

BUILDING ENGINEERING

FACULTY OF HEALTH, ENGINEERING AND SCIENCE



MAHMUT (SAMI) KILINC

I completed my Bachelor of Building Engineering at Victoria University in 2007. My experience at Victoria University and afterwards has been extraordinary. The course provided me with specific knowledge and understanding of building design and construction. During the course there were many individual and team challenges and levels of achievement we had to meet. Today as I stand on level 13 of a \$350 million multi-storey building that I worked on overlooking the Docklands at South Wharf, I take a deep breath and remember my time studying at VU. The 4 years of study were perhaps the most valuable 4 years of my life.

The course at Victoria University has given me a set of strong and relevant work skills for the building industry, and as such I can enthusiastically recommend it. Lecturers may seem to give you a 'hard time' during the course but at the end you realize it has made you a stronger person and ready for work in the building industry. I had the opportunity of going on an overseas exchange program to Istanbul – Turkey, which added to the whole experience and gave me an overseas perspective of Engineering and Building.

I currently work for POSTENCO, a new and specialist engineering contracting company which provides design solutions and installation for post-tensioning of building systems. Every day I visit 4 to 5 building construction sites around Melbourne. The nature of my work and the problems that I must solve are constantly challenging, always interesting and sometimes even 'amazing'.

The VU Building Engineering degree course has enabled me to work in a young, dynamic building company with constantly expanding prospects in the Australian building industry. For this I am truly grateful!

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

NEED MORE INFORMATION?

Phone 03 9919 4257 or contact the Course Coordinator
Email: ian.campbell@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 for an updated list of courses offered to international students or contact Victoria University International (VUI) on +61 3 9919 1164.

CONTACT US

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OR

FACULTY OF HEALTH, ENGINEERING AND SCIENCE

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OR

VISIT THE WEBSITE
WWW.VU.EDU.AU

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This publication is an information document for future 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. April 2009. 10090.4.09.



BACHELOR OF ENGINEERING IN BUILDING ENGINEERING

COURSE CODE: EBCB

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 action, thermo-fluid and electric power systems 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 will be employed widely 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 is unique in Australasia to Victoria University.

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.

FIRST YEAR SEMESTER ONE

Engineering Profession

Experimentation and Computing

Engineering Physics 1A

Engineering Mathematics 1A

FIRST YEAR SEMESTER TWO

Introduction to Design

Solid Mechanics 1

Engineering Physics 1C

Engineering Mathematics 1B

SECOND YEAR SEMESTER ONE

Architectural History & Design

Solid Mechanics 2

Thermofluids

Engineering Materials

SECOND YEAR SEMESTER TWO

Electrical Power Systems 1

Building Materials and Construction

Hydraulics

Engineering Design

SERVICES STREAM MAJOR

THIRD YEAR SEMESTER ONE

Electrical Power Systems 2

HVAC Systems 1

Building Construction & Legislation 1

Environmentally Sustainable Design 1

THIRD YEAR SEMESTER TWO

Environmentally Sustainable Design 2

HVAC Systems 2

Hydraulic Services Systems

Engineering Management

FOURTH YEAR SEMESTER ONE

Engineering Project 1

Engineering Project Management

Building Quantities & Costs

HVAC Systems 3

Project Management & Information technology

OR

Project Procurement Management

FOURTH YEAR SEMESTER TWO

Engineering Project 2

Project Development Analysis

Facility Life Cycle Costing

Building Construction & Legislation 2

Building Systems Design & Construction

STRUCTURES STREAM MAJOR

THIRD YEAR SEMESTER ONE

Geomechanics

Structural Analysis

Building Construction & Legislation 1

Environmentally Sustainable Design 1

THIRD YEAR SEMESTER TWO

Geotechnical Engineering

Structural Design

Hydraulic Services Systems

Engineering Management

FOURTH YEAR SEMESTER ONE

Engineering Project 1

Engineering Project Management

Building Quantities & Costs

Structural Engineering Design 1

Project Management & Information Technology

OR

Project Procurement Management

FOURTH YEAR SEMESTER TWO

Engineering Project 2

Project Development Analysis

Facility Life Cycle Costing

Building Construction & Legislation 2

Building Systems Design & Construction

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 22 in English, and either Mathematical Methods or Specialist Mathematics at unit 3 and 4 level.

You should 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.

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 & Science courses. Applications must be made direct to Victoria University, not through VTAC.