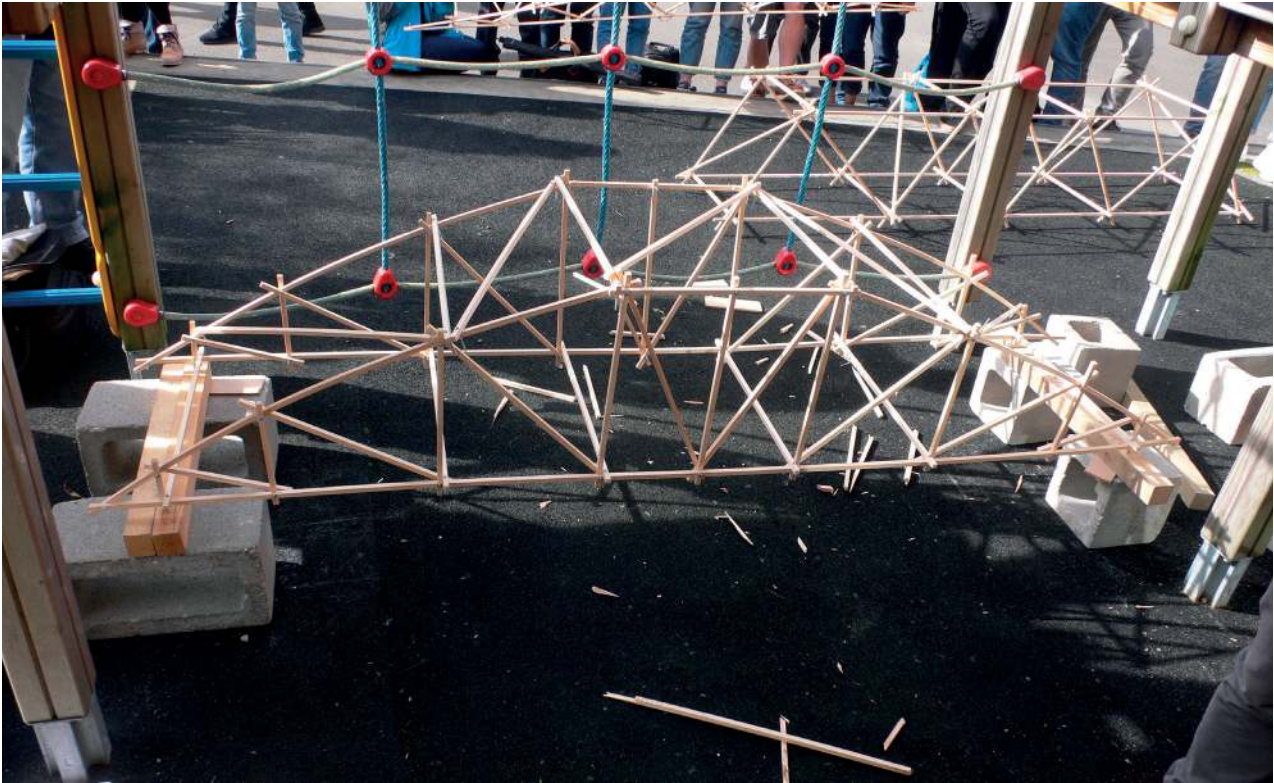


BACHELOR OF BUILDING SCIENCE



Truss bridges designed, built, and tested by third-year Building Science students.

The quality of our buildings is vital to our economy, our environment, and our 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 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 in order 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 construction, structures, environmental science, building systems, and project management.

At the end of the three years' study, you will have 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 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 choose to change degrees and choose a major from the BAS (see page 48).

FIND OUT MORE ABOUT THIS DEGREE

www.victoria.ac.nz/bbsc

FACULTY OF ARCHITECTURE AND DESIGN

139 Vivian Street, Wellington

☎ 04 463 6200

✉ architecture@vuw.ac.nz

🌐 www.victoria.ac.nz/architecture

POTENTIAL 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 engineering. The BBSc, together with the Master of Building Science (MBS), fulfils the academic requirements for professional membership of the New Zealand Institute of Building.

www.victoria.ac.nz/careers

POSTGRADUATE OPPORTUNITIES

A BBSc leads to postgraduate study in the two-year Master of Architectural Science (MArchSc) programme. As a Master's student, you can extend your undergraduate major in Project Management or Sustainable Engineering Systems and, in the second year, undertake a thesis topic in lighting, energy analysis, or another area that can be supervised in the School of Architecture.

www.victoria.ac.nz/architecture/postgraduate

RECOMMENDED SCHOOL SUBJECTS

Recommended school subjects include Design or Graphics, English, Mathematics (preferably Calculus), Physics, Statistics, or Technology. If you do not have a minimum of 14 NCEA Level 3 credits in each of two of Calculus, Physics, or Statistics, you will need to include SARC 122 Introduction to Applied Physics, Numerical Methods and Statistics for Designers in your first-year programme.

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.

Major	Code
Project Management	BILD
Sustainable Engineering Systems	SSEG

DEGREE REQUIREMENTS

Three years of full-time study.

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
- of the 210 points, at least 180 points must be from courses listed for the BBSc or BAS
- of the 180 points, at least 90 points must be at 300 level.

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

Satisfy the requirements for at least one major.

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 (15 points)

*This may be replaced with an elective course of your choice if you have gained a minimum of 14 NCEA Level 3 credits in each of two of Calculus, Physics, Statistics, or equivalent in another qualification.

Major in Sustainable Engineering Systems

Second year	Third year
BILD 251	BILD 322
SARC 221	BILD 364
SARC 222	SARC 321
SARC 223	SARC 362
BILD 231	BILD 321
BILD 232	BILD 331
SARC 221	BILD 364
Two elective courses*	Two elective courses*

*Students wanting both majors may replace the second- and third-year electives with BILD 261, 262, 361, and 362.

Major in Project Management

Second year	Third year
BILD 251	BILD 322
SARC 221	BILD 364
SARC 222	SARC 321
SARC 223	SARC 362
BILD 261	BILD 361
BILD 262	BILD 362
Two elective courses*	Two elective courses*

*Students wanting both majors may replace the second- and third-year electives with BILD 231, 232, 321, and 331.

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	SARC 222 15 points	SARC 223 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 361 15 points	BILD 362 15 points
SARC 161 15 points	Elective 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 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	SARC 222 15 points	SARC 223 15 points	SARC 362 15 points	SARC 321 15 points
SARC 151 15 points	SARC 162 15 points	BILD 231 15 points	BILD 232 15 points	BILD 331 15 points	BILD 321 15 points
SARC 161 15 points	Elective 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	SARC 222 15 points	SARC 223 15 points	SARC 362 15 points	SARC 321 15 points
SARC 151 15 points	SARC 162 15 points	SARC 261 15 points	SARC 262 15 points	BILD 361 15 points	BILD 362 15 points
SARC 161 15 points	Elective 15 points	BILD 231 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	

Total points required: 360
Total points completed: 360

Key

Core	First major	Second major	Elective
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A young woman with long brown hair tied back, wearing a grey t-shirt, is sitting at a desk in a computer lab. She is looking towards the camera with a slight smile. In front of her is a white Apple iMac monitor displaying a software interface, a white keyboard, and a mouse. The background is slightly blurred, showing other computer monitors and a bright light source.

SARAH BUÉT

Graduate, Bachelor of Building Science
in Project Management and Sustainable
Engineering Systems

“When I started at university, I was going to major in Architecture, but then I discovered I enjoyed the analytical side of architecture, learning and understanding how the building works as opposed to how it looks. Understanding this led me into Building Science and I have never regretted my decision.”