBSc leads to postgraduate study in the two-trimester Postgraduate Diploma in Architectural Science (PGDipArchSc) or the three-trimester Master of Architectural Science (MArchSc) programmes.

As a Master's student, you can extend your undergraduate major in Project Management or Sustainable Engineering Systems. The PGDipArchSc can lead to the Master of Architectural Science (Research) programme, where you will use state-of-the-art digital tools in project management, designing sustainable building systems, or another area that can be supervised in Te Kura Waihanga—the Wellington School of Architecture. Our PGDipArchSc is now taught in block-mode delivery to accommodate your busy lifestyle.

**i** [www.wgtn.ac.nz/architecture/postgraduate](http://www.wgtn.ac.nz/architecture/postgraduate)

## SCHOOL SUBJECTS

There are no required subjects for studying Building Science, but a broad selection of school subjects is recommended—these might include Art, Design, Design and Visual Communication, English, Mathematics, Physics, and any Science or Technology.

## MAJORS

**Project Management** involves the study of the logistics surrounding the built environment, processes involved in building construction, financial and project management methods, and construction laws.

**Sustainable Engineering Systems** is the study of environmental engineering systems and sustainability at both the building and urban level. You will develop appropriate design systems to address the quality of built environments from air quality and acoustics to heating and lighting, while incorporating the efficient use of sustainable materials and building resources.

## DEGREE REQUIREMENTS

Three years of full-time study.

Complete the seven core courses at 100 level (in your first year). See below.

Satisfy the requirements for at least one major.

A total of 360 points is required:

- ▶ at least 270 points must be from courses listed for the BBSc or BAS
- ▶ at least 210 points must be at 200 and 300 level
- ▶ at least 180 points must be from courses listed for the BBSc or BAS
- ▶ at least 90 points must be at 300 level

### First year (both majors)

Trimester 1 (1/3)	Trimester 2 (2/3)
SARC 111	SARC 121
SARC 131	SARC 122
SARC 151	SARC 162
SARC 161	Elective course or SARC 112

### Major in Project Management (BILD)

**Second year:** BILD 222, BILD 231, BILD 251, BILD 261, BILD 262, SARC 221, SARC 223, one elective course.

**Third year:** BILD 322, BILD 361, BILD 362, BILD 364, SARC 321, SARC 362, two elective courses (where one elective must be a minimum of 200 level).

### Major in Sustainable Engineering Systems (SSEG)

**Second year:** BILD 222, BILD 231, BILD 232, BILD 251, SARC 221, SARC 223, two elective courses.

**Third year:** BILD 321, BILD 322, BILD 331, BILD 364, SARC 321, SARC 362, two elective courses (where both must be a minimum of 200 level).

### Double major in Project Management and Sustainable Engineering Systems

**Second year:** BILD 222, BILD 231, BILD 232, BILD 251, BILD 261, BILD 262, SARC 221, SARC 223.

**Third year:** BILD 321, BILD 322, BILD 331, BILD 361, BILD 362, BILD 364, SARC 321, SARC 362.

## DEGREE EXAMPLES

### BBSc majoring in Project Management

YEAR 1		YEAR 2		YEAR 3	
1/3	2/3	1/3	2/3	1/3	2/3
SARC 111 15 points	SARC 121 15 points	SARC 221 15 points	BILD 251 15 points	BILD 364 15 points	BILD 322 15 points
SARC 131 15 points	SARC 122 15 points	BILD 222 15 points	BILD 231 15 points	SARC 362 15 points	SARC 321 15 points
SARC 151 15 points	SARC 162 15 points	BILD 261 15 points	BILD 262 15 points	BILD 362 15 points	BILD 361 15 points
SARC 161 15 points	Elective or SARC 112* 15 points	SARC 223 15 points	Elective 15 points	200- or 300-level elective 15 points	200- or 300-level elective 15 points
60 points	60 points	60 points	60 points	60 points	60 points
120 points		120 points		120 points	

Total points required: 360  
Total points completed: 360

### BBSc majoring in Sustainable Engineering Systems

YEAR 1		YEAR 2		YEAR 3	
1/3	2/3	1/3	2/3	1/3	2/3
SARC 111 15 points	SARC 121 15 points	SARC 221 15 points	BILD 251 15 points	BILD 364 15 points	BILD 322 15 points
SARC 131 15 points	SARC 122 15 points	BILD 222 15 points	BILD 231 15 points	SARC 362 15 points	SARC 321 15 points
SARC 151 15 points	SARC 162 15 points	SARC 223 15 points	BILD 232 15 points	BILD 331 15 points	BILD 321 15 points
SARC 161 15 points	Elective or SARC 112* 15 points	Elective 15 points	Elective 15 points	200- or 300-level elective 15 points	200- or 300-level elective 15 points
60 points	60 points	60 points	60 points	60 points	60 points
120 points		120 points		120 points	

Total points required: 360  
Total points completed: 360

### BBSc majoring in Project Management and Sustainable Engineering Systems


YEAR 1		YEAR 2		YEAR 3	
1/3	2/3	1/3	2/3	1/3	2/3
SARC 111 15 points	SARC 121 15 points	SARC 221 15 points	BILD 251 15 points	BILD 364 15 points	BILD 322 15 points
SARC 131 15 points	SARC 122 15 points	BILD 222 15 points	BILD 231 15 points	SARC 362 15 points	SARC 321 15 points
SARC 151 15 points	SARC 162 15 points	BILD 261 15 points	BILD 262 15 points	BILD 362 15 points	BILD 361 15 points
SARC 161 15 points	Elective or SARC 112* 15 points	SARC 223 15 points	BILD 232 15 points	BILD 331 15 points	BILD 321 15 points
60 points	60 points	60 points	60 points	60 points	60 points
120 points		120 points		120 points	

\*Taking SARC 112 will keep your options open for year two of the Bachelor of Architectural Studies.

Total points required: 360  
Total points completed: 360

Key:

Core	First major	Second major	Elective
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“Throughout primary school and up until high school, my favourite subjects were maths and physics. Building Science allows me to explore both my creative side and the logic of what goes into a building and understand the materials and construction methods and also the social impacts that are applied to buildings, whether in project management or sustainable systems.”

## **TEMUKISA TAITO**

Student, Bachelor of Building Science  
Keystone scholarship student