



UNDERGRADUATE PROGRAMS FREQUENTLY ASKED QUESTIONS

2010

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WHAT PROGRAMS ARE OFFERED BY THE SCHOOL?

The School offers a range of single and double degree programs. The structure in Year 1 allows students either to enter directly into their chosen, specialised program or to enter into a flexible entry Engineering program that allows the choice of specialisation to be delayed until the end of Year 1. For more details, please see: <http://www.eng.unsw.edu.au/studentcentre/flexible/index.htm>

SINGLE DEGREE PROGRAMS

	Duration	UAC Code HECS
BE (Electrical Eng)	4 years	425002
BE (Telecommunications)	4 years	425002
BE (Photonics Eng)	4 years	425002

COMBINED DEGREE PROGRAMS

	Duration	UAC Code HECS
BE BA (Electrical, Photonics, Telecommunications)	5 years	425014
BE BSc (Electrical, Photonics, Telecommunications)	5 years	425014
BE BCom (Electrical, Photonics, Telecommunications)	5.5 years	425015
BE MBiomedE (Electrical, Telecommunications)	5 years	425012
BE LLB (Electrical, Photonics, Telecommunications)	6 years	426000

WHAT SCHOLARSHIPS ARE AVAILABLE?

For students entering the first year of their studies there are a number of scholarships available, eg Co-op and Rural scholarships. Further scholarships are provided by outside organisations such as Energy Australia and Telstra.

A full list of UNSW scholarships available to both first and subsequent year students can be found at <http://www.scholarships.unsw.edu.au>

Ron Stillman Scholarship is now available for elite first year student in the School of EE&T:
<http://www.ee.unsw.edu.au/scholarship/Stillman.pdf>

WHAT IS A CO-OP SCHOLARSHIP?

A Co-op Scholarship is an industry-sponsored scholarship that combines the academic program with carefully structured industrial-based and leadership training that makes the total program 5 years in duration. Many of Australia's more innovative and dynamic electrical and telecommunications companies are involved in sponsoring such scholarships that currently pay \$15,000 per annum. Scholarship holders are selected on the basis of both academic merit, requiring a minimum ATAR (UAI) of 95.70 in 2010, and leadership potential.

Further details can be found at <http://co-op.web.unsw.edu.au/>. **Applications close on 30 September each year.**

WHAT ATAR (UAI) DO I NEED?

The cut-off for admission to all UNSW engineering programs in 2010 is expected to be an ATAR (UAI) of 91.

Students who achieve an ATAR (UAI) between 81 and 90.95 are still encouraged to apply for entry, but they will need to do so under the Faculty of Engineering Admission Scheme (FEAS) for admission to our undergraduate engineering degree programs in 2010.

Entry to the programs is competitive. The University tries to ensure that entry standards are high enough to avoid academic problems at later stages during the program. The University and the Department of Education, Science and Training negotiate the number of places which the university will try to fill each year.

Potential students determine the level of demand for places by indicating their preferences to the UAC. This demand will result in a certain ATAR (UAI) being required for those students who are successful with their applications.

The required ATAR (UAI) is unknown until the level of demand is finally determined after HSC results are published in late December, and potential students have indicated their final preferences to the UAC. Preferences may be changed right up until early January.

Over the past years, the entrance requirements have been:

Program Name	UAI Cutoff (ATAR from 2010 onwards)					
	2004	2005	2006	2007	2008	2009
Electrical Engineering	80	78	85	85	88	88
Telecommunications	80	78	85	85	88	88
Photonics Engineering	80	78	85	85	88	88

If you have qualifications in addition to, or instead of, the HSC (e.g. a TAFE Associate Diploma), then the UAC makes an estimate of the ATAR (UAI) which is equivalent to that qualification, and that is used to determine entry. In these circumstances, it is also worth contacting the School, as they can assist in determining the equivalence of qualifications in relation to the academic requirements of the program.

WHAT IS THE FACULTY OF ENGINEERING ADMISSION SCHEME (FEAS)?

This is an entry scheme which was first introduced in 2006. Students who expect to achieve a ATAR (UAI) between 81 and 90.95 need to apply for admission through the FEAS scheme.

This scheme involves a review of performance in relevant HSC subjects and an interview to assess motivation toward engineering studies. If the assessment panel is satisfied that an applicant has a good chance of success at UNSW a place will be offered through UAC, if UNSW engineering is the highest surviving preference.

A FEAS application and interview must be completed for eligibility.

See <http://www.eng.unsw.edu.au/feas/index.htm> for details.

SHOULD I USE THE ATAR CUT-OFFS TO DETERMINE MY PREFERENCES?

The levels of UAI (ATAR from 2010) required for entry over the past two years are probably the most reliable guidelines. However, the ATAR (UAI) cutoff is not meaningful without knowing *the average ATAR (UAI)* and the number of students that were admitted above that ATAR/UAI.

Something else to consider is the *size of intake quota* (i.e. number of offers made). An institution making offers to 150 students will have a lower ATAR (UAI) cutoff than an institution which makes offers to only 50 students despite the programs being of equal quality. The School of Electrical Engineering and Telecommunications at

UNSW is the largest such engineering school in Australia. It follows that we make far more offers than most other schools offering similar programs.

In making final decisions about which program to opt for, consideration should be given primarily to your interests, to the flexibility for study that exists within established programs such as Electrical Engineering, and to opportunities in the rapidly growing fields of Telecommunications and Photonics.

WHAT ARE THE ENTRY REQUIREMENTS FOR THE COMBINED DEGREE PROGRAMS?

Entry into the majority of combined degree programs is by direct application to UAC. Over the last three years entry requirements across the Faculty have been:

Program Name	UAI Cutoff (ATAR from 2010 onwards)					
	2004	2005	2006	2007	2008	2009
BE/BA (Arts)	85	80	85	85	88	88
BE/BSc (Science)	83	80	85	85	88	88
BE/MBiomed	85	85	85	85	88	88
BE/BCom	n/a	95	95	85	95.20	95.2
BE/LLB					99.30	99.30

At any time after the end of Year 1 of an Engineering Program, students may apply to UAC to transfer to a combined degree program with Arts, Science or Commerce. As an indication, to be successful in transferring, a student will minimally need to have maintained a credit (65%) average in all university courses prior to the application.

WHAT IS ASSUMED KNOWLEDGE?

Assumed knowledge is what a lecturer or tutor of a first year UNSW course could reasonably expect all students enrolled in that course to know at the beginning of the course.

Students who do not have the level of assumed knowledge are not prevented from enrolling when their program begins, but they may be placed at a considerable disadvantage.

In order to take certain core courses within Engineering, the following specific levels of assumed knowledge can be used as a guideline:

Assumed Knowledge: Mathematics Extension 1 and Physics

Recommended Knowledge: Mathematics Extension 2 or Software Design or Information Processes and Technology or Engineering Studies

WHAT IS HSC PLUS ?

As part of the HSC Plus scheme, the Faculty of Engineering awards bonus points to students who achieve outstanding results in relevant HSC subjects, namely 2 Unit Mathematics, Mathematics Extension 1 and 2, and 2 Unit Physics. For details, please see:

<http://www.unsw.edu.au/futureStudents/undergrad/ced/HSCPlus.html>

WHAT IS THE DIPLOMA OF SCIENCE, ENGINEERING AND TECHNOLOGY (DipSET) ?

This diploma program provides a flexible pathway for those who have a range of gaps in their assumed knowledge and thereby do not meet the standard entry requirements. It provides an opportunity to broaden scientific skills, strengthen academic literacy and develop critical and analytical thinking. Students who are highly

motivated to study engineering but come from a range of backgrounds will find this program attractive. For details, please refer to:
<http://www.eng.unsw.edu.au/prospect/ug/dipset/>

WHAT IF I HAVEN'T TAKEN THE RECOMMENDED COURSES?

Any students who have not achieved the recommended level of assumed knowledge are strongly advised that it is in their best interest to undertake a bridging program or other preparation course (e.g. introductory Maths, Physics in Session1) after consulting staff.

Bridging courses are available during January/February. There are also fundamental courses in Maths and Physics offered during ordinary session time. For further information about bridging courses, please visit
<http://www.unsw.edu.au/futureStudents/nonAward/sad/bridgeprog.html>

WHAT WILL IT COST?

Proper advice on this matter should be sought elsewhere. The nature and level of fees you will need to pay will be determined by a number of factors. Check the University Fees web pages for guidance
<https://my.unsw.edu.au/student/fees/FeesMainPage.html>. The Undergraduate Admissions Office at UNSW is also able to advise you, dependent on your particular circumstances.

International students should also consult the International website:
<http://www.international.unsw.edu.au/prospective/fees.shtml>

Some information is provided below.

COMMONWEALTH-SUPPORTED PLACES (HECS-HELP) AND FEE PAYING PROGRAMS

For the 2010 full year HECS-HELP contributions for engineering programs, please visit the DEST website for details. Full time study means that you are enrolled in 48 units of credit (UOC) over the year.

Most eligible students will have access to deferred payment arrangements through HECS-HELP.

Local students enrolled in fee-paying courses must pay tuition fees. Students admitted to a fee place pay tuition fees directly to the University (or use a FEE-HELP loan) instead of contributing to the cost of their education by paying student contributions (HECS-HELP).

For information about Commonwealth supported places, HECS-HELP and FEE-HELP, please contact DEST (Department of Education, Science & Training) on 1800 020 108 or visit the following DEST websites:
<http://www.goingtouni.gov.au/Main/Quickfind/PayingForYourStudiesHELPLoans/HECSHELP.htm>
<http://www.goingtouni.gov.au/>

International students are also required to pay fees directly to the University. Please consult the International website for accurate 2005 information: <http://www.international.unsw.edu.au/prospective/fees.shtml>

WHAT IS GENERAL EDUCATION?

General Education courses are offered within every program at UNSW, with the intention of broadening the educational opportunities of every student. Within EE&T, General Education courses will comprise courses which are offered by Schools which do not normally contribute to EE&T programs (eg Fine Arts, Modern Languages). Any university course may be taken for the purposes of General Education if approved by the School and if prerequisites are met. Also, a number of courses are offered especially to meet the requirements of the General

Education program. These courses are usually taken during the second and third year of the engineering programs. In the fourth year, courses in Management and Ethics complete requirements for broadening engineering education and meeting recommendations from the Institution of Engineers, Australia (IEAust).

HOW DO I SPECIALISE WITHIN THE EE&T PROGRAMS?

Within Electrical Engineering, there is the opportunity to make several elective choices primarily in the third and fourth years of the program. The Telecommunications and Photonics degrees are much more specialised - and consequently more structured - however, there are still some elective choices in third and fourth year.

WHAT ELECTIVES ARE AVAILABLE?

Elective courses are related to work within the major research groups which make up the School. Students usually select electives from two or more major areas, in a way which supports their particular interests.

Some of the electives (L2 Second Year, L3 Third Year, L4 Fourth Year) proposed for 2010 include:

Energy Systems

- Electrical Energy (L3)
- Electrical Drive Systems (L4)
- Power System Equipment (L4)
- Power System Analysis (L4)
- Power Electronics (L4)

Control Systems

- Real Time Instrumentation (L2)
- Continuous-time Control System Design (L4)
- Computer Control Systems (L4)
- Real Time Engineering (L4)

Signal Processing

- Engineering Modelling and Simulation (L2)
- Advanced Digital Signal Processing (L4)
- Multimedia Signal Processing (L4)
- Biomedical Instrumentation Measurement & Design (L4)

Data and Mobile Communications

- Network Technologies (L3)
- Trusted Networks (L3)
- Analogue and Digital Communications (L3)
- Digital Modulation & Coding (L4)
- Mobile and Satellite Communications (L4)
- Network Performance (L4)
- Wireless Communication Technologies (L4)

Computer Systems

- Software Construction (L2)
- Operating Systems (L3)
- Computer Architecture (L3)
- Database Systems (L3)

Microelectronics

- Solid-State Electronics (L4)
- Microelectronic Design & Technology (L4)
- Digital and Embedded Systems (L4)
- RF Electronics

Photonics

- Applied Photovoltaics (L3)
- Optical Circuits and Fibres (L4)
- Photonic Networks (L4)

Business Administration

- Entrepreneurial Engineering (L4)

Mathematics

Information, Codes and Ciphers (L3)

Dynamical Systems and Chaos (L3)

CAN I TAKE OTHER COURSES?

A limited amount of substitution is permitted within each program. Any such substitution must be approved by the Head of School or the Director of Academic Studies, who will ensure that:

- The replacement course is at least the same length and level as the prescribed course it replaces; and
- The resulting program of study is suited to the award of the degree as applicable.

WHERE IS DESIGN COVERED?

Design is addressed in the very first semester, in the challenging and fun ENGG1000 Engineering Design and Innovation course. All Engineering programs have a design strand through all 4 years, supplementing design in other subjects. In EE&T, there are particularly innovative and exciting design courses in Year 1 and 3, in addition to the Year 4 Thesis, Professional Electives and core courses emphasizing design in Year 2.

WHAT IS THE THESIS?

A major part of fourth year is the thesis, which is taken over the whole year, culminating in an oral presentation, a demonstration of the final results of the work and a written report.

This is the single most important piece of work undertaken by an engineering student and addresses a significant practical design or a research problem. The work is an opportunity for students to develop and demonstrate their use of sound engineering methods and process.

The thesis comprises work in research and design under guidance of members of the lecturing staff. Typical activities may include: theoretical work; modeling and simulation; design, construction and testing of circuits and systems; development of software and computer systems.

WHAT IS INDUSTRIAL TRAINING?

Students must complete a minimum of 60 days of suitable Industrial Training. The objectives of Industrial Training are:

- to develop an appreciation of the structure and operation of industrial organisations,
- to understand the role of the engineer and engineering in industry,
- to appreciate the importance of good communication and interpersonal skills, and to develop these skills, and
- to appreciate the ethical basis of engineering practice in industry

At least some of this training should be obtained in Australia. Overseas employment may be acceptable with prior approval. Students are required to submit a written report on their industry placements, typically 2000-3000 words, describing the organisation of the Company, summarising the work done and the training received. The report must be accompanied by certification of their industrial placement by a senior company representative. The bound report must be submitted to the School office for approval.

Industrial Training must be completed as part of one of the Year 4 courses (Strategic Leadership and Ethics). Material within this course will build on the experiences of students during industrial training placements.

Normal industrial training may be supplemented by a Taste of Summer Research Scholarship Program established by the Faculty for students to try the research experience. Applications for entry are highly competitive each year. For details, please view:

<http://www.eng.unsw.edu.au/current/scholar/tasteof.htm>

HOW MUCH STUDY WILL I HAVE TO DO?

The general principle is that if you are a full-time student, you should be spending at least the same amount of time on study as you would on a full-time job - so, a minimum 40 hours a week. In first year, you will spend approximately 23 hours a week in the classroom (lectures, labs, tutorials). This means that you need to spend at least another 17 hours a week studying and working on assignments. Many advisors recommend that you spend more. As well as doing set class work, you should also be continually revising, solving problems, and summarising lecture notes so that exam time is less stressful.

EE&T degrees are challenging programs. The study hours required to meet these challenges are sometimes difficult to manage with part-time work, family commitments, etc. However, the reward is that you will graduate with a quality degree which is recognised worldwide. Engineers Australia accreditation carries international recognition under the Washington Accord.

CAN I TAKE COURSES OVER SUMMER?

Some courses are available over the summer and run between the end of November and the start of February with a break over Christmas. This provides students the opportunity to accelerate their program completion, or for students who start their degree mid-year, a way to help align their degree program plan. The School of EE&T will be offering three courses over the summer period 2009-2010, with more courses planned for summer next year. Students thinking of taking summer courses should plan carefully and seek advice from the School to ensure the most suitable degree program plan is carried out.

CAN I STUDY PART-TIME?

Local students have the option of part time study. The School does not have special class times for part-time students in undergraduate programs; however, you can make up your program from any mix of courses and the mix can be less than the normal load. Less than 3/4 load (or less that 18UOC) is regarded as "part-time".

If your load becomes so light that you will take a very long time to complete your program, then there are academic reasons why you might be counseled out of such decisions. For example, programs, courses and pre-requisites keep changing to match changing technology requirements. Someone who does not keep up with the changes to the program may experience difficulties when selecting courses from a program which has been altered.

International students are required to study full time as a condition of their student visas.

HOW DO I APPLY?

Local students need to communicate program preferences to the UAC. Please carefully check the method of lodging preferences and precise dates for close of acceptances. Late applications are accepted with payment of an appropriate late fees.

A UAC Guide with all relevant information is available from:

UAC

Locked Bag 500, Lidcombe, NSW 2141

3 Rawson Street, Auburn NSW 2144

Tel: (02) 9330 7200

Website: www.uac.edu.au

You really need to obtain the UAC guide. It has all the relevant information about making an application, and it also lists all UAC program codes and descriptions.

Please note the **Faculty of Engineering Admission scheme (FEAS)**, for students with ATAR (UAI) between 81-90.95, has additional application requirements.

See <http://www.eng.unsw.edu.au/feas/index.htm> for details.

International students have to complete an application form, available from the University Admissions Office or on-line. Forms are available in the UNSW Undergraduate Prospectus. Alternatively, application forms can be downloaded from the University website, where there is more detailed information about the application process. A good starting point is <http://www.international.unsw.edu.au/>.

CAN I DEFER ACCEPTANCE OF MY UNIVERSITY PLACE?

Any student may take up to one year's course leave at any time, including at the start of the program, with approval of the School. During this time, any outstanding requirements may be met, eg by undertaking a program at other institutions (subject to approval by the school).

International students may not remain in Australia on a student visa if they are not studying. If they take leave they must change their visa status and/or leave the country.

CAN I TRANSFER FROM ANOTHER UNIVERSITY?

You can transfer from another university. If you are an Australian resident, then you must apply for a place at UNSW through the UAC in the normal way. International students should apply directly to UNSW. It is worth contacting the Undergraduate Admissions Office before applying, as they may have suggestions about how to lodge an application. The School may let you know informally what course exemptions you may expect to be offered if you are successful.

Entry level requirements must be satisfied. Whatever courses you have taken will be used to determine a relative ranking, which will then be used in allocating places. Once you have gained entry to the UNSW program, you may apply for exemptions from courses at UNSW which are substantially the same as those you have passed elsewhere. Exemptions are determined by the School for each student with "advanced standing".

DOES UNSW RECOGNISE OTHER QUALIFICATIONS?

Advice should be obtained from staff and the Admissions Office.

- Certificate IV and Diplomas (e.g.TAFE) may be considered if they are AQF Accredited and completed by December 2006.
- One full time year of university standing or more may be considered.
- If tertiary performance has been affected, candidates may submit a SCAT application to UNSW.

DOES UNSW RECOGNISE DISADVANTAGE?

Applicants may obtain recognition of disadvantage by applying through the UAC EAS process. You should obtain advice about this process from the UNSW Admissions Office, or the UAC website.

STUDENT SUPPORT SERVICES AT UNSW

UNSW Admissions Office

Lower Ground Floor, The Chancellery (C22)
Telephone: 9385 3656

Telephone: 9663 0461 (from off campus) or 9385 5454
or 9385 3228 (from on campus).

<http://www.studentguild.org/guild>

Employment Notice board - Student Guild casual work
notice board

The Learning Centre

Inside Main Library entrance E 21
Telephone: 9385 3394
<http://www.lc.unsw.edu.au>
Academic assistance with note taking, time
management, assignment writing and examination
techniques

Religious Assistance

3rd Floor, Square House Building
<https://my.unsw.edu.au/student/atoz/Religious.html>

Science Student Centre

Ground Floor Webster Building (G15)
Telephone 9385 6125

3rd Floor, Square House Building
<https://my.unsw.edu.au/student/atoz/Religious.html>

Student Counseling Service

Second Floor, East Wing, Quadrangle Building
Telephone: 9385 5418
<http://www.counselling.unsw.edu.au/>
Confidential counseling service

Careers and Employment Service

Second Floor, East Wing, Quadrangle Building
Telephone: 9385 5429
<http://www.careers.unsw.edu.au>

Equity and Diversity Unit

Second Floor, East Wing, Quadrangle Building
Telephone: 9385 4734.
<http://www.equity.unsw.edu.au>

University Health Service

Ground Floor, East Wing, Quadrangle Building
Telephone: 9385 5424/5426/5427

Dental Surgery

Within the University Health Service
Ground Floor, East Wing, Quadrangle Building
Telephone: 9385 5877

Optometry Clinic

Third Floor, Newton (Physics) Building
Telephone: 9385 4627 or 9385 4624

Housing Office

Ground Floor, East Wing, Quadrangle Building
Telephone: 9385 4985
<http://www.housing.unsw.edu.au>

Student Guild

First Floor, East Wing, Quadrangle Building



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Information contained in this pamphlet is correct at the time of printing.

Information provided about courses and programs are an expression of intent only and are not to be taken as a firm offer or undertaking. The University reserves the right to discontinue or vary such courses or programs at any time without notice and to impose limitations on enrolment in any course.

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