



### JASON MALMUR

I work as a Project Engineer for Kane Constructions, a commercial building construction company with 285 staff and an annual turnover of \$500 million with offices in Melbourne, Sydney and Brisbane.

Since completing the Bachelor of Engineering (Building Engineering) in 2009 at VU I have worked on a variety of projects in Melbourne including a multi-award winning \$75 million Advanced Technologies Centre, the \$33 million La Trobe University Rural Health School, a \$50 million Estate Redevelopment in Prahran and a \$95 million RACV Resort Facility at Torquay.

My role involves planning, problem solving, management, leadership, administration, site supervision, procurement, quality assurance, commissioning and handover of critical services such as air-conditioning, electrical power and hydraulics which must be coordinated with the structural systems of a building. I also apply and enforce company occupational health and safety and environmental management policies and processes, reporting directly to the project manager.

The building I am currently working on is the U.S. Embassy, OPA Relocation Project in Canberra. Here my role includes reviewing and comparing ASTM (USA standards) and AS (Australian Standards) to apply them to the project whilst also complying with the US government specifications.

The Building Engineering degree has provided me with a strong knowledge base covering the structural and services systems within a building, but also has taught me how they need to successfully coexist in the building. I believe the course has provided me with the ability to adapt to any challenge a building project can present to me.

I am continuing with my studies and am currently completing a VU Master of Project Management.

### FOUNDATION YEAR

This is a one year full-time course for students whose VCE results or subjects were not satisfactory to gain entry into a science or engineering course, or for those who want to return to study. Subjects covered are biology, chemistry, English language and communication skills, information technology, mathematics and physics. Mathematics and English subjects are compulsory but an English test may exempt some students from English. Successful completion of appropriate subjects will guarantee students entry to our Engineering and Science courses. Applications must be made directly to Victoria University, not through VTAC.

### INDUSTRIAL EXPERIENCE

To apply for the award of a degree in Building Engineering, you must ensure that you have submitted for approval evidence of having undertaken 12 weeks industrial experience relevant to the course to satisfy Engineers Australia requirements.

### HOW DO I APPLY?

Applications should be made through VTAC:  
40 Park Street, South Melbourne, 3205  
Phone: 03 9690 7977 web: [www.vtac.edu.au](http://www.vtac.edu.au)

### NEED MORE INFORMATION?

Phone 03 9919 4728 or contact the Course Coordinator Mr Mariusz Paks by email: [Mariusz.Paks@vu.edu.au](mailto:Mariusz.Paks@vu.edu.au)

### OTHER INFORMATION

#### EXCHANGE PROGRAMS

Victoria University has exchange agreements with universities in many countries, such as Canada, United States of America, Mexico, United Kingdom, France, Italy, Netherlands, Sweden, Malta, China, Malaysia, Indonesia, Thailand, Philippines, Vietnam and Japan. For those students who wish to study abroad there is the opportunity to experience living in a different culture and environment, and to develop self-responsibility and reliance skills. Many students achieve improved results in their remaining studies after returning home, having developed a clearer perception of their future career with a stronger determination to succeed. Some scholarships may be available for student participating in a study abroad.

### INTERNATIONAL STUDENTS

For specific information relating to courses available, entry requirements and application procedures for international students, please visit [www.vu.edu.au/international](http://www.vu.edu.au/international) for an updated list of courses offered to international students or contact Victoria University International (VUI) on +61 3 9919 1164.

## CONTACT US

### THE FACULTY OF HEALTH, ENGINEERING AND SCIENCE

#### SCHOOL OF ENGINEERING AND SCIENCE

Victoria University  
Footscray Park Campus  
PO BOX 14428 Melbourne Vic 8001  
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Fax: 03 9919 4908  
Email: [engineeringscience@vu.edu.au](mailto:engineeringscience@vu.edu.au)

[vu.edu.au](http://vu.edu.au)

CRICOS Provider No. 00124K

At Victoria University, we make every reasonable effort to make sure the information displayed online about our courses is accurate and complete. We continually look to provide innovative courses. Those courses are shaped by a number of things including your feedback and changes in Government funding arrangements. As a result there may be changes to the courses we deliver and fees charged. We will update the website regularly to reflect any changes.

#### OTHER INFORMATION

Information about course fees, articulation and credit transfer, recognition of prior learning, admission and enrolment procedures, examinations, and services available to students can be accessed on the University's website or by contacting the University directly on 03 9919 6100.

This publication is an information document for prospective students of Victoria University. Every reasonable effort has been made to ensure that the information in this document is accurate, however it may be subject to change. May 2012. 7635.5.12.



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# BUILDING ENGINEERING

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# BACHELOR OF ENGINEERING (BUILDING ENGINEERING)

COURSE CODE: EBDB VTAC CODE: 41011

## WHAT IS A BUILDING ENGINEER?

### COURSE AIM

In the context of centuries of human enterprise in constructing the built environment, Building Engineering is a recent and distinctly modern profession. Building Engineers are involved in the entire building process, with a primary focus on building construction planning and project management studies. They require a multi-disciplinary training program that includes an understanding of construction technology, legal/statutory and financial procedures as well as an understanding of structural systems, HVAC, electrical power systems and sustainable design approaches relevant to buildings. The course includes examples of current building projects together with teaching input from practicing Engineers and other professionals in industry.

### WHERE DO I STUDY?

This course is located at the Footscray Park Campus

### WHAT’S IN IT FOR ME?

When you graduate, you can be employed in both the private and public sector of the building industry in Australia. The course has been offered for more than 25 years and is well accepted by industry. There is continuing need for new and refurbished building infrastructure which provides a rich and varied source of employment opportunities for graduates. A number of graduates gain employment overseas, particularly in South-East Asia.

In the private sector, Building Engineers are employed in construction and project management companies, as facility managers and in consulting engineering practices. Companies responsible for the design of building structures and services systems also employ building engineers as those responsible for building certification. Project planning, feasibility and management companies find Building Engineers ideally suited to this role in the building process. Allied areas such as building construction and services equipment suppliers are increasingly seeking Building Engineers for roles as technical sales engineers.

In the public sector federal, state and local government and other semi-government bodies employ Building Engineers to provide essential community facilities and services in housing, health and recreation, public security and defense facilities. This course offered by Victoria University is unique in Australasia.

### HOW DOES IT WORK?

This course is offered over 4 years on a full time basis of 20 hours per week. The course includes examples of current building projects together with teaching input from practicing Engineers and other professionals in industry. In the third and fourth years of the program, alternate streams of specialization in structures or services may be chosen.

## WHAT DOES IT COVER?

COURSE STRUCTURE
<b>FIRST YEAR, SEMESTER 1</b>
Engineering Mathematics 1
Engineering Physics 1
Engineering and the Community
Problem Solving for Engineers
<b>FIRST YEAR, SEMESTER 2</b>
Engineering Mathematics 2
Engineering Physics 2
Engineering Computing
Introduction to Engineering Design
<b>SECOND YEAR, SEMESTER 1</b>
Thermofluids
Engineering Materials and Construction
Solid Mechanics
Architectural History and Design
<b>SECOND YEAR, SEMESTER 2</b>
Hydraulics
Electrical Power Systems 1
Introduction to Structural Engineering Design
Building Construction and Control 1
<b>THIRD YEAR, SEMESTER 1</b>
<b>STRUCTURES STREAM</b>
Geomechanics
Structural Analysis
Environmentally Sustainable Design 1
Building Construction and Control 2
<b>SERVICES STREAM</b>
Electrical Power Systems 2
HVAC Systems 1
Environmentally Sustainable Design 1
Building Construction and Control 2

## THIRD YEAR SEMESTER TWO

### STRUCTURES STREAM

Geotechnical Engineering
Structural Engineering Design 1
Engineering Management
Hydraulic Services Systems

### SERVICES STREAM

Environmentally Sustainable Design 2
HVAC Systems 2
Engineering Management
Hydraulic Services Systems

## FOURTH YEAR SEMESTER ONE

### STRUCTURES STREAM

Project Management and Information Technology
Project Development Analysis and Review
Engineering Project Management
Engineering Project 1

### SERVICES STREAM

Project Management and Information Technology
Project Development Analysis and Review
Engineering Project Management
Engineering Project 1

## FOURTH YEAR SEMESTER TWO

### STRUCTURES STREAM

Facility Life Cycle Costing
Building Systems Design and Costing
Building Fire Safety Systems
Engineering Project 2

### SERVICES STREAM

Facility Life Cycle Costing
Building Systems Design and Costing
Environmentally Sustainable Design 3
Engineering Project 2

## PROBLEM BASED LEARNING (PBL)

In 2006, Problem Based Learning (PBL) was formally introduced into the course. PBL creates the opportunity for students to form a holistic consideration of problems which are not only technical in nature but also exercise the [students](#) generic skills and encourages students to become independent learners, and self reflective about professional communication processes and practices. In this mode of subject delivery, students will drive their learning by working in small teams guided by an academic staff mentor.

### HOW DO I GET IN?

You need to have successfully completed the VCE including a study score of at least 20 in English, and either Mathematical Methods or Specialist Mathematics at unit 3 and 4 level.

If applicable, you can apply under the University’s alternative categories of entry, including continuing difficulties during schooling, Aboriginal and Torres Strait Islanders or mature age (over 21)

Future students should refer to the VTAC Guide for specific closing dates.

### PATHWAYS

Pathways give students the opportunity to progress to another level of study and to receive maximum credit transfer for study already taken.

If you have completed a TAFE Associate Diploma/Diploma in Building Construction and Design or a Diploma in Engineering, and are accepted into the Building Engineering course, you can expect to be given credit for equivalent subjects passed.

### ALTERNATIVE ENTRY

Bachelor of Engineering VTAC Code 41441 Alternative entry program for students who have:

- successfully completed year 12 with the required prerequisites, but may not have achieved the required study score in all prerequisites, or
- have not studied the required mathematics prerequisite.

All admissions are on an individual basis.

Prerequisites: Units 3 and 4 — English (any) and Mathematics (any).

Extra Requirements: Applicants accepted may be required to attend an appropriate summer bridging program or enrol in one or more subjects from the Foundation Year or undertake part or all of an appropriate TAFE program.