

ADMISSION REQUIREMENTS

Students entering on completion of VCE must have units 3 and 4, with a study score of at 20 in English (any) and in Mathematical Methods, Specialist Mathematics or Further Mathematics. TAFE Diplomas and Advanced Diplomas in Engineering and Technology study areas are also accepted.

OVERSEAS EXCHANGE PROGRAM

Victoria University has student exchange agreements with universities around the world including: – the USA, Canada, Mexico, United Kingdom as well as European and Asian countries.

Students who study abroad gain the experience of living in a different culture and environment, develop a greater sense of self-responsibility, independence and a wider cultural understanding. Overseas study can also assist in the development of a clearer perception of a future career in Engineering as well as a stronger determination to succeed.

INTERNATIONAL STUDENTS

For specific information relating to courses, entry requirements and application procedures, please visit the web site for international students:

www.vu.edu.au/international

OR

Victoria University International (VUI) on +61 3 9919 1164

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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

www.vu.edu.au/admissions or e-mailing admissions@vu.edu.au

CONTACT US

FACULTY OF HEALTH, ENGINEERING AND SCIENCE

SCHOOL OF ENGINEERING AND SCIENCE

VICTORIA UNIVERSITY

FOOTSCRAY PARK CAMPUS

PO BOX 14428 MELBOURNE VIC 8001

PHONE: 03 9919 4703

FAX: 03 9919 4908

OR

FACULTY OF HEALTH, ENGINEERING AND SCIENCE

STUDENT ADMINISTRATION

PHONE: 03 9919 4516

FAX: 03 9919 4803

OR

VISIT THE WEBSITE

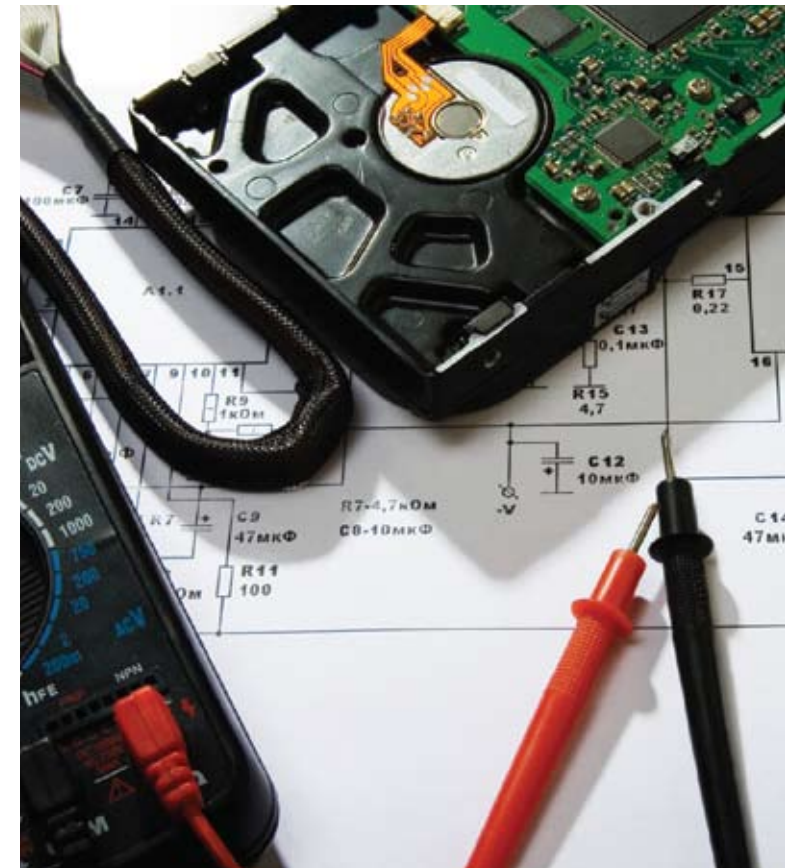
WWW.VU.EDU.AU

CRICOS Provider No. 00124K

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. 2720.4.09.

BACHELOR OF ENGINEERING SCIENCE IN ELECTRICAL AND ELECTRONIC ENGINEERING

FACULTY OF HEALTH, ENGINEERING AND SCIENCE



BACHELOR OF ENGINEERING SCIENCE IN ELECTRICAL AND ELECTRONIC ENGINEERING

COURSE CODE: EBES (3 YEAR COURSE)
CRICOS NO: 057278J

WHY CHOOSE VU?

- VU works with major employers in Victoria;
- VU is the only University in Victoria, which offers the Problem Based Learning across the entire course;
- Most of teaching staff have had extensive industrial experience, which adds aspects of practicality;
- VU has one of the best teacher to student ratio in Australia;
- Practical knowledge and ability to start work without additional training on the job is well regarded by the employers, gives another advantage to the graduates of VU when applying for jobs;
- 25% of learning at VU is directed towards learning in to Workplace and Community (LiWC), which makes knowledge and learning experience gained at VU very practical and graduates are work ready and require less or no orientation training when starting new job.

WHAT IS PBL?

Problem Based Learning – students form teams of about five, and work together on real-life industry and community problems. And this real-world learning begins right from first year, so you’re applying theory to practice all the way through your study, not in just your final years.

With training like this, VU engineering graduates are not only technically skilled, but great team players with hands-on experience and excellent communication skills.

WHAT IS AN ENGINEER?

Electrical and Electronic Engineers: –

- Are responsible for electricity generation and distribution
- Design complex electronic equipment
- Manage large industrial manufacturing plant
- Research and develop new energy sources
- Design and manage our Telecommunications infrastructure including telephones, radio, TV and the internet

WHY CHOOSE THIS COURSE? EMPLOYMENT OPPORTUNITIES

An engineer can:

- Create the next generation computers
- Build efficient cars and planes
- Create robots to increase manufacturing
- Create new technology to make manufacturing cheaper and cleaner
- Operate machines
- **The course is delivered using Problem Based Learning (PBL) methodology** which uses real world problems as a significant part of the learning process;
- **Graduates can find employment in a number of industries:**

1. EMBEDDED SYSTEMS

Design, test and build microprocessor based controllers for intelligent equipments and machines such as automobile engine management system, brake system, washing machine, remote data logger etc.

2. ELECTRONIC CIRCUIT BOARD DESIGN

Simulate and test complex electronic circuit boards using latest CAD software prior to out sourced manufacturing.

3. FACTORY AUTOMATION

Design, install, operate and maintain automatic control systems for factory production.

4. COMPUTER NETWORKING

Plan, design, install, operate and maintain computer networks for home, office, school etc.

5. POWER ELECTRONICS

Design and maintain power electronic systems for efficient operation of high power machinery.

COURSE STRUCTURE

First year subjects in electrical, electronic, computing, mathematics and physics studies are designed to provide a firm foundation for a wide range of higher level subjects in later years of the course.

In years two and three the students will be introduced to the tools, techniques and theories of Embedding Systems, Networking, Automation, Analog and Power Electronics. The course has a focus on practical applications and design and project work forms a significant component of the total program. Students will apply the theories and techniques learned in the course to both team projects as well as an individual project in year 3 of the course.

Student completing their studies at an appropriate standard may be granted up to two years credit into the Bachelor of Electrical and Electronic Engineering degree. In addition those completing Year 1 of the program will be able to transfer to Year 2 of the Bachelor of Engineering in Electrical and Electronic Engineering course.

PATHWAYS

TAFE students may articulate into the program. Students who have completed a TAFE Advanced Diploma in a related discipline will be granted up to 96 CP (credit points) of exemption; which is equivalent to 1 year of full time study.

COURSE STRUCTURE							
YEAR 1	SEM 1	Enabling Sciences 1A		Electrical Fundamentals 1A		Engineering Design and Practice 1A	
	SEM 2	Enabling Sciences 1B		Electrical Fundamentals 1B		Engineering Design and Practice 1B	
YEAR 2	SEM 1	Operating Systems and Tools	Introduction to Computer Control and Automation	Systems and Applications 2C		Engineering Design and Practice 2A	
	SEM 2	Introduction to Computer Network A	Industrial Control Systems and Electronics Manuf. Automation	Systems and Applications 2D		Engineering Design and Practice 2B	
YEAR 3	SEM 1	Engineering Project 3A	Analog Electronics A	Digital Systems Design A	Embedded Computer System Design	Introduction to Computer Networks B	Business Elective
	SEM 2	Engineering Project 3B	Analog Electronics B	Introduction to Electrical Machines	Power Electronics	Network Software and Internet Programming	Elective(s)