



The University of Sydney

# Faculty of Pharmacy Handbook 2005

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# University dates

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## University semester and vacation dates 2005

### *Summer School*

Lectures begin	Tuesday 4 January
Lectures end	Friday 4 March

### *Semester 1*

Lectures begin	Monday 7 March
AVCC Common Week/non-teaching Easter Period	Friday 25 March to Friday 1 April
Study vacation	Monday 13 June to Friday 17 June
Examination period	Monday 20 June to Saturday 2 July
Semester ends	Saturday 2 July
AVCC Common week/non-teaching period	Monday 4 July to Friday 8 July

### *Semester 2*

Lectures begin	Monday 25 July
AVCC Common Week/non-teaching period	Monday 26 September to Friday 30 September
Study vacation	Monday 31 October to Friday 4 November
Examination period	Monday 7 November to Saturday 19 November
Semester ends	Saturday 19 November

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## Last dates for withdrawal or discontinuation 2005

### *Semester 1 units of study.*

Last day to add a unit	Friday 18 March
Last day for withdrawal	Thursday 31 March
Last day to discontinue without failure (DNF)	Friday 29 April

Last day to discontinue (Discontinued – Fail)	Friday 10 June
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### *Semester 2 units of study.*

Last day to add a unit	Friday 5 August
Last day for withdrawal	Wednesday 31 August
Last day to discontinue without failure (DNF)	Friday 9 September

Last day to discontinue (Discontinued – Fail)	Friday 28 October
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Last day to withdraw from a non-standard unit of study.	Details in the session calendar on the Timetable Unit website. <a href="http://web.timetable.auth.usyd.edu.au/">http://web.timetable.auth.usyd.edu.au/</a>
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These dates (and any updates) are also available at:  
[www.usyd.edu.au/fstudent/undergrad/apply/scm/dates.shtml](http://www.usyd.edu.au/fstudent/undergrad/apply/scm/dates.shtml)

## The University of Sydney

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## Faculty of Pharmacy

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This book (and other handbooks) can also be found at:  
[www.usyd.edu.au/handbooks](http://www.usyd.edu.au/handbooks)

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The information in this handbook is subject to approval and/or change by the appropriate faculty of the University. Students should always check the accuracy of the information with faculty staff.

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The following information is a printed version of the information available through Handbooks Online, on the University of Sydney web site. Please visit "<http://www.usyd.edu.au/handbooks/>" for the most current handbooks information.

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# Faculty of Pharmacy Handbook

The following information is a printed version of the information available through Handbooks Online, on the University of Sydney web site. Please visit "<http://www.usyd.edu.au/handbooks/>" for the most current handbooks information.

## How to use this Handbook

There are three sections in this Handbook:

- general information about the Faculty of Pharmacy (Chapter 1)
- undergraduate course information (Chapters 2 and 3)
- postgraduate course information (Chapters 4 and 5)

### Course outlines

The course outline tables set out the required Units of Study to be undertaken by students in each year of their enrolled course.

### Units of Study

The Units of Study section follows the course outline tables in alphabetical order by unit code (eg BIOL 1001). Details of each unit offered in the current academic year are provided, eg course content, credit points, semester offered and assessment.

## Frequently asked questions

*How do I qualify for the pass degree of Bachelor of Pharmacy or Bachelor of Pharmacy (Rural)?*

You must complete 192 credit points, as set in the course requirements, normally over four years.

*Should I read the Resolutions?*

Definitely. The Resolutions, which control undergraduate and postgraduate degrees, are collected in Chapters 3 and 5 respectively. The information in these chapters has precedence over all other information in this handbook.

*How do I qualify for the Bachelor of Pharmacy or Bachelor of Pharmacy (Rural) with Honours?*

You complete the requirements for the pass degree, together with advanced study in the fourth year in a single Pharmacy discipline area.

*What is meant by 'credit points'?*

Credit points are allocated to each unit of study. A unit of study is a semester-length course in a particular subject area, requiring between four and twelve hours per week of class attendance.

*Is a 'Unit of Study' the same as a 'course' or 'subject'? In handbooks from previous years the word 'unit' seems to have meant the same as 'credit point'!*

The University of Sydney has adopted the terminology recommended by the Commonwealth Department of Education, Science and Training (DEST). You may find that the academic staff sometimes use the old terms.

*I have studied at a tertiary institution already. Can previous studies be credited?*

In general previous university studies can be credited, provided that they are recent and similar in terms of topics covered, contact hours and level. You must complete a credit application form, which must be submitted to the Faculty of Pharmacy Student Services Centre together with original academic transcripts and descriptions of the units that you wish to have credited.

*Is there a time limit?*

You must complete all the degree requirements within ten years from the date of admission to candidature (eg, if you start in 2005, you must have completed by the end of 2014).

*Can I interrupt my studies to travel?*

You can suspend for a year (usually this is for travel or in order to earn some money by full time work). If necessary, you can apply for a further year of suspension, but after this the candidature usually is considered to have lapsed.

*If I do well, can I get into another degree program with a higher entry mark?*

Yes, but this will be competitive. It is realistic to assume you will be completing the degree in which you first enrol.

*What are my chances of success?*

Excellent. You have received an offer because the University believes you are qualified to complete the degree. Problems could arise if you are unable or unwilling to give your studies some priority over other interests, commitments and worries. Even if you have these problems, there are many ways in which you can find help and support within the University (details can be found on the University website). If your first language is not English, or if you have specific learning problems, it is a good idea to consult the Learning Assistance Centre.

*Can I do any units through Summer School?*

Some Units of Study may be undertaken through the Summer School in January and February. Please consult the Sydney Summer School website (<http://www.usyd.edu.au/summerschool/>) for more information.

The Faculty has increased its undergraduate intake significantly with approximately 260 new first year students in 2005, the Faculty has one of the largest undergraduate cohort of any Australian university.

## Message from the Dean

Welcome to the Faculty of Pharmacy at the University of Sydney.

Pharmacy at the University of Sydney has an established tradition of research and scholarship in the pharmaceutical sciences. The University's involvement with the education of pharmacists began in 1899 and in 1960, with the introduction of the Bachelor of Pharmacy degree course, the University became the first in Australia to offer an undergraduate degree program in Pharmacy.

Today, the Faculty offers one of the leading pharmacy education programs in Australia with an enviable national and international reputation. As a student in the Faculty, you will meet and be taught by internationally renowned academics and will have access to teaching laboratories that are leading world best practice. Most importantly, it is the Faculty's innovative teaching programs that will provide the very best training for your future career.

This reputation for innovation is highlighted by the Faculty's introduction of the Bachelor of Pharmacy (Rural), now offered at the Camperdown campus. This new degree program, which commenced in 2003, is similar in content to the Bachelor of Pharmacy but gives particular emphasis to an understanding of the differences between rural and non-rural health care systems and practice models. Given the current shortage of rural pharmacists, this initiative has the full support of the pharmacy profession.

Another of the Faculty's innovative programs is the inclusion of a Talented Students Program, offered to first year students with superior academic ability. This program recognises the exceptional quality of our undergraduate students and enables students to fulfill their individual academic potential.

At the postgraduate level, the Faculty now offers a Master of Pharmacy program which leads to registration as a pharmacist. This new program, first offered in 2004, has a strong practical focus and provides an alternative mode of entry to the pharmacy profession for applicants with a previous degree. This initiative will help alleviate the existing and projected shortfall in the pharmacy workforce.

The Faculty's postgraduate research program reflects the strong research capability of the Faculty's academic staff. There are currently over 65 postgraduate research students, often drawn from the Advanced (Honours) program offered at the undergraduate level. Students with research potential and interest are encouraged to consider taking the Advanced program in the Bachelor degree.

The Faculty regularly reviews and refines the curriculum offered in both its undergraduate and postgraduate programs, and the review processes often include a range of opportunities for student input. As Dean, I would encourage you to actively participate in Faculty initiatives and activities, particularly through our award winning undergraduate students association, Sydney University Pharmacy Association (SUPA). Apart from providing students with access to a range of social and professional activities, elected SUPA representatives from each year interact with Faculty staff to provide informal constructive feedback as well as formal input into the review processes I have mentioned. Similarly, postgraduate student representatives provide the same opportunities for input to reviews and feedback to staff in postgraduate programs.

A Pharmacy degree from the University of Sydney will offer you many career choices including the ability to serve the Australian community and improve the quality of medication usage. You will have the opportunity to interact with individuals and, through your intervention, improve their quality of life. Whether you are a new or a continuing student, the Faculty of Pharmacy welcomes you and looks forward to a productive year of working together.

**SI (Charlie) Benrimoj**

## A brief history of the Faculty of Pharmacy

Pharmacy at The University of Sydney has an established tradition of research and scholarship in the pharmaceutical sciences. The University's involvement with the education of pharmacists began in 1899. Among the earlier teachers, Horace Finnemore, appointed lecturer in 1927, had a strong research background. Nevertheless, research in Pharmacy essentially commenced in 1949 with the arrival from the Burroughs Wellcome Laboratories of Roland H Thorp as Professor of Pharmacology and Director of Pharmaceutical Studies, followed by Sydney E Wright in 1950. From the outset, Wright had the vision to develop active research in the Pharmaceutical Sciences and the programs he initiated were carried on by his associates well into the eighties and nineties. Wright was appointed to the first Chair in Pharmaceutical Chemistry in 1960 upon the introduction of the Bachelor of Pharmacy degree course. This introduction marked the beginning of pharmacy degree programs in Australia.

In the 1990s, the undergraduate program underwent a number of changes, including the introduction of courses in pharmacy practice. In 1996, the Department began the transition of the three year undergraduate degree into a four year program, with the first graduation of four year graduates occurring in 2001. In July 1997, the Herbal Medicines Research and Education Centre (HMREC) was established as part of the Department of Pharmacy to undertake and promote high quality research and education on herbal and complimentary medicines. On 1 January 2000, the Faculty of Pharmacy was established, becoming the first such Faculty in Australia.

Demand for undergraduate places in the Bachelor of Pharmacy degree has always been high, with approximately 1400 prospective students listing Pharmacy as their first preference for 2005. The Bachelor of Pharmacy (Rural), now at the Camperdown campus, will be offered again to new students from 2006. Of those expressing a preference for pharmacy, almost two-thirds were recent school leavers. Of the non-recent school leavers, a significant number already held an undergraduate degree.

Similarly, with more than 160 postgraduate students, the Faculty has the largest postgraduate Pharmacy program in Australia.

Pharmacy has many collaborative research projects with other faculties of the University, with teaching hospitals, with research institutes, with the pharmaceutical industry, and with the profession. Research in Pharmacy covers a broad spectrum of pharmaceutical and clinical sciences ranging from the design, synthesis, testing and mechanism of action of drugs, through studies on methods of drug delivery and on the fate of drugs in humans and animals, to research on the clinical and sociological aspects of pharmacy.

## Sydney University Pharmacy Association

Welcome to Pharmacy! Whether you are straight from school or have completed other courses, the question is always the same....Does this pharmacy crowd know how to have fun? Don't worry, we've got it covered!

The Sydney University Pharmacy Association (SUPA) is a society run by the students for the students. Established over 50 years ago, SUPA is one of the most active Sydney University societies and it still remains the exclusive domain of the pharmacy elite. In 2004, SUPA won the prestigious Club/Society of the Year ahead of 180 other societies from the whole of Sydney University. A huge honour, and it reflects what a great club we are – so make SUPA the first club you sign up for this year.

The aim of SUPA is to maximise the enjoyment of your university experience. We hope to provide students with a balance between the challenging academic requirements and the exciting social life on offer at university. SUPA offers a bursting social calendar full of events that are sure to appeal to all tastes such as BBQs, harbour cruises, trivia nights, pub crawls, a ski trip and the Pharmacy Ball. SUPA also coordinates pharmacy's involvement in the interfaculty sport program, a year long University-wide competition for men and women in a variety of sports. As well, SUPA plays an important role in student services by acting as a support group that assists

members with any administrative or academic problems that may be encountered. Finally, we also offer members great discounts on pharmacy reference books and equipment such as spatulas and dispensing weights – you can save the cost of your membership fee in just one purchase!

The SUPA committee consists of eight elected members who work together with two elected members from each pharmacy year. The SUPA committee for 2004-05:

<b>President</b>	Claire McCormack
<b>Vice President</b>	Emma Bibby
<b>Treasurer</b>	Adrian Sobol
<b>Secretary</b>	Kieren Po
<b>Events Co-Ordinator</b>	Susan Gao
<b>Merchandising</b>	Katherine Cheung
<b>Sports Co-Ordinator</b>	Elias Wehbe

So, get involved. Become a member and join the other 600 pharmacy students who are part of SUPA. All it takes is a one-off membership fee valid for the rest of your pharmacy uni life (no matter how many years it takes).

Membership is \$50, or if you join during enrolment or O-week, receive the special rate of \$45. For more information phone 02 9552 1299 or visit [www.pharm.usyd.edu.au/SUPA](http://www.pharm.usyd.edu.au/SUPA).

**Claire McCormack**  
SUPA President 2004-05





# 1. About the Faculty

The following information is a printed version of the information available through Handbooks Online, on the University of Sydney web site. Please visit "<http://www.usyd.edu.au/handbooks/>" for the most current handbooks information.

## General enquiries

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Phone: 02 9351 2320  
Fax: 02 9351 4391  
Email: [enquiries@pharm.usyd.edu.au](mailto:enquiries@pharm.usyd.edu.au)  
Web: [www.pharm.usyd.edu.au](http://www.pharm.usyd.edu.au) (<http://www.pharm.usyd.edu.au>)

## Information and advice

### Student Services Office

Room N346 in the Pharmacy Building (A15)  
Open Monday to Friday, 9.00am to 5.00pm  
Phone: (02) 9351 2320 (main line)  
Fax: (02) 9351 4391

#### Undergraduate enquiries:

Phone: (02) 9036 9293  
Email: [ug@pharm.usyd.edu.au](mailto:ug@pharm.usyd.edu.au)

#### Postgraduate enquiries:

Phone: (02) 9036 9552  
Email: [pg@pharm.usyd.edu.au](mailto:pg@pharm.usyd.edu.au)

Student Services staff will direct your enquiry to the appropriate staff member.

### Dean

Room S322  
Phone: (02) 9351 2077  
Fax: (02) 9351 4391

### Faculty Manager

Room N346  
Phone: (02) 9351 8583  
Fax: (02) 9351 6950

### Herbal Medicines Research and Education Centre

Room N411  
Phone: (02) 9351 4435  
Fax: (02) 9351 8638

### Pharmacy Practice Foundation

Phone: (02) 9351 2668  
Fax: (02) 9351 3980  
Web: [www.pharm.usyd.edu.au/ppf/](http://www.pharm.usyd.edu.au/ppf/) (<http://www.pharm.usyd.edu.au/ppf/>)

## Staff

### Dean's office

#### Dean

Professor Shalom Isaac (Charlie) Benrimoj

#### Pro Dean

Professor Basil Don Roufogalis

#### Associate Deans

Dr Mary Bebawy (Undergraduate) (Acting)  
Assoc Prof Andrew McLachlan (Postgraduate)  
Prof Michael Murray (Research)  
Assoc Prof Iqbal Ramzan (Admissions and Administration)  
Dr Susan Taylor (Rural)

#### Executive Assistant to Dean

Krystyna Drapalski

### Academic staff

#### Professor of Pharmacy Practice

Shalom Isaac Benrimoj, BPharm PhD Bradford, MPS

#### Professor of Pharmaceutical Chemistry

Basil Don Roufogalis, MPharm PhD DSc, MPS

#### Professor of Pharmacy

Carol L Armour, BPharm PhD, MPS

#### Pfizer Australian Chair in Clinical Pharmacy (St Vincent's Hospital)

Jo-anne Brien, BPharm BS(Pharm) PharmD MCP/AHS, MPS  
MRPharmS MSHPA

#### Professor of Pharmacogenomics

Michael Murray, BPharm PhD DSc

#### Associate Professors

Hak-Kim Chan, BPharm NDMC Taipei PhD  
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#### Senior Lecturers

Mary Collins, BSc PhD, MRACI  
Allan Gerald Coombes, BSc Nott PhD Bristol  
Colin C Duke, BSc Qld PhD James Cook, MRACI  
Susan J Taylor, MSc Lond BPharm PhD, MRPharmS

#### Lecturers

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MRPharmS MPS  
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Timothy F Chen, BPharm DipHPharm PhD, MPS  
Mano Chetty, BPharm Durban MSc Rhodes PhD Durban  
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Romano Fois, BPharm, PhD  
Pauline Goh, BSc Singapore MSc PhD GradCertEd UTS  
David Hibbs, BSc (Hons) Cardiff, PhD Cardiff, GradCertEdStudies  
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Sam Megalli, BPharm, PhD  
Bandana Saini, MPharm MBA India, PhD  
Erica Sainsbury, BPharm MSc GDipEdStudies, MPS  
Kylie Williams, BPharm DipHPharm PhD

#### Associate Lecturers

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Simone Diamandis, BSc N'cle BPharm  
Erin Jones, PhD Purdue, USA  
Rebekah Moles, BPharm DipHPharm  
Lorraine Smith, BA Macq, PhD  
Lindy Swain, BPharm  
Laleh Vahdat, BPharm India, MPharm India, PhD Curtin

#### Academic (Research only)

Erica Campbell, BSc PhD  
Lisa Cheong, BEng (Hons) Qld, PhD Qld  
Herbert Chiou, BSc (Hons), PhD  
Coln Crean, BSc Dublin, PhD Dublin  
Iain Duggin, BSc PhD  
Rujee Duke, BSc JCU PhD ANU  
Eva Fiala-Ber, BSc UNSW, GradDipEdStudies Sydney Institute  
Ed  
Linda Gelgor, MSc PhD SthAfrica  
Sheridan Henness, BChemEng BSc PhD

## 1. About the Faculty

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Yuhao Li, Grad Med China PhD Japan  
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### *Research Assistants and Research Project Staff*

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Nicole Marden, BSc (Hons) UNSW, PhD UNSW  
Bernadette Mitchell, BSc PhD  
Naomi Morton, BSc (App)  
Marie Pryor, BSc New England, MIT Newcastle  
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Catherine Raffaele, LLB BA  
Grenville Rose, BA PhD  
Rebecca Roubin, BSc (Hons) UNSW, PhD  
Martha Smith-Brillant, BSc PhD New Brunswick  
Megan Spindler, BSc DipAppSc BAppSc Canb  
Joel Werner, BPsych  
Frances Wilson, BPharm MPH UNSW  
Vivian Zhang, BSc Shan Xi Normal, China, MSc West China, PhD

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Ben J Basger, BPharm MSc DipHPharm, MPS  
Domenica Baskin, BPharm MPS  
Alexandra Bennett, BPharm DipHPharm GradCertClinPharm (Cardiology)  
Stephen Carter, BPharm MSc AACP  
Betty Chaar, BPharm  
Maria Ciccio, BPharm  
Margaret Jordan, BPharm, AACPA CGP  
Jane Ludington, BPharm PhD MHPE UNSW (Diabetes)  
Mualla McManus, BSc Monash BPharm PhD  
Carlene Smith, BPharm MPS AACPA  
Gabrielle Smith, BPharm PhD  
Cherie Tsingos, BPharm, MPS JP

### **Administrative staff**

#### *Faculty Manager*

Sandra Harrison, BA(Hons)

#### *Administrative Officers*

Martin Carroll (PPF)  
Marlon Ornek, BA Macq  
Susan Putnam  
Seowmee Salam  
Margaret Trimble (PPF)  
Sylvia Tropiano, BA DipEd GradDipAppHistory UTS  
Ann Williams, BA Vic MA Auckland DBA Vic

#### *Administrative Assistants*

Christopher Bates, BSc MSc DipEd Tas  
Michelle Colbran  
Maxine Mackellar, BA  
Helen Mina (QCPS)  
Annette Silva, BA Macq  
Sherry Yam, BCom W'gong (HMREC)

### **Technical staff**

#### *Manager, Technical Staff and Resources*

Barbara Higgins, BSc UNSW

#### *Professional Officers*

Fred TK Wong, DipMedTech STC MSc, FACBS  
Bruce N Tattam, MSTIA

#### *Senior Technical Officers*

Bill Rae  
Jiamin You, BSc Shanghai MPharmSc

#### *Technical Officers*

Christopher J Hick, ADAS SydInstTech  
Michael Kennedy, BAppSc UTS  
Catherine H Mortimer, BSc DipEd ADAS SydInstTech

#### *Assistants*

Jenny Bell  
Freda Kambosos  
Jie Li

#### *Attendant*

Jay O'Sullivan

### **WebCT Staff**

#### *Web Designers*

Ross West, BSc  
Sharon Kitching

*As at December 2004*

## Resolutions of the Senate

### **Degrees, diplomas and certificates in the Faculty of Pharmacy**

- The degrees in the Faculty of Pharmacy shall be:
  - Bachelor of Pharmacy (BPharm)
  - Bachelor of Pharmacy (Rural) (BPharm(Rural))
  - Master of Pharmacy (Research) (MPharm(Res))
  - Master of Pharmacy (Clinical) (MPharm(Clin))
  - Master of Pharmaceutical Sciences (MPharmSc)
  - Master of Herbal Medicines (MHerbMed)
  - Master of Pharmaceutical Industry (MPharmInd)
  - Master of Pharmacy (MPharm)
  - Doctor of Philosophy (PhD)
- The diplomas and certificates in the Faculty of Pharmacy shall be:
  - Graduate Diploma in Clinical Pharmacy (GradDipClinPharm)
  - Graduate Diploma in Pharmaceutical Sciences (GradDipPharm-Sc)
  - Graduate Diploma in Hospital Pharmacy (GradDipHPharm)
  - Graduate Diploma in Herbal Medicines (GradDipHerbMed)
  - Graduate Diploma in Pharmaceutical Industry (GradDipPharmInd)
  - Graduate Certificate in Clinical Pharmacy (GradCertClin-Pharm)
  - Graduate Certificate in Herbal Medicines (GradCertHerbMed)
  - Graduate Certificate in Pharmaceutical Industry (GradCert-PharmInd)

### **Constitution of the Faculty of Pharmacy**

- The Faculty of Pharmacy shall comprise the following persons:
  - the Professors, Readers, Associate Professors, Senior Lecturers, Lecturers and Associate Lecturers being full-time or fractional (50% full-time equivalent or greater), continuing or fixed term members of the academic staff in the Faculty of Pharmacy;
  - the Dean or a nominee of the Dean of each of the Faculties of Health Sciences, Dentistry, Medicine, Nursing and Science;
  - the Head or a nominee of the Head of each of the Departments or Schools teaching units of study in the courses offered by the Faculty;
  - the Professors, Readers and Associate Professors, being full-time or fractional (50% full-time equivalent or greater) continuing or fixed term members of the academic staff in the Department of Pharmacology;
  - such other persons, if any, being full-time or fractional (50% full-time equivalent or greater) research staff in the Faculty of Pharmacy holding appointments of Research Fellow and above;
  - not more than four students (two undergraduate, two postgraduate), elected in the manner prescribed by the Resolutions of Senate;
  - not more than three persons, being members of the general or technical staff of the Faculty of Pharmacy, who, in the opinion of the Faculty, have a close and appropriate association with its work of teaching and research, on the nomination of the Dean of the Faculty with the approval of the Faculty;
  - the President of the Pharmacy Practice Foundation;
  - the President of the Pharmacy Board of New South Wales;
  - the Chief Pharmacist of the NSW Department of Health (or nominee);

- (k) not more than five persons distinguished in pharmacy professional associations on the nomination of the Dean of the Faculty with the approval of the Faculty;
  - (l) not more than two persons distinguished in the pharmaceutical industry on the nomination of the Dean of the Faculty with approval of the Faculty;
  - (m) persons associated with the Faculty upon whom the University has conferred the title of Clinical or Adjunct Professor, Clinical or Adjunct Associate Professor, Clinical or Adjunct Senior Lecturer, and Clinical or Adjunct Lecturer;
  - (n) not more than three persons, being Associates, Clinical Associates, Clinical Supervisors, Research Associates, Professional Associates and Teaching Associates of the Faculty, on the nomination of the Dean of the Faculty with the approval of the Faculty, with not more than two members coming from any one discipline;
  - (o) one representative of the Directors of Pharmacy of the Teaching Hospitals of the Faculty on the nomination of the Dean of the Faculty with the approval of Faculty;
  - (p) the Chief Executive Officers of the teaching hospitals of the Faculty;
  - (q) such other persons as may be appointed by the Faculty on the nomination of the Dean of the Faculty.
2. The members appointed under sections (a), (b), (c), (d), (e), (h), (i), (j), (m), (p) or (q) shall be members of the Faculty for so long as they retain the positions that led to their appointment as members of Faculty.
  3. The members appointed under sections (f), (g), (l) and (o) shall be appointed at the first meeting of Faculty in first semester each year, or as soon as practicable thereafter, and shall hold office until the first meeting of Faculty in the first semester of the following year.
  4. The members referred to in sections (k) and (n) shall be appointed for two years, or until their association with the Faculty of Pharmacy ceases, whichever is the sooner.

## 2. Undergraduate degree requirements

The following information is a printed version of the information available through Handbooks Online, on the University of Sydney web site. Please visit "<http://www.usyd.edu.au/handbooks/>" for the most current handbooks information.

### Introduction

The information in this chapter is in summary form and is subordinate to the provisions of the degree Resolutions, which can be found in chapter 3.

#### Restrictions (general)

1. A candidate for a degree must satisfy the minimum eligibility requirements before commencing the degree units of study. Units of study taken before satisfying these requirements cannot normally be counted for degree purposes.
2. A candidate may not take a unit of study in any subject without having previously completed the qualifying unit(s) of study appropriate to that subject. Except with the permission of the Head of Department, he or she must also complete the prerequisites and corequisites as prescribed.
3. The only combinations of units of study available are those permitted by the timetable.

#### Time limits

Except with the permission of the Faculty, students must complete the requirements for award of their degree within ten calendar years of admission to candidature.

#### Suspension

All students must re-enrol each calendar year unless the Faculty has approved suspension of candidature. Candidature will lapse if a student has not obtained approval for suspension and does not re-enrol. A student whose candidature has lapsed must be selected for admission again (usually by submitting an application to UAC) before they can re-enrol.

Except with the prior permission of the Faculty, a student shall not be granted a suspension of candidature in order to enrol in another course of tertiary study. Candidature will lapse if a student enrolls in another course of tertiary study after having been granted a suspension of candidature.

#### Credit

Students who have previously completed studies which are considered by the Faculty to be equivalent to any unit of study listed in the Tables may be given credit for that unit of study providing that the unit of study was completed not more than nine years before admission to candidature in the Faculty.

#### Results

For all units of study in the Bachelor of Pharmacy and Bachelor of Pharmacy (Rural) degrees, the following mark ranges apply:

Abrev.	Grade	Mark
HD	High Distinction	85-100
D	Distinction	75-84
CR	Credit	65-74
P	Pass	50-64
R	Satisfied requirements	
PCON	Pass (Concessional)*	46-49
F	Fail	Below 46 or 50
AF	Absent Fail	

\*For Pass (Concessional) a maximum of 12 credit points (first year units of study), 10 credit points (second year) and 6 credit points (third year) may be counted towards the degree .

#### Honours

The following Honours grades apply from 2000. A grade of Honours is determined by the WAM for years 1- 4 and average mark in Advanced units of study.

Grade	Minimum four year WAM	Minimum average mark in Advanced units
H1M-First class Honours and University Medal	85	90
H1- First class Honours	75	85
H21- Second class Honours, Division 1	70	80
H22- Second class Honours, Division 2	65	75

#### Special consideration

This process takes precedence over any other mention of special consideration in this Handbook.

The Faculty of Pharmacy recognises that the performance of students may be adversely affected by illness or other misadventure, and makes provision for special consideration of such disabilities when examination results are considered. Faculty intends only to compensate for sub-standard performance in assessments, which do not reflect a student's true competence in a subject, and *such provisions must not act to the disadvantage of other students* .

Any student who believes that his/her performance has been or may be adversely affected by an occurrence of illness or misadventure may request Faculty to give special consideration to the circumstances. *Such a request must be made within one week* of the occurrence and must be accompanied by an appropriate medical certificate or other relevant documentary evidence.

Such certificates should state not only the nature of the illness or misadventure but also the opinion of the issuer as to the extent of disability involved.

Where several requests for special consideration have been received from one student, the Faculty may wish to obtain from the medical practitioner or other issuer of corroborating certificates more detail as to the precise extent of the disability. In cases where the Faculty believes that other students may be adversely affected by the giving of special consideration, it may require the applicant to obtain a professional opinion from another source.

#### Discontinuation and re-enrolment

Regulations about discontinuation and about restrictions imposed on re-enrolment are published in the University's *Calendar* . Attention is drawn in particular to Regulation Q which is specifically concerned with the Faculty of Pharmacy, and to those headed 'Students in all Faculties, Colleges and Boards of Studies' .

### Bachelor of Pharmacy (BPharm)

Course code: PH001

**Note:** For students first enrolling in 1997 or 1998, the Resolutions governing their candidature for the first and second years of study are contained in the 1997 or 1998 *Faculty of Science Handbook* . The 1999 Resolutions will govern their candidature in the year 1999 and in subsequent years. The 2001 Resolutions will govern the candidature of students commencing in 2001.

#### Summary of requirements

The degree of Bachelor of Pharmacy degree is a full-time four year course. Progression towards the degree is by the accumulation of

credit points. The requirements for the degree are set out in the Senate Resolutions, which should be read by all intending candidates (see Chapter 3). The degree may be awarded at the Pass or Honours level.

To satisfy the requirement for the degree candidates must gain a minimum of 192 credit points by completing the units of study prescribed for the degree.

#### *Assumed knowledge*

It should be noted that most of the first year units of study will be taught on the assumption that students have reached the standard of assumed knowledge specified in Table 1.

#### *Prerequisites and corequisites*

To be eligible to enrol in Second Year, Third Year and Fourth Year units of study, students must have completed the prerequisite unit(s) of study. Any corequisite unit(s) of study not previously completed must be taken concurrently. (See Table 1).

#### *Registration requirements for pharmacists*

A student who intends to qualify to be registered as a pharmacist under the Pharmacy Act 1964 is first required to qualify for the degree of Bachelor of Pharmacy. In addition he or she is required to serve not less than 2000 hours as an assistant to a registered pharmacist in a pharmacy within the Commonwealth of Australia. This period must be served after the BPharm course has been successfully completed.

Further details concerning the requirements for registration can be obtained from the Pharmacy Board of New South Wales, 3rd Floor, 28 Foveaux Street, Surry Hills, NSW 2010, tel. (02) 9281 7736, fax (02) 9281 2924. Postal Address: Locked Bag 2, Haymarket, NSW 2000.

#### **BPharm degree resolutions**

See chapter 3.

## Bachelor of Pharmacy (Rural)

Course code: PH002

The Bachelor of Pharmacy (Rural) has been specifically developed with the aim of allowing students to graduate with specialised knowledge which will assist them in pursuing research issues specific to a rural or remote setting, or in practising as a pharmacist after registration in rural or remote areas of Australia or internationally. The Bachelor of Pharmacy (Rural) degree does not limit graduates to careers in a rural area. Graduates of the BPharm (Rural) who gain registration with the Pharmacy Board of NSW retain graduate mobility between various pharmacy settings, rural and non-rural. The degree is not intended to provide an additional avenue of entry to

those wishing to study pharmacy at the University of Sydney's Camperdown campus. However, following normal procedure, students wishing to transfer from the Bachelor of Pharmacy (Rural) to the Bachelor of Pharmacy will need to apply via the UAC channels and will be subject to the same rules which apply to other non-recent school leavers seeking entry to the Bachelor of Pharmacy.

Graduates from the Bachelor of Pharmacy (Rural) need to complete a period of practical training before registration with the Pharmacy Board.

#### **Summary of requirements**

The degree of Bachelor of Pharmacy (Rural) is a full-time four-year course. Progression towards the degree is by the accumulation of credit points. The requirements for the degree are set out in the Senate Resolutions, which should be read by all intending candidates (see Chapter 3). The degree may be awarded at Pass or Honours level.

To satisfy the requirement for the degree candidates must gain a minimum of 192 credit points by completing the units of study prescribed for the degree. Table 2 outlines the units of study which comprise the program of study for Bachelor of Pharmacy (Rural).

#### *Assumed Knowledge*

It should be noted that most of the first year units of study will be taught on the assumption that students have reached the standard of assumed knowledge specified in Table 2.

#### *Prerequisites and corequisites*

To be eligible to enrol in Second Year, Third Year and Fourth Year units of study, students must have completed the prerequisite units of study if any. Any corequisite units of study not previously completed must be taken concurrently (see Table 2).

#### *Registration requirements for pharmacists*

A student who intends to qualify to be registered as a pharmacist under the Pharmacy Act 1964 is first required to qualify for the degree of Bachelor of Pharmacy (Rural). In addition he or she is required to serve not less than 2000 hours as an assistant to a registered pharmacist in a pharmacy within the Commonwealth of Australia. This period must be served after the Bachelor of Pharmacy (Rural) course has been successfully completed.

Further details concerning the requirements for registration can be obtained from the Pharmacy Board of New South Wales, 3rd Floor, 28 Foveaux Street, Surry Hills, NSW 2010, tel. (02) 9281 7736, fax (02) 9281 2924. Postal Address: Locked Bag 2, Haymarket, NSW 2000.

#### **Bachelor of Pharmacy (Rural) degree resolutions**

See Chapter 3.

## Undergraduate Units of Study

**Table 1: Bachelor of Pharmacy Pass degree and Honours degree**

<i>Unit of Study</i>	<i>CP</i>	<i>A: Assumed knowledge</i>	<i>P: Prerequisites</i>	<i>Q: Qualifying</i>	<i>C: Corequisites</i>	<i>N: Prohibition</i>	<i>Session</i>
<b>BIOL 1001</b> Concepts in Biology	6	A No previous knowledge required. Students who have not taken HSC Biology are recommended to take the Biology Bridging Course. N BIOL (1101 or 1901) NB: It is recommended that BIOL (1001 or 1101 or 1901) be taken before all Semester 2 Junior units of study in Biology.					Semester 1, Summer
<b>CHEM 1611</b> Chemistry A (Pharmacy)	6	A HSC Chemistry and Mathematics					Semester 1
<b>PHAR 1613</b> Psychological Concepts in Pharmacy	3						Semester 1
<b>PHAR 1614</b> Concepts in Pharmacy	6						Semester 1
<b>STAT 1605</b> Statistics (Pharmacy)	3	A HSC 2-unit Mathematics or equivalent (Students without this assumed knowledge are advised to attend a bridging course in February)					Semester 1
<b>BIOL 1003</b> Human Biology	6	A HSC 2-unit Biology N BIOL1903 or EDUH1016					Summer, Semester 2
<b>CHEM 1612</b> Chemistry B (Pharmacy)	6	C CHEM 1611 Chemistry A (Pharmacy)					Semester 2

## 2. Undergraduate degree requirements

<i>Unit of Study</i>	<i>CP</i>	<i>A: Assumed knowledge</i>	<i>P: Prerequisites</i>	<i>Q: Qualifying</i>	<i>C: Corequisites</i>	<i>N: Prohibition</i>	<i>Session</i>
<b>MATH 1605</b> Calculus (Pharmacy)	3	A HSC 2-unit Mathematics or equivalent (Students without this assumed knowledge are advised to attend a bridging course in February)					Semester 2
<b>PHAR 1607</b> Introductory Pharmaceutical Science	4	A HSC Chemistry 2 C PHAR1611 or PHAR1621					Semester 2
<b>PHAR 1612</b> Social Pharmacy	5	C PSYC1611					Semester 2
<b>PHAR 1622</b>		NB: *** No info available for 2005. ***					
<b>BCHM 2611</b> Proteins, Enzymes and Metabolism 1	3	P CHEM 1611 and CHEM 1612					Summer, Semester 1
<b>MICR 2605</b> Microbiology (Pharmacy)	3	P BIOL 1001					Semester 1
<b>PCOL 2603</b> Pharmacology 2A (Pharmacy)	2	P CHEM 1611, CHEM 1612, BIOL 1001, BIOL 1003 C BCHM 2611, PHSI 2604					Semester 1
<b>PHAR 2609</b> Medicinal Chemistry 2A	6	P MATH1605 or MATH1011, STAT1605 or MATH1005, CHEM1611, CHEM1612, PHAR1607 C BCHM2611 and PCOL2603					Semester 1
<b>PHAR 2611</b> Pharmacy Practice 2A	2	P PSYC1611, PHAR1612 or PHAR1622. C PCOL2603, BCHM2611, PHSI2604, PHAR2609.					Semester 1
<b>PHAR 2613</b> Physical Pharmaceutics 2A	5	P MATH1005 or STAT1605, MATH1011 or MATH1605, CHEM1611, CHEM1612, PHAR1607.					Semester 1
<b>PHSI 2604</b> Physiology 2A (Pharmacy)	3	P CHEM 1611, CHEM 1612, BIOL 1003					Semester 1
<b>BCHM 2612</b> Metabolism 2 and Genes	3	P CHEM 1611, CHEM 1612 C BCHM 2611					Summer, Semester 2
<b>PCOL 2604</b> Pharmacology 2B (Pharmacy)	2	P CHEM 1611, CHEM 1612, BIOL 1001, BIOL 1003 C BCHM 2612, PHSI 2605, PCOL 2603					Semester 2
<b>PHAR 2607</b> Pharmaceutical Microbiology	4	P PHAR1607, BIOL1001 C MICR2605					Semester 2
<b>PHAR 2610</b> Medicinal Chemistry 2B	4	P MATH1605 and STAT1605, CHEM1611, CHEM1612, PHAR1607. C BCHM2612, PCOL2604, PHAR2609					Semester 2
<b>PHAR 2612</b> Pharmacy Practice 2B	3	P PSYC1611, PHAR1621 or PHAR1611, PHAR1622 or PHAR1612 C PCOL2604, BCHM2612, PHSI2605, PHAR2610 or PHAR2620, PHAR2611.					Semester 2
<b>PHAR 2614</b> Physical Pharmaceutics 2B	5	P MATH1605 and STAT1605, CHEM1611, CHEM1612, PHAR1607. C PHAR2613					Semester 2
<b>PHSI 2605</b> Physiology 2B (Pharmacy)	3	P CHEM 1611, CHEM 1612, BIOL 1003 C PHSI 2604					Semester 2
<b>PCOL 3603</b> Pharmacology 3A (Pharmacy)	6	P PCOL2603, PCOL2604, BCHM 2611, BCHM 2612, PHSI 2604 and PHSI 2605					Semester 1
<b>PHAR 3607</b> Formulation A	3	P A pass in all first year units of study. BIOL 1001, BIOL 1003, CHEM 1611, CHEM 1612, MATH 1605, PHAR1607, PHAR1611, PHAR 1612, PSYC 1611, STAT 1605, PHAR 2607, PHAR 2613 and PHAR 2614					Semester 1
<b>PHAR 3609</b> Medicinal Chemistry 3A	6	P A pass in all first year units of study. BIOL 1001, BIOL 1003, CHEM 1611, CHEM 1612, MATH 1605, PHAR1607, PHAR1611, PHAR 1612, PSYC 1611, STAT 1605, BCHM 2611, BCHM 2612, PCOL2603, PCOL2604, PHAR2609 and PHAR2610. C PCOL 3603					Semester 1
<b>PHAR 3611</b> Pharmacokinetics A	3	P A pass in all first year units of study. BIOL 1001, BIOL 1003, CHEM 1611, CHEM 1612, MATH 1605, PHAR1607, PHAR1611, PHAR 1612, PSYC 1611, STAT 1605, PHAR 2613 and PHAR 2614					Semester 1
<b>PHAR 3613</b> Pharmacy Practice 3A	6	P A pass in all first year units of study. BIOL 1001, BIOL 1003, CHEM 1611, CHEM 1612, MATH 1605, PHAR1607, PHAR1611, PHAR 1612, PSYC 1611, STAT 1605, PCOL2603, PCOL2604, PHSI2604, PHSI2605, BCHM2611, BCHM2612, PHAR2611 and PHAR2612. C PCOL3603, PHAR3609 and PHAR3611.					Semester 1
<b>PCOL 3604</b> Pharmacology 3B (Pharmacy)	2	P PCOL2603, PCOL2604, BCHM 2611, BCHM 2612, PHSI 2604, PHSI 2605 C PCOL 3603					Semester 2
<b>PHAR 3601</b> Dispensing	4	P A pass in all first year units of study. BIOL 1001, BIOL 1003, CHEM 1611, CHEM 1612, MATH 1605, PHAR1607, PHAR1611, PHAR 1612, PSYC 1611, STAT 1605, PHAR 2613, PHAR 2614, PHAR 2607, PHAR2611 and PHAR2612.					Semester 2
<b>PHAR 3608</b> Formulation B	2	P A pass in all first year units of study. BIOL 1001, BIOL 1003, CHEM 1611, CHEM 1612, MATH 1605, PHAR1607, PHAR1611, PHAR 1612, PSYC 1611, STAT 1605, PHAR2607, PHAR2613, and PHAR2614. C PHAR3607					Semester 2
<b>PHAR 3610</b> Medicinal Chemistry 3B	6	P A pass in all first year units of study. BIOL 1001, BIOL 1003, CHEM 1611, CHEM 1612, MATH 1605, PHAR1607, PHAR1611, PHAR 1612, PSYC 1611, STAT 1605, BCHM2611, BCHM2612, PCOL2603, PCOL2604, PHAR2609 and PHAR2610. C PCOL3604 and PHAR3609.					Semester 2
<b>PHAR 3612</b> Pharmacokinetics B	3	P A pass in all first year units of study. BIOL 1001, BIOL 1003, CHEM 1611, CHEM 1612, MATH 1605, PHAR1607, PHAR1611, PHAR 1612, PSYC 1611, STAT 1605, PHAR2613, PHAR2614 C PHAR3611					Semester 2
<b>PHAR 3614</b> Pharmacy Practice 3B	7	P A pass in all first year units of study. BIOL 1001, BIOL 1003, CHEM 1611, CHEM 1612, MATH 1605, PHAR1607, PHAR1611, PHAR 1612, PSYC 1611, STAT 1605, PCOL2603, PCOL2604, PHSI2604, PHSI2605, BCHM2611, BCHM2612, PHAR2611, PHAR2612. C PCOL3604, PHAR3610, PHAR3612, PHAR3613.					Semester 2

<i>Unit of Study</i>		<i>CP</i>	<i>A: Assumed knowledge P: Prerequisites Q: Qualifying C: Corequisites N: Prohibition</i>	<i>Session</i>
<b>PHAR 4601</b>	Integrated Dispensing	4	<b>P</b> A pass in all second year units of study. BCHM 2611, BCHM 2612, MICR 2605, PCOL 2603, PCOL 2604, PHAR 2607, PHAR 2609, PHAR 2610, PHAR 2611, PHAR 2612, PHAR 2613, PHAR 2614, PHSI 2604, PHSI 2605, PHAR 3601, PHAR 3613 and PHAR 3614	Semester 1
<b>PHAR 4602</b>	New Drug Technologies	4	<b>P</b> A pass in all second year units of study. BCHM 2611, BCHM 2612, MICR 2605, PCOL 2603, PCOL 2604, PHAR 2607, PHAR 2609, PHAR 2610, PHAR 2611, PHAR 2612, PHAR 2613, PHAR 2614, PHSI 2604, PHSI 2605, PHAR3609, PHAR3610, PCOL3603, PCOL3604.	Semester 1
<b>PHAR 4603</b>	Pharmaceutics Workshop	4	<b>P</b> A pass in all second year units of study. BCHM 2611, BCHM 2612, MICR 2605, PCOL 2603, PCOL 2604, PHAR 2607, PHAR 2609, PHAR 2610, PHAR 2611, PHAR 2612, PHAR 2613, PHAR 2614, PHSI 2604, PHSI 2605, PHAR3611, PHAR3612, PHAR3607 and PHAR3608.	Semester 1
<b>PHAR 4604</b>	Clinical Pathology A	2	<b>P</b> A pass in all second year units of study. BCHM 2611, BCHM 2612, MICR 2605, PCOL 2603, PCOL 2604, PHAR 2607, PHAR 2609, PHAR 2610, PHAR 2611, PHAR 2612, PHAR 2613, PHAR 2614, PHSI 2604, PHSI 2605, PHAR3609, PHAR3610, PHAR3613, PHAR3614, PCOL3603, PCOL3604.	Semester 1
<b>PHAR 4612</b>	Pharmacotherapeutics A	5	<b>P</b> A pass in all second year units of study. BCHM 2611, BCHM 2612, MICR 2605, PCOL 2603, PCOL 2604, PHAR 2607, PHAR 2609, PHAR 2610, PHAR 2611, PHAR 2612, PHAR 2613, PHAR 2614, PHSI 2604, PHSI 2605, PHAR3611, PHAR3612, PHAR 3613, PHAR3614, PCOL3603 and PCOL3604.	Semester 1
<b>PHAR 4613</b>	Clinical Practice A	5	<b>P</b> A pass in all second year units of study. BCHM 2611, BCHM 2612, MICR 2605, PCOL 2603, PCOL 2604, PHAR 2607, PHAR 2609, PHAR 2610, PHAR 2611, PHAR 2612, PHAR 2613, PHAR 2614, PHSI 2604, PHSI 2605, PHAR 3613, PHAR 3614, PCOL 3603, PCOL 3604, PHAR 3611 and PHAR 3612	Semester 1
<b>PHAR 4900</b>			NB: *** No info available for 2005. ***	
<b>PCOL 4907</b>	Pharmacology A Advanced (Pharmacy)	10	<b>P</b> All third year pharmacy units of study. Enrolment only by invitation to those with a high WAM. NB: Department permission required for enrolment.	Semester 1
<b>PHAR 4922</b>	Pharmaceutical Chemistry A (Advanced)	10	<b>P</b> All third year pharmacy units of study. Enrolment only by invitation to those with a high WAM NB: Department permission required for enrolment.	Semester 1
<b>PHAR 4923</b>	Pharmacy Practice A (Advanced)	10	<b>P</b> All third year pharmacy units of study. Enrolment is only by invitation to those with a high WAM. NB: Department permission required for enrolment.	Semester 1
<b>PHAR 4606</b>	Clinical Information Technology	2	<b>P</b> A pass in all second year units of study. BCHM 2611, BCHM 2612, MICR 2605, PCOL 2603, PCOL 2604, PHAR 2607, PHAR 2609, PHAR 2610, PHAR 2611, PHAR 2612, PHAR 2613, PHAR 2614, PHSI 2604, PHSI 2605, PHAR 3611, PHAR 3612, PHAR3613, PHAR3614, PCOL 3603, PCOL 3604.	Semester 2
<b>PHAR 4607</b>	Clinical Pathology B	2	<b>P</b> A pass in all second year units of study. BCHM 2611, BCHM 2612, MICR 2605, PCOL 2603, PCOL 2604, PHAR 2607, PHAR 2609, PHAR 2610, PHAR 2611, PHAR 2612, PHAR 2613, PHAR 2614, PHSI 2604, PHSI 2605, PHAR3609, PHAR3610, PHAR3613, PHAR3614, PCOL3603, PCOL3604. <b>C</b> PHAR4604	Semester 2
<b>PHAR 4609</b>	Pharmaceutical Management	4	<b>P</b> A pass in all second year units of study. BCHM 2611, BCHM 2612, MICR 2605, PCOL 2603, PCOL 2604, PHAR 2607, PHAR 2609, PHAR 2610, PHAR 2611, PHAR 2612, PHAR 2613, PHAR 2614, PHSI 2604, PHSI 2605	Semester 2
<b>PHAR 4615</b>	Clinical Practice B	10	<b>P</b> A pass in all second year units of study. BCHM 2611, BCHM 2612, MICR 2605, PCOL 2603, PCOL 2604, PHAR 2607, PHAR 2609, PHAR 2610, PHAR 2611, PHAR 2612, PHAR 2613, PHAR 2614, PHSI 2604, PHSI 2605, PHAR3611, PHAR3612, PHAR3613, PHAR3614, PCOL3603, PCOL3604. <b>C</b> PHAR4613	Semester 1, Semester 2
<b>PHAR 4616</b>	Pharmacotherapeutics in Practice	6	<b>P</b> A pass in all second year units of study. BCHM 2611, BCHM 2612, MICR 2605, PCOL 2603, PCOL 2604, PHAR 2607, PHAR 2609, PHAR 2610, PHAR 2611, PHAR 2612, PHAR 2613, PHAR 2614, PHSI 2604, PHSI 2605, PHAR3611, PHAR3612, PHAR3613, PHAR3614, PCOL3603, PCOL3604. <b>C</b> PHAR4612	Semester 2
<b>PHAR 4617</b>	Clinical Practice C	8	<b>P</b> A pass in all second year units of study. BCHM 2611, BCHM 2612, MICR 2605, PCOL 2603, PCOL 2604, PHAR 2607, PHAR 2609, PHAR 2610, PHAR 2611, PHAR 2612, PHAR 2613, PHAR 2614, PHSI 2604, PHSI 2605, PHAR3611, PHAR3612, PHAR3613, PHAR3614, PCOL3603, PCOL3604 <b>C</b> PHAR4613	Semester 2
<b>PHAR 4924</b>	Pharmaceutics B (Advanced)	10	<b>P</b> PHAR 4921 at a credit level or better NB: Department permission required for enrolment.	Semester 2
<b>PHAR 4925</b>	Pharmaceutical Chemistry B (Advanced)	10	<b>P</b> PHAR 4922 at a credit level or better NB: Department permission required for enrolment.	Semester 2
<b>PHAR 4926</b>	Pharmacy Practice B (Advanced)	10	<b>P</b> PHAR 4923 at a credit level or better <b>C</b> PHAR4614 NB: Department permission required for enrolment.	Semester 2
<b>PCOL 4908</b>	Pharmacology B Advanced (Pharmacy)	10	<b>P</b> PCOL 4907 at a credit level or better. NB: Department permission required for enrolment.	Semester 2

**Table 2: Bachelor of Pharmacy (Rural) Pass degree and Honours degree**

<i>Unit of Study</i>	<i>CP A: Assumed knowledge P: Prerequisites Q: Qualifying C: Corequisites N: Prohibition</i>	<i>Session</i>
<b>BIOL 1001</b> Concepts in Biology	6 A No previous knowledge required. Students who have not taken HSC Biology are recommended to take the Biology Bridging Course. N BIOL (1101 or 1901) NB: It is recommended that BIOL (1001 or 1101 or 1901) be taken before all Semester 2 Junior units of study in Biology.	Semester 1, Summer
<b>CHEM 1611</b> Chemistry A (Pharmacy)	6 A HSC Chemistry and Mathematics	Semester 1
<b>PHAR 1613</b> Psychological Concepts in Pharmacy	3	Semester 1
<b>PHAR 1614</b> Concepts in Pharmacy	6	Semester 1
<b>STAT 1605</b> Statistics (Pharmacy)	3 A HSC 2-unit Mathematics or equivalent (Students without this assumed knowledge are advised to attend a bridging course in February)	Semester 1
<b>BIOL 1003</b> Human Biology	6 A HSC 2-unit Biology N BIOL1903 or EDUH1016	Summer, Semester 2
<b>CHEM 1612</b> Chemistry B (Pharmacy)	6 C CHEM 1611 Chemistry A (Pharmacy)	Semester 2
<b>MATH 1605</b> Calculus (Pharmacy)	3 A HSC 2-unit Mathematics or equivalent (Students without this assumed knowledge are advised to attend a bridging course in February)	Semester 2
<b>PHAR 1607</b> Introductory Pharmaceutical Science	4 A HSC Chemistry 2 C PHAR1611 or PHAR1621	Semester 2
<b>PHAR 1612</b> Social Pharmacy	5 C PSYC1611	Semester 2
<b>PHAR 1622</b>	NB: *** No info available for 2005. ***	
<b>BCHM 2611</b> Proteins, Enzymes and Metabolism 1	3 P CHEM 1611 and CHEM 1612	Summer, Semester 1
<b>MICR 2605</b> Microbiology (Pharmacy)	3 P BIOL 1001	Semester 1
<b>PCOL 2603</b> Pharmacology 2A (Pharmacy)	2 P CHEM 1611, CHEM 1612, BIOL 1001, BIOL 1003 C BCHM 2611, PHSI 2604	Semester 1
<b>PHAR 2609</b> Medicinal Chemistry 2A	6 P MATH1605 or MATH1011, STAT1605 or MATH1005, CHEM1611, CHEM1612, PHAR1607 C BCHM2611 and PCOL2603	Semester 1
<b>PHAR 2611</b> Pharmacy Practice 2A	2 P PSYC1611, PHAR1612 or PHAR1622. C PCOL2603, BCHM2611, PHSI2604, PHAR2609.	Semester 1
<b>PHAR 2613</b> Physical Pharmaceutics 2A	5 P MATH1005 or STAT1605, MATH1011 or MATH1605, CHEM1611, CHEM1612, PHAR1607.	Semester 1
<b>PHSI 2604</b> Physiology 2A (Pharmacy)	3 P CHEM 1611, CHEM 1612, BIOL 1003	Semester 1
<b>BCHM 2612</b> Metabolism 2 and Genes	3 P CHEM 1611, CHEM 1612 C BCHM 2611	Summer, Semester 2
<b>PCOL 2604</b> Pharmacology 2B (Pharmacy)	2 P CHEM 1611, CHEM 1612, BIOL 1001, BIOL 1003 C BCHM 2612, PHSI 2605, PCOL 2603	Semester 2
<b>PHAR 2612</b> Pharmacy Practice 2B	3 P PSYC1611, PHAR1621 or PHAR1611, PHAR1622 or PHAR1612 C PCOL2604, BCHM2612, PHSI2605, PHAR2610 or PHAR2620, PHAR2611.	Semester 2
<b>PHAR 2620</b> Medicinal Chemistry 2B (Rural)	3 P MATH1005 or STAT1605, MATH1011 or MATH1605, CHEM1611, CHEM1612, PHAR1607. C BCHM2612, PCOL2604, PHAR2609.	Semester 2
<b>PHAR 2624</b> Physical Pharmaceutics 2B (Rural)	3 P MATH1005 or STAT1605, MATH1011 or MATH1605, CHEM1611, CHEM1612, PHAR1607. C PHAR2613	Semester 2
<b>PHAR 2626</b> Health and Cultural Issues in Rural Aust	4 P PHAR1621 or PHAR1611, PHAR1622 or PHAR1612.	Semester 2
<b>PHAR 2627</b> Pharmaceutical Microbiology (Rural)	3 P PHAR1607, BIOL1001. C MICR2605	Semester 2
<b>PHSI 2605</b> Physiology 2B (Pharmacy)	3 P CHEM 1611, CHEM 1612, BIOL 1003 C PHSI 2604	Semester 2
<b>PCOL 3603</b> Pharmacology 3A (Pharmacy)	6 P PCOL2603, PCOL2604, BCHM 2611, BCHM 2612, PHSI 2604 and PHSI 2605	Semester 1
<b>PHAR 3607</b> Formulation A	3 P A pass in all first year units of study. BIOL 1001, BIOL 1003, CHEM 1611, CHEM 1612, MATH 1605, PHAR1607, PHAR1611, PHAR 1612, PSYC 1611, STAT 1605, PHAR 2607, PHAR 2613 and PHAR 2614	Semester 1
<b>PHAR 3611</b> Pharmacokinetics A	3 P A pass in all first year units of study. BIOL 1001, BIOL 1003, CHEM 1611, CHEM 1612, MATH 1605, PHAR1607, PHAR1611, PHAR 1612, PSYC 1611, STAT 1605, PHAR 2613 and PHAR 2614	Semester 1
<b>PHAR 3623</b> Pharmacy Practice 3A (Rural)	6 P A pass in all first year units of study. BIOL 1001, CHEM 1611, MATH 1011, PHAR 1621, PSYC 1611, BIOL 1003, CHEM 1612, MATH 1005, PHAR 1607, PHAR 1622, PCOL 2603, PCOL 2604, PHSI 2604, PHSI 2605, BCHM 2611, BCHM 2612, PHAR 2611, PHAR 2612 C PCOL 3603, PHAR 3629, PHAR 3611	Semester 1



<i>Unit of Study</i>	<i>CP</i>	<i>A: Assumed knowledge</i>	<i>P: Prerequisites</i>	<i>Q: Qualifying</i>	<i>C: Corequisites</i>	<i>N: Prohibition</i>	<i>Session</i>
<b>PHAR 3625</b> Pharmaceutical Science in Rural Pract 3A	2		P A pass in all first year units of study. BIOL 1001, CHEM 1611, MATH 1011, PHAR 1621, PSYC 1611, BIOL 1003, CHEM 1612, MATH 1005, PHAR 1607, PHAR 1622, PHAR 2609, PCOL 2603, PHAR 2613, PCOL 2604, PHAR 2611, PHAR 2612, PHAR 2620 or PHAR 2610, PHAR 2624 or PHAR 2614 C PHAR 3623, PHAR 3629, PHAR 3611, PHAR 3607, PCOL 3603				Semester 1
<b>PCOL 3604</b> Pharmacology 3B (Pharmacy)	2		P PCOL2603, PCOL2604, BCHM 2611, BCHM 2612, PHSI 2604, PHSI 2605 C PCOL 3603				Semester 2
<b>PHAR 3601</b> Dispensing	4		P A pass in all first year units of study. BIOL 1001, BIOL 1003, CHEM 1611, CHEM 1612, MATH 1605, PHAR1607, PHAR1611, PHAR 1612, PSYC 1611, STAT 1605, PHAR 2613, PHAR 2614, PHAR 2607, PHAR2611 and PHAR2612.				Semester 2
<b>PHAR 3608</b> Formulation B	2		P A pass in all first year units of study. BIOL 1001, BIOL 1003, CHEM 1611, CHEM 1612, MATH 1605, PHAR1607, PHAR1611, PHAR 1612, PSYC 1611, STAT 1605, PHAR2607, PHAR2613, and PHAR2614. C PHAR3607				Semester 2
<b>PHAR 3612</b> Pharmacokinetics B	3		P A pass in all first year units of study. BIOL 1001, BIOL 1003, CHEM 1611, CHEM 1612, MATH 1605, PHAR1607, PHAR1611, PHAR 1612, PSYC 1611, STAT 1605, PHAR2613, PHAR2614 C PHAR3611				Semester 2
<b>PHAR 3620</b> Medicinal Chemistry 3B (Rural)	4		P A pass in all first year units of study. BIOL 1001, CHEM 1611, MATH 1011, PHAR 1621, PSYC 1611, BIOL 1003, CHEM 1612, MATH 1005, PHAR 1607, PHAR 1622, BCHM 2611, BCHM 2612, PCOL 2603, PCOL 2604, PHAR 2609, PHAR2620 or PHAR2610 C PCOL3604, PHAR3629				Semester 2
<b>PHAR 3624</b> Pharmacy Practice 3B (Rural)	7		P A pass in all first year units of study. BIOL 1001, CHEM 1611, MATH 1011, PHAR 1621, PSYC 1611, BIOL 1003, CHEM 1612, MATH 1005, PHAR 1607, PHAR 1622, PCOL 2603, PCOL 2604, PHSI 2604, PHSI 2605, BCHM 2611, BCHM 2612, PHAR 2611, PHAR2612 C PCOL 3604, PHAR3620, PHAR3612, PHAR3623				Semester 2
<b>PHAR 3626</b> Pharmaceutical Science in Rural Pract 3B	2		P A pass in all first year units of study. BIOL 1001, CHEM 1611, MATH 1011, PHAR 1621, PSYC 1611, BIOL 1003, CHEM 1612, MATH 1005, PHAR 1607, PHAR 1622, PHAR 2609, PCOL 2603, PHAR 2613, PCOL 2604, PHAR 2611, PHAR 2612, PHAR 2620, or PHAR 2610, PHAR 2624 or PHAR 2614 C PHAR 3625, PHAR 3607, PHAR 3608, PHAR 3612, PHAR 3611, PHAR 3620, PCOL 3604				Semester 2

\* Note that year 1 units of study not available in 2005.

## Units of study

### BIOL 1001 Concepts in Biology

6 credit points. B.A., B. Agr. Ec., B. An. Vet. Bio. Sc., B. An. Sc., B. E., B. Hort. Sc., B. L. W. Sc., B. Med. Sc., B. N., B. N. (I.A.H.), B. N., B. A., B. N., B. Sc., B. Pharm., B. Pharm. (Rural), B. Res. Ec., B. Sc., B. Sc. (Bioinformatics), B. Sc. (Environmental), B. Sc. (Marine Science), B. Sc. (Molecular Biology & Gene). **Session:** Semester 1, Summer. **Classes:** 3 lec & usually 3 hrs prac/wk. **Assumed Knowledge:** No previous knowledge required. Students who have not taken HSC Biology are recommended to take the Biology Bridging Course. **Assessment:** One 2.5hr exam, assignments, classwork.  
*NB: It is recommended that BIOL (1001 or 1101 or 1901) be taken before all Semester 2 Junior units of study in Biology.*

Concepts in Biology is an introduction to the major themes of modern biology. We start with introductory cell biology, which particularly emphasises how cells obtain and use energy. We then discuss the structure and function of microorganisms. The significance of molecular biology is covered working from the role of DNA in protein synthesis and development through to modern techniques and their uses. The genetics of organisms is then discussed, leading to consideration of theories of evolution and the origins of the diversity of modern organisms. We bring all the abovementioned concepts together to develop an understanding of interactions between organisms in biological communities or ecosystems. Finally we discuss the significance of human impact on other living organisms, with particular reference to finding solutions to problems in areas such as global warming, introduced pests, and extinctions. The unit is designed so that lab classes and the field trip integrate with the lectures. Lab activities are carried out in groups so that team work skills are developed. This unit also incorporates a number of key generic skills such as written communication skills, discussion and data interpretation, and experimental design and hypothesis testing skills.

#### Textbooks

Knox R B et al. Biology. McGraw-Hill, 3rd ed, 2005.

A Study Guide for the unit will be available for purchase from the Copy Centre during the first week of semester.

### CHEM 1611 Chemistry A (Pharmacy)

6 credit points. B.A., B. Pharm., B. Pharm. (Rural), B. Sc., UG Study Abroad Program, UG Summer/Winter School, See School of Chemistry for list of staff. **Session:** Semester 1. **Classes:** 3 lec & 1 tut/wk & 3hrs prac/wk for 10 wks. **Assumed Knowledge:** HSC Chemistry and Mathematics. **Assessment:** A theory examination is held at the end of the semester. Students are advised at the beginning of the semester about other factors contributing to assessment in the unit of study.

Chemistry provides the basis for understanding molecular structures and processes, essential knowledge for many later year Pharmacy units of study. Lecture topics include some fundamental concepts, atomic theory, states and properties of matter, equations and stoichiometry, chemical energetics, equilibrium theory, solution theory, general acid-base theory, atomic structure, chemical bonding. Practical work is designed to enhance confidence and develop skills in the handling and manipulation of chemicals and in the observation and processing of experimental results.

Special preparative studies: Students wishing to enrol in CHEM 1611 who do not have the assumed chemical knowledge are advised to consult the School of Chemistry for information about a bridging course.

#### Textbooks

Students should obtain a booklist from the School of Chemistry during the orientation period.

### PHAR 1613 Psychological Concepts in Pharmacy

3 credit points. B. Pharm., UG Study Abroad Program, Dr L Smith. **Session:** Semester 1.

This introductory unit of study is designed to acquaint students with some basic concepts regarding the impact of psychological processes on health behaviour. Three content themes are covered in the unit of study: the patient; the patient and pharmacist; and the healthcare system. Students will attain a beginning understanding of lifespan development, learning and memory, stress and motivation. Students will also be introduced to common communications styles and their impact on patient/pharmacist interactions, and models of healthcare.

### PHAR 1614 Concepts in Pharmacy

6 credit points. B. Pharm., UG Study Abroad Program, Ms E Sainsbury. **Session:** Semester 1. **Classes:** 1 hr lec and 2 hr tut/prac per wk. **Assessment:** Assignments, class exercises, reports.

This unit is an introduction to the major themes and topics involved in pharmacy, including the role and distribution of medications within the health care system, dosage forms, sources of drugs, and consumers of medications. Students are also introduced to the notion of the reflective professional practitioner, and to the broad discipline areas within pharmacy.

#### Textbooks

Winfield & Richards, Pharmaceutical Practice (2nd ed), Churchill Livingstone, 1998.  
 Reference Books:

Aulton, Pharmaceuticals (2nd ed) Churchill Livingstone 2002  
 Ansel, Allen & Popovich, Pharmaceutical Dosage Forms and Drug Delivery Systems (7th ed), Kluwer 1999.  
 Stocklosa & Ansel, Pharmaceutical Calculations (11th ed), Williams & Wilkins 2001

### STAT 1605 Statistics (Pharmacy)

3 credit points. B. Pharm., UG Study Abroad Program, Mrs M Phipps. **Session:** Semester 1. **Classes:** 2 lec & 1 tut/wk. **Assumed Knowledge:** HSC 2-unit Mathematics or equivalent (Students without this assumed knowledge are advised to attend a bridging course in February). **Assessment:** Assignments and quizzes, one 1.5 hr exam.

Data analysis, descriptive statistics, elementary probability theory, sampling methods, statistical inference, hypothesis testing, correlation and regression, analysis of variance.

#### Textbooks

Phipps M.C. & Quine M.P, A Primer of Statistics (4th ed) Prentice-Hall, 2001.

### BIOL 1003 Human Biology

6 credit points.

B.A., B. Agr. Ec., B. E., B. Med. Sc., B. N., B. N. (I.A.H.), B. N., B. A., B. N., B. Sc., B. Pharm., B. Pharm. (Rural), B. Res. Ec., B. Sc., B. Sc. (Bioinformatics), B. Sc. (Environmental), B. Sc. (Marine Science), B. Sc. (Nutrition), UG Study Abroad Program, UG Summer/Winter School, **Session:** Summer, Semester 2. **Classes:** (2 lec, 1 session independent study & 3 prac)/wk. **Assumed Knowledge:** HSC 2-unit Biology. **Assessment:** One 2.5hr exam, assignment, classwork.

This unit of study provides an introduction to human evolution and ecology, cell biology, physiology and anatomy, through both lectures and practical work. It begins with human evolution, human population dynamics and the impact of people on the environment. The unit of study includes human nutrition, distribution of essential requirements to and from the cells, control of body functions and defence mechanisms. After discussion of reproduction and development, it concludes with some modern studies and research in biotechnology and human genetics. It is recommended that BIOL (1001 or 1101 or 1901) be taken before this unit of study. Enrolment may be restricted by the availability of places. This unit of study, together with BIOL (1001 or 1101 or 1901), provides entry to Intermediate units of study in Biology, but the content of BIOL (1002 or 1902) is assumed knowledge for BIOL (2001 or 2002 or 2003 and 2004) and students entering from BIOL (1003 or 1903) will need to do some preparatory reading.

#### Textbooks

Seeley, R., Stephens, T.D. & Tate, P. (2005) Essentials of Human Anatomy and Physiology, McGraw Hill Book Company, (Australia), Pty Ltd.

Plus - Chapters 19, 20 and 21 from Benjamin C.L., Garman G.R. and Funston J.H. (1997) Human Biology, McGraw-Hill, which will be produced and shrink-wrapped with Seeley, et al.

A Study Guide for the unit will be available for purchase from the Copy Centre during the first week of Semester.

### CHEM 1612 Chemistry B (Pharmacy)

6 credit points. B.A., B. Pharm., B. Pharm. (Rural), B. Sc., UG Study Abroad Program, UG Summer/Winter School, See School of Chemistry for list of staff. **Session:** Semester 2. **Classes:** 3 lec & 1 tut/wk & 3hrs prac/wk for 10 wks. **Corequisites:** CHEM 1611 Chemistry A (Pharmacy). **Assessment:** A theory examination is held at the end of the semester. Students are advised at the beginning of the semester about other factors contributing to assessment in the unit of study.

Chemistry provides the basis for understanding molecular structures and processes, essential knowledge for many later year Pharmacy units of study. Lecture topics include redox reactions, electrochemistry, introduction to colloids and surface chemistry, the biological periodic table, radiochemistry, introduction to organic chemistry, nomenclature, aliphatic chemistry, aromatic chemistry, heterocyclic compounds, isomerism, stereoisomerism, reaction mechanisms, biomolecules, amino acids and peptides, carbohydrates. Practical work is designed to enhance confidence and develop skills in the handling and manipulation of chemicals and in the observation and processing of experimental results.

#### Textbooks

Students should obtain a booklist from the School of Chemistry during the orientation period.

### MATH 1605 Calculus (Pharmacy)

3 credit points. B. Pharm., UG Study Abroad Program, **Session:** Semester 2. **Classes:** 2 lec & 1 tut/wk. **Assumed Knowledge:** HSC 2-unit Mathematics or equivalent (Students without this assumed knowledge are advised to attend a bridging course in February). **Assessment:** Assignments and quizzes (20%), one 1.5 hr exam (80%).

This unit of study provides mathematical tools, mostly from the calculus, that are needed for other units of study in this degree. The emphasis is on the behaviour of functions of various kinds, leading to the solution of differential equations.

#### Textbooks

Choo K & Easdown D Course notes for MATH1605 Calculus (Pharmacy)

### PHAR 1607 Introductory Pharmaceutical Science

4 credit points. B. Pharm., B. Pharm. (Rural), UG Study Abroad Program, Ms E Sainsbury. **Session:** Semester 2. **Classes:** 2.5hr lec & 1.5hr seminar/wk. **Assumed Knowledge:** HSC Chemistry 2. **Corequisites:** PHAR1611 or PHAR1621. **Assessment:** One 2hr theory exam, presentation, quizzes and tutorial assessments.

Introductory Pharmaceutical Science provides an introduction to principles which will be expanded and applied in later years. Topics

covered include drugs from plants, pharmaceutical calculations, intermolecular forces in liquids and solids, dissolution and solubility, drugs as acids and bases, partitioning. Small group work in seminar/tutorial sessions will complement and support the learning of material introduced in lectures.

#### Textbooks

As for PHAR1611 Concepts in Pharmacy

### PHAR 1612 Social Pharmacy

5 credit points. B.Pharm.,UG Study Abroad Program.,Assoc Prof Ines Krass. **Session:** Semester 2. **Classes:** 3 hr lec/wk, 2 hr tut/wk for 6 wks, 4 x 3 hr externship. **Corequisites:** PSYC1611. **Assessment:** 1.5 hr theory exam, assignments, group presentation and reports.

This unit of study consists of two major streams:

Professional Pharmacy, which provides an introduction to the professional practice of the pharmacist through lectures and fieldwork in clinical settings. Topics include an introduction to the role of the pharmacist in the health care team, the relationship of pharmacists to other health care professionals, and client expectations of the profession. Verbal and written skills are developed in the context of professional pharmacy issues.

Patient Perspectives on Health and Illness, which is designed to provide a broad perspective of health and illness and to encourage a view of the patient as a whole person. The emphasis will be on the psychological processes that underpin or drive patient cognition, affect and behaviour.

#### Textbooks

Gard P. A Behavioural Approach to Pharmacy Practice (Blackwell Science, Oxford, 2000).

### PHAR 1622

\*\*\* No info available for 2005. \*\*\*

### BCHM 2611 Proteins, Enzymes and Metabolism 1

3 credit points. B.Pharm.,B.Pharm.(Rural),UG Study Abroad Program,UG Summer/Winter School.,Assoc Prof A Jones and Biochemistry staff. **Session:** Summer, Semester 1. **Classes:** 3 lec/wk. **Prerequisites:** CHEM 1611 and CHEM 1612. **Assessment:** One 2hr exam & assignments.

This unit of study in Biochemistry and Molecular Biology is designed to provide a firm basis in the chemistry of life. Questions to be addressed include: What are the chemical structures of the components of living matter? How do their interactions lead to the assembly of organised macromolecules, cells, and multicellular tissues and organisms? How does living matter 'extract' energy from its environment? How are chemical reactions controlled inside living cells?

Specifically, this unit of study will cover the following topics: fundamental energetics of biological processes; structures of proteins; enzymes as biological catalysts; membrane structure and function; the generation of ATP as an energy source; carbohydrate digestion, metabolism and storage.

#### Textbooks

C.W. Pratt & K. Cornely, Essential Biochemistry (John Wiley & Sons, 2004)

### MICR 2605 Microbiology (Pharmacy)

3 credit points. B.Pharm.,B.Pharm.(Rural),UG Study Abroad Program.,Mrs Helen Agus. **Session:** Semester 1. **Classes:** 2 lec/wk for 10 wks & 2.5hr prac/wk for 9 wks. **Prerequisites:** BIOL 1001. **Assessment:** One 1.5 hr exam, prac.

This unit of study provides information on the biology of micro-organisms with particular reference to the importance of micro-organisms in pharmaceutical sciences. Topics covered include: history and scope of microbiology, methodology, comparison of major groups of micro-organisms in terms of structure, function and importance as well as selected aspects of applied microbiology (microbial pathogenicity and epidemiology, growth, death and control of micro-organisms including introduction to disinfection, preservation and spoilage of pharmaceutical products).

#### Textbooks

Reference:Tortora GT et al. Microbiology: An Introduction. 8th ed, Pearson Benjamin Cummings 2004

### PCOL 2603 Pharmacology 2A (Pharmacy)

2 credit points. B.Pharm.,B.Pharm.(Rural),UG Study Abroad Program.,Assoc Prof E Mylecharane. **Session:** Semester 1. **Classes:** 2 lec/wk & 1 x 1hr tut. **Prerequisites:** CHEM 1611, CHEM 1612, BIOL 1001, BIOL 1003. **Corequisites:** BCHM 2611, PHSI 2604. **Assessment:** One 1.5hr exam (90%) and one 0.5hr mid-semester test (10%).

The aim of this unit of study is for students to gain a basic understanding of drug actions which are related to physiological and pathological functions. It covers drug-receptor interactions, the pharmacodynamics of peripheral and central neurotransmission, and the pharmacodynamics of autacoids.

#### Textbooks

Rang HP et al. Pharmacology, 5th edn. Churchill Livingstone, 2003

#### Study aids

Neal M J. Medical Pharmacology at a Glance, 4th edn. Blackwell Science, 2002

#### Reference books

Cooper J R et al. The Biochemical Basis of Neuropharmacology, 8th edn. Oxford, 2003

Hardman JG et al (eds). Goodman and Gilman's The Pharmacological Basis of Therapeutics, 10th edn. McGraw-Hill, 2001

### PHAR 2609 Medicinal Chemistry 2A

6 credit points. B.Pharm.,B.Pharm.(Rural),UG Study Abroad Program.,Dr Jane Hanrahan. **Session:** Semester 1. **Classes:** 2hr lec & 1.5hr tut/wk & 3hr lab/workshop for 2 wks. **Prerequisites:** MATH1605 or MATH1011, STAT1605 or MATH1005, CHEM1611, CHEM1612, PHAR1607. **Corequisites:** BCHM2611 and PCOL2603. **Assessment:** One 2.5 hr exam (56%); laboratories, workshops, quizzes (44%).

Chemical structure and physico-chemical properties related to biological activity; quantitative analysis of drug substances and formulations; stereochemical aspects of pharmacological activity; macromolecular targets of drug action; drug-receptor interactions and receptor-effector theories; drugs and cell signalling.

#### Textbooks

Watson DG Pharmaceutical Analysis. Churchill Livingstone 1999.

Nogrady T. Medicinal Chemistry - a Biochemical Approach, Oxford U.P., 1988

or Foye, W.O et al. Principles of Medicinal Chemistry (5th ed) Williams & Wilkins, 2002

Reference books

Burger AB. Medicinal Chemistry. 4th edn, Interscience, 1997

Delgado JN & Remers WA Textbook of Organic, Medicinal & Pharmaceutical Chemistry (10th ed) Lippincott Raven 1998

Solomons TWG. Organic Chemistry. 7th edn, Wiley, 2000

### PHAR 2611 Pharmacy Practice 2A

2 credit points. B.Pharm.,B.Pharm.(Rural),UG Study Abroad Program.,Dr P Aslani. **Session:** Semester 1. **Classes:** 1 lec/wk & 6 x 2hr tut. **Prerequisites:** PSYC1611, PHAR1612 or PHAR1622. **Corequisites:** PCOL2603, BCHM2611, PHSI2604, PHAR2609. **Assessment:** One 1hr exam (75%); Tutorial assessment (20%); Prework, attendance and participation in tutorials (5%).

Subject material covered in lectures will include a theoretical examination of the communication process and a discussion of various communication skills particularly in the health care setting. The lectures are given by staff from the Psychology Department, as well as the Faculty of Pharmacy. Tutorial sessions will enable students to practice various communication skills in a group setting. Specifically, the tutorials will focus on the recognition of nonverbal communication; practice in verbal communication and counselling; questioning and listening techniques; and the use of written medicine information as part of the counselling process. The use of video equipment will allow group assessment of communication exercises, such as scripted role plays.

#### Textbooks

#### Reference:

Rantucci, M J Pharmacists talking with Patients - a Guide to Patient Counselling (Williams & Wilkins, 1997).

### PHAR 2613 Physical Pharmaceutics 2A

5 credit points. B.Pharm.,B.Pharm.(Rural),UG Study Abroad Program.,Dr Allan Coombes. **Session:** Semester 1. **Classes:** 3 lec/wk & 36hrs prac & tuts. **Prerequisites:** MATH1005 or STAT1605, MATH1011 or MATH1605, CHEM1611, CHEM1612, PHAR1607. **Assessment:** One 2 hr exam (70%), continuous assessment (15%) and practical assessment (15%).

Topics covered include: solid pharmaceuticals and particle science; liquid formulations; diffusion and dissolution of drugs; drug-packaging interactions; surface and interfacial tension; surface active materials.

#### Textbooks

Aulton M E, Pharmaceutics, The Science of Dosage Form Design (2nd ed) Churchill livingstone 2002

Ansel H C et al Pharmaceutical Dosage Forms and Drug Delivery Systems (7th ed) Lea & Febiger, 1999.

Martin A N. Physical Pharmacy. Lea & Febiger, 1993

#### Reference books

Banker G S & Rhodes C T (eds). Modern Pharmaceutics (4th ed) Marcel Dekker, 1992

Connors K A et al. Chemical Stability of Pharmaceuticals. Wiley-Interscience, 1986

Florence A T & Attwood D. Physicochemical Principles of Pharmacy (3rd ed) Macmillan, 1998

Gennaro A R (ed). Remington's Pharmaceutical Sciences (18th ed) Mack, 1990

Lachman L. et al The Theory and Practice of Industrial Pharmacy. Lea & Febiger, 1986

### PHSI 2604 Physiology 2A (Pharmacy)

3 credit points. B.Pharm.,B.Pharm.(Rural),UG Study Abroad Program.,Dr L Cottee. **Session:** Semester 1. **Classes:** 3 lec/wk. **Prerequisites:** CHEM 1611, CHEM 1612, BIOL 1003. **Assessment:** One 1.5hr exam and one mid-semester assessment.

This unit of study provides a broad basic knowledge of human functions and includes studies of nerve and muscle physiology, blood, heart, circulation and respiration.

#### Textbooks

Marieb E N Human Anatomy & Physiology, 5th ed. (Benjamin/Cummings, 2001)

### BCHM 2612 Metabolism 2 and Genes

3 credit points. B.Pharm.,B.Pharm.(Rural),UG Study Abroad Program,UG Summer/Winter School.,Assoc Prof A Jones and Biochemistry staff. **Session:** Summer, Semester 2. **Classes:** 3 lec/wk. **Prerequisites:** CHEM 1611, CHEM 1612. **Corequisites:** BCHM 2611. **Assessment:** One 2hr exam & assignments.

This unit of study in Biochemistry and Molecular Biology is designed to provide a firm basis in the chemistry of life. Questions to be addressed include: What are the chemical structures of the components of living matter? How do their interactions lead to the assembly of

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organised macromolecules, cells, and multicellular tissues and organisms? How does living matter 'extract' energy from its environment? How are chemical reactions controlled inside living cells? How does an organism store and decipher the information it needs to grow and reproduce?

Specifically, this unit of study will cover the following topics: A continuation of metabolism; triglyceride and cholesterol digestion; fatty acid breakdown and synthesis; the cholesterol problem; digestion and metabolism of nitrogen-containing compounds; metabolic adaptation during starvation, exercise and diabetes; inherited disorders of metabolism; pharmaceutical intervention in metabolic pathways; DNA structure, function, compaction, replication; logistics and enzymology, repair and recombination; genetranscription; protein syntheses; recombinant DNA technology; basic immunology.

### Textbooks

C.W. Pratt & K. Cornely, *Essential Biochemistry* (John Wiley & Sons, 2004)

### PCOL 2604 Pharmacology 2B (Pharmacy)

2 credit points. B.Pharm.,B.Pharm.(Rural),UG Study Abroad Program, Assoc Prof E Mylecharane. **Session:** Semester 2. **Classes:** 2 lec/wk & 1x 1hr tut. **Prerequisites:** CHEM 1611, CHEM 1612, BIOL 1001, BIOL 1003. **Corequisites:** BCHM 2612, PHSI 2605, PCOL 2603. **Assessment:** One 1.5hr exam (90%) and one 0.5hr mid-semester test (10%).

The aims of this unit of study are first for students to continue to gain a basic understanding of drug actions which are related to physiological and pathological functions, and second, to develop an understanding of the therapeutic applications of drugs based on their underlying pharmacodynamic and pharmacokinetic properties. This unit of study covers the pharmacodynamics of the endocrine system, cardiovascular and renal drugs, and the principles of chemotherapy.

### Textbooks

Textbooks, study aids and reference books as for PCOL 2603 Pharmacology 2A (Pharmacy)

### PHAR 2607 Pharmaceutical Microbiology

4 credit points. B.Pharm.,UG Study Abroad Program, Dr G Robertson. **Session:** Semester 2. **Classes:** 1hr lec & 3hr prac/wk. **Prerequisites:** PHAR1607, BIOL1001. **Corequisites:** MICR2605. **Assessment:** 2 hr exam (65%), practical work and talks (25%), minor exam (5%) and workshop (5%).

A pharmacist should be able to make clean products and create clean situations. The definition of clean and the methods for achieving it depend on the product or situation. It may include sterilisation, asepsis, disinfection, antiseptics, preservation and contamination control. This unit of study covers reasons and standards for sterile, preserved and clean products, sources of contamination and contamination control in manufacture of pharmaceutical products, kinetics of killing micro-organisms by physical and chemical means, sterilisation - principles and methods, plus disinfection, antiseptics and preservation - principles and methods, and antibiotics in infection control.

### Textbooks

#### Reference book:

Hugo WB & Russell AD. *Pharmaceutical Microbiology*. (6th ed) Blackwell, 1998

### PHAR 2610 Medicinal Chemistry 2B

4 credit points. B.Pharm.,B.Pharm.(Rural),UG Study Abroad Program, Dr C C Duke. **Session:** Semester 2. **Classes:** 3hr lec, 0.5hr tut & 0.5 workshop/wk. **Prerequisites:** MATH1605 and STAT1605, CHEM1611, CHEM1612, PHAR1607. **Corequisites:** BCHM2612, PCOL2604, PHAR2609. **Assessment:** One 2hr exam (70%), workshops and quizzes (30%).

Drug design; QSAR and molecular modelling; drug metabolism, bioactivation and inactivation; advanced analytical methods for the identification of drugs, their metabolites and degradation products. Introductory toxicology.

Workshops consist of the drug design/QSAR computer-based problem-solving workshop (3 hrs) and the cardiovascular workshop (2 x 3hrs). In the cardiovascular workshop, learning is largely given over to the group, which prepares and presents a case study making use of library databases.

### Textbooks

As for PHAR 2609 Medicinal Chemistry 2A

### PHAR 2612 Pharmacy Practice 2B

3 credit points. B.Pharm.,B.Pharm.(Rural),UG Study Abroad Program, Dr P Aslani. **Session:** Semester 2. **Classes:** 2 lec/wk & 6 x 2hr tut. **Prerequisites:** PSYC1611, PHAR1621 or PHAR1611, PHAR1622 or PHAR1612. **Corequisites:** PCOL2604, BCHM2612, PHSI2605, PHAR2610 or PHAR2620, PHAR2611. **Assessment:** One 1.5hr exam (60%); oral/role-play assessment (30%); Pre-work, attendance and participation in tutorials (10%).

Lecture topics will include: drug information, adverse drug reactions, drug interactions, epidemiology, pathophysiology, symptoms, signs, management of drug and non drug treatment of diseases of the endocrine system, respiratory system, cardiovascular system, and antibiotics. Actual applications of drug knowledge gained in other parts of the unit of study will be emphasised with priority given to the delivery of drug and disease state information to patients. Tutorials

will examine drug management of relevant disease states and the communication of relevant drug information to patients using acquired communication skills in a counselling context.

### Textbooks

Walker R & Edwards C (eds) *Clinical Pharmacy and Therapeutics* (3rd ed) (Churchill Livingstone, Edinburgh, 2000).

Misan, G (ed) *Australian Medicines Handbook* (PSA, RACGP & ASCEPT 2003)

### References:

Thomas, J (ed) *Australian Prescription Products Guide*, Vols 1 & 2 (31st ed). Australian Pharmaceutical Publishing, Hawthorn Vic, 2002.

MIMS Annual 2002 (MIMS, Sydney, Australia, 2002).

Berkow, R (ed) *The Merck Manual of Diagnosis and Therapy* (18th ed) (Merck & Co, Rayway NJ, 1999).

Herfindal, E & Gourley, D *Textbook of Therapeutics: Drug and Disease Management* (7th ed) (Williams & Wilkins, Baltimore, 2000).

Hughes J, Donnelly R & James-Chatgilou G (eds) *Clinical Pharmacy: A Practical Approach* (Macmillan Education Australia, South Yarra, 1998).

*Therapeutic Guidelines* (Victorian Drug Usage Advisory Committee, North Melbourne, Vic, 1995- 2001)

Tatro, D (ed) *Drug Interaction Facts* (on-line)

### PHAR 2614 Physical Pharmaceutics 2B

5 credit points. B.Pharm.,B.Pharm.(Rural),UG Study Abroad Program, Dr Allan Coombes. **Session:** Semester 2. **Classes:** 3 lec/wk and 36 hrs prac. **Prerequisites:** MATH1605 and STAT1605, CHEM1611, CHEM1612, PHAR1607. **Corequisites:** PHAR2613. **Assessment:** One 2 hr exam (70%), continuous assessment (15%) and practical assessment (15%).

Theory and models; colloidal dispersions; rheology; micelle formation; drug solubilisation; suspensions; emulsions; semisolids; pharmaceutical complexes; protein complexes; biophysical properties of protein and peptide drugs.

### Textbooks

Textbooks & reference books are the same as for PHAR 2613 Physical Pharmaceutics 2A

### PHSI 2605 Physiology 2B (Pharmacy)

3 credit points. B.Pharm.,B.Pharm.(Rural),UG Study Abroad Program, Dr L Cottee. **Session:** Semester 2. **Classes:** 3 lec/wk. **Prerequisites:** CHEM 1611, CHEM 1612, BIOL 1003. **Corequisites:** PHSI 2604. **Assessment:** One 1.5hr exam and one mid-semester assessment.

This unit of study provides a broad basic knowledge of human endocrine hormones, reproduction, gastrointestinal function, fluid regulation and electrolyte balance, sensory perception, movement and consciousness.

### Textbooks

Marieb E N *Human Anatomy & Physiology*, 5th ed. (Benjamin/Cummings, 2001).

### PCOL 3603 Pharmacology 3A (Pharmacy)

6 credit points. B.Pharm.,B.Pharm.(Rural),UG Study Abroad Program, Assoc Prof E Mylecharane. **Session:** Semester 1. **Classes:** 2 lec & 4hr prac/wk. **Prerequisites:** PCOL2603, PCOL2604, BCHM 2611, BCHM 2612, PHSI 2604 and PHSI 2605. **Assessment:** One 1.5hr exam (70%) and one 1hr prac exam (30%).

The aim of this unit of study is for students to continue the development of an understanding of the therapeutic applications of drugs based on their underlying pharmacodynamic and pharmacokinetic properties. It covers chemotherapy (antibacterial, antiviral, antifungal, antiprotozoal, anthelmintic and anticancer drugs), analgesics and anti-inflammatory agents, respiratory and gastro-intestinal drugs, drugs affecting nutritional and metabolic function, and immunosuppressants.

The practical classes provide an opportunity to observe and experience the effects of drugs in biological systems, and include experimental, video, computer-interactive, tutorial, assignment and workshop components. The classes are designed to illustrate, revise and extend material covered in the lectures in both the Year 2 and Year 3 Pharmacology units of study.

### Textbooks

Textbooks, study aids and reference books as for PCOL2603 Pharmacology 2A (Pharmacy)

### PHAR 3607 Formulation A

3 credit points. B.Pharm.,B.Pharm.(Rural),UG Study Abroad Program, Assoc Prof H K Chan. **Session:** Semester 1. **Classes:** 2 lec/wk & 10 hrs prac. **Prerequisites:** A pass in all first year units of study. BIOL 1001, BIOL 1003, CHEM 1611, CHEM 1612, MATH 1605, PHAR1607, PHAR1611, PHAR 1612, PSYC 1611, STAT 1605, PHAR 2607, PHAR 2613 and PHAR 2614. **Assessment:** One 1.5 hr exam (70%), minor exam (20%), prac (10%).

This unit of study aims to facilitate an understanding of the design, formulation, manufacture and evaluation of pharmaceutical dose forms. The unit starts with an introduction to different dose forms and the importance of route of administration. Solid dose forms are examined in detail. The formulation of parenteral, nasal, ophthalmic and aural dosage forms is discussed. Aspects pertaining to the stability of pharmaceuticals are also presented in this unit.

### Textbooks

Ansel et al. *Pharmaceutical Dose Forms and Drug Delivery Systems* (7th ed) Lea & Febiger 1999.

Aulton M E *Pharmaceutics: The Science of Dosage Form Design* (2nd ed) Churchill Livingstone, 2002

Reference books

Florence A T & Attwood D. *Physicochemical Principles of Pharmacy* (3rd ed) MacMillan, 1998

Martin A & Bustamante P *Physical Pharmacy* (4th ed) Lea & Febiger, 1993  
Conners et al, *Chemical Stability of Pharmaceuticals* (Wiley-Interscience, 1979).

### PHAR 3609 Medicinal Chemistry 3A

6 credit points. B.Pharm.,B.Pharm.(Rural),UG Study Abroad Program.,Dr M Ivery.  
**Session:** Semester 1. **Classes:** 3 lec & 1hr tut/wk & 4hr of prac for 6 weeks. **Prerequisites:** A pass in all first year units of study. BIOL 1001, BIOL 1003, CHEM 1611, CHEM 1612, MATH 1605, PHAR1607, PHAR1611, PHAR 1612, PSYC 1611, STAT 1605, BCHM 2611, BCHM 2612, PCOL2603, PCOL2604, PHAR2609 and PHAR2610.  
**Corequisites:** PCOL 3603. **Assessment:** Mid-term and final exams - 90 mins each (total 70%), classwork (30%).

This unit of study deals with the application of the principles of medicinal chemistry as presented in Medicinal Chemistry 2 to classes of drugs categorised by their common physiological targets or chemical properties. For each drug class, the chemistry and biochemistry relating to their development, metabolism, toxicology, mode of action and pharmacological application will be examined.

Drug classes examined will include agents acting on the peripheral nervous system including cholinergics, adrenergics and antihistamines; agents acting on the central nervous system including opioids, dopaminergics and serotonergics; agents acting on the cardiovascular system such as antiarrhythmics, antilipidemics, ACE inhibitors and anticoagulants and drugs acting on the immune system.

Laboratory work will consist of the preparation of an analytical drug profile for an assigned compound in a format suitable for submission to the TGA. This activity will be undertaken as a group over a period of six weeks.

#### Textbooks

As for PHAR2609 Medicinal Chemistry 2A

### PHAR 3611 Pharmacokinetics A

3 credit points. B.Pharm.,B.Pharm.(Rural),UG Study Abroad Program.,Assoc Prof I Ramzan. **Session:** Semester 1. **Classes:** 3 x 1 hr sessions per week. **Prerequisites:** A pass in all first year units of study. BIOL 1001, BIOL 1003, CHEM 1611, CHEM 1612, MATH 1605, PHAR1607, PHAR1611, PHAR 1612, PSYC 1611, STAT 1605, PHAR 2613 and PHAR 2614. **Assessment:** One exam (80%) and two quizzes (20%).

This is the first unit of study in pharmacokinetics and will present fundamental concepts in pharmacokinetics. Lecture topics include:

Introduction to Pharmacokinetics; Design of Pharmacokinetic Studies; Mono-exponential Pharmacokinetics; Non-compartmental Pharmacokinetics; Moment Analysis; Drug Distribution; IV Infusion Kinetics; Multi-exponential Pharmacokinetics; Kinetics following Extravascular Doses; Bioavailability/Bioequivalence; Drug Clearance Mechanisms; Renal Clearance; Hepatic Clearance; Metabolite Kinetics; Nonlinear Pharmacokinetics; Multiple Dose Kinetics; Pharmacodynamics and Dose Regimen Design.

#### Textbooks

##### Recommended Reading:

Shargel L & Yu A B C, *Applied Biopharmaceutics and Pharmacokinetics* (4th ed, 1999)

Rowland M & Tozer T N, *Clinical Pharmacokinetics* (3rd ed, 1995)

Winter M, *Basic Clinical Pharmacokinetics* (3rd ed, 1994)

Birkett D J, *Pharmacokinetics Made Easy* (Revised ed, 2002)

### PHAR 3613 Pharmacy Practice 3A

6 credit points. B.Pharm.,B.Pharm.(Rural),UG Study Abroad Program.,Dr T Chen.  
**Session:** Semester 1. **Classes:** 2 lec/wk & 11 x 2 hr tuts & 11 x 3 hr field work sessions.  
**Prerequisites:** A pass in all first year units of study. BIOL 1001, BIOL 1003, CHEM 1611, CHEM 1612, MATH 1605, PHAR1607, PHAR1611, PHAR 1612, PSYC 1611, STAT 1605, PCOL2603, PCOL2604, PHSI2604, PHSI2605, BCHM2611, BCHM2612, PHAR2611 and PHAR2612. **Corequisites:** PCOL3603, PHAR3609 and PHAR3611.  
**Assessment:** 1 hr written exam (50%), tutorials (10%), externship assessment (15%), written case (15%), two computer quizzes (10%).

**Therapeutics:** This strand is a continuation of the therapeutics section of Pharmacy Practice 2B (PHAR 2612). Topics covered include renal diseases, hepatic diseases, haematology, diseases of the eye and ear, gastrointestinal diseases, rheumatology, HIV/AIDS and urology. Each of these areas will be covered in terms of epidemiology, pathophysiology, signs and symptoms, and the drug and non-drug management. This unit of study will also explore the role of pharmacists in implementing clinical interventions and interprofessional communication.

**Externships:** The externship will integrate lecture material with practice. Students will complete patient interviews and report back to tutorials. Problem-solving skills will be enhanced.

**Tutorial:** The tutorials will employ case-based learning techniques. A number of computerised drug information databases will be used. Role-plays will be used to develop students' communication skills in pharmacist/patient and pharmacist/doctor interactions. Familiarisation with computer software written specifically for pharmacists will also take place.

#### Textbooks

Walker R & Edwards C (eds) *Clinical Pharmacy and Therapeutics* (3rd edition, 2003)

Rossi S (Managing ed) *Australian Medicines Handbook*. (2004)

Therapeutic Guidelines (Victorian Drug Usage Advisory Committee (current editions)

Chen, Whitehead, Williams, Moles, Aslani & Benrimoj *Case Studies in Practice:*

Medication Review - a process guide for pharmacists (PSA, 2002)

### PCOL 3604 Pharmacology 3B (Pharmacy)

2 credit points. B.Pharm.,B.Pharm.(Rural),UG Study Abroad Program.,Assoc Prof E Mylecharane. **Session:** Semester 2. **Classes:** 2 lec/wk. **Prerequisites:** PCOL2603, PCOL2604, BCHM 2611, BCHM 2612, PHSI 2604, PHSI 2605. **Corequisites:** PCOL 3603. **Assessment:** One 1.5hr exam.

The aims of this unit of study are first, for students to continue the development of an understanding of the therapeutic applications of drugs based on their underlying pharmacodynamic and pharmacokinetic properties, and second, to understand clinical toxicology in the context of drug therapy and usage. The first part of the unit of study covers drugs affecting blood, anaesthetics, hypnotics, sedatives, anticonvulsants, anxiolytics, antidepressants, neuroleptics, and drugs used to treat motor disturbances and dementias. The second part of the unit of study covers principles of clinical toxicology, drug reactions and interactions, reportage relating to drug reactions and the introduction of new drugs, treatment of poisoning with drugs and other agents, and drug abuse.

#### Textbooks

Textbooks, study aids and reference books as for PCOL2603 Pharmacology 2A (Pharmacy)

### PHAR 3601 Dispensing

4 credit points. B.Pharm.,B.Pharm.(Rural),UG Study Abroad Program.,Dr Romano Fois. **Session:** Semester 2. **Classes:** 0.5 hr lec/wk & 3.5 hr prac/wk. **Prerequisites:** A pass in all first year units of study. BIOL 1001, BIOL 1003, CHEM 1611, CHEM 1612, MATH 1605, PHAR1607, PHAR1611, PHAR 1612, PSYC 1611, STAT 1605, PHAR 2613, PHAR 2614, PHAR 2607, PHAR2611 and PHAR2612. **Assessment:** Two 3hr practical exams, one 90 min theory exam, continuous assessment.

Introduction to dispensing practice, the importance of accuracy in dispensing, the prescription, approaches to dispensing prescriptions, labelling of dispensed medicines, containers, documentation of dispensing procedures, dispensing of particular formulations, effect of changing formulation variables on the physical properties and efficacy of pharmaceutical products.

A series of practical classes complements the lectures, allowing students to prepare a variety of pharmaceutical products and critically assess them, as well as facilitating the development of error-detection skills.

#### Textbooks

Australian Pharmaceutical Formulary (19th ed) 2004

### PHAR 3608 Formulation B

2 credit points. B.Pharm.,B.Pharm.(Rural),UG Study Abroad Program.,Assoc Prof H K Chan. **Session:** Semester 2. **Classes:** 2 lec/wk & 3 hrs workshop. **Prerequisites:** A pass in all first year units of study. BIOL 1001, BIOL 1003, CHEM 1611, CHEM 1612, MATH 1605, PHAR1607, PHAR1611, PHAR 1612, PSYC 1611, STAT 1605, PHAR2607, PHAR2613, and PHAR2614. **Corequisites:** PHAR3607. **Assessment:** One 1 hr exam (70%), minor exam (20%) and workshop assessment (10%).

This unit of study builds on the material presented in PHAR 3607 Formulation A. The topics covered in this unit include: topical dose forms, the formulation and evaluation of aerosols, protein formulation and rectal products as well as novel drug delivery technologies. A workshop designed to integrate and apply the information from Formulation A and Formulation B concludes this unit.

#### Textbooks

As for PHAR 3607 Formulation A

### PHAR 3610 Medicinal Chemistry 3B

6 credit points. B.Pharm.,B.Pharm.(Rural),UG Study Abroad Program.,Dr A Ammit. **Session:** Semester 2. **Classes:** 2 hr lect & 0.5 hr tut/wk, 1 hr self-directed learning/wk & 24 hrs of prac over 8 weeks. **Prerequisites:** A pass in all first year units of study. BIOL 1001, BIOL 1003, CHEM 1611, CHEM 1612, MATH 1605, PHAR1607, PHAR1611, PHAR 1612, PSYC 1611, STAT 1605, BCHM2611, BCHM2612, PCOL2603, PCOL2604, PHAR2609 and PHAR2610. **Corequisites:** PCOL3604 and PHAR3609. **Assessment:** One 1.5 hr mid-term exam and one 1.5 hr final exam (total 70%), classwork (30%).

This unit of study continues on the principles of medicinal chemistry established and developed in Medicinal Chemistry 3A (PHAR 3609). Lecture topics include: steroids, chemotherapy, herbal medicines and radiation effects.

Laboratory work will include forensic analysis of a drug involved in a suspicious death and a choice of either a QSAR practical on estrogens or a hepatotoxicity practical.

#### Textbooks

As for PHAR 2609

### PHAR 3612 Pharmacokinetics B

3 credit points. B.Pharm.,B.Pharm.(Rural),UG Study Abroad Program.,Dr Andrew McLachlan. **Session:** Semester 2. **Classes:** 3 x 1hr sessions per week. **Prerequisites:** A pass in all first year units of study. BIOL 1001, BIOL 1003, CHEM 1611, CHEM 1612, MATH 1605, PHAR1607, PHAR1611, PHAR 1612, PSYC 1611, STAT 1605, PHAR2613, PHAR2614. **Corequisites:** PHAR3611. **Assessment:** One 1.5 hr exam (80%) and 2 quizzes (20%).

This is the second unit of study in Pharmacokinetics and will present additional basic pharmacokinetic theory and apply this theory to clinical situations. Pharmacokinetic principles will be applied to

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drug dosage regimen design and dosage adjustment in different patient groups.

Clinical pharmacokinetic aspects include: variability in drug pharmacokinetics and pharmacodynamics, pharmacogenetics and pharmacogenomics, perturbations in pharmacokinetics/pharmacodynamics in disease, general principles of therapeutic drug monitoring, interpretation of pharmacokinetic information and considerations in drug interactions.

### Textbooks

Recommended reading:

Rowland M and Tozer TN Clinical Pharmacokinetics (3rd ed) Lea & Febiger, 1995.  
Birkett DJ Pharmacokinetics Made Easy (McGraw Hill, 1999)

### PHAR 3614 Pharmacy Practice 3B

7 credit points. B.Pharm., B.Pharm.(Rural), UG Study Abroad Program., Miss R Moles. **Session:** Semester 2. **Classes:** 3 hrs lec/wk & 11 x 2 hr tuts & 11 x 3 hr field work sessions. **Prerequisites:** A pass in all first year units of study. BIOL 1001, BIOL 1003, CHEM 1611, CHEM 1612, MATH 1605, PHAR1607, PHAR1611, PHAR 1612, PSYC 1611, STAT 1605, PCOL2603, PCOL2604, PHSI2604, PHSI2605, BCHM2611, BCHM2612, PHAR2611, PHAR2612. **Corequisites:** PCOL3604, PHAR3610, PHAR3612, PHAR3613. **Assessment:** 0.5hr oral exam (50%), tutorials (10%), externship assessment (10%), written case (20%), two computer quizzes (10%).

**Therapeutics:** This section is a continuation of the therapeutics section of Pharmacy Practice 3A (PHAR 3613). Some topics covered will include neurology, psychiatry and dermatology. Each of these areas will be covered in terms of epidemiology, pathophysiology, signs and symptoms, and the drug and non-drug management. The unit of study will also explore the role of pharmacists in conducting medication regimen reviews and interprofessional communication Externships: The externship will integrate lecture material with practice. Students will complete patient interviews and report back to tutorials. Problem-solving skills will be enhanced.

**Tutorial:** The tutorials will employ case-based learning techniques. A number of computerised drug information databases will be used. Role-plays will be used to develop students' communication skills in pharmacist/patient and pharmacist/doctor interactions. Familiarisation with computer software written specifically for pharmacists will also take place.

### Textbooks

As for PHAR 3613 Pharmacy Practice 3A

### PHAR 4601 Integrated Dispensing

4 credit points. B.Pharm., UG Study Abroad Program., Dr A McLachlan and Dr P Aslani. **Session:** Semester 1. **Classes:** 2 hr tut and 2 hr prac class/wk. **Prerequisites:** A pass in all second year units of study. BCHM 2611, BCHM 2612, MICR 2605, PCOL 2603, PCOL 2604, PHAR 2607, PHAR 2609, PHAR 2610, PHAR 2611, PHAR 2612, PHAR 2613, PHAR 2614, PHSI 2604, PHSI 2605, PHAR 3601, PHAR 3613 and PHAR 3614. **Assessment:** Demonstrate adequate performance in practical exam, continuous assessment, Forensic Pharmacy exam and portfolio presentation.

Integrated Dispensing links together the skills and knowledge that students have developed in Dispensing and Pharmacy Practice. The emphasis is on clinical practice and develops the theme that dispensing is not a single event but draws on skills and knowledge from a variety of areas of pharmacy practice, including communication with the patient and prescriber. This is achieved using a simulated practice environment. Students learn to integrate the training they have received in dose form preparation with patient counselling skills, forensic and administrative requirements (including the use of computer-based dispensing programs), as well as the professional aspects of pharmacy to allow them to become competent dispensers of medicines.

### Textbooks

As for PHAR3601 Dispensing, PHAR3613 Pharmacy Practice 3A and PHAR3614 Pharmacy Practice 3B.

### PHAR 4602 New Drug Technologies

4 credit points. B.Pharm., UG Study Abroad Program., Dr Mary Collins. **Session:** Semester 1. **Classes:** 17 hrs lect/tut and 35 hrs workshops/wk. **Prerequisites:** A pass in all second year units of study. BCHM 2611, BCHM 2612, MICR 2605, PCOL 2603, PCOL 2604, PHAR 2607, PHAR 2609, PHAR 2610, PHAR 2611, PHAR 2612, PHAR 2613, PHAR 2614, PHSI 2604, PHSI 2605, PHAR3609, PHAR3610, PCOL3603, PCOL3604. **Assessment:** 2 hrs examination (50%), workshop written assignment (20%), workshop written and poster assignments (30%).

New Drug Technologies aims to expose students to developing biotechnologies such as gene therapy, growth factors and cytokines, immunotherapy and pro-drugs while covering aspects of neurological disorders, cardiovascular diseases, cancer and AIDS. The course material will be covered by a series of introductory lectures, workshops and specialised lectures/tutorials. The specialised lectures/tutorials will be presented by invited scientific professionals, who will give an insight on developments of new and up-and-coming biotechnology and the impact on pharmaceutical care.

### Textbooks

As for PHAR2609 Medicinal Chemistry 2A

Reference Book

Shen W C & Louie S G, Introduction to Immunology for Pharmacy Students (Harwood Academic, Amsterdam, 1999)

### PHAR 4603 Pharmaceuticals Workshop

4 credit points. B.Pharm., UG Study Abroad Program., Assoc Prof I Ramzan. **Session:** Semester 1. **Classes:** 4hr workshop/wk. **Prerequisites:** A pass in all second year units of study. BCHM 2611, BCHM 2612, MICR 2605, PCOL 2603, PCOL 2604, PHAR 2607, PHAR 2609, PHAR 2610, PHAR 2611, PHAR 2612, PHAR 2613, PHAR 2614, PHSI 2604, PHSI 2605, PHAR3611, PHAR3612, PHAR3607 and PHAR3608. **Assessment:** Learning portfolio (10%), oral presentation (30%) and open book assessment (60%).

The overall aim of this unit of study is to integrate knowledge from the various sub-disciplines within Pharmaceutics, including physical pharmacy, pre-formulation science, biopharmaceutics, pharmacokinetics and pharmacodynamics.

There will be workshop scenarios dealing with Drug Discovery, Dose Form Design, Bioavailability/Bioequivalence Evaluation, Product and Consumer Information, Pharmacodynamics, Biopharmaceutics and Pharmacokinetics of Biologicals, Pharmacogenomics, Dosage Adjustment and Dose Form Design.

At the end of each workshop session, one student from each subgroup will present an oral summary of the results/conclusions (30% of assignment). Students will also keep their own workshop portfolio consisting of either formal summaries of results/conclusions or completed workshop handouts (10% of assessment). An open book assessment in the last session will count for 60% of the final assessment.

### Textbooks

As for PHAR3611 Pharmacokinetics A and PHAR3607 Formulation A.

### PHAR 4604 Clinical Pathology A

2 credit points. B.Pharm., UG Study Abroad Program., Dr M Ivery, Dr T Chen. **Session:** Semester 1. **Classes:** 10 x 1hr lecs; 16 hrs tuts (or equivalent). **Prerequisites:** A pass in all second year units of study. BCHM 2611, BCHM 2612, MICR 2605, PCOL 2603, PCOL 2604, PHAR 2607, PHAR 2609, PHAR 2610, PHAR 2611, PHAR 2612, PHAR 2613, PHAR 2614, PHSI 2604, PHSI 2605, PHAR3609, PHAR3610, PHAR3613, PHAR3614, PCOL3603, PCOL3604. **Assessment:** Continuous assessment through written and oral presentation of case study reports and computer-based quizzes.

The principles and practice of clinical chemistry as it is applied to the diagnosis, screening and monitoring of physiological processes in health and disease will be examined as well as the measurement of specific analytes to monitor the physiological effects of specific drug regimen. The clinical interpretation of the results of clinical chemistry investigations in diagnosis, screening and monitoring will also be examined.

Specific topic areas covered will include cardiovascular conditions, therapeutic drug monitoring, monitoring of renal sufficiency, blood gases and other chemical indicators of respiratory performance.

### Textbooks

Manual of Use and Interpretation of Pathology Tests, Royal College of Pathologists of Australasia (2nd ed 1997)  
Kaplan A and Szabo L Clinical Chemistry: Interpretation and Techniques. (4th ed, Williams & Wilkins, 1994)

### PHAR 4612 Pharmacotherapeutics A

5 credit points. B.Pharm., UG Study Abroad Program., Dr S Bosnic-Anticevich. **Session:** Semester 1. **Classes:** 1hr lec & 4hrs tuts/wk. **Prerequisites:** A pass in all second year units of study. BCHM 2611, BCHM 2612, MICR 2605, PCOL 2603, PCOL 2604, PHAR 2607, PHAR 2609, PHAR 2610, PHAR 2611, PHAR 2612, PHAR 2613, PHAR 2614, PHSI 2604, PHSI 2605, PHAR3611, PHAR3612, PHAR 3613, PHAR3614, PCOL3603 and PCOL3604. **Assessment:** Examination (60%), tutorial participation and contribution (40%).

This unit of study focuses on knowledge consolidation, therapeutics, application of knowledge, pharmacy process and disease state management within a self-directed learning environment (problem based learning). Therapeutics lectures will be followed up with tutorials which will be practice-based in order to illustrate specific practice situations. Therapeutics topics will be covered in great detail in order to understand how drugs affect different populations, how drugs are used in different situations and specific drugs are chosen and the dosage regimen which is appropriate for that disease and individual patient. In addition, the ability to communicate such information in an appropriate manner will be discussed. The Therapeutics topics to be covered in this unit include cardiovascular, respiratory, endocrinology, infectious diseases and primary care. The unit of study will expand the role of the pharmacist in monitoring therapeutic outcomes, and in participating in therapeutic decision-making.

### Textbooks

As for PHAR2611 Pharmacy Practice 2A, PHAR2612 Pharmacy Practice 2B, PHAR 3613 Pharmacy Practice 3A and PHAR3614 Pharmacy Practice 3B and also Walker, R & Edwards, C. (eds) Clinical Pharmacy and Therapeutics (3rd ed, 2003)  
Herfindal, ET, Gourley D R & Lloyd Hart L (eds). Clinical Pharmacy and Therapeutics (2000)

### PHAR 4613 Clinical Practice A

5 credit points. B.Pharm., UG Study Abroad Program., Ms P Whitehead. **Session:** Semester 1. **Classes:** 5 hrs clinical placement per week (or equivalent). **Prerequisites:** A pass in all second year units of study. BCHM 2611, BCHM 2612, MICR 2605, PCOL 2603, PCOL 2604, PHAR 2607, PHAR 2609, PHAR 2610, PHAR 2611, PHAR 2612, PHAR 2613, PHAR 2614, PHSI 2604, PHSI 2605, PHAR 3613, PHAR 3614, PCOL

3603, PCOL 3604, PHAR 3611 and PHAR 3612. **Assessment:** Cases (30%), Preceptor assessment (20%), reflective diaries (10%), exam (40%). Satisfactory performance in all areas of this unit of study is required.

This unit of study requires the students to follow the progress of patients by extracting and organising information from patient medication histories and interviews. Literature information relevant to the case will be sought in an attempt to review and propose therapeutic options for management. Aspects of communication, verbal presentation and an ability to discuss the case critically will be developed through the unit of study. Each case study will cover the drugs under review, the disease state, past medical and pharmaceutical history, social and demographic parameters. The students' decision making ability will be developed. The appropriateness of therapeutic plans will be reviewed.

#### Textbooks

Walker, R & Edwards, C (eds). *Clinical Pharmacy and Therapeutics* 2nd ed. (Churchill Livingstone, 1999)

Rossi, S (ed) *Australian Medicines Handbook* 2003 (Adelaide)

#### PHAR 4900

\*\*\* No info available for 2005. \*\*\*

#### PCOL 4907 Pharmacology A Advanced (Pharmacy)

10 credit points. B.Pharm., Dr R Vandenberg. **Session:** Semester 1. **Classes:** Two x 2hr seminar & 5hr prac/wk. **Prerequisites:** All third year pharmacy units of study. Enrolment only by invitation to those with a high WAM. **Assessment:** One 2 hr exam (seminar; 20%), one 1.5hr exam (prac; 15%), oral and written presentations (15%), classwork (50%).

*NB: Department permission required for enrolment.*

The aim of this unit of study is to develop students' awareness and understanding of the pivotal role of experimental pharmacology in the development of drugs, and to develop their ability to conduct experimental investigations in accordance with established standards of scientific methodology and critical analysis. The experimental pharmacological aspects of the development of selected drug classes is studied by means of enquiry-based and problem-based learning approaches utilizing seminar/workshops, library research and written assignments. Experience in a range of pharmacological experimental techniques is gained in supervised laboratory practical classes by completing a series of experimental pharmacological investigations into the actions of selected classes of drugs whose activity is well established; experience in the practical aspects of experiment design, analysis, interpretation and reporting of pharmacological investigations is also gained. Students will also prepare for an experimental pharmacology research project, which will be undertaken in PCOL 4908 Pharmacology B Advanced (Pharmacy), by undertaking preliminary research laboratory work and preparing a literature review and research proposal for both oral and written presentation.

#### Textbooks

Textbooks, study aids and reference books as for PCOL2603 Pharmacology 2A (Pharmacy)

#### PHAR 4922 Pharmaceutical Chemistry A (Advanced)

10 credit points. B.Pharm., Dr C Duke. **Session:** Semester 1. **Classes:** 5 hr lec/tut/seminar & 5 hr Project/wk. **Prerequisites:** All third year pharmacy units of study. Enrolment only by invitation to those with a high WAM. **Assessment:** Assignment/Written report (55%), oral presentation (25%), Report Presentation (20%).

*NB: Department permission required for enrolment.*

Pharmaceutical Chemistry A (Advanced) is designed to extend the Pharmacy undergraduate's knowledge and skills in research practice and problem solving, and written and oral scientific communication. It provides an important basis for those who wish to become candidates for the PhD, MSc and MPharm degrees. In addition, the unit of study provides extra training in specialised areas and will be particularly useful for those seeking employment in industrial, government and hospital laboratories. (Advanced students will also retain essentially all of the professionally based training of the pass degree and complete in the same time.)

#### PHAR 4923 Pharmacy Practice A (Advanced)

10 credit points. B.Pharm., Prof C Armour. **Session:** Semester 1. **Classes:** 5 lec & 5 tut/wk. **Prerequisites:** All third year pharmacy units of study. Enrolment is only by invitation to those with a high WAM. **Assessment:** Diary (30%), oral presentations (40%), assessment of literature (20%), examination (10%).

*NB: Department permission required for enrolment.*

Weekly discussion between students, their supervisors and other pharmacy practice personnel will take place in order to evaluate and formulate possible methodologies for research projects. Students will provide short oral presentations for open discussion with other staff and postgraduate students. Research projects in areas of Pharmacy Practice such as Pharmacoeconomics, Pharmacoepidemiology, Professional Practice, Geriatric Patients, Asthma Management and Clinical Practice will be offered. (Advanced students will also retain essentially all of the professionally based training of the Pass degree

and complete in the same time.) A maximum of 14 students will be enrolled by invitation only.

#### PHAR 4606 Clinical Information Technology

2 credit points. B.Pharm., UG Study Abroad Program, Dr K Williams. **Session:** Semester 2. **Classes:** 5 x 2 hr lectures, 4 x 2 hr workshops and 4 x 2 hrs lab time. **Prerequisites:** A pass in all second year units of study. BCHM 2611, BCHM 2612, MICR 2605, PCOL 2603, PCOL 2604, PHAR 2607, PHAR 2609, PHAR 2610, PHAR 2611, PHAR 2612, PHAR 2613, PHAR 2614, PHSI 2604, PHSI 2605, PHAR 3611, PHAR 3612, PHAR3613, PHAR3614, PCOL 3603, PCOL 3604. **Assessment:** Group and individual assignments (100%).

This unit of study aims to introduce students to the increasing opportunities for the use of technology in the provision of pharmaceutical services and provide them with the necessary skills to utilise this technology. Students will gain experience in the use of pharmaceutical databases and the internet to search for pharmaceutical information. They will also learn how to critically analyse such information. Drug and disease information responses will be prepared by students using technology to search and retrieve information. The communication of these responses to patients and health care professionals will be undertaken using novel computer technology.

#### PHAR 4607 Clinical Pathology B

2 credit points. B.Pharm., UG Study Abroad Program, Dr M Ivery and Dr T Chen. **Session:** Semester 2. **Classes:** 10 x 1 hr lects; 16 hrs tuts (or equivalent). **Prerequisites:** A pass in all second year units of study. BCHM 2611, BCHM 2612, MICR 2605, PCOL 2603, PCOL 2604, PHAR 2607, PHAR 2609, PHAR 2610, PHAR 2611, PHAR 2612, PHAR 2613, PHAR 2614, PHSI 2604, PHSI 2605, PHAR3609, PHAR3610, PHAR3613, PHAR3614, PCOL3603, PCOL3604. **Prerequisites:** PHAR4604. **Assessment:** Continuous assessment through oral presentation of case study reports (40%), final exam (60%).

The principles and practice of clinical chemistry as it is applied to the diagnosis, screening and monitoring of physiological processes in health and disease will be examined, as well as the measurement of specific analytes to monitor the physiological effects of specific drug regimen. The clinical interpretation of the results of clinical chemistry investigations in diagnosis, screening and monitoring will also be examined.

Specific topic areas covered will include chronic and acute diabetic conditions, thyroid dysfunction, infection and haematologic disorders.

#### Textbooks

As for PHAR4604 Clinical Pathology A

#### PHAR 4609 Pharmaceutical Management

4 credit points. B.Pharm., UG Study Abroad Program, Prof C Armour & Ms L Bronger. **Session:** Semester 2. **Classes:** 2 hrs lect & 2 hrs tut per week. **Prerequisites:** A pass in all second year units of study. BCHM 2611, BCHM 2612, MICR 2605, PCOL 2603, PCOL 2604, PHAR 2607, PHAR 2609, PHAR 2610, PHAR 2611, PHAR 2612, PHAR 2613, PHAR 2614, PHSI 2604, PHSI 2605. **Assessment:** Assessment is continuous and comprises 20% from each of the HRM, Marketing and Accounting & Financial Management streams. The remaining 40% is for the design of a group business plan to purchase a pharmacy.

The objective of this unit of study is to enable students to learn how to evaluate, maintain, optimise and grow a business. On completion, students should have an understanding of: basic principles of Human Resource Management, including recruitment, selection, induction and performance appraisal; leadership style, team development and employment relations; financial record keeping and budgeting requirements for the effective conduct of business; monitoring performance assessment tools, including key performance indicators; the basics of marketing, merchandising and inventory control and be able to construct and analyse a business plan as a tool for purchasing a business.

#### Textbooks

Recommended references:

Covey, S. *The Seven Habits of Highly Effective People.*

Blanchard, K *The One Minute Manager* (series)

Kotler, P *Marketing Management Analysis, Planning, Implementation and Control* (9th ed, 1999)

Collins and McLaughlin, *Effective Management*

Hay and Cunningham, *Financial Statement Demystified*

Lehmann and Wines, *Analysis for Marketing Planning*

#### PHAR 4615 Clinical Practice B

10 credit points. B.Pharm., UG Study Abroad Program, Dr E Jones. **Session:** Semester 1, Semester 2. **Classes:** 10 hrs clinical placement per week (or equivalent). **Prerequisites:** A pass in all second year units of study. BCHM 2611, BCHM 2612, MICR 2605, PCOL 2603, PCOL 2604, PHAR 2607, PHAR 2609, PHAR 2610, PHAR 2611, PHAR 2612, PHAR 2613, PHAR 2614, PHSI 2604, PHSI 2605, PHAR3611, PHAR3612, PHAR3613, PHAR3614, PCOL3603, PCOL3604. **Prerequisites:** PHAR4613. **Assessment:** Cases (10%), preceptor assessment (20%), reflective diaries (10%), elective presentation (20%) and exam (40%). Satisfactory performance in all areas of this unit of study is required.

This unit of study is a continuation of Clinical Practice A. It requires students to follow the progress of patients by extracting and organising information from patient medication histories and interviews. Literature information relevant to the case will be sought in an attempt to review and propose therapeutic options for management. Aspects of communication, verbal presentation and an ability to discuss the case critically will be developed. Each case study will



## 2. Undergraduate degree requirements

cover the drugs under review, the disease state, past medical and pharmaceutical history, social and demographic parameters. The students' decision-making ability will be developed. The appropriateness of therapeutic plans will be reviewed.

### Textbooks

As for PHAR4613 Clinical Practice A

### PHAR 4616 Pharmacotherapeutics in Practice

6 credit points. B.Pharm.,UG Study Abroad Program., Drs S Bosnic-Anticevich and I Krass. **Session:** Semester 2. **Classes:** 2 hrs lect and 4 hrs tut/wk. **Prerequisites:** A pass in all second year units of study. BCHM 2611, BCHM 2612, MICR 2605, PCOL 2603, PCOL 2604, PHAR 2607, PHAR 2609, PHAR 2610, PHAR 2611, PHAR 2612, PHAR 2613, PHAR 2614, PHSI 2604, PHSI 2605, PHAR3611, PHAR3612, PHAR3613, PHAR3614, PCOL3603, PCOL3604. **Corequisites:** PHAR4612. **Assessment:** Examination (50%), cases (20%), class participation (30%).

This unit of study continues on from PHAR4612 Pharmacotherapeutics A. Therapeutics lectures will be followed up with tutorials which will be practice-based in order to illustrate specific practice situations. Therapeutics topics will be covered in great detail in order to understand how drugs affect different populations, how drugs are used in different situations, how specific drugs are chosen and the dosage regimen which is appropriate for that disease and the individual patient.

This unit of study also aims to prepare students to integrate therapeutic knowledge in the delivery of cognitive pharmacy services, such as disease state management for conditions as asthma, diabetes, heart failure and drug dependence. A sub-set of tutorials will focus on the development of patient assessment skills, eg measurement of BP and blood glucose testing, and the practice of interview and patient education skills for disease state management. This will emphasise the role of the pharmacist in monitoring therapeutic outcomes and participation in therapeutic decision-making.

Another component will prepare students to recognise and resolve ethical issues as they arise in modern pharmacy practice. It will assist students to identify ethical issues in pharmacy and to apply ethical and legal principles to assist them to choose between alternative courses of action available to the pharmacist faced with a moral problem and to defend the course of action chosen.

### Textbooks

As for PHAR4612 Pharmacotherapeutics A, and also:

Misan G (ed) Australian Medicines Handbook (2003).

Buerki R and Vottero L, Ethical Responsibility in Pharmacy Practice (AIHP, Madison WI, 1996)

### References:

Thomas J (ed) Australian Prescription Products Guide, Vols 1 & 2 (Aust Pharmaceutical Pub, Victoria, 2003)

MIMS Annual 2002 (MIMS, Sydney, 2002)

Berkow R (ed) The Merck Manual of Diagnosis and Therapy (18th ed) Merck & Co, Bayway NJ, 1999

Herfindal E & Gourley D, Textbook of Therapeutics: Drugs and Disease Management (7th ed) Williams & Wilkins, Baltimore MD, 2000.

SHPA Hughes J, Donnelly R and James-Chatgilaou G (eds) Clinical Pharmacy: A Practical Approach (2nd ed) McMillan, Melbourne, 2001

Therapeutic Guidelines (Victorian Drug Usage Advisory Committee, Melbourne, 1999-2003)

Veatch RM and Haddad, Case Studies in Pharmacy Ethics (OUP, New York, 1999)

The Pharmaceutical Society of Australia Code of Professional Conduct (April 1999)

### PHAR 4617 Clinical Practice C

8 credit points. B.Pharm.,UG Study Abroad Program.,Dr E Jones. **Session:** Semester 2. **Classes:** Clinical placements. **Prerequisites:** A pass in all second year units of study. BCHM 2611, BCHM 2612, MICR 2605, PCOL 2603, PCOL 2604, PHAR 2607, PHAR 2609, PHAR 2610, PHAR 2611, PHAR 2612, PHAR 2613, PHAR 2614, PHSI 2604, PHSI 2605, PHAR3611, PHAR3612, PHAR3613, PHAR3614, PCOL3603, PCOL3604. **Corequisites:** PHAR4613. **Assessment:** Cases (10%), preceptor assessment (20%), reflective diaries (10%), elective presentation (20%) and exam (40%). Satisfactory performance in all areas of this unit of study is required.

This unit of study, which is only available to Advanced students, is a continuation of Clinical Practice A. The content is the same as for PHAR4615 Clinical Practice B, except that one placement of 10 weeks and one placement of 5 weeks will be undertaken (instead of 2 x 10 weeks) and students will submit 5 cases (instead of 6).

### Textbooks

As for PHAR4613 Clinical Practice A

### PHAR 4924 Pharmaceutics B (Advanced)

10 credit points. B.Pharm.,Dr A McLachlan. **Session:** Semester 2. **Classes:** 1 hr tutorial, 1hr seminar & 8 hrs research project/wk. **Prerequisites:** PHAR 4921 at a credit level or better. **Assessment:** Oral presentation, Project/report, attendance and contribution in workshops.

*NB: Department permission required for enrolment.*

This unit of study is designed to extend the Pharmacy undergraduate's knowledge and skills in research practice and problem solving, and written and oral scientific communication acquired in the February semester unit of study PHAR 4921 Pharmaceutics A (Advanced). It provides an important basis for those who may wish to branch into specialised areas and will be particularly useful for those seeking employment in industry, government or hospital laboratories, re-

search institutions and also for those considering continuation to postgraduate studies.

The lecture/tutorial and seminar components of the unit of study will assist in the development of advanced research skills and will complement the research project. The individual research project prepared in Pharmaceutics A (Advanced) will be pursued under the supervision of a member of the academic staff. A final research presentation and report describing research results and conclusions is to be presented at the end of the year.

### PHAR 4925 Pharmaceutical Chemistry B (Advanced)

10 credit points. B.Pharm.,Dr C Duke. **Session:** Semester 2. **Classes:** 1 hr lec/tut/seminar & 9 hr practical work/wk. **Prerequisites:** PHAR 4922 at a credit level or better. **Assessment:** Oral presentation (20%), Seminar (20%), Project/report (70%). *NB: Department permission required for enrolment.*

Pharmaceutical Chemistry B (Advanced) is designed to extend the Pharmacy undergraduate's knowledge and skills in research practice and problem solving, and written and oral scientific communication acquired in the February semester unit of study PHAR 4922 Pharmaceutical Chemistry A (Advanced). The unit of study provides an important basis for those who may wish to branch into specialised areas and will be particularly useful for those seeking employment in industry, government, hospital laboratories, research institutions and also for those considering continuation to postgraduate studies. The seminar component of the course (1 credit point) will assist in the development of advanced laboratory based research skills and will complement the research project. The individual research project prepared in the first semester will be pursued (9 credit points). A final research presentation and report describing research results and conclusions is to be presented at the end of the year.

### PHAR 4926 Pharmacy Practice B (Advanced)

10 credit points. B.Pharm.,Prof C Armour. **Session:** Semester 2. **Classes:** 1 hr lec/tut/seminar & 9 hrs Research Project/ wk. **Prerequisites:** PHAR 4923 at a credit level or better. **Corequisites:** PHAR4614. **Assessment:** Protocol presentation (10%), written report (50%), research presentation (30%), seminars (10%). *NB: Department permission required for enrolment.*

This unit of study is designed to extend the Pharmacy undergraduate's knowledge and skills in research practice and problem solving, and written and oral scientific communication acquired in PHAR 4923 Pharmacy Practice A (Advanced)

Pharmacy Practice B (Advanced) provides an important basis for those who may wish to branch into specialised areas and will be particularly useful for those seeking employment in industry, government, hospital laboratories, research institutions and also for those considering continuation to postgraduate studies.

The lecture/tutorial/seminar component of the course (1 credit point) will assist in the development of advanced research skills and will complement the research project. A final research presentation and report describing research results and conclusions is to be presented at the end of the semester.

### PCOL 4908 Pharmacology B Advanced (Pharmacy)

10 credit points. B.Pharm.,Dr R Vandenberg. **Session:** Semester 2. **Classes:** 10hr research laboratory placement/wk. **Prerequisites:** PCOL 4907 at a credit level or better. **Assessment:** Oral presentation (15%), written dissertation (70%), laboratory placement work (15%). *NB: Department permission required for enrolment.*

The aim of this unit of study is to develop students' awareness and understanding of the pivotal role of experimental pharmacology in the development of drugs, and to develop their ability to conduct experimental investigations in accordance with established standards of scientific methodology and critical analysis. In this unit of study, each student will gain experience in some advanced experimental pharmacological research techniques, through the undertaking of an individual research project under the direct supervision of academic and research staff in the Department, and the preparation of an oral presentation and a written dissertation on the experimental project work. The experimental project work is undertaken in Semester 2, during placement for 1.5 contiguous days per week in Department research laboratories, following initial preparation in the Semester 1 unit of study, PCOL 4907 Pharmacology A Advanced (Pharmacy), in which literature reviews and research proposals are completed.

### Textbooks

Textbooks, study aids and reference books as for PCOL2603 Pharmacology 2A (Pharmacy).



# 3. Undergraduate degree regulations and policies

The following information is a printed version of the information available through Handbooks Online, on the University of Sydney web site. Please visit "<http://www.usyd.edu.au/handbooks/>" for the most current handbooks information.

This chapter contains the regulations governing undergraduate degrees throughout the University and the regulations governing undergraduate degrees offered by the Faculty of Pharmacy. The regulations governing postgraduate award courses can be found in Chapter 5. Students should also consult the University of Sydney (Coursework) Rule 2000 ([http://www.usyd.edu.au/handbooks/70\\_unicoursework-rule.shtml](http://www.usyd.edu.au/handbooks/70_unicoursework-rule.shtml)).

## Resolutions relating to the Bachelor of Pharmacy

### Resolutions of the Senate: Bachelor of Pharmacy

These Resolutions of the Senate relate to the Bachelor of Pharmacy. These Resolutions must be read in conjunction with The University of Sydney (Coursework) Rule, which sets out the requirements for all undergraduate courses, and the relevant Faculty resolutions.

#### 1. Requirements for the Pass degree

To qualify for the award of the Pass degree students must:

- (1) gain a minimum of 192 credit points by successfully completing all First Year, Second Year, Third Year and Fourth Year units of study as set out in Table 1. No more than 28 credit points shall be counted towards the degree total for units of study in which the grade PCON was awarded in accordance with (i) to (iv) below.
  - (i) No more than 12 credit points at the First Year level shall be counted towards the degree total for units of study in which the grade of PCON was awarded
  - (ii) No more than 10 credit points at the Second Year level shall be counted towards the degree total for units of study in which the grade of PCON was awarded.
  - (iii) No more than 6 credit points at the Third Year level shall be counted towards the degree total for units of study in which the grade of PCON was awarded.
  - (iv) No credit points at the Fourth Year level shall be counted towards the degree with the grade of PCON.
- (2) satisfy the requirements of all other relevant By-Laws, Rules and Resolutions of the University.

#### 2. Requirements for the Honours degree

To qualify for the award of the Honours degree candidates must complete the honours requirements published in the faculty resolutions relating to the course.

#### 3. Candidates enrolled in the Pass degree before 1997

- (1) A person who has enrolled as a candidate for the degree of Bachelor of Pharmacy before 1 January 1997 may complete the requirements for the degree in accordance with the resolutions in force at the time the candidate commenced that degree provided that the candidate completes the requirements for the degree by 31 December 2001 or such later date as the Dean of the Faculty may approve in special cases; and that if a unit of study specified in those resolutions is discontinued the Dean of the Faculty may permit the candidate to substitute a unit of study or units of study deemed by him or her to be equivalent to the discontinued unit of study.
- (2) Where a candidate proceeding pursuant to subsection (1) fails to complete the requirements for the degree before 31 December 2001 the candidate shall complete the requirements for the degree under such conditions as may be determined from time to time by the Dean of the Faculty.

### Resolutions of the Faculty: Bachelor of Pharmacy

These resolutions must be read in conjunction with The University of Sydney (Coursework) Rule and the definitions appended to these Faculty resolutions.

#### Section 1

##### 1. Admission

Admission to the BPharm course is based on:

- Results of a Special Tertiary Admission Test (STAT)
- NSW HSC Universities Admissions Index (UAI) or equivalent, or a tertiary studies record.

#### 2. Units of study

The units of study for the degree are set out in Table 1.

#### 3. Requirements for the Pass degree

To qualify for the award of the Pass degree students must:

- (1) gain a minimum of 192 credit points by successfully completing all First Year, Second Year, Third Year and Fourth Year units of study as set out in Table 1. No more than 28 credit points shall be counted towards the degree total for units of study in which the grade PCON was awarded in accordance with (i) to (iv) below.
  - (i) No more than 12 credit points at the First Year level shall be counted towards the degree total for units of study in which the grade of PCON was awarded
  - (ii) No more than 10 credit points at the Second Year level shall be counted towards the degree total for units of study in which the grade of PCON was awarded.
  - (iii) No more than 6 credit points at the Third Year level shall be counted towards the degree total for units of study in which the grade of PCON was awarded.
  - (iv) No credit points at the Fourth Year level shall be counted towards the degree with the grade of PCON.
- (2) satisfy the requirements of all other relevant By-Laws, Rules and Resolutions of the University.

#### 4. Requirements for Honours degree

The degree of Bachelor of Pharmacy shall be awarded in two grades, namely, Pass and Honours.

- (a) A weighted average mark (WAM) will be calculated for each candidate as an overall measure of performance in the degree. The WAM is calculated by summing the products of the marks achieved and the weighted credit point values of the units of study taken in the degree and then dividing by the sum of the weighted credit points, with all attempts at units of study being included in the calculation, except where units of study are discontinued with permission. The formula is as follows:

$$WAM = \frac{\sum(W_c \times M_c)}{\sum(W_c)}$$

Where  $W_c$  is the weighted credit point value - ie, the product of the credit point value and the level of weighting of 1, 2, 3, or 4 for a first, second, third or fourth year unit of study respectively; and where  $M_c$  is the greater of 45 or the mark out of 100 for the unit of study.

- (b) The degree will be awarded with the following grades:
  - i) First Class Honours: WAM of 75 or greater and a minimum average mark in Advanced units of study of 85.
  - ii) Second Class Honours, division I: WAM of 70 or greater and a minimum average mark in Advanced units of study of 80.
  - iii) Second Class Honours, division II: WAM of 65 or greater and a minimum average mark in Advanced units of study of 75.
  - iv) Pass degree
- (c) Except with the permission of the Faculty, candidates of more than four years standing in the degree shall not be awarded the degree with honours.
- (d) Honours will not normally be awarded to any student with a grade of F or AF in any unit of study.
- (e) In order to be considered for the award of the University Medal, a student must obtain a WAM of 85 or greater over the entire degree, and must achieve an average mark of 90 or greater in two Advanced units of study in the same stream. The decision to award a University Medal shall be made by the Faculty Honours Board of Examiners.

### 3. Undergraduate degree regulations and policies

- (f) To be eligible for the grade of Honours from 2001, a student must successfully complete two Advanced units of study in the same stream.

#### Section 2

##### 1. Enrolment in more/less than minimum load

- (1) In the first year of attendance candidates, unless granted credit in accordance with paragraph 9, shall enrol in all the First Year units of study listed in Table 1.
- (2) Except with the permission of the Faculty, and subject to the exigencies of the timetable, candidates in subsequent years of attendance shall enrol in the maximum number of prescribed units of study for which they are qualified, provided that they may not take units of study totalling in excess of 52 credit points.

##### 2. Restrictions on enrolment

- (1) Except with the permission of the Faculty, candidates may not take a Second Year unit of study -
- (i) until they have gained credit for at least 24 credit points in First Year units of study, and
- (ii) until they have completed the First Year units of study, if any, prescribed by the Faculty as qualifying units of study or prerequisites for the Second Year of Study, as set out in Table 1.
- (2) Except with the permission of the Faculty, candidates may not take a Third Year unit of study
- (i) until they have gained credit for at least 18 credit points derived from Second Year units of study, and
- (ii) until they have completed all the First Year units of study, and all the Second Year units of study, if any, prescribed as qualifying units of study or prerequisites for the Third Year unit of study, as set out in Table 1, and all the First Year units of study.
- (3) Except with the permission of the Faculty, candidates may not take a Fourth Year unit of study -
- (i) until they have gained credit for at least 18 credit points derived from Third Year units of study, and
- (ii) until they have completed all the Second Year units of study, and all the Third Year units of study, if any, prescribed by the Faculty as qualifying units of study or prerequisites for the Fourth Year unit of study, as set out in Table 1, and all the Second Year units of study.
- (4) Candidates may not take a higher unit of study in any subject area without having previously completed the lower unit of study, if any, in the same subject.
- (5) The enrolment of candidates in units of study shall be limited by the exigencies of the timetable.

##### 3. Time limit

Except with the permission of the Faculty, a candidate must complete the requirements for the award of the degree within ten calendar years of admission to candidature.

##### 4. Suspension of candidature

- (1) A candidate must re-enrol each calendar year unless the Faculty has approved suspension of candidature. Candidature lapses if a candidate has not obtained approval for suspension and does not re-enrol. Candidates whose candidature has lapsed must be selected for admission again before they can re-enrol.
- (2) Except with the prior permission of the Faculty, a candidate shall not be granted a suspension of candidature in order to enrol in another course of tertiary study. Candidature shall lapse if a candidate enrolls in another course of tertiary study after having been granted a suspension of candidature.

##### 5. Satisfactory progress/Show Cause

- (1) The Senate authorises the Faculty of Pharmacy to require a student to show good cause why he or she should be allowed to re-enrol in the degree of Bachelor of Pharmacy if in the opinion of the Faculty he or she has not made satisfactory progress towards fulfilling the requirements for the degree.
- (2) Satisfactory progress cannot be defined in all cases in advance, but a student who has not gained credit for 116 or more credit points shall be asked to show good cause why he or she should be allowed to re-enrol as a candidate for the degree of Bachelor of Pharmacy, if in any two successive years of attendance he or she fails in the first of these years to gain credit for 28 credit points and then fails to gain a total of 44 credit points in the two years of attendance, unless in one of these two years he or she successfully completes all units of study attempted in that year.

- (3) In cases where the Faculty permits the re-enrolment of a student whose progress has been deemed Unsatisfactory, the Faculty may require the completion of specified units of study in a specified time, and if the student does not comply with these conditions the student may again be called on to show good cause why he or she should be allowed to re-enrol in the degree of Bachelor of Pharmacy.

##### 6. Repeating a unit of study

- (1) Where a student enrolls in a unit of study which is the same as, or has a substantial amount in common with, a unit of study previously attempted but not completed at the grade of Pass or better, the Head of Department concerned may exempt the student from certain requirements of the unit of study if satisfied that the relevant competence has been demonstrated.
- (2) A student who has been awarded a Pass (Concessional) in a unit of study may repeat that unit but, if subsequently awarded a grade of Pass or better, no further credit points will be gained unless the unit of study previously had not been credited under Section 1 Paragraph 3 (1)(i-iv) above.

##### 7. Assessment policy

- (1) Candidates may be tested by written and oral class examinations, oral examinations, assignments, exercises, essays, or practical work or any combination of these and the results of such tests may be taken into account by the Faculty Board of Examiners in determining the final results for a unit of study.
- (2) In all units of study, other than those for which the grades of 'satisfied requirements' or 'fail' may be awarded, work of a higher standard than that required for an ordinary pass may be recognised by the award of High Distinction, Distinction or Credit.
- (3) Candidates who have been prevented by duly certified illness or misadventure from sitting for the whole or part of a unit of study assessment may be tested at such times and in such a way as the head of department concerned shall determine.
- (4) Candidates who do not pass in a unit of study shall, unless exempted by the Faculty, again attend lectures and other classes and complete the prescribed written and other work in all such units of study in which they are permitted to re-enrol.
- (5) Candidates who present themselves for re-examination in any unit of study shall not be eligible for any prize or scholarship awarded in connection with such examination.

##### 8. Special Consideration

The Faculty of Pharmacy recognises that the performance of students may be adversely affected by illness or other misadventure, and makes provision for special consideration of such disabilities when examination results are considered. Faculty intends only to compensate for sub-standard performance in assessments, which do not reflect a student's true competence in a unit of study, and such provisions must not act to the disadvantage of other students.

Any student who believes that his/her performance has been or may be adversely affected by illness or misadventure may request Faculty to give special consideration to the circumstances. Such a request must be made within one week of the occurrence and must be accompanied by an appropriate medical certificate or other relevant documentary evidence. Such certificates should state not only the nature of the illness or misadventure but also (where relevant) the opinion of the issuer as to the extent of the disability involved.

Where several requests for special consideration have been received from one student, the Faculty may wish to obtain from the medical practitioner or other issuer of corroborating certificates more detail as to the precise extent of the disability. In cases where the Faculty believes that other students may be adversely affected by the giving of special consideration, it may require the applicant to obtain a professional opinion from another source.

Any student who is subject to a chronic or recurrent disability or who has been in need of, or undertaken counselling assistance should discuss the matter with a Departmental or Faculty Adviser, as appropriate.

##### 9. Credit Transfer Policy

- (1) Candidates who have previously completed studies which are considered by the Faculty to be equivalent to any unit of study listed in Table 1 may be given credit for that unit of study provided that:
- (i) in the case of graduates, the total credit point value of the units of study so credited may not exceed 68;

- (ii) in the case of students who have completed units of study in another tertiary program without graduating and who have abandoned credit in that program for the units of study on the basis of which credit is sought, any number of units may be credited;
  - (iii) the units of study were completed not more than nine years before admission to candidature in the Faculty.
- (2) Candidates who have been given credit for units of study listed in the table, in accordance with section 9 (1), shall be regarded as having completed such units of study for the purposes of these resolutions.
10. Candidates enrolled before 1997
- (1) A person who has enrolled as a candidate for the degree of Bachelor of Pharmacy before 1 January 1997 may complete the requirements for the degree in accordance with the resolutions in force at the time the candidate commenced that degree provided that the candidate completes the requirements for the degree by 31 December 2001 or such later date as the Faculty may approve in special cases. If a unit of study specified in those resolutions is discontinued, the Faculty may permit the candidate to substitute a unit of study or units of study deemed by the Faculty to be equivalent to the discontinued unit of study.
- (2) Where a candidate proceeding pursuant to 10 (1) fails to complete the requirements for the degree before 31 December 2001, the candidate shall complete the requirements for the degree under such conditions as may be determined from time to time by the Dean.

#### Definitions

#### For the purposes of these resolutions,

- (1) A unit of study shall consist of lectures together with such tutorial instruction, essays, exercises, assignments, fieldwork or practical work as may be prescribed.
- (2) Each unit of study shall be designated as a First Year unit of study, a Second Year unit of study, a Third Year unit of study or a Fourth Year unit of study, as shown in Table 1.
- (3) To complete a course and derivative expressions mean:
  - (i) to attend the lectures and meetings, if any, for tutorial instructions;
  - (ii) to complete satisfactorily the essays, exercises, assignments, field work and the practical work, if any, and;
  - (iii) to pass the examinations of the unit of study.
- (4) A qualifying unit of study means a unit of study which, except with the permission of the Faculty, must be completed with the result of Pass or better (not PCON) before enrolment in the unit of study for which it qualifies.
- (5) A prerequisite unit of study means a unit of study other than a qualifying unit of study which, except with permission of the head of department concerned, must have been completed with the result of PCON or better prior to a candidate enrolling in a unit of study for which it is a prerequisite.
- (6) A corequisite unit of study which unless previously completed must, except with permission of the head of department concerned, be taken in the same academic year as the unit of study for which the Faculty has declared it a corequisite.

## Resolutions relating to the Bachelor of Pharmacy (Rural)

### Resolutions of the Senate: Bachelor of Pharmacy (Rural)

1. These Resolutions must be read in conjunction with the University of Sydney (Coursework) Rule 2000 (as amended), which sets out the requirements for all coursework courses, and the relevant Faculty Resolutions.
2. Requirements for the Pass Degree  
To qualify for the award of the Pass degree students must:
  - (1) complete successfully units of study giving credit for a total of 192 credit points; and
  - (2) satisfy the requirements of all other relevant By-Laws, Rules and Resolutions of the University.
3. Requirements for the Honours Degree

To qualify for the award of the Honours degree students must complete the Honours requirements published in the faculty resolutions relating to the course.

### Resolutions of the Faculty: Bachelor of Pharmacy (Rural)

These Resolutions must be read in conjunction with the University of Sydney (Coursework) Rule and the definitions appended to these Faculty resolutions.

#### Section 1

These matters require Academic Board approval in respect of new courses and major changes to courses and units of study.

#### 1. Admission

Admission to the BPharm (Rural) course is based on:

- Results of the Special Tertiary Admissions Test (STAT)
- NSW HSC Universities Admissions Index (UAI) or equivalent, or a tertiary studies record.

The University of Sydney has developed a Rural Entry Program which will assist the entry of students from rural areas. The Rural Entry Program will apply to the Bachelor of Pharmacy (Rural), and students who attend a rural high school may be eligible for admission under the Rural Entry Scheme (but must also sit STAT). Tertiary record holders who reside outside the Sydney/Newcastle/Wollongong area may also be eligible for admission under the Rural Entry Scheme (but must also sit the STAT). Please see the relevant section in the UAC Admissions Guide for information on entry schemes.

#### 2. Units of study

The units of study for the degree are set out in Table 2.

#### 3. Requirements for the Pass degree

To qualify for the award of the Pass degree students must:

- (1) gain a minimum of 192 credit points by successfully completing all First Year, Second Year, Third Year and Fourth Year units of study as set out in Table 2. No more than 28 credit points shall be counted towards the degree total for units of study in which the grade PCON was awarded in accordance with (a) to (d) below.
  - (i) No more than 12 credit points at the First Year level shall be counted towards the degree total for units of study in which the grade PCON was awarded.
  - (ii) No more than 10 credit points at the Second Year level shall be counted towards the degree total for units of study in which the grade PCON was awarded.
  - (iii) No more than 6 credit points at the Third Year level shall be counted towards the degree total for units of study in which the grade PCON was awarded.
  - (iv) No credit points in the Fourth Year level shall be counted towards the degree with the grade of PCON.
- (2) satisfy the requirements of all other relevant By-Laws, Rules and Resolutions of the University

#### 4. Requirements for the Honours Degree

The degree of Bachelor of Pharmacy (Rural) shall be awarded in two grades, namely, Pass and Honours.

- (a) A weighted average mark (WAM) will be calculated for each candidate as an overall measure of performance in the degree. The WAM is calculated by summing the products of the marks achieved and the weighted credit point values of the units of study taken in the degree and then dividing by the sum of the weighted credit points, with all attempts at units of study being included in the calculation, except where units of study are discontinued with permission. The formula is as follows:

$$WAM = \frac{\sum(W_c \times M_c)}{\sum(W_c)}$$

Where  $W_c$  is the weighted credit point value - ie, the product of the credit point value and the level of weighting of 1, 2, 3, 4 for first, second, third or fourth year unit of study respectively; and where  $M_c$  is the greater of 45 or the mark out of 100 for the unit of study.

- (b) The degree will be awarded with the following grades:
  - i) First Class Honours: WAM of 75 or greater and a minimum average mark in Advanced units of study of 85.
  - ii) Second Class Honours, division I: WAM of 70 or greater and a minimum average mark in Advanced units of study of 80.

### 3. Undergraduate degree regulations and policies

- iii) Second Class Honours, division II: WAM of 65 or greater and a minimum average mark in Advanced units of study of 75.
- iv) Pass degree
- (c) Except with the permission of the Faculty, candidates of more than four years standing in the degree shall not be awarded the degree with honours.
- (d) Honours will not normally be awarded to any student with a grade of F or AF in any unit of study
- (e) In order to be considered for the award of the University Medal, a student must obtain a WAM of 85 or greater over the entire degree, and must achieve an average mark of 90 or greater in two Advanced units of study in the same stream. The decision to award a University Medal shall be made by the Faculty Honours Board of Examiners.
- (f) To be eligible for the grade of Honours, a student must successfully complete two Advanced units of study in the same stream.

#### Section 2 - Enrolment

##### 1. Enrolment in more/less than minimum load

- (1) In the first year of attendance candidates, unless granted credit in accordance with paragraph 9, shall enrol in all the First Year units of study listed in Table 2.
- (2) Except with the permission of the Faculty, and subject to the exigencies of the timetable, candidates in subsequent years of attendance shall enrol in the maximum number of prescribed units of study for which they are qualified, provided that they may not take units of study totalling in excess of 52 credit points.

##### 2. Restrictions on Enrolment

- (1) Except with the permission of the Faculty, candidates may not take a Second Year unit of study:
  - (i) until they have gained credit for at least 24 credit points in First Year units of study, and
  - (ii) until they have completed the First Year units of study, if any, prescribed by the Faculty as qualifying units of study or prerequisites for the Second Year unit of study, as set out in Table 2.
- (2) Except with the permission of the Faculty, candidates may not take a Third Year unit of study:
  - (i) until they have gained credit for at least 18 credit points derived from Second Year units of study, and
  - (iii) until they have completed all the First Year units of study and all the Second Year units of study, if any, prescribed as qualifying units of study or prerequisites for the Third Year unit of study, as set out in Table 3, and all the first year units of study.
- (3) Except with the permission of the Faculty, candidates may not take a Fourth Year unit of study:
  - (i) until they have gained credit for at least 18 credit points derived from Third Year units of study, and
  - (ii) until they have completed all the Second Year units of study, and all the Third Year units of study, if any, prescribed as qualifying units of study or prerequisites for the Fourth Year unit of study, as set out in Table 2, and all the Second year units of study.
- (4) Candidates may not take a higher unit of study in any subject area without having previously completed the lower unit of study, if any, in the same subject.
- (5) The enrolment of candidates in units of study shall be limited by the exigencies of the timetable.

##### 3. Time Limit

Except with the permission of the Faculty, a candidate must complete the requirements for the award of the degree within ten calendar years of admission to candidature.

##### 4. Suspension of candidature

- (1) A candidate must re-enrol each calendar year unless the Faculty has approved suspension of candidature. Candidature lapses if the candidate has not obtained approval for suspension and does not re-enrol. Candidates whose candidature has lapsed must be selected for admission again before they can re-enrol.
- (2) Except with the prior permission of the Faculty, a candidate shall not be granted a suspension of candidature in order to enrol in another course of tertiary study. Candidature shall lapse if a candidate enrolls in another course of tertiary study after having been granted a suspension of candidature.

##### 5. Satisfactory progress/Show Cause

- (1) The Senate authorises the Faculty of Pharmacy to require a student to show good cause why he or she should be allowed to re-enrol in the degree of Bachelor of Pharmacy (Rural) if in the opinion of the Faculty he or she has not made satisfactory progress towards fulfilling the requirements of the degree.
- (2) Satisfactory progress cannot be defined in all cases in advance, but a student who has not gained credit for 116 or more credit points shall be asked to show good cause why he or she should be allowed to re-enrol as a candidate for the degree of Bachelor of Pharmacy (Rural), if in any two successive years of attendance he or she fails in the first of these years to gain credit for 28 credit points and then fails to gain a total of 44 credit points in the two years of attendance, unless in one of these two years he or she successfully completes all units of study attempted in that year.
- (3) In cases where the Faculty permits the re-enrolment of a student whose progress has been deemed unsatisfactory, the Faculty may require the completion of specified units of study in a specified time, and if the student does not comply with these conditions the student may again be called on to show good cause why he or she should be allowed to re-enrol in the degree of Bachelor of Pharmacy (Rural).

##### 6. Repeating a unit of study

- (1) Where a student enrolls in a unit of study which is the same as, or has a substantial amount in common with, a unit of study previously attempted but not completed at the grade of Pass or better, the Head of Department concerned may exempt the student from certain requirements of the unit of study if satisfied that the relevant competence has been demonstrated.
- (2) A student who has been awarded a Pass (Concessional) in a unit of study may repeat that unit but, if subsequently awarded a grade of Pass or better, no further credit points will be gained unless the unit of study previously had not been credited under Section 1 Paragraph 3(1)(i-iv) above.

##### 7. Assessment Policy

- (1) Candidates may be tested by written and oral class examinations, oral examinations, assignments, exercises, essays, or practical work or any combination of these and the results of such tests may be taken into account by the Faculty Board of Examiners in determining the final results for a unit of study.
- (2) In all units of study, other than those for which the grades of 'satisfied requirements' or 'fail' may be awarded, work of a higher standard than that required for an ordinary pass may be recognised by the award of a High Distinction, Distinction or Credit.
- (3) Candidates who have been prevented by duly certified illness or misadventure from sitting for the whole or part of a unit of study assessment may be tested at such times and in such a way as the head of department concerned shall determine.
- (4) Candidates who do not pass in a unit of study shall, unless exempted by the Faculty, again attend lectures and other classes and complete the prescribed written and other work in all such units of study in which they are permitted to re-enrol.
- (5) Candidates who present themselves for re-examination in any unit of study shall not be eligible for any prize or scholarship awarded in connection with such examination.

##### 8. Special Consideration

The Faculty of Pharmacy recognises that the performance of students may be adversely affected by illness or other misadventure, and makes provision for special consideration of such disabilities when examination results are considered. Faculty intends only to compensate for sub-standard performance in assessments, which do not reflect a student's true competence in a unit of study, and such provisions must not act to the disadvantage of other students.

Any student who believes that his/her performance has been or may be adversely affected by illness or misadventure may request Faculty to give special consideration to the circumstances. Such a request must be made within one week of the occurrence and must be accompanied by an appropriate medical certificate or other relevant documentary evidence. Such certificates should state not only the nature of the illness or misadventure but also (where relevant) the opinion of the issuer as to the extent of the disability involved.

Where several requests for special consideration have been received from one student, the Faculty may wish to obtain from the medical practitioner or other issuer of corroborating certificates more detail as to the precise extent of the disability. In cases where the Faculty

believes that other students may be adversely affected by the giving of special consideration, it may require the applicant to obtain a professional opinion from another source.

Any student who is subject to a chronic or recurrent disability or who has been in need of, or undertaken counselling assistance should discuss the matter with a Department or Faculty Adviser, as appropriate.

#### 9. Credit Transfer Policy

- (1) Candidates who have previously completed studies which are considered by the Faculty to be equivalent to any unit of study listed in Table 2 may be given credit for that unit of study provided that:
  - (i) in the case of graduates, the total credit point value of the units of study so credited may not exceed 68;
  - (ii) in the case of students who have completed units of study in another tertiary program without graduating and who have abandoned credit in that program for the units of study on the basis of which credit is sought, any number of units may be credited;
  - (iii) the units of study were completed not more than nine years before admission to candidature in the Faculty.
- (3) Candidates who have been given credit for units of study listed in the table, in accordance with section 9(1), shall be regarded as having completed such units of study for the purposes of these resolutions.

#### *Definitions*

For the purpose of these resolutions,

- (1) A unit of study shall consist of lectures together with such tutorial instruction, essays, exercises, assignments, fieldwork or practical work as may be prescribed.
- (2) Each unit of study shall be designated as a First Year unit of study, a Second Year unit of study, a Third Year unit of study or a Fourth Year unit of study, as shown in Table 2.
- (3) To complete a course and derivative expressions mean:
  - (i) to attend the lectures and meetings, if any, for tutorial instructions;
  - (ii) to complete satisfactorily the essays, exercises, assignments, field work and the practical work, if any, and;
  - (iii) to pass the examinations of the unit of study.
- (4) A qualifying unit of study means a unit of study which, except with the permission of the Faculty, must be completed with the result of Pass or better (not PCON) before enrolment in the unit of study for which it qualifies.
- (5) A prerequisite unit of study means a unit of study other than a qualifying unit of study which, except with permission of the head of department concerned, must have been completed with the result of PCON or better prior to a candidate enrolling in a unit of study for which it is a prerequisite.
- (6) A corequisite unit of study which unless previously completed must, except with the permission of the head of department concerned, be taken in the same academic year as the unit of study for which the Faculty has declared it a corequisite.

### 3. Undergraduate degree regulations and policies

## 4. Postgraduate degree requirements

The following information is a printed version of the information available through Handbooks Online, on the University of Sydney web site. Please visit "<http://www.usyd.edu.au/handbooks/>" for the most current handbooks information.

This chapter sets out requirements for both research and coursework postgraduate programs offered in the Faculty of Pharmacy. Following a brief description of the research degrees and notes on the presentation of theses, details of the requirements and units of study for the coursework programs are listed.

The information in this chapter is in summary form and is subordinate to the provisions of the relevant degree resolutions, found in the next chapter or in The University of Sydney Calendar. The Calendar is available for purchase from the Student Centre, for viewing at the Faculty Office or in the Library, or on the Web (<http://www.usyd.edu.au/about/publication/pub/calendar.shtml>).

Additional valuable resources for intending and current research students are the Postgraduate Research and Coursework Handbook 2005/06 (<http://www.usyd.edu.au/fstudent/postgrad/study/pub/handbooks.shtml>), published by the University of Sydney, *The Thesis Guide* and the *Survival Manual* published by SUPRA (Sydney University Postgraduate Representative Association).

### Research degrees

Research degrees offered by the Faculty are:

- Doctor of Philosophy
- Master of Pharmacy (Research)
- Master of Pharmaceutical Sciences
- Graduate Diploma in Pharmaceutical Sciences

### Doctor of Philosophy (PhD)

Course code: PB000

The degree of Doctor of Philosophy is a research degree awarded for a thesis considered to be a substantially original contribution to the subject concerned. Some coursework may be required (mainly in the form of seminars) but in no case is it a major component. The Resolutions of the Senate and Academic Board relating to the degree of Doctor of Philosophy are printed in *The University of Sydney Calendar, 1999, Vol 1., Statutes and Regulations*.

Applicants should normally hold a masters degree or a bachelors degree with first or second-class honours from the University of Sydney, or an equivalent qualification from another university or institution.

The degree may be taken on either a full-time or part-time basis. In the case of full-time candidates –

- the minimum period of candidature can, with the permission of the Faculty, be two years for candidates holding an MSc degree or equivalent, or three years in the case of candidates holding a bachelors degree with first class or second class honours
- the maximum period of candidature is normally four years.

Part-time candidature may be approved for applicants who can demonstrate that they are engaged in an occupation or other activity, which leaves them substantially free to pursue their candidature for the degree. For part-time candidates –

- the minimum period of candidature will normally be determined on the recommendation of the Faculty but in any case will be not less than three years
- the maximum period of part-time candidature is normally eight years.

### Doctor of Philosophy degree resolutions

See the University of Sydney Calendar

### Master of Pharmacy (Research) – MPharm(Res)

Course code: PC080

This degree is awarded on the successful examination of a thesis based on original research. The Faculty offers a wide choice of research areas (see below).

The minimum admission requirements are: a bachelors degree with first or second-class honours from the University of Sydney in pharmacy or science (eg pharmacology, chemistry or biochemistry), or a bachelors degree from the University of Sydney (eg pharmacology, chemistry or biochemistry) plus a Graduate Diploma in Pharmaceutical Sciences, or equivalent qualifications, acceptable to the Dean.

### Master of Pharmaceutical Sciences (MPharmSc)

Course code: PC081

This degree is awarded on successful examination of a thesis based on original research. The Faculty offers a wide choice of research areas (see below).

The minimum admission requirements are: a bachelors degree with first or second-class honours from the University of Sydney in pharmacy or science (eg pharmacology, chemistry or biochemistry), or a bachelors degree from the University of Sydney (eg pharmacology, chemistry or biochemistry) plus a Graduate Diploma in Pharmaceutical Sciences, or equivalent qualifications, acceptable to the Dean.

### Graduate Diploma in Pharmaceutical Sciences (GradDipPharmSc)

Course code: PF000

The Graduate Diploma in Pharmaceutical Sciences is a one year full-time program available with specialisation in Pharmaceutical Chemistry, Pharmaceutics or Pharmacy Practice. The course is essentially the same as an Honours program in these discipline areas.

GradDipPharmSc courses are designed to extend the Pharmacy or health science undergraduate's knowledge and skills, and to introduce students to research methodology. This provides a basis for those who wish to do a PhD, MPharmSc or MPharm. Courses may also be chosen to give appropriate additional training for those seeking employment in pharmaceutical industry, as well as government or hospital laboratories.

Units of study may be taken in Pharmaceutical Chemistry, Pharmaceutics or Pharmacy Practice and constitute about one third of the overall program in terms of time and assessment. The units of study are designed to develop knowledge and understanding in more specialised areas corresponding to the expertise of various members of staff and to provide background and support for individual research projects.

The remainder of the GradDipPharmSc course is devoted to the research work as part of a project. Within the first few weeks of commencement, each student will choose a research project to be carried out under the direction of a member of the academic staff. At the conclusion of the project, a report is to be submitted and an oral presentation will be given at a Faculty seminar.



## Current areas of research in the Faculty of Pharmacy

Research in Pharmacy covers a broad spectrum of pharmaceutical and clinical sciences ranging from the design, synthesis, testing and mechanism of action of drugs, through studies on methods of drug delivery and on the fate of drugs in humans and animals, to research on the clinical and sociological aspects of pharmacy.

The following research topics reflect the types of research currently being conducted within the Faculty of Pharmacy.

### i) Pharmaceutical Chemistry

Research in the Pharmaceutical Chemistry group has two broad directions: drug discovery and lead optimisation and biological mechanisms of drug action.

#### *Drug Discovery and Lead Optimisation*

##### *Natural products*

- Quality assurance and analysis of herbal medicinal products and Chinese medicines and their components
- Development of therapeutic products from plants in hyperlipidemia and diabetes based on traditional knowledge
- Isolation of bioactive substances from selected plants, their identification and evaluation as potential drugs or research tools.
- Syntheses of natural products and analogues and the use of structure-activity relationships in drug design

##### *Cancer*

- Mechanisms of P-glycoprotein mediated drug transport in cancer chemotherapy: role of flavonoids as potential modulators
- Multi-drug resistance in cancer therapy: cell-cell contact and apoptosis
- Application of molecular computation to interaction of the anti-mitotic agent paclitaxel, and a range of natural product anti-mitotics including the epothilones, taxuspines and sarcodictyins, with the biological target tubulin

##### *Neuropharmacology/Neuroscience*

- Role of the small GTP binding protein RalA in endocytosis/exocytosis of neurotransmitters, neuronal cell function and as potential drug target
- Development of drugs interacting with GABA and nicotine receptors, from natural products and synthetic chemistry
- Design and synthesis of conformationally restricted GABA and nicotine analogues.

##### *Rational Drug Design using molecular modelling studies on taxanes and microtubule inhibitors*

- Construction of 3D models for the structures of target proteins
- 3D-Quantitative structure activity relationships
- Virtual screening technology development

##### *Mechanisms of Drug Action Neuropharmacology/Neuroscience*

- Neuropharmacology of ligand-gated ion channels, with particular emphasis on GABAC and nicotinic receptors
- GABA release in the thalamus and regulation by GABA and its analogs

##### *Herbal Medicines*

- Evaluation of Herb-Drug Interactions; development of a database and in vitro and clinical studies
- mode of action of anti-inflammatory, cardiovascular and CNS herbal components on receptors (Vanilloid TRPV1, PPAR), enzymes (COX-1 and -2, glucosidase) and drug metabolism (hyperphorin and CYP450s)

##### *Calcium Regulation and Cell Signalling*

- The role of calcium translocating ATPases in regulating calcium levels in cells
- Role of protein kinases in vanilloid receptor sensitization/desensitization
- Application of fluorescent probes in protein traffic

##### *Molecular Computational Studies*

- interaction of the protein phosphatase calcineurin and the immunophilin proteins FKBP12 and Cyclophilin A.

##### *Molecular Mechanisms in Inflammation*

- Transcriptional and post-transcriptional regulation of cytokine and cell cycle protein gene expression
- Mast cell and airway smooth muscle cell interactions in asthma
- Herbal medicines as modulators of inflammation
- Integrins, inflammation and cancer
- Mechanisms of action of sphingosine 1-phosphate, a biologically active sphingolipid, on cell migration, growth and synthetic function

### (ii) *Pharmaceutics*

Pharmaceutics academic and research staff and postgraduate students are currently engaged in many exciting research projects that employ a range of experimental approaches, from cell culture and molecular biology to analytical methods, clinical studies and dose formulation. Two major areas of research are undertaken by our staff: pharmacokinetics and pharmacogenomics research and advanced drug delivery. Projects deal with the pharmacokinetics and biotransformation of drugs in different tissues, with emphasis on factors that influence inter-subject variations, to the formulation and delivery of new drugs that are currently in development by the biotechnology industry. Research in the discipline of Pharmaceutics is directly primarily at the optimal use and delivery of pharmaceutical agents in individuals.

The importance of patient genetics on drug elimination kinetics, drug safety and drug action is now being actively explored. Projects dealing with individualised drug dosage and drug selection have been initiated and take into account allelic variation in human biotransformation enzymes that can determine rates of drug elimination. How disease can impact on these processes is under investigation, including altered gene expression and function in cancer of the prostate and other tissues. Complementary projects on drug-drug and herb-drug pharmacokinetic interactions are also in place and are currently providing new information on the mechanisms underlying these interactions. Therapeutic drug monitoring approaches are taken in conjunction with these projects on population and individual pharmacokinetics and utilise modern analytical methods.

The increasing use of biopharmaceuticals, such as growth factors, hormones, enzymes, therapeutic antibodies and sub-unit vaccines provides a challenge in formulation and delivery in order to maximise therapeutic potential. The often short half-lives of protein drugs, low oral bioavailability and suboptimal targeting limit their effectiveness as therapies. Further, presentation of particular proteins at the cell surface enables therapeutic strategies in tissue engineering and wound healing. These new areas of research in the faculty complement the existing expertise in aerosolisation and pulmonary delivery of drugs.

##### *Advanced Pharmaceutics Project Titles 2004*

- Human CYP pharmacogenetics and optimisation of anti-cancer drug therapy.
- Regulation of human genes that control cell survival against toxic stimuli.
- Rational use of antipsychotic therapy from an understanding of patient genetics.
- Mechanisms of clozapine-mediated cellular injury.
- Metabolism of model CYP substrates in prostate tissue.
- Population Pharmacokinetic Analysis of anti-cancer agents and anti-infectives.
- Physiologically based Pharmacokinetic Modelling.
- In vivo and in vitro microdialysis.
- Warfarin-Herb Drug interactions.
- Pharmacokinetics of liposomal amphotericin B in children.
- Ethnic difference in drug response.
- Mechanisms of herbal products as inducers of human CYPs.
- Improving the oral delivery of proteins.
- Design, formulation and characterisation of 3D, cell-support matrices for tissue engineering.
- Matrix devices for sustained drug delivery.
- Retention of enzyme activity in colloid-based delivery systems.
- Optimisation of aerosol delivery of drugs.



### iii) Pharmacy Practice

Pharmacy Practice academic and research members of staff are actively engaged in a wide variety of exciting research projects which span from research at the cellular level aimed at gaining better understanding of mechanisms of asthma to the investigation of social and clinical roles of pharmacy practice.

Cellular research in asthma is centered on examining the roles, mechanisms and interactions of inflammatory mediators, mast and smooth muscle cells in the pathophysiology of asthma. This may lead to the identification of new therapeutic targets to improve prevention and management of the condition.

Implementing change in pharmacy practice in recent decades has required a solid base of research and evidence to support the clinical and economic value of extended roles for pharmacists. Professional delivery of S2/S3 products, CMI and medicines information via other sources eg internet, clinical interventions reporting, Home Medicines Review (HMR) for the elderly and in specific diseases, adherence support, disease state management services in asthma, anticoagulation, diabetes, hypercholesterolemia, heart failure and chronic pain are all subjects of active research projects in the Faculty. Screening and health promotion for diabetes, cardiovascular disease and osteoporosis are other types of pharmacy services undergoing development and evaluation. In addition to new services, novel forms of service delivery are also being investigated e.g. pharmacists in private hospitals, ambulatory clinics, in GP surgeries, liaison pharmacists providing outreach services from the hospital and the use of teleconferencing to facilitate the provision of pharmacist cognitive services in rural and remote areas.

Assuring the Quality Use of Medicines (QUM) in the institutional setting is also a key focus of research activity. Examples of research include drug use reviews, clinical therapeutic drug monitoring, the role of drug committees and the impact of clinical services in the hospital setting.

#### Advanced Pharmacy Practice Project Titles 2002

- Factors affecting medication adherence in heart and lung transplant recipients.
- Factors affecting the recruitment and retention of pharmacists to practice sites in rural and remote areas of New South Wales
- Human airway smooth muscle GM-CSF release: mechanism of potentiation by serum.
- Evaluating the implementation of ICD-10-AM pharmacy codes into a hospital system.
- Pharmacists' use of online health information and their search strategies: a pilot study.
- Medication adherence in Type 2 Diabetes.
- An extended role for the pharmacist in the provision of continuity of care: a hospital perspective.
- Impact of a peer-led asthma education program on asthma knowledge, confidence and skills.
- The effect of growth factors on airway smooth muscle GM-CSF release.
- Videoconferencing in telepharmacy: a needs-based assessment.
- The assessment of metered dose inhaler technique in patients.
- Factors affecting compliance with lipid lowering therapy.
- Content analysis of case conference meetings between general practitioners and pharmacists to discuss domiciliary medication management reviews.

## Presentation of theses

The following information is presented for the guidance of candidates. It should be regarded as a summary only. Candidates should also consult the University's Calendar and the Postgraduate Research and Coursework Handbook 2005/06 (<http://www.usyd.edu.au/fstudent/postgrad/study/pub/handbooks.shtml>) for the most current and detailed advice.

#### Formal requirements for Doctor of Philosophy

- Four copies of the candidate's thesis should be submitted for examination for the degree of Doctor of Philosophy. These may be bound in either a temporary or a permanent form.
- Theses submitted in temporary binding should be strong enough to withstand ordinary handling and postage.

- The degree shall not be awarded until the candidate has submitted a permanently bound copy of the thesis (containing any corrections or amendments that may be required) and printed on acid-free or permanent paper.
- The thesis shall be accompanied by a certificate from the supervisor stating whether in the supervisor's opinion the form of presentation of the thesis is satisfactory.
- Thesis in permanent form shall normally be on International Standard A4 size paper sewn and bound in boards covered with book cloth or buckram or other binding fabric. The title of the thesis, the candidate's initials and surname, the title of the degree, the year of submission and the name of The University of Sydney should appear in lettering on the front cover or on the title page. The lettering on the spine, reading from top to bottom, should conform as far as possible to the above except that the name of The University of Sydney may be omitted and the thesis title abbreviated. Supporting material should be bound in the back of the thesis as an appendix or in a separate sheet of covers.

#### Formal requirements for Masters degree

- Similar formal requirements exist for the presentation of Masters theses.
- Three copies must be submitted.

## Coursework degrees

Requirements for the following coursework degrees offered by the Faculty, and their associated units of study, are listed in this chapter in the following order:

- Master of Pharmacy
- Master of Pharmacy (Clinical)
- Graduate Diploma in Clinical Pharmacy
- Graduate Certificate in Clinical Pharmacy
- Master of Herbal Medicines
- Graduate Diploma in Herbal Medicines
- Graduate Certificate in Herbal Medicines

### Results

For all coursework programs, the following mark ranges apply:

HD	High Distinction	85 – 100
D	Distinction	75 – 84
CR	Credit	65 – 74
P	Pass	50 – 64
R	Satisfied requirements	
PCON	Pass (Concessional) *	46 – 49
F	Fail	Below 46 or 50
AF	Absent Fail	

\* For Pass (Concessional) a maximum of 12 credit points (first year units of study), 10 credit points (second year) and 6 credit points (third year) may be counted towards the degree.

#### Coursework degree resolutions

See Chapter 5.

## Master of Pharmacy (MPharm)

Course code: PC034

This postgraduate coursework program in Pharmacy is a graduate entry level or professional masters degree offered to applicants who have completed an undergraduate degree. With a strong practical focus, the course is designed to provide an alternative mode of entry into the pharmacy profession. The course has been designed to satisfy the academic requirements for registration with the Pharmacy Board of New South Wales.

### Admission requirements

Successful applicants must meet the following admission requirements:

- Bachelors degree in any discipline (particularly science, health science, medical science or similar). Entry to the program is competitive and applicants will normally have achieved at least a credit weighted average mark (above 65%) in their prior undergraduate degree.
- Successful performance at admission interview with Faculty staff
- Completion of the seven prerequisites for the course – biology, chemistry, mathematics, statistics, biochemistry, physiology and pharmacology.
- Psychology and microbiology are desirable, but not essential.

Conditional entry and bridging studies may be available where candidates do not completely satisfy the prerequisites. Where candidates are offered conditional entry they must complete their outstanding prerequisites by the end of the first year of study. Conditional entry will only be offered where applicants meet a minimum of five of the seven essential prerequisites.

### Fees

The course is offered on a fee-paying basis only. (The fee for local students for 2005 is \$23,280.) Australian citizens are eligible to apply for Fee-Help (not available to Permanent Residents). Please note that course fees are subject to annual increases of approximately 5%.

### Summary of requirements

The degree of Master of Pharmacy is a full-time two year course, including clinical placements undertaken during the summer and winter inter-semester periods. Progression towards the degree is by the accumulation of credit points. The requirements for the degree are set out in the Senate Resolutions, which should be read by all intending candidates (see Chapter 5). To satisfy the requirement for the degree candidates must gain a minimum of 96 credit points by completing the units of study prescribed for the degree. Table 3 outlines the units of study which comprise the program of study for the Master of Pharmacy.

### Registration requirements for pharmacists

Successful completion of the Master of Pharmacy can lead to registration as a Pharmacist. In addition to completing the degree qualification, the graduate is required to serve not less than 2000 hours as an assistant to a registered pharmacist in a pharmacy within the Commonwealth of Australia. This period must be served after the Master of Pharmacy course has been successfully completed.

Further details concerning the requirements for registration can be obtained from the Pharmacy Board of New South Wales, 3rd Floor, 28 Foveaux Street, Surry Hills, NSW 2010, tel. (02) 9281 7736, fax (02) 9281 2924. Postal Address: Locked Bag 2, Haymarket, NSW 2000.

### Master of Pharmacy degree resolutions

See Chapter 5.

## Postgraduate coursework programs in Herbal Medicines

Master of Herbal Medicines (MHerbMed) - Course code PC032  
 Graduate Diploma in Herbal Medicines (GradDipHerbMed) - Course code PF002  
 Graduate Certificate in Herbal Medicines (GradCertHerbMed) - Course code PG000

### Objectives

The Master of Herbal Medicines, Graduate Diploma in Herbal Medicines, and Graduate Certificate in Herbal Medicines are designed to provide advanced scientific and pharmaceutical education underpinning the clinical application of and dispensing of herbal medicines for healthcare professionals or science graduates.

The programs provide suitable postgraduate studies for pharmacists, complementary medicine and Chinese medicine practitioners, medical practitioners, as well as quality assurance managers and international marketing managers from industry, hospital, university and government sectors.

### Program outcomes

Graduates with a pharmacy or medical background will gain appropriate knowledge and skills to enable them to provide information and in depth advice on herbal products in their practice. Graduates with a traditional Chinese medicine or medical acupuncture background will extend their scientific and pharmaceutical knowledge underpinning the clinical application of Chinese herbal medicines, attain knowledge on the interaction between Western and Chinese medicine, and extend skills necessary to prescribe or dispense scheduled herbs safely in the regulatory context. Graduates from other scientific disciplines will gain and expand their knowledge and skills necessary for work in manufacturing, teaching and the research areas of herbal medicines.

### Admission requirements

The basic entry requirement is a bachelors degree in pharmacy, medicine, nursing, Chinese medicine, complementary medicine, science, veterinary science, agriculture or other appropriate discipline from an approved university. Under special circumstances other applicants with demonstrable relevant occupational experience and holding relevant diplomas may, on successfully meeting such requirements, be eligible for admission subject to approval by the Dean. The Faculty's usual English language admission requirements will also apply.

### Program requirements

The Herbal Medicines programs are available for both part-time and full-time study. However, international students are only permitted to enrol full-time. The course consists of lectures, tutorials, laboratory practical work, excursions and assignment projects. There are approximately 8 hours (two evenings) of lectures/tutorials per week during semester for part-time study and approximately 16 hours (four evenings) of lectures/tutorials per week during semester for full-time study. Extra hours are required to carry out literature search, excursions, assignments and other self-directed study.

#### Summary of requirements for full time study:

Program	Credit points required	Minimum time for completion	Maximum time for completion
Master of Herbal Medicines	48	1 year	2 years
Graduate Diploma in Herbal Medicines	36	1 year	1.5 years
Graduate Certificate in Herbal Medicines	24	0.5 year	1 year

#### Summary of requirements for part-time study:

Program	Credit points required	Minimum time for completion	Maximum time for completion
Master of Herbal Medicines	48	2 years	4 years
Graduate Diploma in Herbal Medicines	36	1.5 years	3 years
Graduate Certificate in Herbal Medicines	24	1 year	2 years

### Articulation

This is a fully articulated program. The Graduate Certificate articulates to the Graduate Diploma and the Graduate Diploma articulates to the Master degree. Candidates are eligible to apply to transfer their enrolment from Graduate Certificate to Graduate Diploma, or from Graduate Diploma to Master. Candidates enrolled in the Master degree or Graduate Diploma may choose to terminate their enrolment earlier to qualify for Graduate Diploma or Graduate Certificate. Local candidates are eligible to apply for conversion between part-time and full-time study.

### Course structure

The Master of Herbal Medicines program comprises 15 units of study which are offered in two blocks with 24 credit points on Tuesday and Thursday, and 24 credit points offered on Monday and Wednesday. Full-time candidates are required to attend classes on all four days (evenings) per week. Table 4 outlines the units of study which comprise Herbal Medicines program.

### Fees

These courses are fee paying and are not HECS funded. Local students are eligible to apply for the Postgraduate Education Loans Scheme (PELS), which is similar to HECS. The fee for 2005 is \$7920 per year for local part-time students and \$22,800 for overseas full-time students. This figure is based on the assumption that the units of study required for a particular semester and the 'standard' number of semesters of course work have been successfully completed – if fewer/more semesters are required for the completion of the programs, the fee will be adjusted accordingly. All course fees are subject to annual increases of approximately 5%.

### Credit

Prior to admission to candidature, a candidate who has completed relevant graduate coursework in The University of Sydney or other recognised university may be eligible for up to 24, 18 or 8 credit points towards the requirements for the Master of Herbal Medicines, the Graduate Diploma in Herbal Medicines, or the Graduate Certificate in Herbal Medicines degrees respectively. The graduate study completed (within the previous five years) must be considered by the Faculty to be equivalent to programs prescribed for the degree.

### Herbal Medicine degree resolutions

See Chapter 5.

## Postgraduate coursework programs in Clinical Pharmacy

Master of Pharmacy (Clinical)  
(MPharm(Clin) - Course code PC031 (not offered from 2005)  
Graduate Diploma in Clinical Pharmacy  
(GradDipClinPharm) - Course code PF003 (not offered from 2006)  
Graduate Certificate in Clinical Pharmacy  
(GradCertClinPharm) - Course code PG001 (not offered from 2006)

*NB: From 2006, Clinical Pharmacy coursework programs will not be offered to new students*

The Master of Pharmacy (Clinical), Graduate Diploma in Clinical Pharmacy and Graduate Certificate in Clinical Pharmacy are designed to provide practicing Pharmacists with postgraduate training that will extend their clinical knowledge and skills, and expand their professional practice. These programs are available to both local and international students. However, international students are not eligible for part-time study and must enroll full-time.

**Note for international students** : These courses do not lead to registration for the practice of Pharmacy in Australia. Pharmacists with degrees from overseas who wish to become registered in Australia should contact the Australian Pharmacy Examining Council (APEC), email: registrar@apec.asn.au, phone (02) 6247 5088.

### Admission requirements

Applicants for the masters degree must have a bachelors degree in pharmacy with one of the following:

- an honours degree
- a relevant graduate diploma
- a minimum of three years experience as a pharmacist in a clinical setting

Applicants for the Graduate Diploma or Graduate Certificate must have completed a bachelors degree in pharmacy (or equivalent qualification that is acceptable to the Dean).

### Awards in Clinical Pharmacy and course structure

A summary of requirements for the clinical pharmacy awards follows:

Program	Hours of coursework per week *	Credit points	Requirements	Minimum time for completion
Master of Clinical Pharmacy (Full time) **	24	48	Completion of all coursework (24cp) plus research project (24cp)	1 year
Master of Clinical Pharmacy (Part-time)	8	48	Completion of all coursework, plus research project	3 years
Graduate Diploma in Clinical Pharmacy (Full time) **	18	36	Completion of all coursework (24cp), plus clinical placements (12cp)	1 year
Graduate Diploma in Clinical Pharmacy (Part-time)	8	36	Completion of all coursework (24cp), plus clinical placements (12cp)	2 years
Graduate Certificate in Clinical Pharmacy (Part-time only)	8	24	Combination of coursework and clinical placement	1.5 years

\* Additional time is required to complete assignments, clinical placements and research projects.

\*\* Semester 1 lectures are given for four hours on three evenings a week in addition to day-time attendance for Research Methods, Statistics, and either the Research Project A or Clinical Placement. In Semester 2, there are four hours of coursework over two evenings each week in addition to Research Project B and C or Clinical Placement B.

Table 5 outlines the units of study which comprise Clinical Pharmacy program.

### Articulation

In 2005, students may articulate from the Graduate Certificate to the Graduate Diploma, subject to satisfactory progress. Students may also convert to the Graduate Certificate or Graduate Diploma after initially enrolling in the Masters.

### Clinical Pharmacy degree resolutions

See Chapter 5.

**Table 3: Master of Pharmacy degree**

<i>Unit of Study</i>	<i>CP</i>	<i>A: Assumed knowledge</i>	<i>P: Prerequisites</i>	<i>Q: Qualifying</i>	<i>C: Corequisites</i>	<i>N: Prohibition</i>	<i>Session</i>
<b>Year 1</b>							
<b>Semester 1</b>							
<b>PHAR 5501</b>	Pharmaceutical Science 1A	16	NB: Department permission required for enrolment.				Semester 1
<b>PHAR 5502</b>	Introduction to Professional Practice	2	NB: Department permission required for enrolment.				Semester 1
<b>Semester 2</b>							
<b>PHAR 5503</b>	Pharmaceutical Science 1B	14	NB: Department permission required for enrolment.				Semester 2
<b>PHAR 5504</b>	Pharmacotherapeutics and Health Care	4	NB: Department permission required for enrolment.				Semester 2
<b>Semester 3</b>							
<b>PHAR 5505</b>	Clinical Residency 1	12	P PHAR5504 or PHAR5518				S2 Late Int
<b>Year 2</b>							
<b>Semester 1</b>							
<b>PHAR 5506</b>	Pharmaceutical Chemistry 2A	6	P PHAR 5503 or PHAR5516				Semester 1
<b>PHAR 5507</b>	Dispensing Practice	6	P PHAR5503 or PHAR5517				Semester 1
<b>PHAR 5508</b>	Pharmacotherapeutics (Masters) A	6	P PHAR5518 or PHAR5504 and PHAR5505				Semester 1
<b>Semester 2</b>							
<b>PHAR 5509</b>	Integrated Pharmaceutics	6	P PHAR5517				Semester 2
<b>PHAR 5510</b>	Pharmacotherapeutics (Masters) B	6	P PHAR5508				Semester 2
<b>PHAR 5511</b>	Elective Stream	6					Semester 2
<b>Semester 3</b>							
<b>PHAR 5512</b>	Clinical Residency 2	12	P PHAR5510				S2 Late Int

**Table 4:** Postgraduate coursework programs in Herbal Medicine

<i>Unit of Study</i>		<i>CP</i>	<i>A: Assumed knowledge</i>	<i>P: Prerequisites</i>	<i>Q: Qualifying</i>	<i>C: Corequisites</i>	<i>N: Prohibition</i>	<i>Session</i>
<b>Semester 1</b>								
<b>HERB 5005</b>	Medicinal Botany	3		NB: Department permission required for enrolment.				Semester 1
<b>HERB 5006</b>	Pharmacology of Herbal Medicines	5		NB: Department permission required for enrolment.				Semester 1
<b>HERB 5007</b>	Safety & Toxicology of Herbal Medicines	4		NB: Department permission required for enrolment.				Semester 1
<b>HERB 5001</b>	Introduction to Traditional Medicine	2		NB: Department permission required for enrolment.				Semester 1
<b>HERB 5002</b>	Basic Chinese Medicine	4		NB: Department permission required for enrolment.				Semester 1
<b>HERB 5003</b>	Chinese Materia Medica	3		NB: Department permission required for enrolment.				Semester 1
<b>HERB 5004</b>	Chemistry of Herbal Medicines	3		NB: Department permission required for enrolment.				Semester 1
<b>Semester 2</b>								
<b>HERB 5013</b>	Pharmacognosy - Identification of Herbs	4		NB: Department permission required for enrolment.				Semester 2
<b>HERB 5014</b>	Monographs of Common Herbs	4		NB: Department permission required for enrolment.				Semester 2
<b>HERB 5015</b>	Regulation/Dispensing of Herbal Medicine	4		NB: Department permission required for enrolment.				Semester 2
<b>HERB 5008</b>	Intro to Pharm Tech of Herbal Medicines	2		NB: Department permission required for enrolment.				Semester 2
<b>HERB 5009</b>	Quality Analysis of Herbal Medicines	2		NB: Department permission required for enrolment.				Semester 2
<b>HERB 5010</b>	Basic Principles of Clinical Studies	2		NB: Department permission required for enrolment.				Semester 2
<b>HERB 5011</b>	Formulary of Chinese Medicine	4		NB: Department permission required for enrolment.				Semester 2
<b>HERB 5012</b>	Processing of Chinese Herbs	2		NB: Department permission required for enrolment.				Semester 2

**Table 5:** Postgraduate coursework programs in Clinical Pharmacy

<i>Unit of Study</i>	<i>CP</i>	<i>A: Assumed knowledge</i>	<i>P: Prerequisites</i>	<i>Q: Qualifying</i>	<i>C: Corequisites</i>	<i>N: Prohibition</i>	<i>Session</i>
<b>Full time program</b>							
<b>Semester 1</b>							
<b>PHAR 5002</b>	Medication Review	4	NB: Department permission required for enrolment.				Semester 1
<b>PHAR 5012</b>	Advanced Therapeutics A	2	NB: Department permission required for enrolment.				Semester 1
<b>PHAR 5003</b>	Drug Information	2	NB: Department permission required for enrolment.				Semester 1
<b>PHAR 5005</b>	Pharmacoepidemiology	2	NB: Department permission required for enrolment.				Semester 1
<b>PHAR 5014</b>	Advanced Therapeutics C	2	NB: Department permission required for enrolment.				Semester 1
<b>PHAR 5006</b>	Statistics	2	NB: Department permission required for enrolment.				Semester 1
<b>PHAR 5105</b>	Research Methods	2	NB: Department permission required for enrolment.				Semester 1
<b>Graduate Diploma</b>							
<b>PHAR 5016</b>	Clinical Placement A	2					Semester 1, Semester 2
<b>PHAR 5018</b>	Clinical Placement C	4					Semester 1, Semester 2
See note (*) below							
<b>Masters</b>							
<b>PHAR 5106</b>	Research Project A	8					Semester 1, Semester 2
<b>Semester 2</b>							
<b>PHAR 5013</b>	Advanced Therapeutics B	2	NB: Department permission required for enrolment.				Semester 2
<b>PHAR 5008</b>	Scientific Presentation	2	NB: Department permission required for enrolment.				Semester 2
<b>PHAR 5009</b>	Clinical Pharmacokinetics	2	NB: Department permission required for enrolment.				Semester 2
<b>PHAR 5010</b>	Pharmacoeconomics	2	NB: Department permission required for enrolment.				Semester 2
<b>Graduate Diploma</b>							
<b>PHAR 5017</b>	Clinical Placement B	10					Semester 1, Semester 2
<b>Masters</b>							
<b>PHAR 5103</b>	Research Project B	8					Semester 1, Semester 2
<b>PHAR 5104</b>	Research Project C	8					Semester 1, Semester 2
<b>Part-time program</b>							
<b>Semester 1</b>							
<b>PHAR 5002</b>	Medication Review	4	NB: Department permission required for enrolment.				Semester 1
<b>PHAR 5003</b>	Drug Information	2	NB: Department permission required for enrolment.				Semester 1
<b>PHAR 5012</b>	Advanced Therapeutics A	2	NB: Department permission required for enrolment.				Semester 1
<b>Semester 2</b>							
<b>PHAR 5013</b>	Advanced Therapeutics B	2	NB: Department permission required for enrolment.				Semester 2
<b>PHAR 5008</b>	Scientific Presentation	2	NB: Department permission required for enrolment.				Semester 2
<b>PHAR 5009</b>	Clinical Pharmacokinetics	2	NB: Department permission required for enrolment.				Semester 2
<b>PHAR 5010</b>	Pharmacoeconomics	2	NB: Department permission required for enrolment.				Semester 2
<b>Semester 3</b>							
<b>PHAR 5005</b>	Pharmacoepidemiology	2	NB: Department permission required for enrolment.				Semester 1

<i>Unit of Study</i>	<i>CP</i>	<i>A: Assumed knowledge P: Prerequisites Q: Qualifying C: Corequisites N: Prohibition</i>	<i>Session</i>
<b>PHAR 5014</b> Advanced Therapeutics C	2	NB: Department permission required for enrolment.	Semester 1
<b>PHAR 5006</b> Statistics	2	NB: Department permission required for enrolment.	Semester 1
<b>PHAR 5105</b> Research Methods	2	NB: Department permission required for enrolment.	Semester 1
<b>Semester 4</b>			
<b>Graduate Diploma</b>			
<b>PHAR 5016</b> Clinical Placement A	2		Semester 1, Semester 2
<b>PHAR 5017</b> Clinical Placement B	10		Semester 1, Semester 2
<b>PHAR 5018</b> Clinical Placement C	4		Semester 1, Semester 2
<b>Masters</b>			
<b>PHAR 5106</b> Research Project A	8		Semester 1, Semester 2
<b>Semester 5 (Masters only)</b>			
<b>PHAR 5103</b> Research Project B	8		Semester 1, Semester 2
<b>Semester 6 (Masters only)</b>			
<b>PHAR 5104</b> Research Project C	8		Semester 1, Semester 2

\*Clinical Placement C is optional and can be undertaken instead of Statistics and Research Project Design

## Units of study

### HERB 5001 Introduction to Traditional Medicine

2 credit points. Grad.Cert.H.M., Grad.Dip.H.M., M.Herb.Med., PG Coursework Exchange., Session: Semester 1. **Assessment:** Examinations (50%), assignments (25%), practical work (25%).

Complementary medicine encompasses a large number of alternative medicine practices including spiritual and traditional medicine approaches and nutrition. This unit of study will cover the principles of major traditional medicine systems. Topics will include: History of Traditional Medicine, Australian Aboriginal Medicine, Ayurvedic Medicine and Unani Medicine. Other systems examined will include diet therapy and naturopathy, aromatherapy, chiropractic and homeopathy.

#### Textbooks

Basic reference books:

Quick Access, Professional Guide to Conditions, Herbs and Supplements (Integrative Medicine Communications, 2000)

Eatts, T The Complete Guide to Health and Wellbeing (Lansdowne, Sydney, 1998).

Other references:

Woodham, A and Peters, D Encyclopedia of Complementary Medicine (Dorling Kindersley, Syd, 1998)

### HERB 5002 Basic Chinese Medicine

4 credit points. Grad.Cert.H.M., Grad.Dip.H.M., M.Herb.Med., PG Coursework Exchange., Session: Semester 1. **Assessment:** Examinations (50%), assignments (25%), practical work (25%).

In the first part of this study of the basic theory of Chinese medicine, topics will include the classical theory of Yin and Yang and the Five Elements, the Zang-Fu Organs, Qi, Blood, Fluid, the Meridians and Collaterals, pathogenic factors.

In the second part, topics will include: Pattern differentiation and treatment, Four diagnosis methods, Eight principles of pattern differentiation, Syndromes of Qi and blood, Syndromes of Zhang-Fu, Syndromes according to pathogenic factors, febrile diseases, principles and methods of treatment, Eight methods of treatment.

#### Textbooks

Basic reference book:

Macioca, G The Foundations of Chinese Medicine (Churchill Livingstone, 1989)

Other reference books:

Macioca, G The Practice of Chinese Medicine (Churchill Livingstone, 1994)

Advanced Textbook of Traditional Chinese Medicine and Pharmacology, Vol 1. State Administration of Traditional Chinese Medicine (New World Press, 1995)

### HERB 5003 Chinese Materia Medica

3 credit points. Grad.Cert.H.M., Grad.Dip.H.M., M.Herb.Med., PG Coursework Exchange., Session: Semester 1. **Assessment:** Examinations (50%), assignments (25%), practical work (25%).

Chinese Materia Medica is the study of the origin, collection, properties, functions and clinical applications of Chinese herbs. Topics in this unit of study will include: Properties of Chinese Herbs; Four

Properties and Five Flavours - Ascending and Descending, Floating and Sinking, and Channel Tropism; Application of Chinese Herbs - compatibility, contraindication and dosage; categories of materia medica.

#### Textbooks

Basic reference:

Bensky, D and Gamble, A Chinese Herbal Medicine: Materia Medica (Eastland Press, Seattle, 1993)

Other references:

Advanced Textbook of Traditional Chinese Medicine and Pharmacology, Vol 2. State Administration of Traditional Chinese Medicine (New World Press, 1995)

He, X and Zhou, J The Chinese Materia Medica (Academy Press, Xue Yuan, 1998)

### HERB 5004 Chemistry of Herbal Medicines

3 credit points. Grad.Cert.H.M., Grad.Dip.H.M., M.Herb.Med., PG Coursework Exchange., Session: Semester 1. **Assessment:** Examinations (50%), assignments (25%), practical work (25%).

This unit of study comprises the study of extraction and isolation, chemical properties, structure determination and biosynthesis pathways of chemical components in herbal medicines. The objective is to use both modern science and technology and traditional theory to study the relationship between the chemical components and properties of herbal medicines. Topics will include: Introduction; Extraction; Isolation and structure determination; Carbohydrates and glycosides; coumarins; Flavanoids; Alkaloids; Terpenoids and essential oils; sterols; Saponins; Methodology in the study of bioactive components.

#### Textbooks

Basic reference:

Evans, W Trease and Evans Pharmacognosy, 14th ed. (W B Saunders, London, 1996)

Other references:

Robbers, J, Speedie, M and Tyler, V Pharmacognosy and Pharmabiotechnology (Williams & Wilkins, 1996)

Harborne, J Phytochemical Methods: a Guide to Modern Techniques of Plant Analysis, 3rd ed. (Chapman & Hall, 1998)

### HERB 5005 Medicinal Botany

3 credit points. Grad.Cert.H.M., Grad.Dip.H.M., M.Herb.Med., PG Coursework Exchange., Session: Semester 1. **Assessment:** Examinations (50%), assignments (25%), practical work (25%).

Medicinal Botany is the study of the structure, morphology and taxonomy of medicinal plants and relates to the development of resources of medicinal plants. It encompasses the origin, morphology and structure of medicinal plants using the knowledge and methodology of botany. The objectives of the subject are to classify and identify medicinal plants, to ensure the safety and quality of herbal medicines by eliminating the confusion of herbal species and to develop new resources of medicinal plants to meet the demands of the community. Topics will include: microscopic structure of plants:

#### 4. Postgraduate degree requirements

plant cells, plant tissues, structure of plant organs; morphology of plant organs: roots, stems, leaves, flowers, fruits and seeds; classification of plants: introduction to families of medicinal plants; botanical Latin.

##### *Textbooks*

Basic reference:

Raven, P, Evert, R and Eichhorn, S *Biology of Plants* (Freeman-Worth, 1999)

Other references:

Robinson, L *Field Guide to the Native Plants of Sydney* (Kangaroo Press, 1998)

Lassak, E and McCarthy, T *Australian Medicinal Plants* (Reed Books, 1997)

Harden, G and Williams, J *How to Identify Plants* (University of New England, 1990)

#### **HERB 5006 Pharmacology of Herbal Medicines**

5 credit points. Grad.Cert.H.M., Grad.Dip.H.M., M.Herb.Med., PG Coursework Exchange., **Session:** Semester 1. **Assessment:** Examinations (50%), assignments (25%), practical work (25%).

This unit of study will examine the function and mechanism of action of herbal medicines with modern scientific methods. The objectives are: to understand pharmacological principles of herbal medicines which will help health care practitioners to understand effective prescribing of herbal medicines; to understand the underlying nature of traditional medical theory; to provide data on pharmacodynamics and toxicology for development of new herbal products. The pharmacological study of traditional herbal medicines will be emphasised. The pharmacology of each class of drugs is discussed in relation to traditional theories and classification of herbs.

##### *Textbooks*

Basic reference:

Rang, HP, Dale, MM & Ritter, JM *Pharmacology*, 4th ed. (Churchill Livingstone, Edinburgh, 1999)

Other references:

Montvale, NJ *PDR for Herbal Medicines* (Medical Economic, 1998)

Anderson, LA & Phillipson, JD *Herbal Medicines: A Guide for Health Care Professionals* (Pharmaceutical Publishing, 2002).

Zhu, Y-P *Chinese Materia Medica: Chemistry, Pharmacology and Applications* (Harwood, 1998)

#### **HERB 5007 Safety & Toxicology of Herbal Medicines**

4 credit points. Grad.Cert.H.M., Grad.Dip.H.M., M.Herb.Med., PG Coursework Exchange., **Session:** Semester 1. **Assessment:** Examinations (50%), assignments (25%), practical work (25%).

This unit of study deals with the theory and application of toxicology and safety aspects related to the herbal medicine industry and practice. Topics will include: Mechanisms of toxicity; toxicological testing; toxicity of plants; adverse reactions; report mechanism for adverse reactions; contraindications and interactions with pharmaceutical drugs; scheduling of pharmaceutical and herbal medicines; list of toxic herbs.

##### *Textbooks*

Basic reference:

Klaassen, CD, Amdur, MO and Doull, J (eds) *Casarett & Doull's Toxicology: the Basic Science of Poisons*, 5th ed. (McGraw-Hill, 1996)

Other reference books:

McGuffin, M, Hobbs, C, Upton, R & Goldberg, A (eds) *American Herbal Products Association's Botanical Safety Handbook* (CRC Press, Boca Raton, 1997)

Wallace Hayes, A (ed) *Principles and Methods of Toxicology* 3rd ed (1994)

#### **HERB 5008 Intro to Pharm Tech of Herbal Medicines**

2 credit points. Grad.Cert.H.M., Grad.Dip.H.M., M.Herb.Med., PG Coursework Exchange., **Session:** Semester 2. **Assessment:** Examinations (50%), assignments (25%), practical work (25%).

This unit of study includes the study of formulation theory and manufacturing techniques, quality control and application of herbal products using methods of modern science and technology combined with traditional medicine theory. The primary objective of pharmaceutical technology of herbal medicines is to formulate herbal medicines into dosage forms and meet the requirements of quality, efficacy, safety and stability. Topics will include: quality assurance in manufacturing; raw materials; extraction, isolation, concentration and drying; powders, granules, capsules and tablets; liquid formulations; gels, creams and ointments; other dosage forms; formulation stability; biopharmaceutics.

##### *Textbooks*

Basic reference:

List, PH and Schmidt, PC *Phytopharmaceutical Technology* (CRC Press, Boca Raton, 1989)

Other reference books:

Martin, AN *Physical Pharmacy* (Lea & Febiger, 1993)

Ansel, HC *Introduction to Pharmaceutical Dose Forms* (Lea & Febiger, 1985)

Aulton, ME (ed) *Pharmaceutics: The Science of Dosage Form Design* (Churchill Livingstone, 1988)

#### **HERB 5009 Quality Analysis of Herbal Medicines**

2 credit points. Grad.Cert.H.M., Grad.Dip.H.M., M.Herb.Med., PG Coursework Exchange., **Session:** Semester 2. **Assessment:** Examinations (50%), assignments (25%), practical work (25%).

This unit of study will cover: methods of chemical analysis, qualitative and quantitative analysis of chemical components, and chemical analysis of formulations. Topics include: Analytical methodo-

logy for identification of herbs (chromatographic fingerprints obtained by HPLC and TLC), theory and practical demonstrations; use of mass spectrometry and NMR for identification of individual components; Contaminants (heavy metals, radioactivity); validation of analytical methods; case studies in herbal analysis.

##### *Textbooks*

Basic reference book:

Watson, DG *Pharmaceutical Analysis* (Churchill Livingstone, London, 1999)

Other references:

Quality Control Methods for Medicinal Plant Materials (WHO, Geneva, 1998)

Wagner, H, Bladt, S and Zgainsky, E *Plant Drug Analysis* (Springer-Verlag, Berlin, 1984)

Witchl, M (Translated by Bisset, N) *Herbal Drugs and Phytochemicals* (1994)

#### **HERB 5010 Basic Principles of Clinical Studies**

2 credit points. Grad.Cert.H.M., Grad.Dip.H.M., M.Herb.Med., PG Coursework Exchange., **Session:** Semester 2. **Assessment:** Examinations (50%), assignments (25%), practical work (25%).

The amount of scientific and clinical literature on herbal medicines is rapidly expanding. This unit of study will cover the quantitative aspects of study design, the extent and type of use of herbal medicines in world communities (epidemiology); the evaluation and methodology of clinical trials; recent developments in clinical trials of herbal medicines in Australia and overseas and literature search training.

##### *Textbooks*

Basic reference:

National Statement on Ethical Conduct in Research Involving Humans (NHMRC, 1999)

Other references:

DeAngelis, C *An Introduction to Clinical Research* (OUP, 1990)

Iber, FL, Riley, WA and Murray, PJ *Conducting Clinical Trials* (Plenum Medical Book Co, 1989)

Lewith G, Jonas WB & Walach H *Clinical Research in Complementary Therapies: Principles, problems and Solutions* (Churchill Livingstone, 2002)

#### **HERB 5011 Formulary of Chinese Medicine**

4 credit points. Grad.Cert.H.M., Grad.Dip.H.M., M.Herb.Med., PG Coursework Exchange., **Session:** Semester 2. **Assessment:** Examinations (50%), assignments (25%), practical work (25%).

A formula of Chinese medicine is a preparation of a number of herbs for clinical use according to certain guidelines, on the basis of pattern differentiation and treatment methods. Topics in this unit of study will include: Introduction; Formulation of a Formula; Principles of forming a prescription; modification of a prescription; Dosage forms of a formula; methods of decoction and administration; categories of Chinese formulae.

##### *Textbooks*

Basic Reference:

Bensky, D and Barolet, R *Chinese Herbal Medicine Formulae and Strategies* (Eastland Press, 1990)

Other reference books:

Advanced Textbook of Traditional Chinese Medicine and Pharmacology, Vol 2. State Administration of Traditional Chinese Medicine (New World Press, 1995)

Li, Q, Liu, Z & Jian, Y *Formulae of Traditional Chinese Medicine* (Academy Press, Xue Yuan, 1998)

#### **HERB 5012 Processing of Chinese Herbs**

2 credit points. Grad.Cert.H.M., Grad.Dip.H.M., M.Herb.Med., PG Coursework Exchange., **Session:** Semester 2. **Assessment:** Examinations (50%), assignments (25%), practical work (25%).

This unit of study will deal with the theory, history and techniques of processing Chinese materia medica, the quality standard of processed herbs and the principles of processing. The objective is to maintain the quality of processed herbs and to ensure the safety and clinical efficacy of herbal medicines. In the first part, the history and origin of processing, basic theory and knowledge and research progress will be discussed. In part two, biological origin and properties and action of typical herbs will be covered, with emphasis on processing methods, characterisation of finished products, function of processing and research on processing.

##### *Textbooks*

Basic reference:

Sionneav, P Pao Zhi: *An Introduction to the Use of Processed Chinese Medicinals* (Blue Poppy Press, 1995)

Other reference books:

Whitten, G *Herbal Harvest - Commercial Production of Quality Dried Herbs in Australia* (Agmedia, 1997)

#### **HERB 5013 Pharmacognosy - Identification of Herbs**

4 credit points. Grad.Cert.H.M., Grad.Dip.H.M., M.Herb.Med., PG Coursework Exchange., **Session:** Semester 2. **Assessment:** Examinations (50%), assignments (25%), practical work (25%).

Pharmacognosy is the study of herb identification, herb quality and development of new herbal resources. It utilises the theory and experience of traditional medicine together with the methods of modern sciences such as botany, zoology and chemistry. It studies the origin, characteristics, microscopic characteristics, chemical components, physical and chemical properties of herbal medicines to ensure the quality of herbal materials and develop new herbal resources.



Topics will include: The history and objectives of pharmacognosy; the harvesting, processing and storage of herbs; herb identification methods; common herbs of Chinese, European, Indian and other origin.

#### Textbooks

Basic reference:

Evans, WC Trease and Evans Pharmacognosy, 14th ed. (WB Saunders, London, 1996)

Other reference books:

Montvale, NJ PDR for Herbal Medicines (Medical Economic, 1998)

### HERB 5014 Monographs of Common Herbs

4 credit points. Grad.Cert.H.M., Grad.Dip.H.M., M.Herb.Med., PG Coursework Exchange., **Session:** Semester 2. **Assessment:** Examinations (50%), assignments (25%), practical work (25%).

Information and application of common herbs and herbal preparations available in Australia. Topics will cover botanical description, traditional usage, chemical composition, pharmacology, therapeutic application, toxicity, clinical trial data, TGA regulatory status, and products in the market.

#### Textbooks

Basic reference:

Montvale, NJ PDR for Herbal Medicines (Medical Economic, 1998)

Other reference books:

Anderson, LA and Phillipson, JD Herbal Medicines: A Guide for Health-Care Professionals (Pharmaceutical Publishing, 2002).

You-Ping Zhu Chinese Materia Medica, Chemistry, Pharmacology and Applications Monographs on the Medicinal Uses of Plant Drugs (European Scientific Co-operative on Phytotherapy).

### HERB 5015 Regulation/Dispensing of Herbal Medicine

4 credit points. Grad.Cert.H.M., Grad.Dip.H.M., M.Herb.Med., PG Coursework Exchange., **Session:** Semester 2. **Assessment:** Examinations (50%), assignments (25%), practical work (25%).

Governments' role is to actively evaluate and facilitate the rational use of herbal medicines that have scientifically proven to be safe and effective for specific indications. This requires developing the legal guidelines for the use of herbal medicines. Legislation concerning procedures for the registration of herbal medicines are required to ensure that medicinal preparations are of acceptable quality, safety and efficacy. Topics will include: The Australian Therapeutic Goods Administration; Accreditation of complementary medicine practitioners; registration and listing of traditional or complementary medicines; regulation systems in overseas countries; GMP of herbal manufacturing; dispensing and quality management of herbal medicines.

#### Textbooks

Basic reference:

Guidelines for the Appropriate Use of Herbal Medicines (WHO, Geneva, 1998)

Other reference books:

Eskinazi, D, Blumenthal, M, Farnsworth, N and Riggins, CW Botanical Medicine: Efficacy, Quality Assurance and Regulation (Mary AnnLiebert, 1999)

Stone, J and Matthews, J Complementary Medicine and the Law (OUP, 1996)

Therapeutic Goods Regulations (AGPS, Canberra, March 1995)

### PHAR 5002 Medication Review

4 credit points. M.Pharm.(Clin), PG Coursework Exchange., **Session:** Semester 1. **Classes:** 1hr lec & 3hrs tut/week. **Assessment:** Cases presented during semester - peer assessment (30%), lecturer assessment (70%).

The rationale for and interactions between medicines requires in depth understanding of medicines and disease states. To optimise drug therapy pharmacists must conduct medication review on a routine basis. This unit of study will enable you to take a patient's medication history and assess each therapeutic item in terms of appropriateness. Cases will be provided from your practice setting and reviewed weekly.

### PHAR 5003 Drug Information

2 credit points. M.Pharm.(Clin), PG Coursework Exchange., **Session:** Semester 1. **Classes:** 2hrs lec/wk for 3 wks & 2hrs tut/wk for 6 wks & assignments 2hrs/wk for 5 wks. **Assessment:** Assignment 50%, oral presentation 50%.

You will be guided through the use of the latest drug information sources and the provision of this information to others will also be explored. Six lectures on drug information sources and their utilisation will be given, followed by two hours per week of tutorials for six weeks where the latest drug information sources will be explored. Finally, two hours per week for five weeks will be used to process this information in structured assignments.

### PHAR 5005 Pharmacoepidemiology

2 credit points. M.Pharm.(Clin), PG Coursework Exchange., **Session:** Semester 1. **Classes:** 1hr lec/wk for 14 wks & 1hr tut/wk for 14 wks. **Assessment:** Tutorial assessment - 50%, assignment - 50%.

The amount of epidemiological literature a pharmacist is required to assess rapidly expanding. Interpretation of clinical literature will take place so that the outcomes described take on meaning in the therapeutic setting. Lectures will cover topics such as epidemiological

methods, clinical pharmacy, drug surveillance, studies of drug utilisation, post marketing surveillance, bias, and confounding.

### PHAR 5006 Statistics

2 credit points. M.Pharm.(Clin), PG Coursework Exchange., **Session:** Semester 1. **Classes:** 1hr lec/wk & 1hr tut/wk for 14 weeks. **Assessment:** Assignment 50%, exam 50%.

Relevant statistical methods will be covered including parametric and non-parametric statistics. Lecture topics will include displaying data, tables, charts and plots, sampling and summarising data, probability, binomial distribution, non-parametric tests, association, correlation and introduction to ANOVA.

### PHAR 5008 Scientific Presentation

2 credit points. M.Pharm.(Clin), PG Coursework Exchange., **Session:** Semester 2. **Classes:** 2hrs lec/wk for 6 wks & 2hrs tut/wk for 8 wks. **Assessment:** Protocol case presentation (80%), participation (20%).

This unit of study is designed to provide you with the basic theory of communication for oral presentation. Practical assignments will explore this theory. The writing skills developed in this unit of study will help with the research thesis.

### PHAR 5009 Clinical Pharmacokinetics

2 credit points. M.Pharm.(Clin), **Session:** Semester 2. **Assessment:** Continuous assessment - quizzes, class contribution (50%) Assignment - oral presentation and report (50%).

This unit of study aims to provide candidates with an understanding of the role that pharmacokinetics and pharmacodynamics play in rational therapeutics. The emphasis will be on the clinical application of pharmacokinetic and pharmacodynamic concepts to individualise patient drug therapy in order to achieve the best possible outcome for the patient. Factors that influence drug disposition and action will be addressed, as well as new areas in pharmacokinetics and pharmacodynamics.

### PHAR 5010 Pharmacoeconomics

2 credit points. M.Pharm.(Clin), PG Coursework Exchange., **Session:** Semester 2. **Classes:** 1hr lec & 3hrs tut/wk. **Assessment:** By case presentation and participation (100%).

This unit of study is designed to build on the principles and practice established in Medication Review 1.

### PHAR 5012 Advanced Therapeutics A

2 credit points. M.Pharm.(Clin), PG Coursework Exchange., **Session:** Semester 1. **Classes:** 2 hrs lect or tutorial/week. **Assessment:** Oral Examination (100%).

Therapeutics and the interactions between medicines is becoming increasingly complex. This unit of study is designed to add to students' knowledge in the area of therapeutics and further their understanding of the interactions between medicines in various disease states. Lecture topics will include cardiology, renal diseases, respiratory and gastrointestinal diseases and antimicrobial agents.

### PHAR 5013 Advanced Therapeutics B

2 credit points. M.Pharm.(Clin), PG Coursework Exchange., **Session:** Semester 2. **Classes:** 2 hrs lect or tutorial/week. **Assessment:** Oral Examination (100%).

This unit of study is designed to add to students' knowledge in the area of therapeutics and further their understanding of the interactions between medicines in various disease states. Lecture topics will include oncology, palliative care, geriatric medicine, rheumatology, haematology, anticoagulation, immunology and HIV.

### PHAR 5014 Advanced Therapeutics C

2 credit points. M.Pharm.(Clin), PG Coursework Exchange., **Session:** Semester 1. **Classes:** 2 hrs lect or tutorial/week. **Assessment:** Oral examination (100%).

This unit of study is designed to add to students' knowledge in the area of therapeutics and further their understanding of the interactions between medicines in various disease states. Lecture topics will include obstetrics and gynaecology, paediatrics, psychology, neurology such as epilepsy, Parkinsons' disease and headache, therapeutic drug monitoring in neurology, endocrinology including diabetes and diseases of the thyroid gland, and ophthalmology.

### PHAR 5016 Clinical Placement A

2 credit points. M.Pharm.(Clin), **Session:** Semester 1, Semester 2. **Classes:** 8 hrs/semester. **Assessment:** Oral case presentation - 40%, written case presentation - 30%, preceptor feedback - 30%.

In this unit of study students will be introduced, through tutorials and clinical placement, to patient case notes and to the hospital setting if they are not already familiar with the Australian health care system. They will be required to follow up and research at least one patient and his/her disease state(s) and to present this case to pharmacists at the hospital and at the University.

#### 4. Postgraduate degree requirements

##### **PHAR 5017 Clinical Placement B**

10 credit points. M.Pharm.(Clin).. **Session:** Semester 1, Semester 2. **Classes:** 38 hrs/semester. **Assessment:** Oral case presentation - 30%, written case presentation - 10%, preceptor feedback - 30%, portfolio of clinical cases - 30%.

Following on from Clinical Placement A, students will undertake a placement with a clinical specialist pharmacist and will be expected to participate in any clinical activities, such as ward rounds or case conferences. Each student will be required to follow up and research at least four patients, to keep a portfolio of these cases (including medication reviews when indicated) and present at least one case to their specialist pharmacist and academic pharmacists at the University.

##### **PHAR 5018 Clinical Placement C**

4 credit points. M.Pharm.(Clin).. **Session:** Semester 1, Semester 2. **Classes:** 16 hrs/semester. **Assessment:** Oral case presentation - 30%, written case presentation - 10%, preceptor feedback - 30%, portfolio of clinical cases - 30%.

Clinical Placement C is optional and may be undertaken instead of PHAR5006 Statistics and PHAR 5105 Research Methods. Following on from Clinical Placement A, students will undertake a placement with a clinical specialist pharmacist and will be expected to participate in any clinical activities, such as ward rounds or case conferences. Each student will be expected to follow up and research at least three patients, to keep a portfolio of these cases (including medication reviews when indicated) and present at least one case to their specialist pharmacist and to academic pharmacists at the University.

##### **PHAR 5103 Research Project B**

8 credit points. M.Pharm.(Clin).. **Session:** Semester 1, Semester 2. **Assessment:** Protocol presentation (100%).

Students are assisted with the development of their individual research projects for completion of their thesis. On completion of this unit, each student will have prepared a written proposal for their research project.

##### **PHAR 5104 Research Project C**

8 credit points. M.Pharm.(Clin).. **Session:** Semester 1, Semester 2. **Assessment:** Research thesis/paper (100%).

Students will complete the writing of the research thesis/project.

##### **PHAR 5105 Research Methods**

2 credit points. M.Pharm.(Clin),PG Coursework Exchange.. **Session:** Semester 1. **Classes:** 2hrs tut/wk. **Assessment:** Protocol presentation (25%), research thesis (75%). The methods available to carry out Pharmacy Practice research will be explored and the protocol for your research project designed.

##### **PHAR 5106 Research Project A**

8 credit points. M.Pharm.(Clin).. **Session:** Semester 1, Semester 2. **Assessment:** Literature review (100%).

The methods available to carry out Pharmacy Practice research will be explored and the protocol for your research project designed. The research project will be carried out following development of the protocol. The research and thesis preparation will be conducted over three semesters (minimum) - seven semesters (maximum).

##### **PHAR 5501 Pharmaceutical Science 1A**

16 credit points. M.Pharm... **Session:** Semester 1.

##### **PHAR 5502 Introduction to Professional Practice**

2 credit points. M.Pharm... **Session:** Semester 1.

##### **PHAR 5503 Pharmaceutical Science 1B**

14 credit points. M.Pharm... **Session:** Semester 2.

##### **PHAR 5504 Pharmacotherapeutics and Health Care**

4 credit points. M.Pharm... **Session:** Semester 2.

##### **PHAR 5505 Clinical Residency 1**

12 credit points. M.Pharm... **Session:** S2 Late Int.

##### **PHAR 5506 Pharmaceutical Chemistry 2A**

6 credit points. M.Pharm...Dr A Ammit. **Session:** Semester 1. **Classes:** lectures, workshops and practical classes.

**Safety & Toxicology of Medicines:** This topic deals with the theory and application of toxicology and safety aspects related to the herbal medicine industry and practice. Topics will include: Mechanisms of toxicity; toxicological testing; toxicity of plants; adverse reactions; report mechanism for adverse reactions; contraindications and interactions with pharmaceutical drugs; scheduling of pharmaceutical and herbal medicines

**Advances in Drug Technologies:** This topic aims to expose students to developing biotechnologies such as gene therapy, growth factors and cytokines, immunotherapy and pro-drugs while covering aspects of neurological disorders, cardiovascular diseases, cancer and AIDS.

The course material will be covered by a series of introductory lectures, workshops and specialised lectures/tutorials. The specialised lectures/tutorials will be presented by invited scientific professionals, who will give an insight on developments of new and up-and-coming biotechnology and the impact on pharmaceutical care.

##### **PHAR 5507 Dispensing Practice**

6 credit points. M.Pharm...Dr A McLachlan. **Session:** Semester 1. **Classes:** lectures, workshops and practical classes.

**Dispensing:** Introduction to dispensing practice, the importance of accuracy in dispensing, the prescription, approaches to dispensing prescriptions, labelling of dispensed medicines, containers, documentation of dispensing procedures, dispensing of particular formulations, effect of changing formulation variables on the physical properties and efficacy of pharmaceutical products. A series of practical classes complements the lectures, allowing students to prepare a variety of pharmaceutical products and critically assess them, as well as facilitating the development of error-detection skills.

##### **PHAR 5508 Pharmacotherapeutics (Masters) A**

6 credit points. M.Pharm...Dr K Williams. **Session:** Semester 1. **Classes:** lectures, workshops and tutorials.

**Therapeutics:** Students will cover core therapeutics topics in terms of epidemiology, pathophysiology, signs and symptoms, and the drug and nondrug management. The unit of study will also explore the role of pharmacists in conducting medication regimen reviews and interprofessional communication.

**Pharmacotherapeutics** lectures will be followed up with tutorials that will be practice-based in order to illustrate specific practice situations. Therapeutics topics will be covered in great detail in order to understand how drugs affect different populations, how drugs are used in different situations and specific drugs are chosen and the dosage regimen that is appropriate for that disease and individual patient. In addition, the ability to communicate such information in an appropriate manner will be discussed. The therapeutics topics to be covered in this unit include cardiovascular and respiratory medicine. The unit of study will expand the role of the pharmacist in monitoring therapeutic outcomes, and in participating in therapeutic decision-making.

##### **PHAR 5509 Integrated Pharmaceutics**

6 credit points. M.Pharm...Dr A McLachlan. **Session:** Semester 2. **Classes:** lectures, workshops and practical classes.

**Integrated Pharmaceutics:** This topic integrates knowledge from the various sub-disciplines within Pharmaceutics, including physical pharmacy, pre-formulation science, biopharmaceutics, pharmacokinetics and pharmacodynamics. Workshop scenarios (plus an introductory session) deal with Drug Discovery, Dose Form Design, Bioavailability/Bioequivalence Evaluation, Product and Consumer Information, Pharmacodynamics, Biopharmaceutics and Pharmacokinetics of Biologicals, and Dosage Adjustment.

##### **PHAR 5510 Pharmacotherapeutics (Masters) B**

6 credit points. M.Pharm...Dr K Williams. **Session:** Semester 2. **Classes:** lectures, workshops and tutorials.

**Pharmacotherapeutics** lectures will be followed up with tutorials that will be practice-based in order to illustrate specific practice situations. Therapeutics topics will be covered in great detail in order to understand how drugs affect different populations, how drugs are used in different situations and specific drugs are chosen and the dosage regimen that is appropriate for that disease and individual patient. In addition, the ability to communicate such information in an appropriate manner will be discussed. The unit of study will expand the role of the pharmacist in monitoring therapeutic outcomes, and in participating in therapeutic decision-making.

**Clinical Pharmacokinetics:** This component aims to provide candidates with an advanced understanding of the role that pharmacokinetics and pharmacodynamics play in rational therapeutics. The emphasis will be on the clinical application of pharmacokinetic and pharmacodynamic concepts to individualise patient drug therapy in order to achieve the best possible outcome for the patient. Factors that influence drug disposition and action will be addressed, as well as new areas in pharmacokinetics and pharmacodynamics.

##### **PHAR 5511 Elective Stream**

6 credit points. M.Pharm...Dr K Williams. **Session:** Semester 2. **Classes:** lectures, workshops and tutorials.

Students can tailor their learning by choosing up to 6 credit points from any of the other Masters courses (Masters of Clinical Pharmacy or Masters of Herbal Medicine on offer in the Faculty of Pharmacy (up to 6 CP).

**PHAR 5512 Clinical Residency 2**

12 credit points. M.Pharm., Prof J Brien and Dr B Bajorek. **Session:** S2 Late Int, S1 Intensive. **Classes:** Semester 3, presented on campus as workshops and tutorials, with off-campus experiential placements. **Assessment:** Case studies (70%), tutorial participation (10%), clinical placement assessment (20%).

**Pharmacotherapeutics:** Therapeutics lectures will be followed up with tutorials that will be practice-based in order to illustrate specific practice situations. Further therapeutics topics will be covered in great detail in order to understand how drugs affect different populations, how drugs are used in different situations and specific drugs are chosen and the dosage regimen that is appropriate for that disease and individual patient. In addition, the ability to communicate such information in an appropriate manner will be discussed. The unit of study will expand the role of the pharmacist in monitoring therapeutic outcomes, and in participating in therapeutic decision-making.

**Clinical Practice:** This stream requires the students to follow the progress of patients by extracting and organising information from patient medication histories and interviews. Literature information relevant to the case will be sought in an attempt to review and propose therapeutic options for management. Aspects of communication, verbal presentation and an ability to discuss the case critically will be developed through the unit of study. Each case study will cover the drugs under review, the disease state, past medical and pharmaceutical history, social and demographic parameters. The students' decision-making ability will be developed. The appropriateness of therapeutic plans will be reviewed.

#### 4. Postgraduate degree requirements

# 5. Postgraduate degree regulations

The following information is a printed version of the information available through Handbooks Online, on the University of Sydney web site. Please visit "<http://www.usyd.edu.au/handbooks/>" for the most current handbooks information.

## Resolutions of the Senate

### Master of Pharmacy (Research)

1. An applicant for admission as a candidate for the degree of Master of Pharmacy shall:
  - (a) be a Bachelor of Pharmacy graduate of the University of Sydney with first or second class Honours in that branch of Pharmaceutical Science in which the candidate seeks to pursue candidature or hold qualifications which are deemed by the Dean of the Faculty to be equivalent; and
  - (b) pass a preliminary examination, unless the candidate is a Bachelor of Pharmacy graduate of the University of Sydney with first or second class Honours or is exempted by the Dean of the Faculty; and
  - (c) apply during the first semester of candidature for the approval of the Dean of the Faculty of the topic of a thesis.
2. After admission by the Dean of the Faculty a candidate shall:
  - (a) not less than one year after passing the preliminary examination nor less than six months after approval of the topic of the thesis, lodge a thesis embodying the results of an original investigation by the candidate;
  - (b) if required by the examiners, pass an examination in the branch or branches of Pharmaceutical Science to which the topic of the thesis relates.
3. The Dean of the Faculty shall appoint a member of the staff of the University to act as supervisor to the candidate.
4. (1) A candidate shall submit to the Faculty three copies of the thesis, typewritten and bound according to University requirements.  
(2) The candidate shall state in the thesis, generally in a preface and specifically in notes, the sources from which the information was derived, the extent to which the work of others has been used, and the portion of the thesis claimed as original.
5. The Dean shall appoint two examiners, of whom at least one shall be an external examiner, who is not a member of the Faculty or a member of the part-time teaching staff of the Faculty.
6. The degree shall not be conferred in the case of a Bachelor of Pharmacy with first or second class Honours, until the candidate is a graduate of one year's standing and in the case of any other candidate until the candidate is a graduate of two years' standing, except with the approval of the Dean of the Faculty.

### Master of Pharmacy (Clinical)

#### Eligibility for admission

1. An applicant for admission to candidature for the degree shall:
  - (1) have successfully completed a Pharmacy degree and an honours or diploma course; or
  - (2) have successfully completed a Pharmacy degree and have a minimum of three years experience as a pharmacist, subject to approval by the Dean of the Faculty; or
  - (3) hold qualifications which are deemed by the Dean of the Faculty to be equivalent to those referred to in subsection (1) or (2).

#### Availability

2. (1) Admission to candidature may be limited by a quota. In determining the quota the University will take into account:
  - (a) availability of resources
  - (b) availability of adequate and appropriate supervision.
- (2) In considering an application for admission the Dean of the Faculty shall take into account the quota and entrance shall be based on the applicants who are most meritorious in terms of section 1.

#### Method of progression

3. (1) A candidate for the degree shall proceed by completing units of study and a project as prescribed by the Faculty of Pharmacy.  
(2) A unit of study shall consist of lectures, seminars, tutorial instruction, essays and practical work as prescribed.

- (3) In these resolutions to complete a unit of study means:
  - (a) to attend lectures, tutorials and seminars
  - (b) to complete satisfactorily the essays, exercises and practical work
  - (c) to pass the examinations of the unit of study
  - (d) to prepare either a research thesis or manuscript and pass the examination of this thesis or manuscript.

#### Time limits

4. A candidate proceeding on a part-time basis shall complete the requirements for the degree not earlier than the end of the sixth semester and not later than the end of the tenth semester, unless otherwise determined by the Faculty.
5. A Candidate proceeding on a full-time basis shall complete the requirements for the degree not earlier than the end of the second semester and not later than the end of the fourth semester, unless otherwise determined by the Faculty.

#### Requirements for the degree

6. Candidates for the degree are required to complete satisfactorily:
  - (1) 24 credit points covering new material to the candidate, selected from units of study satisfying the conditions approved by the Faculty, and
  - (2) a supervised research project worth 24 credit points.

#### Examination

7. On completion of the requirements for the degree, the Board of Postgraduate Studies shall determine the results of candidature, on the recommendation of the Dean of the Faculty.

#### Progress

8. The Dean of the Faculty may:
  - (1) call upon any candidate to show cause why that candidature should not be terminated by reason of unsatisfactory progress towards the completion of the degree; and
  - (2) where the candidate does not show good cause, terminate the candidature.

#### Credit

9. A candidate who, before admission to the candidature, has spent time in graduate study and has completed coursework, within the previous 5 years except with permission of the Dean, considered by the Faculty to be equivalent to units of study prescribed by the degree, may receive credit of up to 24 credit points towards the requirements for the degree.

### Master of Pharmaceutical Sciences

1. (1) The Dean of the Faculty may admit to candidature for the degree of Master of Pharmaceutical Sciences an applicant who:
  - (a) is a graduate of the University of Sydney; and
  - (b) has, in the opinion of the Dean of the Faculty, reached a first or second class Honours standard-
    - (i) in the final year of an Honours course for either the degree of Bachelor of Science or the degree of Bachelor of Pharmacy or the degree of Bachelor of Medical Science
    - (ii) in a course considered by the Dean of the Faculty to be equivalent to a course referred to in subsection (i), or has, in some other manner, acquired a standard of knowledge considered by the Dean of the Faculty to be equivalent to a first or second class Honours standard in a course referred to in subsection (i).
- (2) Notwithstanding subsection (1), the Dean of the Faculty may admit a person to candidature for the degree whose qualifications are deemed by him or her to be equivalent to those referred to in subsection (1).

## 5. Postgraduate degree regulations

2. Subject to the approval of the Dean of the Faculty, a candidate for the degree shall elect to proceed either as a full-time or as a part-time candidate.
3. (1) A candidate shall not present for examination for the degree earlier than two semesters after commencement of candidature.  
(2) Except with the permission of the Faculty, a full-time candidate shall complete the requirements for the degree not later than four semesters after the commencement of candidature.  
(3) Except with the permission of the Faculty, a part-time candidate shall complete the requirements for the degree not later than eight semesters after the commencement of candidature.
4. Time spent by a candidate in advanced study in the University of Sydney before admission to candidature may be deemed by the Faculty to be time spent after such admission.
5. (1) The Dean of the Faculty shall appoint a full-time member of the academic staff or research staff of the University to act as supervisor of each candidate. Where the supervisor is a member of the research staff, the Dean of the Faculty shall also appoint a member of the full-time academic staff as associate supervisor. Any person so appointed as associate supervisor must be capable of acting as supervisor in the event that the supervisor is no longer able to act.  
(2) The Dean of the Faculty shall where appropriate appoint a full-time member of the academic staff of the University or other appropriately qualified person to act as associate supervisor.  
(3) The supervisor shall report annually to the Dean of the Faculty on the progress towards completion of the requirements for the degree of each candidate under his or her supervision.  
(4) The Dean of the Faculty may terminate the candidature of any candidate who in his or her opinion has not shown evidence of sufficient progress.
6. (1) A candidate shall:
  - (a) carry out an original investigation on a topic approved by the Dean of the Faculty.
  - (b) write a thesis embodying the results of this investigation and state in the thesis generally in a preface and specifically in notes, the sources from which the information was taken, the extent to which the work of others has been used, and the proportion of the thesis claimed as original.
  - (c) lodge with the Faculty three copies of the thesis, typewritten and bound according to University requirements.
  - (d) if required by the examiners, sit for an examination in the branch or branches of science to which the thesis relates.
  - (2) The thesis shall be accompanied by a certificate from the supervisor stating whether in the supervisor's opinion the form of presentation of the thesis is satisfactory.
  - (3) The Dean shall appoint two examiners, of whom at least one shall be an external examiner, who is not a member of the Faculty or a member of the part-time teaching staff of the Faculty.
  - (4) The examiners shall report to the Dean of the Faculty, who shall determine the result of the examination.
  - (5) A candidate may not present as the thesis any work which has been presented for a degree or diploma at this or another tertiary institution, but the candidate shall not be precluded from incorporating such work in the thesis, provided that in presenting the thesis the candidate indicates the part of the work which has been so incorporated.
  - (6) The Faculty shall lodge one copy of the thesis with the Librarian if the degree is awarded.

### Master of Herbal Medicines

#### Eligibility for admission

1. Except as provided in chapter 10 of the by-laws[1], the Faculty may admit to candidature an applicant who has successfully completed a bachelors degree in Pharmacy, Medicine, Nursing, Science, Chinese Medicine, Complementary Medicine, Veterinary Science, Agriculture or other appropriate disciplines from approved universities or have equivalent qualifications subject to approval by the Dean.

#### Availability

2. Admission to candidature may be limited by a quota. In determining the quota the Faculty will take into account:
  - (i) availability of resources; and
  - (ii) availability of adequate and appropriate supervision.In considering an application for admission the Dean will take into account the quota and entrance will be based on the applicants who are most meritorious in terms of section 1 above.

#### Method of progression

3. (i) A candidate for the degree shall proceed by completing units of study as prescribed by Faculty.  
(ii) A unit of study shall consist of lectures, tutorials, assignments and practical work as may be prescribed.  
(iii) In these resolutions to complete a unit of study means
  - (a) to attend lectures, tutorials and seminars, if any
  - (b) to complete satisfactorily the assignments and practical work if any
  - (c) to pass the examinations of the units of study if any.

#### Time limits

4. A candidate proceeding on a part-time basis shall complete the requirements for the Master of Herbal Medicines degree not earlier than the end of the fourth semester and not later than the end of the eighth semester, unless otherwise determined by Faculty.
5. A candidate proceeding on a full-time basis shall complete the requirements for the Master of Herbal Medicines degree not earlier than the end of the second semester and not later than the end of the fourth semester, unless otherwise determined by Faculty.

#### Requirements for the degree

6. Candidates for the degree are required to satisfactorily complete 48 credit points of coursework covering new material to the candidate, selected from units of study satisfying the conditions approved by the Faculty.

#### Examination

7. On completion of the requirements for the degree, the Faculty shall determine the result of candidature.

#### Progress

8. The Faculty may:
  - (i) call upon any candidate to show cause why that candidature should not be terminated by reason of unsatisfactory progress towards the completion of the degree, and
  - (ii) where the candidate does not show good cause, terminate the candidature.

#### Credit

9. A candidate who, before admission to the candidature, has spent time in graduate study in the University of Sydney or another university and has completed coursework, within 5 years except with permission of the Dean, considered by the Faculty to be equivalent to work prescribed for the degree, may receive credit of up to 24 credit points towards the requirements for the Master of Herbal Medicines.

### Master of Pharmaceutical Industry

#### Eligibility for admission

1. Except as provided in chapter 10 of the by-laws, the Faculty may admit to candidature an applicant who has successfully completed a bachelors degree in Pharmacy, Medicine, Nursing, Science, Veterinary Science, Agriculture or other appropriate disciplines from approved universities or have equivalent qualifications subject to approval by the Dean.

#### Availability

2. Admission to candidature may be limited by a quota. In determining the quota the Faculty will take into account:
  - (i) availability of resources
  - (ii) availability of adequate and appropriate supervision.In considering an application for admission the Dean will take into account the quota and entrance will be based on the applicants who are most meritorious in terms of section 1 above.

#### Method of progression

3. (i) A candidate for the degree shall proceed by completing units of study as prescribed by Faculty.

- (ii) A unit of study shall consist of lectures, tutorials and assignments as may be prescribed.
- (iii) In these resolutions to complete a unit of study means
  - (a) to attend lectures, tutorials and seminars, if any
  - (b) to complete satisfactorily the assignments and practical work if any
  - (c) to pass the examinations of the units of study if any.

#### Time limits

4. A candidate will proceed on a part-time basis and shall complete the requirements for the Master of Pharmaceutical Industry degree not earlier than the end of the fourth semester and not later than the end of the eighth semester, unless otherwise determined by Faculty.

#### Requirements for the degree

5. Candidates for the degree are required to satisfactorily complete 48 credit points of coursework covering new material to the candidate, selected from units of study satisfying the conditions approved by the Faculty.

#### Examination

6. On completion of the requirements for the degree, the Faculty shall determine the result of candidature.

#### Progress

7. The Faculty may:
  - (i) call upon any candidate to show cause why that candidature should not be terminated by reason of unsatisfactory progress towards the completion of the degree, and
  - (ii) where the candidate does not show good cause, terminate the candidature.

#### Credit

8. A candidate who, before admission to the candidature, has spent time in graduate study in the University of Sydney or another university and has completed course work, within 5 years except with permission of the Dean, considered by the Faculty to be equivalent to programs prescribed by the degree, may receive credit of up to 24 credit points towards the requirements for the Master of Pharmaceutical Industry.

### Master of Pharmacy

#### Eligibility for admission

1. Except as provided in chapter 10 of the by-laws\*\*, the Faculty may admit to candidature an applicant who has successfully completed a bachelors degree in a relevant discipline from approved universities or have equivalent qualifications subject to approval by the Dean.

\*\*Chapter 10 of the By-laws has been repealed and Part 9, section 47 of the University of Sydney (Amendment Act) Rule 1999 refers.

#### Availability

2. Admission to candidature may be limited by a quota. In determining the quota the Faculty will take into account:
  - (i) availability of resources
  - (ii) availability of adequate and appropriate supervision.
 In considering an application for admission the Dean will take into account the quota and entrance will be based on the applicants who are most meritorious in terms of section 1 above.

#### Method of progression

3. (i) A candidate for the degree shall proceed by completing units of study as prescribed by Faculty.
- (ii) A unit of study shall consist of lectures, tutorials and assignments as may be prescribed.
- (iii) In these resolutions to complete a unit of study means
  - (a) to attend lectures, tutorials and seminars, if any
  - (b) to complete satisfactorily the assignments and practical work if any
  - (c) to pass the examinations of the units of study if any.

#### Time limits

4. A candidate will proceed on a full-time basis and shall complete the requirements for the Master of Pharmacy degree not earlier

than the end of the sixth semester and not later than the end of the twelfth semester, unless otherwise determined by Faculty.

#### Requirements for the degree

5. Candidates for the degree are required to satisfactorily complete 96 credit points of coursework covering new material to the candidate, selected from Units of Study satisfying the conditions approved by the Faculty.

#### Examination

6. On completion of the requirements for the degree, the Faculty shall determine the result of candidature.

#### Progress

7. The Faculty may:
  - (i) call upon any candidate to show cause why that candidature should not be terminated by reason of unsatisfactory progress towards the completion of the degree, and
  - (ii) where the candidate does not show good cause, terminate the candidature.

#### Credit

8. A candidate who, before admission to the candidature, has spent time in graduate study in the University of Sydney or another university and has completed course work within 5 years, except with permission of the Dean, considered by the Faculty to be equivalent to programs prescribed by the degree, may receive credit of up to 48 credit points towards the Master of Pharmacy Degree, at the discretion of the Dean of the Faculty.

### Graduate Diploma in Clinical Pharmacy

#### Eligibility for admission

1. An applicant for admission to candidature for the graduate diploma shall, except as provided in Chapter 10 of the by-laws, have successfully completed a Pharmacy degree at the University of Sydney or another approved institution.

#### Availability

2. Admission to candidature may be limited by a quota. In determining the quota the Faculty will take into account:
  - (i) availability of resources
  - (ii) availability of adequate and appropriate supervision.
 In considering an application for admission the Dean will take into account the quota and entrance will be based on the applicants who are most meritorious in terms of section 1 above.

#### Method of progression

3. (i) A candidate for the graduate diploma shall proceed by completing units of study as prescribed by Faculty.
- (ii) A unit of study shall consist of lectures, tutorials, assignments and practical work as may be prescribed.
- (iii) In these resolutions to complete a unit of study means
  - (a) to attend lectures, tutorials and seminars, if any
  - (b) to complete satisfactorily the assignments and practical work, if any
  - (c) to pass the examinations of the units of study, if any.

#### Time limits

4. A candidate proceeding on a part-time basis shall complete the requirements for the Graduate Diploma in Clinical Pharmacy not earlier than the end of the third semester and not later than the end of the sixth semester, unless otherwise determined by Faculty.
5. A Candidate proceeding on a full-time basis shall complete the requirements for the degree not earlier than the end of the second semester and not later than the end of the fourth semester, unless otherwise determined by the Faculty.

#### Requirements for the graduate diploma

6. Candidates for the graduate diploma are required to satisfactorily complete:
  - (1) 24 credit points of coursework covering new material to the candidate, selected from units of study satisfying the conditions approved by the Faculty; and
  - (2) supervised clinical placements worth 12 credit points

#### Examination

7. On completion of the requirements for the graduate diploma, the Faculty shall determine the result of candidature.

#### Progress

##### 8. The Faculty may:

- (i) call upon any candidate to show cause why that candidature should not be terminated by reason of unsatisfactory progress towards the completion of the graduate diploma, and
- (ii) where the candidate does not show good cause, terminate the candidature.

#### Credit

9. A candidate who, before admission to the candidature, has spent time in graduate study in The University of Sydney or another university and has completed coursework, within 5 years except with permission of the Dean, considered by the Faculty to be equivalent to programs prescribed for the graduate diploma, may receive credit of up to 16 credit points towards the requirements for the Graduate Diploma in Clinical Pharmacy.

### Graduate Diploma in Pharmaceutical Sciences

#### Eligibility for admission

1. (1) The Dean of the Faculty may admit to candidature for the Graduate Diploma in Pharmaceutical Sciences an applicant who is a holder of the degree of Bachelor of Science, Bachelor of Pharmacy or Bachelor of Medical Science from the University of Sydney.
- (2) The Dean of the Faculty may admit to candidature for the graduate diploma graduates of other universities or other appropriate institutions who in his or her opinion have qualifications equivalent to those specified in subsection (1).

#### Availability

2. (1) Admission to the graduate diploma may be limited by quota.
- (2) In determining the quota the University will take into account:
  - (a) availability of resources including space, library, equipment, laboratory and computing facilities; and
  - (b) availability of adequate and appropriate supervision.
- (3) In considering an application for admission to candidature the Dean of the Faculty shall take account of the quota and will select in preference applicants who are most meritorious in terms of section 1 above.

#### Method of progression and time limits

3. (1) A candidate shall engage in a program of work equivalent to that required for completion of the relevant fourth year Bachelor of Science, Bachelor of Pharmacy or Bachelor of Medical Science Honours course offered by the Faculty of Pharmacy either as a full-time student for a period of two semesters or, with the approval of the Dean of the Faculty, as a part-time student for a period of four semesters.
- (2) There shall be units of study in the following subject areas: Pharmacy Practice, Pharmaceutical Chemistry, Pharmaceutics or any other units of study approved by the Dean of the Faculty.

#### Examination

4. The award of the graduate diploma shall be subject to the completion of the program of work and examinations to the satisfaction of the Board of Postgraduate Studies.

#### Progress

5. The Dean of the Faculty may call upon any candidate to show cause why that candidature should not be terminated by reason of unsatisfactory progress towards completion of the graduate diploma and where, in the opinion of the Board of Postgraduate Studies, the candidate does not show good cause, terminate the candidature.

### Graduate Diploma in Hospital Pharmacy

1. (1) Except as provided in subsection (2) of this section, the Dean of the Faculty may admit to candidature for the Graduate Diploma in Hospital Pharmacy an applicant who is a Bachelor of Pharmacy graduate of The University of Sydney.
- (2) The Dean of the Faculty may admit to candidature for the diploma a graduate of any other university or a candidate with qualifications from an appropriate institution whose qualifications are, in either case, equivalent in his or her opinion to those specified in subsection (1), and on such conditions as the Dean of the Faculty may prescribe.

2. (1) A candidate shall engage in coursework as a full-time student for a period of one year or, with the approval of the Dean of the Faculty, as a part-time student for a period of two years.
- (2) The coursework for the diploma shall be as prescribed from time to time by resolution of the Faculty.
- (3) Annual examinations for the diploma shall be held as the Dean of the Faculty shall prescribe.
- (4) The award of the diploma shall be subject to completion of the coursework and the examinations to the satisfaction of the examiners appointed by the Board of Postgraduate Studies.

### Graduate Diploma in Herbal Medicines

#### Eligibility for admission

1. Except as provided in Chapter 10 of the by-laws [2], the Faculty may admit to candidature an applicant who has successfully completed a bachelors degree in Pharmacy, Medicine, Nursing, Science, Chinese Medicine, Complementary Medicine, Veterinary Science, Agriculture or other appropriate disciplines from approved universities or have equivalent qualifications subject to approval by the Dean.

#### Availability

2. Admission to candidature may be limited by a quota. In determining the quota the Faculty will take into account:
  - (i) availability of resources; and
  - (ii) availability of adequate and appropriate supervision.In considering an application for admission the Dean will take into account the quota and entrance will be based on the applicants who are most meritorious in terms of section 1 above.

#### Method of progression

3. (i) A candidate for the graduate diploma shall proceed by completing units of study as prescribed by Faculty.
- (ii) A unit of study shall consist of lectures, tutorials, assignments and practical work as may be prescribed.
- (iii) In these resolutions to complete a unit of study means
  - (a) to attend lectures, tutorials and seminars, if any
  - (b) to complete satisfactorily the assignments and practical work if any
  - (c) to pass the examinations of the units of study if any.

#### Time limits

4. A candidate proceeding on a part-time basis shall complete the requirements for the Graduate Diploma in Herbal Medicines degree not earlier than the end of the third semester and not later than the end of the sixth semester, unless otherwise determined by Faculty.
5. A candidate proceeding on a full-time basis shall complete the requirements for the Graduate Diploma in Herbal Medicines degree not earlier than the end of the second semester and not later than the end of the third semester, unless otherwise determined by Faculty.

#### Requirements for the graduate diploma

5. Candidates for the graduate diploma are required to satisfactorily complete 36 credit points of coursework covering new material to the candidate, selected from units of study satisfying the conditions approved by the Faculty.

#### Examination

6. On completion of the requirements for the graduate diploma, the Faculty shall determine the results of candidature.

#### Progress

7. The Faculty may:
  - (i) call upon any candidate to show cause why that candidature should not be terminated by reason of unsatisfactory progress towards the completion of the graduate diploma, and
  - (ii) where the candidate does not show good cause, terminate the candidature.

#### Credit

8. A candidate who, before admission to the candidature, has spent time in graduate study in the University of Sydney or another university and has completed coursework, within 5 years except with permission of the Dean, considered by the Faculty to be equivalent to work prescribed for the graduate diploma, may receive credit of up to 18 credit points towards the requirements for the Graduate Diploma in Herbal Medicines.



**Graduate Diploma in Pharmaceutical Industry**

## Eligibility for admission

1. Except as provided in chapter 10 of the by-laws, the Faculty may admit to candidature an applicant who has successfully completed a bachelors degree in Pharmacy, Medicine, Nursing, Science, Veterinary Science, Agriculture or other appropriate disciplines from approved universities or have equivalent qualifications subject to approval by the Dean.

## Availability

2. Admission to candidature may be limited by a quota. In determining the quota the Faculty will take into account:
  - (i) availability of resources
  - (ii) availability of adequate and appropriate supervision.
 In considering an application for admission the Dean will take into account the quota and entrance will be based on the applicants who are most meritorious in terms of section 1 above.

## Method of progression

3. (i) A candidate for the degree shall proceed by completing units of study as prescribed by Faculty.
  - (ii) A unit of study shall consist of lectures, tutorials and assignments as may be prescribed.
  - (iii) In these resolutions to complete a unit of study means
    - (a) to attend lectures, tutorials and seminars, if any
    - (b) to complete satisfactorily the assignments and practical work if any
    - (c) to pass the examinations of the units of study if any.

## Time limits

4. A candidate will proceed on a part-time basis and shall complete the requirements for the Graduate Diploma in Pharmaceutical Industry degree not earlier than the end of the third semester and not later than the end of the sixth semester, unless otherwise determined by Faculty.

## Requirements for the degree

5. Candidates for the degree are required to satisfactorily complete 36 credit points of coursework covering new material to the candidate, selected from units of study satisfying the conditions approved by the Faculty.

## Examination

6. On completion of the requirements for the degree, the Faculty shall determine the results of candidature.

## Progress

7. The Faculty may:
  - (i) call upon any candidate to show cause why that candidature should not be terminated by reason of unsatisfactory progress towards the completion of the degree, and
  - (ii) where the candidate does not show good cause, terminate the candidature.

## Credit

8. A candidate who, before admission to the candidature, has spent time in graduate study in the University of Sydney or another university and has completed course work, within 5 years except with permission of the Dean, considered by the Faculty to be equivalent to programs prescribed by the degree, may receive credit of up to 16 credit points towards the requirements for the Graduate Diploma in Pharmaceutical Industry.

**Graduate Certificate in Clinical Pharmacy**

## Eligibility for admission

1. An applicant for admission to candidature for the Graduate Certificate shall hold the degree of Bachelor of Pharmacy of the University of Sydney or an equivalent qualification.

## Availability

2. Admission to candidature may be limited by a quota. In determining the quota the Faculty will take into account:
  - (i) availability of resources
  - (ii) availability of adequate and appropriate supervision.
 In considering an application for admission the Dean will take into account the quota and entrance will be based on the applicants who are most meritorious in terms of section 1 above.

## Method of progression

3. (1) A candidate for the Graduate Certificate shall proceed by completing units of study as prescribed by Faculty.
  - (2) A unit of study shall consist of lectures, tutorials, assignments and practical work as may be prescribed.
  - (3) In these resolutions to complete a unit of study means
    - (a) to attend lectures, tutorials and seminars, if any
    - (b) to complete satisfactorily the assignments and practical work, if any
    - (c) to pass the examinations of the units of study, if any.

## Time limits

4. A candidate will proceed on a part-time basis and shall complete the requirements for the Graduate Certificate in Clinical Pharmacy not earlier than the end of the third semester and not later than the end of the sixth semester, unless otherwise determined by the Dean.

## Requirements for the Graduate Certificate

5. Candidates for the Graduate Certificate are required to satisfactorily complete 24 credit points of coursework covering new material to the candidate, selected from units of study satisfying the conditions approved by the Faculty.

## Examination

6. On completion of the requirements for the Graduate Certificate, the Dean shall determine the result of the candidature.

## Progress

7. The Dean may:
  - (1) call upon any candidate to show cause why that candidature should not be terminated by reason of unsatisfactory progress towards the completion of the Graduate Certificate, and
  - (2) where the candidate does not show good cause, terminate the candidature.

## Credit

8. A candidate who, before admission to candidature, has spent time in graduate study in the University of Sydney or another university and has completed coursework, within five years except with the permission of the Dean, considered by the Dean to be equivalent to work prescribed for the Graduate Certificate, may receive credit of up to 8 credit points towards the requirements for the Graduate Certificate in Clinical Pharmacy.

**Graduate Certificate in Herbal Medicines**

## Eligibility for admission

1. Except as provided in Chapter 10 of the by-laws[3], the Faculty may admit to candidature an applicant who has successfully completed a bachelors degree in Pharmacy, Medicine, Nursing, Science, Chinese Medicine, Complementary Medicine, Veterinary Science, Agriculture or other appropriate disciplines from approved universities or have equivalent qualifications subject to approval by the Dean.

## Availability

2. Admission to candidature may be limited by a quota. In determining the quota the Faculty will take into account:
  - (i) availability of resources
  - (ii) availability of adequate and appropriate supervision.
 In considering an application for admission the Dean will take into account the quota and entrance will be based on the applicants who are most meritorious in terms of section 1 above.

## Method of progression

3. (i) A candidate for the graduate certificate shall proceed by completing units of study as prescribed by Faculty.
  - (ii) A unit of study shall consist of lectures, tutorials, assignments and practical work as may be prescribed.
  - (iii) In these resolutions to complete a unit of study means
    - (a) to attend lectures, tutorials and seminars, if any
    - (b) to complete satisfactorily the assignments and practical work if any
    - (c) to pass the examinations of the units of study if any.

## Time limits

4. A candidate proceeding on a part-time basis shall complete the requirements for the Graduate Certificate in Herbal Medicines degree not earlier than the end of the second semester and not

## 5. Postgraduate degree regulations

later than the end of the fourth semester, unless otherwise determined by Faculty.

5. A candidate proceeding on a full-time basis shall complete the requirements for the Graduate Certificate in Herbal Medicines degree not earlier than the end of the first semester and not later than the end of the second semester, unless otherwise determined by Faculty.

### Requirements for the graduate certificate

6. Candidates for the graduate certificate are required to satisfactorily complete 24 credit points of coursework covering new material to the candidate, selected from units of study satisfying the conditions approved by the Faculty.

### Examination

7. On completion of the requirements for the graduate certificate, the Faculty shall determine the results of candidature.

### Progress

8. The Faculty may:

- (i) call upon any candidate to show cause why that candidature should not be terminated by reason of unsatisfactory progress towards the completion of the graduate certificate, and
- (ii) where the candidate does not show good cause, terminate the candidature.

### Credit

9. A candidate who, before admission to the candidature, has spent time in graduate study in the University of Sydney or another university and has completed coursework, within 5 years except with permission of the Dean, considered by the Faculty to be equivalent to work prescribed for the graduate certificate, may receive credit of up to 8 credit points towards the requirements for the Graduate Certificate in Herbal Medicines.

## Graduate Certificate in Pharmaceutical Industry

### Eligibility for admission

1. Except as provided in chapter 10 of the by-laws, the Faculty may admit to candidature an applicant who has successfully completed a bachelors degree in Pharmacy, Medicine, Nursing, Science, Veterinary Science, Agriculture or other appropriate disciplines from approved universities or have equivalent qualifications subject to approval by the Dean.

### Availability

2. Admission to candidature may be limited by a quota. In determining the quota the Faculty will take into account:
  - (i) availability of resources
  - (ii) availability of adequate and appropriate supervision.In considering an application for admission the Dean will take into account the quota and entrance will be based on the applicants who are most meritorious in terms of section 1 above.

### Method of progression

3. (i) A candidate for the degree shall proceed by completing units of study as prescribed by Faculty.
  - (ii) A unit of study shall consist of lectures, tutorials and assignments as may be prescribed.
  - (iii) In these resolutions to complete a unit of study means
    - (a) to attend lectures, tutorials and seminars, if any
    - (b) to complete satisfactorily the assignments and practical work if any
    - (c) to pass the examinations of the units of study if any.

### Time limits

4. A candidate will proceed on a part-time basis and shall complete the requirements for the Graduate Certificate in Pharmaceutical Industry degree not earlier than the end of the second semester and not later than the end of the fourth semester, unless otherwise determined by Faculty.

### Requirements for the degree

5. Candidates for the degree are required to satisfactorily complete 24 credit points of coursework covering new material to the candidate, selected from units of study satisfying the conditions approved by the Faculty.

### Examination

6. On completion of the requirements for the degree, the Faculty shall determine the results of candidature.

### Progress

7. The Faculty may:

- (i) call upon any candidate to show cause why that candidature should not be terminated by reason of unsatisfactory progress towards the completion of the degree, and
- (ii) where the candidate does not show good cause, terminate the candidature.

### Credit

8. A candidate who, before admission to the candidature, has spent time in graduate study in the University of Sydney or another university and has completed course work, within 5 years except with permission of the Dean, considered by the Faculty to be equivalent to programs prescribed by the degree, may receive credit of up to 8 credit points towards the requirements for the Graduate Certificate in Pharmaceutical Industry.

[1] Chapter 10 of the By-laws has been repealed and Part 9, section 47 of the University of Sydney (Amendment Act) Rule 1999 refers.

[2] Chapter 10 of the By-laws has been repealed and Part 9, section 47 of the University of Sydney (Amendment Act) Rule 1999 refers.

[3] Chapter 10 of the By-laws has been repealed and Part 9, section 47 of the University of Sydney (Amendment Act) Rule 1999 refers.

# University of Sydney (Coursework) Rule 2000 (as amended)

The following information is a printed version of the information available through Handbooks Online, on the University of Sydney web site. Please visit "<http://www.usyd.edu.au/handbooks/>" for the most current handbooks information.

**Approved by:** Senate on 4 December 2000  
**Date of effect:** 1 January 2001

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## Sections

Preliminary  
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## Preliminary

### 1. Commencement and purpose of Rule

1. This Rule is made by the Senate pursuant to section 37(1) of the University of Sydney Act 1989 for the purposes of the University of Sydney By-law 1999.
2. This Rule comes into force on 1 January 2001.
3. This Rule governs all coursework award courses in the University. It is to be read in conjunction with the University of Sydney (Amendment Act) Rule 1999 and the Resolutions of the Senate and the faculty resolutions relating to each award course in that faculty.

## Rules relating to coursework award courses

### 1. Definitions

In this Rule:

**award course** means a formally approved program of study which can lead to an academic award granted by the University.

**coursework** means an award course not designated as a research award course. While the program of study in a coursework award course may include a component of original, supervised research, other forms of instruction and learning normally will be dominant. All undergraduate award courses are coursework award courses;  
**credit** means advanced standing based on previous attainment in another award course at the University or at another institution. The advanced standing is expressed as credit points granted towards the award course. Credit may be granted as specific credit or non-specific credit.

**Specific credit** means the recognition of previously completed studies as directly equivalent to units of study.

**Non-specific credit** means a 'block credit' for a specified number of credit points at a particular level. These credit points may be in a particular subject area but are not linked to a specific unit of study;  
**credit points** mean a measure of value indicating the contribution each unit of study provides towards meeting award course completion requirements stated as a total credit point value;

**dean** means the dean of a faculty or the director or principal of an academic college or the chairperson of a board of studies;

**degree** means a degree at the level of bachelor or master for the purpose of this Rule;

**embedded courses/programs** means award courses in the graduate certificate / graduate diploma / master's degree by coursework se-

quence which allow unit of study credit points to count in more than one of the awards;

**faculty** means a faculty, college board, a board of studies or the Australian Graduate School of Management Limited as established in each case by its constitution and in these Rules refers to the faculty or faculties responsible for the award course concerned;

**major** means a defined program of study, generally comprising specified units of study from later stages of the award course;

**minor** means a defined program of study, generally comprising units of study from later stages of the award course and requiring a smaller number of credit points than a major;

**postgraduate award course** means an award course leading to the award of a graduate certificate, graduate diploma, degree of master or a doctorate. Normally, a postgraduate award course requires the prior completion of a relevant undergraduate degree or diploma.

**research award course** means an award course in which students undertake and report systematic, creative work in order to increase the stock of knowledge. The research award courses offered by the University are: higher doctorate, Doctor of Philosophy, doctorates by research and advanced coursework, and certain degrees of master designated as research degrees. The systematic, creative component of a research award course must comprise at least 66% of the overall award course requirements;

**stream** means a defined program of study within an award course, which requires the completion of a program of study specified by the award course rules for the particular stream, in addition to the core program specified by award course rules for the award course.

**student** means a person enrolled as a candidate for a course;

**testamur** means a certificate of award provided to a graduate, usually at a graduation ceremony;

**transcript** or **academic transcript** means a printed statement setting out a student's academic record at the University;

**unit of study** means the smallest stand-alone component of a student's award course that is recordable on a student's transcript. Units of study have an integer credit point value, normally in the range 3-24;

**undergraduate award course** means an award course leading to the award of an associate diploma, diploma, advanced diploma or degree of bachelor.

### 2. Authorities and responsibilities

1. Authorities and responsibilities for the functions set out in this Rule are also defined in the document Academic Delegations of Authority. The latter document sets out the mechanisms by which a person who has delegated authority may appoint an agent to perform a particular function.
2. The procedures for consideration of, and deadlines for submission of, proposals for new and amended award courses will be determined by the Academic Board.

## Division 1: Award course requirements, credit points and assessment

### 3. Award course requirements

- (1) To qualify for the award of a degree, diploma or certificate, a student must:
  - (a) complete the award course requirements specified by the Senate for the award of the degree, diploma or certificate concerned;
  - (b) complete any other award course requirements specified by the Academic Board on the recommendation of the faculty and published in the faculty resolutions relating to the award course;
  - (c) complete any other award course requirements specified by the faculty in accordance with its delegated authority and published in the faculty resolutions relating to the award course; and

- (d) satisfy the requirements of all other relevant by-laws, rules and resolutions of the University.

#### 4. Units of study and credit points

- (1) (a) A unit of study comprises the forms of teaching and learning approved by a faculty. Where the unit of study is being provided specifically for an award course which is the responsibility of another faculty, that faculty must also provide approval.
- (b) Any faculty considering the inclusion of a unit of study in the tables of units available for an award course for which it is responsible may review the forms of teaching and learning of that unit, may consult with the approving faculty about aspects of that unit and may specify additional conditions with respect to inclusion of that unit of study.
- (2) A student completes a unit of study if the student:
  - (a) participates in the learning experiences provided for the unit of study;
  - (b) meets the standards required by the University for academic honesty;
  - (c) meets all examination, assessment and attendance requirements for the unit of study; and
  - (d) passes the required assessments for the unit of study.
- (3) Each unit of study is assigned a specified number of credit points by the faculty responsible for the unit of study.
- (4) The total number of credit points required for completion of an award course will be as specified in the Senate resolutions relating to the award course.
- (5) The total number of credit points required for completion of award courses in an approved combined award course will be specified in the Senate or faculty resolutions relating to the award course.
- (6) A student may, under special circumstances, and in accordance with faculty resolutions, be permitted by the relevant dean to undertake a unit or units of study other than those specified in the faculty resolutions relating to the award course and have that unit or those units of study counted towards fulfilling the requirements of the award course in which the student is enrolled.

#### 5. Unit of study assessment

1. A student who completes a unit of study will normally be awarded grades of high distinction, distinction, credit or pass, in accordance with policies established by the Academic Board. The grades high distinction, distinction and credit indicate work of a standard higher than that required for a pass.
2. A student who completes a unit of study for which only a pass/fail result is available will be recorded as having satisfied requirements.
3. In determining the results of a student in any unit of study, the whole of the student's work in the unit of study may be taken into account.
4. Examination and assessment in the University are conducted in accordance with the policies and directions of the Academic Board.

#### 6. Attendance

1. A faculty has authority to specify the attendance requirements for courses or units of study in that faculty. A faculty must take into account any University policies concerning modes of attendance, equity and disabled access.
2. A faculty has authority to specify the circumstances under which a student who does not satisfy attendance requirements may be deemed not to have completed a unit of study or an award course.

## Division 2: Enrolment

#### 7. Enrolment restrictions

- (1) A student who has completed a unit of study towards the requirements of an award course may not re-enrol in that unit of study, except as permitted by faculty resolution or with the written permission of the dean. A student permitted to re-enrol may receive a higher or lower grade, but not additional credit points.
- (2) Except as provided in sub-section (1), a student may not enrol in any unit of study which overlaps substantially in content with

- a unit that has already been completed or for which credit or exemption has been granted towards the award course requirements.
- (3) A student may not enrol in units of study additional to award course requirements without first obtaining permission from the relevant dean.
  - (4) Except as prescribed in faculty resolutions or with the permission of the relevant dean:
    - (a) a student enrolled in an undergraduate course may not enrol in units of study with a total value of more than 32 credit points in any one semester, or 16 credit points in the summer session; and
    - (b) a student enrolled in a postgraduate award course may not enrol in units of study with a total value of more than 24 credit points in any one semester, or 12 credit points in the summer session.

## Division 3: Credit, cross-institutional study and their upper limits

#### 8. Credit for previous studies

- (1) Students may be granted credit on the basis of previous studies.
- (2) Notwithstanding any credit granted on the basis of work completed or prior learning in another award course at the University of Sydney or in another institution, in order to qualify for an award a student must:
  - (a) for undergraduate award courses, complete a minimum of the equivalent of two full-time semesters of the award course at the University; and
  - (b) for postgraduate award courses, complete at least fifty percent of the requirements prescribed for the award course at the University.

These requirements may be varied where the work was completed as part of an embedded program at the University or as part of an award course approved by the University in an approved conjoint venture with another institution.

- (3) The credit granted on the basis of work completed at an institution other than a university normally should not exceed one third of the overall award course requirements.
- (4) A faculty has authority to establish embedded academic sequences in closely related graduate certificate, graduate diploma and master's degree award courses. In such embedded sequences, a student may be granted credit for all or some of the units of study completed in one award of the sequence towards any other award in the sequence, irrespective of whether or not the award has been conferred.
- (5) In an award course offered as part of an approved conjoint venture the provisions for the granting of credit are prescribed in the Resolutions of the Senate and the faculty resolutions relating to that award course.

#### 9. Cross-institutional study

1. The relevant dean may permit a student to complete a unit or units of study at another university or institution and have that unit or those units of study credited to the student's award course.
2. The relevant dean has authority to determine any conditions applying to cross-institutional study.

## Division 4: Progression

#### 10. Repeating a unit of study

- (1) A student who repeats a unit of study shall, unless granted exemption by the relevant dean:
  - (a) participate in the learning experiences provided for the unit of study; and
  - (b) meet all examination, assessment and attendance requirements for the unit of study.
- (2) A student who presents for re-assessment in any unit of study is not eligible for any prize or scholarship awarded in connection with that unit of study without the permission of the relevant dean.

**11. Time limits**

A student must complete all the requirements for an award course within ten calendar years or any lesser period if specified by Resolution of the Senate or the faculty.

**Division 5: Discontinuation of enrolment and suspension of candidature****12. Discontinuation of enrolment**

- (1) A student who wishes to discontinue enrolment in an award course or a unit of study must apply to the relevant dean and will be presumed to have discontinued enrolment from the date of that application, unless evidence is produced showing:
  - (a) that the discontinuation occurred at an earlier date; and
  - (b) that there was good reason why the application could not be made at the earlier time.
- (2) A student who discontinues enrolment during the first year of enrolment in an award course may not re-enrol in that award course unless:
  - (a) the relevant dean has granted prior permission to re-enrol; or
  - (b) the student is reselected for admission to candidature for that course.
- (3) No student may discontinue enrolment in an award course or unit of study after the end of classes in that award course or unit of study, unless he or she produces evidence that:
  - (a) the discontinuation occurred at an earlier date; and
  - (b) there was good reason why the application could not be made at the earlier time.
- (4) A discontinuation of enrolment may be recorded as *Withdrawn (W)* or *Discontinued Not To Count As Failure (DNF)* where that discontinuation occurs within the time-frames specified by the University and published by the faculty, or where the student meets other conditions as specified by the relevant faculty.

**13. Suspension of candidature**

1. A student must be enrolled in each semester in which he or she is actively completing the requirements for the award course. A student who wishes to suspend candidature must first obtain approval from the relevant dean.
2. The candidature of a student who has not re-enrolled and who has not obtained approval from the dean for suspension will be deemed to have lapsed.
3. A student whose candidature has lapsed must apply for re-admission in accordance with procedures determined by the relevant faculty.
4. A student who enrolls after suspending candidature shall complete the requirements for the award course under such conditions as determined by the dean.

**Division 6: Unsatisfactory progress and exclusion****14. Satisfactory progress**

A faculty has authority to determine what constitutes satisfactory progress for all students enrolled in award courses in that faculty, in accordance with the policies and directions of the Academic Board.

**15. Requirement to show good cause**

1. For the purposes of this Rule, good cause means circumstances beyond the reasonable control of a student, which may include serious ill health or misadventure, but does not include demands of employers, pressure of employment or time devoted to non-University activities, unless these are relevant to serious ill health or misadventure. In all cases the onus is on the student to provide the University with satisfactory evidence to establish good cause. The University may take into account relevant aspects of a student's record in other courses or units of study within the University and relevant aspects of academic studies

at other institutions provided that the student presents this information to the University.

2. The relevant dean may require a student who has not made satisfactory progress to show good cause why he or she should be allowed to re-enrol.
3. The dean will permit a student who has shown good cause to re-enrol.

**16. Exclusion for failure to show good cause**

The dean may, where good cause has not been established:

- (1) exclude the student from the relevant course; or
- (2) permit the student to re-enrol in the relevant award course subject to restrictions on units of study, which may include, but are not restricted to:
  - (a) completion of a unit or units of study within a specified time;
  - (b) exclusion from a unit or units of study, provided that the dean must first consult the head of the department responsible for the unit or units of study; and
  - (c) specification of the earliest date upon which a student may re-enrol in a unit or units of study.

**17. Applying for re-admission after exclusion**

1. A student who has been excluded from an award course or from a unit or units of study may apply to the relevant dean for readmission to the award course or re-enrolment in the unit or units of study concerned after at least 4 semesters, and that dean may readmit the student to the award course or permit the student to re-enrol in the unit or units of study concerned.
2. With the written approval of the relevant dean, a student who has been excluded may be given credit for any work completed elsewhere in the University or in another university during a period of exclusion.

**18. Appeals against exclusion**

- (1) In this Rule a reference to the Appeals Committee is a reference to the Senate Student Appeals Committee (Exclusions and Readmissions).
- (2) (a) (i) A student who has been excluded in accordance with this Rule may appeal to the Appeals Committee.
  - (ii) A student who has applied for readmission to an award course or re-enrolment in a unit of study after a period of exclusion, and who is refused readmission or re-enrolment may also apply to the Appeals Committee.
- (b) The Appeals Committee shall comprise:
  - (i) 3 *ex officio* members (the Chancellor, the Deputy Chancellor and the Vice-Chancellor and Principal);
  - (ii) the Chair and Deputy Chairs of the Academic Board;
  - (iii) 2 student Fellows; and
  - (iv) up to 4 other Fellows.
- (c) The Appeals Committee may meet as one or more sub-committees providing that each sub-committee shall include at least 1 member of each of the categories of:
  - (i) *ex officio* member;
  - (ii) Chair or Deputy Chair of the Academic Board;
  - (iii) student Fellow; and
  - (iv) other Fellows.
- (d) Three members shall constitute a quorum for a meeting of the Appeals Committee or a sub-committee.
- (e) The Appeals Committee and its sub-committees have authority to hear and determine all such appeals and must report its decision to the Senate annually.
- (f) The Appeals Committee or a sub-committee may uphold or disallow any appeal and, at its discretion, may determine the earliest date within a maximum of four semesters at which a student who has been excluded shall be permitted to apply to re-enrol.
- (g) No appeal shall be determined without granting the student the opportunity to appear in person before the Appeals Committee or sub-committee considering the appeal. A student so appearing may be accompanied by a friend or adviser.
- (h) The Appeals Committee or sub-committee may hear the relevant dean but that dean may only be present at those stages at which the student is permitted to be present. Similarly, the dean is entitled to be present when the Committee or sub-committee hears the student.
- (i) If, due notice having been given, a student fails to attend a meeting of the Appeals Committee or sub-committee scheduled

to consider that student's appeal, the Appeals Committee or sub-committee, at its discretion, may defer consideration of the appeal or may proceed to determine the appeal.

- (j) A student who has been excluded in accordance with these resolutions and has lodged a timely appeal against that exclusion may re-enrol pending determination of that appeal if it has not been determined by the commencement of classes in the next appropriate semester.

## Division 7: Exceptional circumstances

### 19. Variation of award course requirements in exceptional circumstances

The relevant dean may vary any requirement for a particular student enrolled in an award course in that faculty where, in the opinion of the dean, exceptional circumstances exist.

## Division 8: Award of degrees, diplomas and certificates

### 20. Classes of award

1. Undergraduate diplomas may be awarded in five grades – pass, pass with merit, pass with distinction, pass with high distinction or honours.
2. Degrees of bachelor may be awarded in two grades – pass or honours.
3. Graduate diplomas and graduate certificates may be awarded in one grade only – pass.
4. Degrees of master by coursework may be awarded three grades – pass, pass with merit or honours.

### 21. Award of the degree of bachelor with honours

- (1) The award of honours is reserved to indicate special proficiency. The basis on which a student may qualify for the award of honours in a particular award course is specified in the faculty resolutions relating to the course.
- (2) Each faculty shall publish the grading systems and criteria for the award of honours in that faculty.
- (3) Classes which may be used for the award of honours are:
  - First Class
  - Second Class/Division 1
  - Second Class/Division 2
  - Third Class.
- (4) With respect to award courses which include an additional honours year:
  - (a) a student may not graduate with the pass degree while enrolled in the honours year;
  - (b) on the recommendation of the head of the department concerned, a dean may permit a student who has been awarded the pass degree at a recognised tertiary institution to enrol in the honours year in that faculty;
  - (c) faculties may prescribe the conditions under which a student may enrol part-time in the honours year;
  - (d) a student who fails or discontinues the honours year may not re-enrol in it, except with the approval of the dean.

### 22. University Medal

An honours bachelor's degree student with an outstanding academic record throughout the award course may be eligible for the award of a University medal, in accordance with Academic Board policy and the requirements of the faculty resolutions relating to the award course concerned.

### 23. Award of the degree of master with honours or merit

The award of honours or pass with merit is reserved to indicate special proficiency or particular pathways to completion. The basis on which a student may qualify for the award of honours or the award with merit in a particular degree is specified in the faculty resolutions relating to that degree.

### 24. Transcripts and testamurs

1. A student who has completed an award course or a unit of study at the University will receive an academic transcript upon application and payment of any charges required.
2. Testamurs may indicate streams or majors or both as specified in the relevant faculty resolutions.

## Division 9: Transitional provisions

### 25. Application of this Rule during transition

This Rule applies to all candidates for degrees, diplomas and certificates who commence candidature after 1 January 2001. Candidates who commenced candidature prior to this date may choose to proceed in accordance with the resolutions of the Senate in force at the time they enrolled, except that the faculty may determine specific conditions for any student who has re-enrolled in an award course after a period of suspension.

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# General University information

The following information is a printed version of the information available through Handbooks Online, on the University of Sydney web site. Please visit "<http://www.usyd.edu.au/handbooks/>" for the most current handbooks information.

See also the Glossary for administrative information relating to particular terms.

## Accommodation Service

The Accommodation Service helps students find off-campus accommodation. The service maintains an extensive database of accommodation close to the Camperdown and Darlington Campus or within easy access via public transport. Currently enrolled students can access the database online through the MyUni student portal (<http://myuni.usyd.edu.au>), or the accommodation website (<http://www.usyd.edu.au/accom>).

Level 7, Education Building, A35  
The University of Sydney  
NSW 2006 Australia

Phone: (02) 9351 3312  
Fax: (02) 9351 8262  
Email: [accomm@stuserv.usyd.edu.au](mailto:accomm@stuserv.usyd.edu.au)  
Web: [www.usyd.edu.au/accom](http://www.usyd.edu.au/accom) (<http://www.usyd.edu.au/accom>)

## Admissions Office

The Admissions Office, located in the Student Centre, is responsible for overseeing the distribution of offers to undergraduate applicants through the Universities Admission Centre (UAC). They can advise prospective local undergraduate students on admission requirements. Postgraduate students should contact the appropriate faculty. If you are an Australian citizen or a permanent resident but have qualifications from a non-Australian institution phone (02) 9351 4118 for more information. For enquiries regarding special admissions (including mature-age entry) phone (02) 9351 3615. Applicants without Australian citizenship or permanent residency should contact the International Office (see International Student Centre entry).

Student Centre  
Ground Floor, Carslaw Building, F07  
The University of Sydney  
NSW 2006 Australia

Phone: (02) 9351 4117 or (02) 9351 4118  
Fax: (02) 9351 4869  
Email: [admissions@records.usyd.edu.au](mailto:admissions@records.usyd.edu.au)  
Web: [www.usyd.edu.au/su/studentcentre](http://www.usyd.edu.au/su/studentcentre) (<http://www.usyd.edu.au/su/studentcentre>)

## Applying for a course

### **Local applicants for undergraduate courses and programs of study**

For the purpose of admission and enrolment 'local applicant' refers to citizens and permanent residents of Australia and citizens of New Zealand. If you are in this group and wish to apply for admission into an undergraduate course, you would generally apply through the Universities Admissions Centre (UAC). The deadline for application is the last working day of September in the year before enrolment. Go to the UAC website (<http://www.uac.edu.au>) for more information.

Note that some faculties, such as Pharmacy, the Sydney Conservatorium of Music and Sydney College of the Arts, have additional application procedures.

### **Local applicants for postgraduate courses and programs of study**

For the purpose of admission and enrolment 'local applicant' refers to citizens and permanent residents of Australia and citizens of New

Zealand. Application is direct to the faculty which offers the course that you are interested in. Application forms for postgraduate coursework, postgraduate research and the Master's qualifying or preliminary program and for non-award postgraduate study can be found at the student centre website (<http://www.usyd.edu.au/su/studentcentre/applications/applications.html>).

Please note that some faculties use their own specially tailored application forms for admission into their courses. Please contact the relevant faculty.

### **International applicants for all course types (undergraduate and postgraduate)**

'International applicants' refers to all applicants other than Australian citizens, Australian permanent residents and citizens of New Zealand. In the majority of cases international applicants apply for admission through the University's International Office (IO) (see International Student Centre entry). All the information international applicants need, including application forms, is available from the IO website (<http://www.usyd.edu.au/io>).

## Assessment

For assessment matters refer to the relevant department or school.

## Careers Centre

The Careers Centre provides careers information and advice, and help in finding course-related employment both while you're studying and when you commence your career.

Careers Centre  
Ground Floor, Mackie Building, K01

Fax: (02) 9351 4869  
Email: [admissions@records.usyd.edu.au](mailto:admissions@records.usyd.edu.au)  
Web: [www.usyd.edu.au/su/studentcentre](http://www.usyd.edu.au/su/studentcentre) (<http://www.usyd.edu.au/su/studentcentre>)

## Casual Employment Service

The Casual Employment Service helps students find casual and part-time work during their studies and during University vacations. The service maintains a database of casual employment vacancies. Currently enrolled students can access the database online through the MyUni student portal, or the casual employment website ([http://www.usyd.edu.au/cas\\_emp](http://www.usyd.edu.au/cas_emp)).

Level 7, Education Building, A35  
The University of Sydney  
NSW 2006 Australia

Phone: (02) 9351 8714  
Fax: (02) 9351 8717  
Email: [ces@stuserv.usyd.edu.au](mailto:ces@stuserv.usyd.edu.au)  
Web: [www.usyd.edu.au/cas\\_emp](http://www.usyd.edu.au/cas_emp) ([http://www.usyd.edu.au/cas\\_emp](http://www.usyd.edu.au/cas_emp))

## Centre for Continuing Education

The Centre for Continuing Education offers a wide range of short courses for special interest, university preparation and professional development. Subject areas include: history and culture, creative arts, social sciences, languages, IT, business and overseas study tours. Courses are open to everyone.



The centre relocated at the end of 2004. Please refer to the centre's website for up-to-date contact details, or phone the existing general enquiry number (02) 9351 4789 for redirection.

Sydney University Village, L03  
The University of Sydney  
NSW 2006 Australia

Ph: (02) 9351 4789  
Fax: (02) 9351 4793  
Email: [info@cce.usyd.edu.au](mailto:info@cce.usyd.edu.au)  
Web: [www.cce.usyd.edu.au](http://www.cce.usyd.edu.au) (<http://www.cce.usyd.edu.au>)

## Centre for English Teaching

The Centre for English Teaching (CET) offers English language and academic study skills programs to students from overseas and Australian residents from non-English speaking backgrounds who need to develop their English language skills to meet academic entry requirements.

Mallett Street Campus, M02

Phone: (02) 9351 0760  
Fax: (02) 9351 0710  
Email: [info@cet.usyd.edu.au](mailto:info@cet.usyd.edu.au)  
Web: [www.usyd.edu.au/cet](http://www.usyd.edu.au/cet) (<http://www.usyd.edu.au/cet>)

## Child care

Contact the Child Care Information Officer for information about child care for students and staff of the University who are parents. For details of centres, vacation and occasional care see the child care website (<http://www.usyd.edu.au/childcare>).

Child Care Information Officer  
Level 7, Education Building, A35

Phone: (02) 9351 5667  
Fax: (02) 9351 7055  
Email: [childc@stuserv.usyd.edu.au](mailto:childc@stuserv.usyd.edu.au)  
Web: [www.usyd.edu.au/childcare](http://www.usyd.edu.au/childcare) (<http://www.usyd.edu.au/childcare>)

## The Co-op Bookshop

The Co-op Bookshop is a one-stop bookshop for:

- textbooks;
- general books;
- course notes;
- reference books; and
- software at academic prices.

Lifetime membership costs \$25.00 and gives a 10 per cent discount on purchases (conditions apply).

Sports and Aquatic Centre Building, G09

Phone: (02) 9351 3705  
Fax: (02) 9660 5256  
Email: [sydu@coop-bookshop.com.au](mailto:sydu@coop-bookshop.com.au)  
Web: [www.coop-bookshop.com.au](http://www.coop-bookshop.com.au) (<http://www.coop-bookshop.com.au>)

## Counselling Service

The Counselling Service aims to help students fulfil their academic, individual and social goals through professional counselling. Counselling is free and confidential. The service provides short-term, problem-focused counselling to promote psychological wellbeing and to help students develop effective and realistic coping strategies. The service runs a program of workshops during each semester. For details of workshops, activities and online resources provided by the service see the website (<http://www.usyd.edu.au/counsel>).

Level 7, Education Building, A35

The University of Sydney  
NSW 2006 Australia

Phone: (02) 9351 2228  
Fax: (02) 9351 7055  
Email: [counsell@mail.usyd.edu.au](mailto:counsell@mail.usyd.edu.au)  
Web: [www.usyd.edu.au/counsel](http://www.usyd.edu.au/counsel) (<http://www.usyd.edu.au/counsel>)

## Disability Services

Disability Services is the principal point of contact for advice on assistance available for students with disabilities. The service works closely with academic and administrative staff to ensure that students receive reasonable accommodations in their areas of study. Assistance available includes the provision of note taking, interpreters and advocacy with academic staff to negotiate assessment and course requirement modifications where appropriate.

Level 7, Education Building, A35  
The University of Sydney  
NSW 2006 Australia

Phone: (02) 9351 7040  
Fax: (02) 9351 3320  
TTY: (02) 9351 3412  
Email: [disserv@stuserv.usyd.edu.au](mailto:disserv@stuserv.usyd.edu.au)  
Web: [www.usyd.edu.au/disability](http://www.usyd.edu.au/disability) (<http://www.usyd.edu.au/disability>)

## Enrolment and pre-enrolment

### *Students entering first year*

Details of enrolment procedures will be sent to you with your UAC offer of enrolment. Enrolment takes place at a specific time and date, usually during the last week of January, depending on your surname and the faculty in which you are enrolling. You must attend the University in person or else nominate somebody in writing to act on your behalf. On enrolment day you pay the compulsory fees for joining the Student Union, the Students' Representative Council and sporting bodies. You also nominate your preferred payment option, either 'up front' or deferred, for your Higher Contribution Scheme (HECS) liability. You will also choose your first-year units of study, so it's important to consult the appropriate faculty handbook before enrolling.

### *All other students*

A pre-enrolment package is sent to all enrolled students in late September and contains instructions on the procedure for pre-enrolment.

## Environmental Policy

The University of Sydney's Environmental Policy promotes sustainable resource and product use; and encourages the practice of environmental stewardship by staff and students. The policy is supported by the University wide Sustainable Campus Program.

Enquiries can be directed to the Manager, Environmental Strategies 93512063 [janet.broady@usyd.edu.au](mailto:janet.broady@usyd.edu.au) or go to [www.usyd.edu.au/fmo](http://www.usyd.edu.au/fmo) (<http://www.usyd.edu.au/fmo>) and click on 'Sustainable Campus'.

## Examinations

The Examinations and Exclusions Office looks after the majority of examination arrangements and student progression. Some faculties, such as the Sydney Conservatorium of Music, make all examination arrangements for the units of study that they offer.

Examinations and Exclusions Office  
Student Centre  
Level 1, Carlaw Building, F07  
The University of Sydney  
NSW 2006 Australia

Phone: (02) 9351 4005 or (02) 9351 4006



Fax: (02) 9351 7330  
Email: [exams.office@exams.usyd.edu.au](mailto:exams.office@exams.usyd.edu.au)

## Fees

The Fees Office provides information on how to pay fees, where to pay fees and if payments have been received. The office also has information on obtaining a refund for fee payments.

Fees Office  
Margaret Telfer Building, K07  
The University of Sydney  
NSW 2006 Australia

Phone: (02) 9351 5222  
Fax: (02) 9351 4202

## Financial Assistance Office

The University of Sydney has a number of loan and bursary funds to assist students experiencing financial difficulties. Loan assistance is available for undergraduate and postgraduate students enrolled in degree and diploma courses at the University. The assistance is not intended to provide the principle means of support but to help enrolled students in financial need with expenses such as housing bonds and rent; phone and electricity bills; medical expenses; buying textbooks and course equipment. Loans are interest free and are repayable usually within one year. Bursaries may be awarded depending on financial need and academic merit and are usually only available to local full-time undergraduate students. For details of types of assistance and online resources provided by the service see the website ([http://www.usyd.edu.au/fin\\_assist](http://www.usyd.edu.au/fin_assist)).

Level 7, Education Building, A35  
The University of Sydney  
NSW 2006 Australia

Phone: (02) 9351 2416  
Fax: (02) 9351 7055  
Email: [fao@stuserv.usyd.edu.au](mailto:fao@stuserv.usyd.edu.au)  
Web: [www.usyd.edu.au/fin\\_assist](http://www.usyd.edu.au/fin_assist) ([http://www.usyd.edu.au/fin\\_assist](http://www.usyd.edu.au/fin_assist))

## Freedom of information

The University of Sydney falls within the jurisdiction of the *NSW Freedom of Information Act, 1989*. The act:

- requires information concerning documents held by the University to be made available to the public;
- enables a member of the public to obtain access to documents held by the University; and
- enables a member of the public to ensure that records held by the University concerning his or her personal affairs are not incomplete, incorrect, out of date or misleading.

(Note that a 'member of the public' includes staff and students of the University)

It is a requirement of the act that applications be processed and a determination made within a specified time period, generally 21 days. Determinations are made by the University's Registrar.

While application may be made to access University documents, some may not be released in accordance with particular exemptions provided by the act. There are review and appeal mechanisms which apply when access has been refused.

The University is required to report to the public on its freedom of information (FOI) activities on a regular basis. The two reports produced are the *Statement of Affairs* and the *Summary of Affairs*. The *Statement of Affairs* contains information about the University, its structure, function and the kinds of documents held. The *Summary of Affairs* identifies the University's policy documents and provides information on how to make an application for access to University documents.

Further information and copies of the current reports may be found at [www.usyd.edu.au/arms/foi](http://www.usyd.edu.au/arms/foi) (<http://www.usyd.edu.au/arms/foi>).

## Graduations Office

The Graduations Office is responsible for organising graduation ceremonies and informing students of their graduation arrangements.

Student Centre  
Carslaw Building, F07  
The University of Sydney  
NSW 2006 Australia

Phone: (02) 9351 3199, (02) 9351 4009  
Protocol: (02) 9351 4612  
Fax: (02) 9351 5072

## (Grievances) appeals

You may consider that a decision affecting your candidature for a degree or other activities at the University has not taken into account all relevant matters.

In some cases the by-laws or resolutions of the Senate (see the University Calendar) provide for a right of appeal against particular decisions; for example, there is provision for appeal against academic decisions, disciplinary decisions and exclusion after failure.

A document outlining the current procedures for appeals against academic decisions is available at the Student Centre, at the SRC, and on the University's policy online website (<http://www.usyd.edu.au/policy>) (click on 'Study at the University', then click on 'Appeals' – see the Academic Board and Senate resolutions).

For assistance or advice regarding an appeal contact:

Students' Representative Council  
Level 1, Wentworth Building, G01  
The University of Sydney  
NSW 2006 Australia

Phone: (02) 9660 5222

## HECS and Fees Office

Student Centre  
Ground Floor, Carslaw Building, F07  
The University of Sydney  
NSW 2006 Australia

Phone: (02) 9351 5659, (02) 9351 5062, (02) 9351 2086  
Fax: (02) 9351 5081

## Information Technology Services (ITS)

Information Technology Services oversees the University's computing infrastructure. Students can contact ITS either through the ITS Helpdesk or through the University Access Labs (<http://www.usyd.edu.au/su/is/labs>). The access labs on the Camperdown and Darlington Campus are located in:

- Fisher Library (Level 2);
- Carslaw Building (Room 201);
- Education Building (Room 232);
- Christopher Brennan Building (Room 232);
- Engineering Link Building (Room 222); and
- Pharmacy and Bank Building (Room 510).

Other labs are available at the Law, Orange, Westmead and Cumberland campuses.

The labs allow students free access to computers including: office and desktop publishing software and storage; at-cost Internet access; printing facilities and the opportunity to host their own website.

Each student is supplied with an account, called a 'Unikey' (extro) account, which allows access to a number of services including:

- free email ([www-mail.usyd.edu.au](http://www-mail.usyd.edu.au) (<http://www.usyd.edu.au/about/publication/pub/calendar.shtml>));
- access to the Internet from home or residential colleges ([www.helpdesk.usyd.edu.au/services.html](http://www.helpdesk.usyd.edu.au/services.html) (<http://www.helpdesk.usyd.edu.au/services.html>));
- online course material ([www.groucho.ucc.usyd.edu.au:9000/webct/public/home.pl](http://www.groucho.ucc.usyd.edu.au:9000/webct/public/home.pl) (<http://www.groucho.ucc.usyd.edu.au:9000/webct/public/home.pl>));
- student facilities via the MyUni student portal (<http://myuni.usyd.edu.au> (<http://myuni.usyd.edu.au>)), including exam results, enrolment and variations and timetabling; and
- free courses in basic computing (such as MS Office; basic html and photoshop) that are run by Access Lab staff in the week following orientation week. To register contact the Access Lab Supervisor on 02 9351 6870.

ITS Helpdesk  
University Computer Centre, H08  
The University of Sydney  
NSW 2006 Australia

Phone: (02) 9351 6000  
Fax: (02) 9351 6004  
Email: [\[support@isu.usyd.edu.au|support@isu.usyd.edu.au](mailto:[support@isu.usyd.edu.au|support@isu.usyd.edu.au) (<http://www-mail.usyd.edu.au>)  
Web: [www.helpdesk.usyd.edu.au](http://www.helpdesk.usyd.edu.au) (<http://www.helpdesk.usyd.edu.au>)

## International Student Centre

The International Student Centre consists of the International Office (IO), the International Student Services Unit (ISSU) and the Study Abroad and Exchange Office. The IO provides assistance with application, admission and enrolment procedures and administers scholarships for international students. The ISSU provides a wide range of international student support services including orientation and assistance with finding accommodation for new arrivals and psychological counselling and welfare advice for international students and their families. The Study Abroad and Exchange unit assists both domestic and international students who wish to enrol for study abroad or exchange programs.

### *International Student Centre*

Services Building, G12  
The University of Sydney  
NSW 2006 Australia

Phone: (02) 9351 4079  
Fax: (02) 9351 4013  
Email: [info@io.usyd.edu.au](mailto:info@io.usyd.edu.au)  
Web: [www.usyd.edu.au/io](http://www.usyd.edu.au/io) (<http://www.usyd.edu.au/io>)

### *International Student Services Unit*

Phone: (02) 9351 4749  
Fax: (02) 9351 6818  
Email: [info@issu.usyd.edu.au](mailto:info@issu.usyd.edu.au)  
Web: [www.usyd.edu.au/issu](http://www.usyd.edu.au/issu) (<http://www.usyd.edu.au/issu>)

### *Study Abroad and Exchange Unit*

*Study Abroad*  
Phone: (02) 9351 3699  
Fax: (02) 9351 2795  
Email: [studyabroad@io.usyd.edu.au](mailto:studyabroad@io.usyd.edu.au)  
Web: [www.usyd.edu.au/io/studyabroad](http://www.usyd.edu.au/io/studyabroad) (<http://www.usyd.edu.au/io/studyabroad>)

### *Exchange*

Phone: (02) 9351 3699  
Fax: (02) 9351 2795  
Email: [exchange@io.usyd.edu.au](mailto:exchange@io.usyd.edu.au)  
Web: [www.usyd.edu.au/io/exchange](http://www.usyd.edu.au/io/exchange) (<http://www.usyd.edu.au/io/exchange>)

## Koori Centre and Yooroang Garang

The Koori Centre provides programs, services and facilities to encourage and support the involvement of Aboriginal and Torres Strait Islander people in all aspects of tertiary education at the University of Sydney. The centre provides tutorial assistance, access to computers, an Indigenous research library, study rooms, an orientation program at the beginning of the year and assistance in study and learning skills. In particular the Koori Centre aims to increase the successful participation of Aboriginal and Torres Strait Islander people in undergraduate and postgraduate degrees, develop the teaching of Aboriginal Studies, conduct research in the field of Aboriginal education, and establish working ties with schools and communities.

Close collaboration is also maintained with Yooroang Garang: School of Indigenous Health Studies in the Faculty of Health Sciences at the University's Cumberland Campus. Yooroang Garang provides advice, assistance and academic support for Indigenous students in the faculty, as well as preparatory undergraduate and postgraduate courses.

### *Koori Centre*

Ground Floor, Old Teachers College, A22  
The University of Sydney  
NSW 2006 Australia

Phone: (02) 9351 2046 (general enquiries)  
Toll Free: 1800 622 742  
Community Liaison Officer: (02) 9351 7003  
Fax: (02) 9351 6923  
Email: [koori@koori.usyd.edu.au](mailto:koori@koori.usyd.edu.au)  
Web: [www.koori.usyd.edu.au](http://www.koori.usyd.edu.au) (<http://www.koori.usyd.edu.au>)

### *Yooroang Garang*

T Block, Level 4, Cumberland Campus, C42  
The University of Sydney  
NSW 2006 Australia

Phone: (02) 9351 9393  
Toll Free: 1800 000 418  
Fax: (02) 9351 9400  
Email: [yginfo@fhs.usyd.edu.au](mailto:yginfo@fhs.usyd.edu.au)  
Web: [www.yg.fhs.usyd.edu.au](http://www.yg.fhs.usyd.edu.au) (<http://www.yg.fhs.usyd.edu.au>)

## Language Centre

The Language Centre provides multimedia teaching rooms for Faculty of Arts courses. Technical support for teaching staff is available on site. Student self-access facilities for curriculum materials, access to multilingual satellite television broadcasts and a broadcast copying service are also provided by the centre. The centre maintains a resource collection of multimedia language materials in over 140 languages and has three language laboratories, four audiovisual classrooms, two access computer labs and one student audiovisual study room.

Level 2, Christopher Brennan Building, A18  
The University of Sydney  
NSW 2006 Australia

Phone: (02) 9351 2371  
Fax: (02) 9351 3626  
Email: [language.enquiries@language.usyd.edu.au](mailto:language.enquiries@language.usyd.edu.au)  
Web: [www.arts.usyd.edu.au/Arts/departs/langcent](http://www.arts.usyd.edu.au/Arts/departs/langcent) (<http://www.arts.usyd.edu.au/Arts/departs/langcent>)

## Learning Centre

The Learning Centre helps students develop the generic learning and communication skills that are necessary for university study and beyond. The centre is committed to helping students achieve their academic potential throughout their undergraduate and postgraduate studies. The centre's program includes a wide range of workshops on study skills, academic reading and writing, oral communication skills and postgraduate writing and research skills. Other services include an individual learning program, a special program for international students, faculty-based workshops, computer-based learning

resources, publications of learning resources and library facilities. For details of programs, activities and online resources provided by the centre see the website (<http://www.usyd.edu.au/lc>).

Level 7, Education Building, A35  
The University of Sydney  
NSW 2006 Australia

Phone: (02) 9351 3853  
Fax: (02) 9351 4865  
Email: [lc@stuserv.usyd.edu.au](mailto:lc@stuserv.usyd.edu.au)  
Web: [www.usyd.edu.au/lc](http://www.usyd.edu.au/lc) (<http://www.usyd.edu.au/lc>)

## Library

The University of Sydney Library, the largest academic library in the Southern Hemisphere, is a network of 20 libraries located on nine campuses. The Library website (<http://www.library.usyd.edu.au>) provides access to services and resources, anywhere at anytime. The locations, opening hours and subject specialities of the libraries are listed on the website.

Over five million items are available via the Library catalogue, including more than 40,000 electronic journals and 270,000 electronic books. Past exam papers are also available online. Enrolled students are entitled to borrow from any of the University Libraries. More information is available on the website (<http://www.library.usyd.edu.au/borrowing>).

Reading list items are available via the reserve service. Increasingly, reading list material is becoming available in electronic form. For details see the reserve service website (<http://opac.library.usyd.edu.au/screens/reserve.html>).

Library staff are always available to support students in their studies. 'Ask a Librarian' in person, by email, or by using an online chat service.

A specialist librarian is available for all discipline areas and will provide training in finding high quality information. Courses cover a range of skills including research methodology, database searching, effective use of the Internet and the use of reference management software. See the subject contact page.

Library facilities include individual and group study spaces, computers, printers, multimedia equipment, photocopiers and adaptive technologies. Check the 'Libraries' link on the home page (<http://www.library.usyd.edu.au>) to find out about services and facilities in specific libraries.

The *Client Service Charter* (<http://www.library.usyd.edu.au/contacts/subjectcontacts.html>) describes the Library's commitment to supporting students' learning, including those with special needs. See the *Client Service Charter* (<http://www.library.usyd.edu.au/contacts/index.html>) online (<http://www.library.usyd.edu.au/about/policies/clientcharter.html>). Your comments and suggestions are always welcome. University of Sydney Library, F03 University of Sydney NSW 2006 Australia Phone: (02) 9351 2993 (general enquiries) Fax: (02) 9351 2890 (administration), (02) 9351 7278 (renewals) Email: [\[\[loanenq@library.usyd.edu.au|loanenq@library.usyd.edu.au](mailto:loanenq@library.usyd.edu.au) (loan enquiries), [\[\[reqill@library.usyd.edu.au|reqill@library.usyd.edu.au](mailto:reqill@library.usyd.edu.au) (inter-library loans) Web: [www.library.usyd.edu.au](http://www.library.usyd.edu.au) (<http://www.library.usyd.edu.au>)

## Mathematics Learning Centre

The Mathematics Learning Centre assists undergraduate students to develop the mathematical knowledge, skills and confidence that are needed for studying first level mathematics or statistics units at university. The centre runs bridging courses in mathematics at the beginning of the academic year (fees apply). The centre also provides ongoing support to eligible students during the year through individual assistance and small group tutorials. For details of activities and online resources provided by the centre see the website [www.usyd.edu.au/mlc](http://www.usyd.edu.au/mlc).

Level 4, Carslaw Building, F07  
The University of Sydney

NSW 2006 Australia

Phone: (02) 9351 4061  
Fax: (02) 9351 5797  
Email: [mlc@stuserv.usyd.edu.au](mailto:mlc@stuserv.usyd.edu.au)  
Web: [www.usyd.edu.au/mlc](http://www.usyd.edu.au/mlc) (<http://www.usyd.edu.au/mlc>)

## MyUni student portal

Launched in July 2004, the MyUni student portal (<http://my-uni.usyd.edu.au>) is the starting point and 'one-stop' environment for students to access all their web-based University information and services. MyUni automatically tailors what a student sees based on their login-in and offers students the option of further personalising content. Most importantly, MyUni allows students to complete tasks online that would previously have required attendance in person. The following are examples of MyUni services and information:

- support services for students in health, counselling, child care, accommodation, employment and wellbeing;
- student administration systems for obtaining exam results, enrolment and variations, timetabling, email services and links to courses and units of study information;
- links to the University's e-learning systems;
- library services;
- notices and student alerts;
- information technology and support services;
- information for international students; and
- Campus maps, with descriptions of cultural, sporting and campus facilities.

## Part-time, full-time

### *Undergraduate students*

Undergraduate students are usually considered full-time if they have a HECS weighting of at least 0.375 each semester. Anything under this amount is considered a part-time study load. Note that some faculties have minimum study load requirements for satisfactory progress.

### *Postgraduate students (coursework)*

For postgraduate coursework students part-time or full-time status is determined by credit-point load. Enrolment in units of study which total at least 18 credit points in a semester is classed as full-time. Anything under this amount is a part-time study load. Please note that classes for some coursework programs are held in the evenings (usually 6–9pm).

### *Postgraduate students (research)*

Full-time candidates for research degrees do not keep to the normal semester schedule, instead they work continuously throughout the year with a period of four weeks' recreation leave. There is no strict definition of what constitutes full-time candidature but if you have employment or other commitments that would prevent you from devoting at least the equivalent of a 35-hour working week to your candidature (including attendance at the University for lectures, seminars, practical work and consultation with your supervisor) you should enrol as a part-time candidate. If in doubt you should consult your faculty or supervisor.

### *International students*

Student visa regulations require international students to undertake full-time study. International students on visas other than student visas may be permitted to study part-time.

## Privacy

The University is subject to the *NSW Privacy and Personal Information Protection Act 1998* and the *NSW Health Records and Information Privacy Act 2002*. Central to both acts are the sets of information protection principles (IPPs) and health privacy principles which regulate the collection, management, use and disclosure of personal and health information. In compliance with the *Privacy and Personal Information Protection Act* the University developed a *Privacy Management Plan* which includes the *University Privacy Policy*. The *Privacy Management Plan* sets out the IPPs and how they apply

to functions and activities carried out by the University. Both the plan and the *University Privacy Policy* were endorsed by the Vice-Chancellor on 28 June 2000.

Further information and a copy of the plan may be found at [www.usyd.edu.au/arms/privacy](http://www.usyd.edu.au/arms/privacy) (<http://www.usyd.edu.au/arms/privacy>).

Any questions regarding the *Freedom of Information Act*, the *Privacy and Personal Information Protection Act*, the *Health Records and Information Privacy Act* or the *Privacy Management Plan* should be directed to:

Tim Robinson: (02) 9351 4263, or Anne Picot: (02) 9351 7262  
Email: [foi@mail.usyd.edu.au](mailto:foi@mail.usyd.edu.au)

## Scholarships for undergraduates

Scholarships Unit  
Room 147, Ground Floor, Mackie Building, KO1  
The University of Sydney  
NSW 2006 Australia

Phone: (02) 9351 2717  
Fax: (02) 9351 5134  
Email: [scholarships@careers.usyd.edu.au](mailto:scholarships@careers.usyd.edu.au)  
Web: [www.usyd.edu.au/scholarships](http://www.usyd.edu.au/scholarships) (<http://www.usyd.edu.au/scholarships>)

## Student Centre

Ground Floor, Carslaw Building, F07  
The University of Sydney  
NSW 2006 Australia

Phone: (02) 9351 3023 (general enquiries)  
Academic records: (02) 9351 4109  
Discontinuation of enrolment: (02) 9351 3023  
Handbooks: (02) 9351 5057  
Prizes: (02) 9351 5060  
Fax: (02) 9351 5081, (02) 9351 5350 (academic records)  
Web: [www.usyd.edu.au/su/studentcentre](http://www.usyd.edu.au/su/studentcentre) (<http://www.usyd.edu.au/su/studentcentre>)

## Student identity cards

The student identity card functions as a library borrowing card, a transport concession card (when suitably endorsed) and a general identity card. The card must be carried at all times on the grounds of the University and must be shown on demand. Students are required to provide a passport-sized colour photograph of their head and shoulders for lamination on to this card. Free lamination is provided at a range of sites throughout the University during the January/February enrolment/pre-enrolment period. Cards that are not laminated, or do not include a photograph, will be rejected. New identity cards are required for each year of a student's enrolment.

## Student Services

The University provides personal, welfare, and academic support services to facilitate your success at University. Many factors can impact on your wellbeing while studying at university and student services can assist you in managing and handling these more effectively. For details of services and online resources provided see the Student Services website (<http://www.usyd.edu.au/stuserv>).

## The Sydney Summer School

Most faculties at the University offer units of study from undergraduate degree programs during summer. There are also some units of study available for postgraduate coursework programs from some faculties. As the University uses its entire quota of Commonwealth supported places in first and second semester, these units are full fee-paying for both local and international students and enrolment is entirely voluntary. However, Summer School units enable students

to accelerate their degree progress, make up for a failed unit or fit in a unit which otherwise would not suit their timetables. New students may also gain a head start by completing subjects before they commence their degrees. Units start at various times from late November and run for up to six weeks (followed by an examination week). Notice of the units available is on the Summer School website (<http://www.summer.usyd.edu.au>) and is usually circulated to students with their results notices. A smaller Winter School is also run from the Summer School office. It commences on 4 July and runs for up to three weeks (followed by an examination week). It offers mainly postgraduate and a few undergraduate units of study. Information can be found on the Summer School website (<http://www.summer.usyd.edu.au>).

## Timetabling unit

The Timetabling Unit in the Student Centre is responsible for producing students' class and tutorial timetables. Semester 1 timetables are available from the Wednesday of O Week on the Student Centre website (<http://www.usyd.edu.au/su/studentcentre>).

The Sydney Conservatorium of Music operates produces its own complete timetable for all teaching that it delivers. The timetable is available on enrolment at the Conservatorium.

## University Health Service

The University Health Service provides full general practitioner services and emergency medical care to all members of the University community. Medical centres on the Camperdown and Darlington Campuses offer general practitioners, physiotherapy and some specialist services.

Email: [director@unihealth.usyd.edu.au](mailto:director@unihealth.usyd.edu.au)  
Web: [www.unihealth.usyd.edu.au](http://www.unihealth.usyd.edu.au) (<http://www.unihealth.usyd.edu.au>)

### *University Health Service (Wentworth)*

Level 3, Wentworth Building, G01  
The University of Sydney  
NSW 2006 Australia

Phone: (02) 9351 3484  
Fax: (02) 9351 4110

### *University Health Service (Holme)*

Science Rd entry, Holme Building, A09  
The University of Sydney  
NSW 2006 Australia

Phone: (02) 9351 4095  
Fax: (02) 9351 4338

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# Student organisations

The following information is a printed version of the information available through Handbooks Online, on the University of Sydney web site. Please visit "<http://www.usyd.edu.au/handbooks/>" for the most current handbooks information.

## Students' Representative Council

The Students' Representative Council (SRC) is the organisation which represents undergraduates both within the University and in the wider community. All students enrolling in an undergraduate course automatically become members of the SRC.

Level 1, Wentworth Building, G01  
The University of Sydney  
NSW 2006 Australia

Phone: (02) 9660 5222 (editors, Honi Soit/Legal Aid)  
Second-hand Bookshop: (02) 9660 4756  
Mallet Street: (02) 9351 0691  
Conservatorium: (02) 9351 1291  
Fax: (02) 9660 4260  
Email: [postmaster@src.usyd.edu.au](mailto:postmaster@src.usyd.edu.au)  
Web: [www.src.usyd.edu.au](http://www.src.usyd.edu.au) (<http://www.src.usyd.edu.au>)

Email: [info@usu.usyd.edu.au](mailto:info@usu.usyd.edu.au)  
Web: [www.usydunion.com](http://www.usydunion.com) (<http://www.usydunion.com>)

## Sydney University Postgraduate Representative Association (SUPRA)

SUPRA is an organisation that provides services to and represents the interests of postgraduate students.

All postgraduate students at the University of Sydney are members of SUPRA.

Raglan Street Building, G10  
University of Sydney  
NSW 2006 Australia

Phone: (02) 9351 3715  
Freecall: 1800 249 950  
Fax: 02 9351 6400  
Email: [supra@mail.usyd.edu.au](mailto:supra@mail.usyd.edu.au)  
Web: [www.supra.usyd.edu.au](http://www.supra.usyd.edu.au) (<http://www.supra.usyd.edu.au>)

## Sydney University Sport

Sydney University Sport provides services, facilities and clubs for sport, recreation and fitness.

University Sports and Aquatic Centre, G09  
The University of Sydney  
NSW 2006 Australia

Phone: (02) 9351 4960  
Fax: (02) 9351 4962  
Email: [admin@susport.usyd.edu.au](mailto:admin@susport.usyd.edu.au)  
Web: [www.susport.com](http://www.susport.com) (<http://www.susport.com>)

## University of Sydney Union

The University of Sydney Union is the main provider of catering facilities, retail services, welfare programs and social and cultural events for the University community on the Camperdown and Darlington campuses and at many of the University's affiliated campuses.

University of Sydney Union  
Level 1, Manning House, A23  
The University of Sydney  
NSW 2006 Australia

Phone: 1800 013 201 (switchboard)  
Fax: (02) 9563 6109



# Abbreviations

The following information is a printed version of the information available through Handbooks Online, on the University of Sydney web site. Please visit "<http://www.usyd.edu.au/handbooks/>" for the most current handbooks information.

For a glossary of terms, describing the terminology in use at the University of Sydney, please see the glossary section.

Listed below are the more commonly used acronyms that appear in University documents and publications.

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

<b>A</b>		<b>C</b>	
AARNet	Australian Academic Research Network	CREO	Centre for Regional Education, Orange
AAUT	Australian Awards for University Teaching	CRICOS	Commonwealth Register of Institutions and Courses for Overseas Students
AAM	Annual Average Mark	CRRI	Centre for Rural and Regional Innovation
ABC	Activity Based Costing	CSIRO	Commonwealth Scientific and Industrial Research Organisation
ABSTUDY	Aboriginal Study Assistance Scheme	CST	College of Sciences and Technology
ACER	Australian Council for Educational Research	CULT	Combined Universities Language Test
AGSM	Australian Graduate School of Management	CUTSD	Committee for University Teaching and Staff Development
ANZAAS	Australian and New Zealand Association for the Advancement of Science	<b>D</b>	
APA	Australian Postgraduate Awards	DAC	Data Audit Committee
APAC	Australian Partnership for Advanced Computing	DEST	Commonwealth Department of Education, Science and Training
APAI	Australian Postgraduate Awards (Industry)	DET	NSW Department of Education and Training
APA-IT	Australian Postgraduate Awards in Information Technology	D-IRD	Discovery-Indigenous Researchers Development Program
APDI	Australian Postdoctoral Fellowships Industry	DVC	Deputy Vice-Chancellor
APEC	Asia-Pacific Economic Co-operation	<b>E</b>	
APF	Australian Postdoctoral Fellowship	EB	Enterprise Bargaining
AQF	Australian Qualifications Framework	EFTSU	Equivalent Full-Time Student Unit
ARC	Australian Research Council	EFTSL	Equivalent Full-Time Student Load
ARTS	Automated Results Transfer System	EIP	Evaluations and Investigations Program
ASDOT	Assessment Fee Subsidy for Disadvantaged Overseas Students	ELICOS	English Language Intensive Course of Study
ATN	Australian Technology Network	EMU	Electron Microscope Unit
ATP	Australian Technology Park	ESOS Act	Education Services for Overseas Student Act
ATPL	Australian Technology Park Limited	<b>F</b>	
AUQA	Australian Universities Quality Agency	FFT	Fractional Full Time (Equivalent Staff)
AusAID	Australian Agency for International Development	FlexSIS	Flexible Student Information System
AUTC	Australian Universities Teaching Committee	FHS	Faculty of Health Sciences
AVCC	Australian Vice-Chancellors Committee	FMO	Facilities Management Office
<b>B</b>		FOS	Field of Study
BAA	Backing Australia's Ability	FTE	Full Time Equivalent (Staff)
BAC	Budget Advisory Committee	FRM	Faculty of Rural Management
BITLab	Business Intelligence Lab	<b>G</b>	
BLO	Business Liaison Office	GATS	General Agreement on Trade in Services
BOTPLS	Bridging for Overseas Trained Professionals Loans Scheme	GCCA	Graduate Careers Council of Australia
<b>C</b>		GDS	Graduate Destination Survey
CAF	Cost Adjustment Factor	GPOF	General Purpose Operating Funds
CAUT	Committee for Advancement of University Teaching	GSA	Graduate Skills Assessment
CDP	Capital Development Program	GSG	Graduate School of Government
CEP	Country Education Profile	GWSLN	Greater Western Sydney Learning Network
CEQ	Course Experience Questionnaire	<b>H</b>	
CFO	Chief Financial Officer	HDR	Higher Degree Research
CHASS	College of Humanities and Social Sciences	HECS	Higher Education Contribution Scheme
CHESSN	Commonwealth Higher Education System Student Number	HEEP	Higher Education Equity Program
CHS	College of Health Sciences	HEFA	Higher Education Funding Act 1988
CIO	Chief Information Officer	HEIMS	Higher Education Information Management System
COE	Confirmation of Enrolment	HEIP	Higher Education Innovation Programme (DEST)
CPSU	Community and Public Sector Union	HELP	Higher Education Loan Programme
CRC	Cooperative Research Centre		

## Abbreviations

<b>H</b>		<b>Q</b>	
HEO	Higher Education Officer	QACG	Quality Advisory and Coordination Group
HEP	Higher Education Provider	<b>R</b>	
HERDC	Higher Education Research Data Collection	R&D	Research and Development
HESA	Higher Education Support Act	R&R	Restructuring and Rationalisation Program
HOD	Head of Department	RC	Responsibility Centre
<b>I</b>		REG	Research and Earmarked Grants
IAF	Institutional Assessment Framework (This is a new name for what was previously the DEST Profile process.)	REP	Research Education Program
IAS	Institute of Advanced Studies	RFM	Relative Funding Model
ICT	Information and Communication Technology	RIBG	Research Infrastructure Block Grant (DEST)
ICTR	Information and Communication Technology Resources	RIEF	Research Infrastructure Equipment and Facilities Scheme
IELTS	International English Language Testing Scheme	RISF	Restructuring Initiatives Support Fund
IGS	Institutional Grants Scheme (DEST)	RMO	Risk Management Office
IO	International Office	ROA	Record of Achievement
IP	Intellectual Property	RQ	Research Quantum
IPRS	International Postgraduate Research Scholarships	RQU	Recognition Quality Unit (Higher Education Division - DEST)
IREX	International Researcher Exchange Scheme	RRTMR	Research and Research Training Management Reports
ISFP	Indigenous Support Funding Program	RSL	Recent School Leaver
ISIG	Innovation Summit Implementation Group	RTS	Research Training Scheme (DEST)
ISSU	International Student Services Unit	<b>S</b>	
ITC	Information Technology Committee	SCA	Sydney College of the Arts
ITL	Institute for Teaching and Learning	SCEQ	Sydney Course Experience Questionnaire
ITS	Information Technology Services	SCM	Sydney Conservatorium of Music
<b>J</b>		SCR	Science Capability Review
JASON	Joint Academic Scholarships On-line Network	SDF	Strategic Development Fund
<b>L</b>		SEG	Senior Executive Group
LBOTE	Language Background Other Than English	SES	Socioeconomic Status
<b>M</b>		SI	Scholarship Index
MBA	Master of Business Administration	SLE	Student Learning Entitlement
MISG	Management Information Steering Group	SNA	Safety Net Adjustment
MNRF	Major National Research Facilities Scheme	SPIRT	Strategic Partnerships with Industry - Research and Training Scheme
MOU	Memorandum of Understanding	SPR	Student Progress Rate
MPG	Major Projects Group	SRC	Students' Representative Council
MRB	Medical Rural Bonded Scholarship Scheme	SSR	Student/Staff Ratio
<b>N</b>		STABEX	Study Abroad Exchange (database)
NBCOTP	National Bridging Courses for Overseas Trained Program	SUPRA	Sydney University Postgraduate Students' Representative Association
NCG	National Competitive Grant	SUSport	Sydney University Sport
NESB	Non-English-Speaking Background	<b>T</b>	
NHMRC	National Health and Medical Research Council	TAFE	Technical and Further Education
NOIE	National Office for the Information Economy	TOEFL	Test of English as a foreign language
NOOSR	National Office for Overseas Skill Recognition	TPI	Teaching Performance Indicator
NRSL	Non-Recent School Leaver	<b>U</b>	
NSW VCC	New South Wales Vice-Chancellors' Conference	UAC	Universities Admissions Centre
NTEU	National Tertiary Education Industry Union	UMAP	University Mobility in Asia and the Pacific
<b>O</b>		UNESCO	United Nations Educational, Scientific and Cultural Organisation
OECD	Organisation for Economic Co-operation and Development	UPA	University Postgraduate Awards
OLA	Open Learning Australia	<b>V</b>	
OLDPS	Open Learning Deferred Payment Scheme	VCAC	Vice-Chancellor's Advisory Committee
OPRS	Overseas Postgraduate Research Scholarships	VET	Vocational Education and Training
<b>P</b>		<b>W</b>	
PELS	Postgraduate Education Loans Scheme	WAM	Weighted Average Mark
PSO	Planning Support Office	WRP	Workplace Reform Program
PVC	Pro-Vice-Chancellor	WTO	World Trade Organisation
<b>Q</b>		<b>Y</b>	
QA	Quality Assurance	YFE	Year of First Enrolment



# Glossary

The following information is a printed version of the information available through Handbooks Online, on the University of Sydney web site. Please visit "<http://www.usyd.edu.au/handbooks/>" for the most current handbooks information.

For a table of the more commonly used acronyms and abbreviations that appear in University documents and publications please see the abbreviations section.

This glossary describes terminology in use at the University of Sydney.

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

## A

### AAM - Annual Average Mark

The average mark over all units of study attempted in a given academic year (equivalent to the calendar year).

The formula for this calculation is:

$$AAM = \frac{\sum (\text{marks} \times \text{creditPointValue})}{\sum (\text{creditPointValue})}$$

(sums over all UoS's completed in the selected period)

Where the mark is the actual mark obtained by the student for the unit of study, or in the case of a failing grade with no mark - 0. Pass/Fail assessed subjects and credit transfer subjects (from another institution) are excluded from these calculations; however, the marks from all attempts at a unit of study are included.

### Academic Board

The senior academic body within the University. In conjunction with faculties, the Academic Board has responsibility for approving, or recommending to Senate for approval, new or amended courses and units of study and policy relating to the admission and candidature of students. (For further information, see the University Calendar.)

### Academic cycle

The program of teaching sessions offered over a year. Currently the cycle runs from the enrolment period for Semester 1 through to the completion of the processing of results at the end of Semester 2. (See also Stage.)

### Academic dishonesty

Academic dishonesty occurs when a student presents another person's ideas, findings or written work as his or her own by copying or reproducing them without due acknowledgement of the source and with intent to deceive the examiner. Academic dishonesty also covers recycling, fabrication of data, engaging another person to complete an assessment or cheating in exams. (See also Plagiarism.)

### Academic record

The complete academic history of a student at the University. It includes, among other things: personal details; all units of study and courses taken; assessment results (marks and grades); awards and prizes obtained; infringements of progression rules; approvals for variation in course requirements and course leave; thesis and supervision details.

Access to a student's academic record is restricted to authorised University staff and is not released to a third party without the written authorisation of the student. (See also Academic transcript.)

### Academic transcript

A printed statement setting out a student's academic record at the University. There are two forms of academic transcript: external and internal. (See also External transcript, Internal transcript.)

### Academic year

The current calendar year in which a student is enrolled.

(See also Academic cycle, Stage.)

### Admission

Governed by the University's admission policy, this is the process for identifying applicants eligible to receive an initial offer of enrolment in a course at the University. Admission to most courses is based on performance in the HSC, with applicants ranked on the basis of their UAI. Other criteria such as a portfolio, interview, audition, or results in standard tests may also be taken into account for certain courses.

### Admission basis

The main criteria used by a faculty in assessing an application for admission to a course. The criteria used include, among other things, previous secondary, TAFE or tertiary studies; work experience; special admission; and the Universities Admission Index (UAI).

### Admission (deferment)

An applicant who receives an offer of admission to a course may apply to defer enrolment in that course for one semester or one academic cycle.

### Admission mode

A classification based on how a student was admitted to a course, for example 'UAC' or 'direct'.

### Admission period

The period during which applications for admission to courses are considered.

### Admission year

The year the student expects to begin the course (see also Commencement date).

### Advanced diplomas

See Award course

### Advanced standing

See Credit.

### Advisor

A member of academic staff appointed in an advisory role for some postgraduate coursework students. (See also Associate supervisor, Instrumental supervisor/teacher, Research supervisor, Supervision.)

### Aegrotat

In exceptional circumstances involving serious illness or death of a student prior to completion of their course, the award of aegrotat and posthumous degrees and diplomas may be conferred.

### Alumni Sidneienses

A searchable database of graduates of the University from 1857 to 30 years prior to the current year.

### Annual Progress Report

A form which is used to monitor a research student's progress each year. The form provides for comments by the student, the supervisor, the head of the department and the dean (or their nominee). The completed form is attached to the student's official file.

**Appeals**

Students may lodge an appeal against academic or disciplinary decisions. An academic appeal (e.g. against exclusion) is managed by the Student Centre - Exclusions Office while it is under consideration and a record of the outcome of the appeal will be retained.

**Assessment**

The process of measuring the performance of students in units of study and courses. Performance may be assessed by examinations, essays, laboratory projects, assignments, theses, treatises or dissertations. (See also Result processing, Result processing schedule.)

*Formative assessment*

Formative assessment is used principally to provide students with feedback on their progress in learning. It reinforces successful learning, and is an opportunity for students to expose the limitations in their knowledge and understanding.

*Summative assessment*

Summative assessment is used to certify competence, or to arrange students in a rank order of merit. It certifies the attainment of a standard, and is used as the basis for progression to the next part of a program, or to graduation.

**Associate supervisor**

A person who is appointed in addition to the supervisor of a research student, who can provide the day-to-day contact with the candidate or provide particular expertise or additional experience in supervision. (See also Advisor, Instrumental supervisor/teacher, Research supervisor, Supervision.)

**Assumed knowledge**

For some units of study, a student is assumed to have passed a relevant subject at the HSC and this is called assumed knowledge. While students are generally advised against taking a unit of study for which they do not have the assumed knowledge, they are not prevented from enrolling in the unit of study. (See also Prerequisite.)

**Attendance pattern**

Attendance pattern is classified as full-time, part-time or external, this is dependant on the student's mode of attendance and the student load.

**Attendance mode**

A Department of Education, Science and Technology (DEST) classification defining the manner in which a student is undertaking a course, i.e. internal, external, mixed or offshore.

**Australian Graduate School of Management (AGSM)**

A joint venture with the University of New South Wales. The AGSM is derived from the Graduate School of Business at the University of Sydney and the then AGSM at the University of New South Wales.

**Australian Qualifications Framework (AQF)**

The framework for recognition and endorsement of qualifications established by the Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA).

**AUSTUDY**

Austudy provides financial help to students who are aged 25 years or more who meet the required criteria, and is undertaking an approved full-time course at an approved institution. (See also Youth Allowance.)

**Automated Results Transfer System (ARTS)**

This system was developed by the Australasian Conference of Tertiary Admissions Centres (ACTAC) to allow the electronic academic record of a student to be accessed, via an admission centre, by tertiary institutions.

**Award Course**

(See Course)

**B****Bachelor's degree**

The highest undergraduate award offered at the University. A bachelor's degree course normally requires three or four years of full-time study or the part-time equivalent. (See also Award course)

**Barrier**

An instruction placed on a student's record that prevents the student from re-enrolling or graduating. (See also Deadlines (fees), Suppression of results).

**Board of Studies**

An academic body which supervises a course or courses, and which is similar to a faculty except that it is headed by a chair rather than a dean and does not supervise PhD candidates.

**Bursaries**

Financial award made to a student, based primarily on need. (See also Scholarships).

**C****Cadigal Program**

A program, named in recognition of the Aboriginal people of the land on which the University is located, designed to increase the successful participation of Aboriginal and Torres Strait Islander people in degree courses in all faculties at the University of Sydney.

**Campus**

The grounds on which the University is situated. There are eleven campuses of the University of Sydney:

- Burren Street (Institute for International Health, Institute of Transport Studies)
- Camperdown and Darlington (formerly known as Main Campus)
- Camden (Agriculture and Veterinary Science)
- Conservatorium (Sydney Conservatorium of Music)
- Cumberland (Health Sciences)
- Mallett Street (Nursing)
- Orange (Faculty of Rural Management and Centre for Regional Education)
- Rozelle (Sydney College of the Arts)
- St James (Law)
- Surry Hills (Dentistry).

**Cancellation**

Where enrolment is cancelled for non-payment of fees.

**Candidature**

Candidature commences when a student is admitted to a course of study leading to the award of a degree, diploma or certificate. There are maximum periods and in some cases minimum periods of candidature depending on the award course and whether the candidate is a full time or part time student.

**Census date**

The date at which a student's enrolment, load and HECS liability are finalised before this information is reported to DEST. (see also HECS)

**Ceremony**

See Graduation ceremony.

**Chancellor**

The non-executive head of the University. An honorary position, the Chancellor presides over meetings of the University's governing body, the Senate, and important ceremonial occasions such as graduations.

**Clinical Experience**

Students undertake clinical placements in a professional environment as part of their course requirements. Many require University ap-

proved supervision. In order to undertake clinical placements a student may be required to fulfil additional requirements.

### **College of Health Sciences**

Consists of the Faculties of Dentistry; Health Sciences; Medicine; Nursing; and Pharmacy.

### **College of Humanities and Social Sciences (CHASS)**

Consists of the Faculties of Arts; Economics and Business; Education; Law; the Sydney College of the Arts; and the Sydney Conservatorium of Music.

### **College of Sciences and Technology (CST)**

Consists of the Faculties of Agriculture, Food and Natural Resources; Architecture; Engineering; Rural Management; Science; and Veterinary Science.

### **Combined course**

A course which leads to two awards. For example the Arts/Law course leads to the separate awards of Bachelor of Arts and Bachelor of Laws.

### **Combined degree**

A combined degree is a single program with a single set of course resolutions leading to the award of two degrees (unless otherwise specified in the resolutions). (See also Combined course.)

### **Commencement date**

The date a student commences candidature.

### **Compulsory subscriptions**

Each enrolled student is liable to pay annual (or semester) subscriptions, as determined by the Senate, to the student organisations at the University. There are different organisations for undergraduate and postgraduate students.

The student organisations are specific to different campuses. The organisations at campuses other than Camperdown and Darlington include: the Conservatorium Student Association, the Cumberland Student Guild, the Orange Agricultural College Student Association and the Student Association of Sydney College of the Arts. (See also Compulsory subscription exemption, Joining fee, Life membership.)

### **Compulsory subscription exemption**

Students of a certain age or those with disabilities or medical conditions may be exempt from the subscription to the sports body.

Conscientious objectors to the payment of subscriptions to unions of any kind may apply to the Registrar for exemption. The Registrar may permit such a student to make the payment to the Jean Foley Bursary Fund instead. (See also Compulsory subscriptions.)

### **Confirmation of Enrolment form (COE)**

This form is issued to each student after enrolment, showing the course and the units of study in which the student is enrolled, together with the credit point value of the units of study and the HECS weights. Until all fees are paid, it is issued provisionally.

A new confirmation of enrolment form is produced every time a student's enrolment is varied.

### **Conjoint ventures**

Two or more institutions co-operate to provide a unit or course of study to postgraduate coursework students. Arrangements exist between individual departments at the University of Sydney and individual departments at the University of New South Wales (UNSW) and the University of Technology Sydney (UTS), whereby students enrolled for a degree at one institution complete one or more units of study at the other institution to count towards the award program at their 'home' institution.

### **Continuing professional education**

A process which provides a number of programs of continuing education courses for professionals as they move through their career. These programs are presently administered by the Centre for Con-

tinuing Education and a number of departments and foundations across the University. This process supports the whole of life learning concept and involves the maintenance of a long term relationship between the student and the University.

### **Convocation**

The body comprising all graduates of the University.

### **Core unit of study**

A unit of study that is compulsory for a particular course or subject area. (See also Unit of study.)

### **Co-requisite**

A unit of study which must be taken in the same semester or year as a given unit of study (unless it has already been completed). These are determined by the faculty or board of studies concerned, published in the faculty handbook and shown in FlexSIS. (See also Prerequisite, Waiver.)

### **Cotutelle scheme**

Agreement between the University and any overseas university for joint supervision and examination of a PhD student as part of an ongoing co-operative research collaboration. If successful, the student receives a doctorate from both universities with each testamur acknowledging the circumstances under which the award was made.

### **Course**

An undertaking of study at the University of Sydney

#### *Award course*

A formal course of study that will see attainment of a recognised award.

Award courses are approved by Senate, on the recommendation of the Academic Board. The University broadly classifies courses as undergraduate, postgraduate coursework or postgraduate research. (See also Bachelor's degree, Course rules, Diploma, Doctorate, Major, Master's degree, Minor, PhD, Stream.)

#### *Non-award course*

Studies undertaken by students who are not seeking an award from the University. (See also Cross-institutional enrolment.)

#### *Coursework*

An award course not designated as a research award course. While the program of study in a coursework award course may include a component of original, supervised, other forms of instruction and learning normally will be dominant.

#### *Research*

A course in which at least 66% of the overall course requirements involve students in undertaking supervised research, leading to the production of a thesis or other piece of written or creative work, over a prescribed period of time.

### **Course alias**

A unique five character alpha-numeric code which identifies a University course.

### **Course code**

See Course alias.

### **Course enrolment status**

A student's enrolment status in a course is either 'enrolled' or 'not enrolled'. 'Not enrolled' reasons include: cancelled; suspended; under examination; or terminated. (See also Cancellation, Candidature, Course leave, Enrolment, Enrolment variation, Terminated, Under examination.)

### **Course leave**

Students are permitted to apply for a period away from their course without losing their place. Course leave is formally approved by the supervising faculty for a minimum of one semester. Students on leave are regarded as having an active candidature, but they are not entitled to a student card. At undergraduate level, leave is not counted towards the total length of the course. Students who are absent from study without approved leave may be discontinued and

may be required to formally reapply for admission. (See also Progression.)

#### **Course rules**

Rules which govern the allowable enrolment of a student in a course. Course rules may be expressed in terms of types of units of study taken, length of study, and credit points accumulated, e.g. a candidate may not enrol in units of study having a total value of more than 32 credit points per semester. Course rules also govern the requirements for the award of the course, e.g. a candidate must have completed a minimum of 144 credit points. (See also Award course, Co-requisite, Pre-requisite.)

#### **Course suspension**

See Course leave.

#### **Course transfer**

A transfer occurs when a student changes from one course in the University to another course in the University without the requirement for an application and selection process (e.g. from a PhD to a Master's program in the same faculty).

#### **Credit**

The recognition of previous studies successfully completed at this University, or another university or tertiary institution recognised by the University of Sydney, as contributing to the requirements of the course to which the applicant requesting such recognition has been admitted. Credit may be granted as specified credit or non-specified credit.

##### *Specified credit*

The recognition of previously completed studies as directly equivalent to units of study.

##### *Non-specified credit*

A 'block credit' for a specified number of credit points at a particular level. These credit points may be in a particular subject area but are not linked to a specific unit of study.

(See also AAM - Annual Average Mark, Waiver, Weighted Average Mark (WAM).)

#### **Credit points**

The value of the contribution each unit of study provides towards meeting course completion requirements. Each unit of study will have a credit point value assigned to it. The total number of credit points required for completion of award courses will be specified in the Senate Resolutions relevant to the award course.

#### **Cross-institutional enrolment**

An enrolment in units of study at one university to count towards an award course at another university. Cross-institutional enrolments incur a HECS liability or tuition fee charge at the institution at which the unit of study is being undertaken. Students pay compulsory subscriptions to one university only (usually their home university, i.e. the university which will award their degree). (See also Non-award course.)

## **D**

The Data Audit Committee's role is to oversee the integrity and accuracy of the course and unit of study data as strategic University data. It also advises the Academic Board on suggested policy changes related to course and unit of study data. A sub-committee of the VCAC Enrolment Working Party, it is chaired by the Registrar, with membership including the deans, the Student Centre, FlexSIS and the Planning Support Office.

#### **Deadlines (enrolment variations)**

See Enrolment variation.

#### **Deadlines (fees)**

The University has deadlines for the payment of fees (e.g. HECS, compulsory subscriptions, course fees). Students who do not pay fees by these deadlines may have their enrolment cancelled or they

may have a barrier placed on the release of their record. (See also Barrier, Cancellation.)

#### **Dean**

The head of a faculty, or the principal or director of a college (such as the Sydney Conservatorium of Music or the Sydney College of Arts).

#### **Dean's certificate**

A statement from the Dean certifying that all requirements, including fieldwork and practical work, have been met and that the student is eligible to graduate. Not all faculties use Dean's Certificates. In faculties that do, qualified students have 'Dean's Certificate' noted on their academic record.

#### **Deferral (Deferral)**

See Admission (deferral), Course leave.

#### **Degree**

See also Award course, Bachelor's degree.

#### **Delivery mode**

Indicates how students receive the instruction for a unit of study. The delivery mode must be recorded for each unit as distinct from the attendance mode of the student, i.e. an internal student may take one or more units by distance mode and an external student may attend campus for one or more units.

##### *Distance Education*

Where subject matter is delivered in a more flexible manner, such as correspondence notes, and student may only attend campus if required. (See also Extended Semester, Distance Education, International - Off shore)

##### *Intensive on campus*

Core content is delivered with support learning in an intensive (one or more days) format on campus. Participation is usually compulsory. Previously this may have been called residential, block mode, or weekend workshop.

##### *On Campus (Normal)*

Attendance of scheduled lectures, tutorials etc at a campus of the University.

#### **Department**

See School.

#### **Department of Education, Science and Training (DEST)**

The Commonwealth Government department responsible for higher education.

#### **Differential HECS**

See Higher Education Contribution Scheme (HECS).

#### **Diploma**

The award granted following successful completion of diploma course requirements. A diploma course usually requires less study than a degree course. (See also Award course.)

#### **Direct admissions**

For some courses, applications may be made directly to the University. Applications are received by faculties or the International Office, and considered by the relevant department or faculty body. Decisions are recorded and letters are forwarded to applicants advising them of the outcome. (See also Admission, UAC.)

#### **Disability information**

Students may inform the University of any temporary or permanent disability which affects their life as a student. Disability information is recorded but it is only available to particular authorised users because of its sensitive nature.

#### **Disciplinary action**

Undertaken as the result of academic or other misconduct, e.g. plagiarism, cheating, security infringement, criminal activity.

**Discipline**

A defined area of study, for example, chemistry, physics, economics.

**Discipline group**

A DEST code used to classify units of study in terms of the subject matter being taught or being researched.

**Discontinuation (course)**

See Enrolment variation.

**Discontinuation (unit of study)**

See Enrolment variation.

**Dissertation**

A written exposition of a topic which may include original argument substantiated by reference to acknowledged authorities. It is a required unit of study for some postgraduate award courses in the faculties of Architecture and Law.

**Distance Education**

Where a student does not attend campus on a daily basis for a given course or Unit of Study. (See also Delivery mode, Extended Semester.)

**Doctorate**

A high-level postgraduate award. A doctorate course normally involves research and coursework; the candidate submits a thesis that is an original contribution to the field of study. Entry to a doctorate course often requires completion of a master's degree course. Note that the doctorate course is not available in all departments at the University. (See also Award course, PhD.)

**Domestic Student**

A student who is not an international student (see also Local Student)

**Double degree**

A double degree is a program where students are permitted by participating faculties (and/or by specific resolutions within a single award) to transfer between courses in order to complete two awards.

**Downgrade**

Where a student enrolled in a PhD reverts to a Master's by Research, either on the recommendation of the University on the basis that the research they are undertaking is not at an appropriate level for a PhD; or at the student's own request, for personal or academic reasons.

**E****Equivalent Full-Time Student Unit (EFTSU)**

The equivalent full-time student unit (EFTSU) is a measure of student load based on the workload for a student undertaking a full year of study in a particular course. A student is then recorded as having generated 1 EFTSU. (See also Load, Stage)

**Equivalent Full-Time Student Load (EFTSL)**

The equivalent full-time student load (EFTSL) for a year. It is a measure, in respect of a course of study, of the study load for a year of a student undertaking that course of study on a full-time basis. (effective 1 January, 2005)

**Embedded courses**

Award courses in the Graduate Certificate, Graduate Diploma and Master's degree by coursework sequence which allow unit of study credit points to count in more than one of the awards, e.g. the Graduate Certificate in Information Technology, Graduate Diploma in Information Technology and Master of Information Technology.

**Enrolment**

A student enrolls in a course by registering with the supervising faculty in the units of study to be taken in the coming year, semester or session.

**Commencing**

An enrolment is classified as commencing if a student has enrolled in a particular degree or diploma for the first time.

**Continuing**

Students already in a course at the University re-enrol each year or semester. Most continuing students are required to pre-enrol. (See also Pre-enrolment.)

**Enrolment list**

A list of all currently enrolled students in a particular unit of study. (See also Unit of study.)

**Enrolment status**

See Course enrolment status.

**Enrolment variation**

Students may vary their enrolment at the beginning of each semester. Each faculty determines its deadlines for variations, but HECS liability depends on the HECS census date. (See also HECS.)

**Examination**

A set of questions or exercises evaluating on a given subject given by a department or faculty. (See Examination period, Assessment.)

**Examination period**

The time set each semester for the conduct of formal examinations.

**Examiner (coursework)**

The person assessing either the written/oral examination, coursework assignments, presentations, etc of a student or group of students.

**Exchange student**

Either a student of the University of Sydney who is participating in a formally agreed program involving study at an overseas university or an overseas student who is studying here on the same basis. The International Office provides administrative support for some exchanges.

**Exclusion**

A faculty may ask a student whose academic progress is considered to be unsatisfactory to 'show good cause' why the student should be allowed to re-enrol. If the faculty deems the student's explanation unsatisfactory, or if the student does not provide an explanation, the student may be excluded either from a unit of study or from a course or faculty. An excluded student may apply to the faculty for permission to re-enrol. Normally, at least two years must have elapsed before such an application would be considered.

University policy relating to exclusion is set out in the University Calendar. (See also Progression, Senate appeals.)

**Exemption**

A decision made at a sub-unit of study level to allow a student to complete a unit of study without also completing all the prescribed components of coursework and/or assessment. (See also Credit, Waiver.)

**Expulsion**

The ultimate penalty of disciplinary action is to expel the student from the University. The effect of expulsion is:

- the student is not allowed to be admitted or to re-enrol in any course at the University;
- the student does not receive their results;
- the student is not allowed to graduate; and
- the student does not receive a transcript or testamur.

**Extended semester**

A distance-learning student may be allowed more time to complete a module or program if circumstances beyond the student's control, e.g. drought, flood or illness, affect the student's ability to complete the module or program in the specified time. (See also Distance Education.)

**External**

See Attendance mode, Distance Education.

**External transcript**

A certified statement of a student's academic record printed on official University security paper. It includes the student's name, any credit granted, all courses the student was enrolled in and the final course result and all units of study attempted within each course together with the result. It also acknowledges prizes the student has received. Marks can be included or omitted, as required. (See also Academic transcript, Internal transcript.)

**F****Faculty**

A formal part of the University's academic governance structure, consisting mainly of academic staff members and headed by a dean, which is responsible for all matters concerning the award courses that it supervises. Usually, a faculty office administers the faculty and student or staff inquiries related to its courses. The University Calendar sets out the constitution of each of the University's faculties. (See also Board of studies, Supervising faculty.)

**Fee-paying students**

Students who pay tuition fees to the University and are not liable for HECS.

**Flexible learning**

See Delivery mode, Distance Education.

**Flexible Start Date**

Full fee-paying distance students are not restricted to the same enrolment time frames as campus-based or HECS students.

**Flexible Student Information System (FlexSIS)**

The computer-based Flexible Student Information System at the University of Sydney. FlexSIS holds details of courses and units of study being offered by the University and the complete academic records of all students enrolled at the University.

**Formative assessment**

See Assessment.

**Full-time student**

See also Attendance Pattern, EFTSU.

**G****Grade**

The outcome for a unit of study linked with a mark range. For example, a mark in the range 85-100 attracts the grade 'high distinction' ('HD'). (See also Mark.)

Grade	Description	Comment
HD	High distinction	a mark of 85-100
D	Distinction	a mark of 75-84
CR	Credit	a mark of 65-74
P	Pass	a mark of 50-64
R	Satisfied requirements	This is used in pass/fail only outcomes.
UCN	Unit of study continuing	Used at the end of semester for units of study that have been approved to extend into a following semester. This will automatically flag that no final result is required until the end of the last semester of the unit of study.

PCON	Pass (concessional)	A mark of 46-49. Use of this grade is restricted to those courses that allow for a concessional pass of some kind to be awarded. A student may re-enrol in a unit of study for which the result was PCON. Each faculty will determine and state in its course regulations what proportion, if any, may count - e.g., 'no more than one sixth of the total credit points for a course can be made up from PCON results'.
F	Fail	A mark of 0-49. This grade may be used for students with marks of 46-49 in those faculties which do not use PCON.
AF	Absent fail	Includes non-submission of compulsory work (or non-attendance at compulsory labs, etc) as well as failure to attend an examination.
W	Withdrawn	Not recorded on an external transcript. This is the result that obtains where a student applies to discontinue a unit of study by the HECS census date (i.e. within the first four weeks of enrolment).
DNF	Discontinued - not to count as failure	Recorded on external transcript. This result applies automatically where a student discontinues after the HECS Census Date but before the end of the seventh week of the semester (or before half of the unit of study has run, in the case of units of study which are not semester-length). A faculty may determine that the result of DNF is warranted after this date if the student has made out a special case based on illness or misadventure.
INC	Incomplete	This result is used when examiners have grounds (such as illness or misadventure) for seeking further information or for considering additional work from the student before confirming the final result. Except in special cases approved by the Academic Board, this result will be converted to a normal permanent passing or failing grade either: by the dean at the review of examination results conducted pursuant to section 2 (4) of the Academic Board policy 'Examinations and Assessment Procedures'; or automatically to an AF grade by the third week of the immediately subsequent academic session. Deans are authorised to approve the extension of a MINC grade for individual students having a valid reason for their incomplete status.
UCN	Incomplete	A MINC or INC grade is converted, on the advice of the dean, to UCN when all or many students in a unit of study have not completed the requirements of the unit. The students may be engaged in practicum or clinical placements, or in programs extending beyond the end of semester (e.g. Honours).

**Graduand**

A student who has completed all the requirements for an award course but has not yet graduated. (See also Graduation, Potential graduand.)

**Graduate**

A person who holds an award from a recognised tertiary institution. (See also Graduand, Graduation.)

**Graduate Certificate**

See Award course.

**Graduate Diploma**

See Award course.

**Graduation**

The formal conferring of awards either at a ceremony or in absentia. (See also In absentia, Potential graduand.)

**Graduation Ceremony**

A ceremony where the Chancellor confers awards upon graduands.

**Group work**

Means a formally established project to be conducted by a number of students in common, resulting in a single piece of assessment or a number of associated pieces of assessment. (See also Legitimate cooperation)

## H

### Head of Department (HOD)

The head of the academic unit which has responsibility for the relevant unit of study, or equivalent program leader.

### Higher Doctorates

See Award course.

### HECS (Higher Education Contribution Scheme)

All students, unless they qualify for an exemption, are obliged to contribute towards the cost of their education under the Higher Education Contribution Scheme. These contributions are determined annually by the Commonwealth Government. This scheme will cease in its current form from 1 January, 2005

### Honorary degrees

A degree *honoris causa* (translated from the Latin as 'for the purpose of honouring') is conferred on a person whom the University wishes to honour. Long-standing full-time members of the University's academic staff who are not graduates of the University may be considered by Senate, upon their retirement, for admission ad eundem gradum, to an appropriate degree of the University.

### Honours

Some degrees may be completed 'with Honours'. This may involve either the completion of a separate Honours year or additional work in the later years of the course or meritorious achievement over all years of the course. Honours are awarded in a class (Class I, Class II – which may have two divisions or, Class III).

### NSW Higher School Certificate (HSC)

The NSW Higher School Certificate (HSC), which is normally completed at the end of year 12 of secondary school. The UAI (Universities Admission Index) is a rank out of 100 that is computed from a student's performance in the HSC.

## I

### In absentia

Latin for 'in the absence of'. Awards are conferred in absentia when graduands do not, or cannot, attend the graduation ceremony scheduled for them. Those who have graduated in absentia may later request that they be presented to the Chancellor at a graduation ceremony. (See also Graduation.)

### Instrumental supervisor / teacher

All students at the Sydney Conservatorium of Music and BMus students on the Camperdown Campus have an instrumental teacher appointed. (See also Advisor, Associate supervisor, Research supervisor, Supervision.)

### Internal Mode

See Attendance mode.

### Internal transcript

A record of a student's academic record for the University's own internal use. It includes the student's name, student identifier (SID), address, all courses in which the student was enrolled and the final course result, and all units of study attempted within each course together with the unit of study result. (See also Academic transcript, External transcript.)

### International student

Any student who is not an Australian or New Zealand citizen or a permanent resident of Australia is an international student. An international student is required to hold a visa that allows study in Australia and may be liable for international tuition fees

#### *Fee paying*

A private International Student who is liable to pay tuition fees for their studies with the University.

#### *Fee Paying - Outgoing Exchange*

An international fee-paying student undertaking short term study at a recognised overseas institution with which the University has a student exchange agreement. Exchange study counts towards the student's University of Sydney award and students remain enrolled in their University of Sydney course during the period of exchange.

#### *International - Cross Institutional*

An international fee paying student undertaking non-award study at the University on a cross-institutional basis. They are liable to pay fees for the study they undertake at the University, but there is no compliance reporting requirement, which rest with their 'home' institution.

#### *International - Sponsored*

A private International Student who are fully sponsored for their tuition; their sponsorship may also cover Overseas Health Cover and Compulsory Subscriptions.

#### *Offshore Studies*

International offshore students undertake their program of study at one of the University's offshore campuses and hence do not enter Australia; therefore they do not require a visa. They are distinct from international students who are on outbound exchange programs as they never enter Australia during their program of study.

#### *Short Course*

An international fee-paying student undertaking a short course with the University of Sydney comprising such programs as international development programs, executive training or study visits. The study undertaken by these students is non award and generally a student visa is not required.

#### *Sponsored Award*

An international student sponsored by the Australian government, undertaking a program of study at the University. Currently Australian Development Scholarships holders, funded by AusAID, are the only students in this category. These students are fully sponsored for their tuition and other costs such as travel and health cover, and are paid a stipend.

#### *Study Abroad*

An international student who is undertaking short-term study at the University under the Study Abroad scheme. Study Abroad students must have completed at least one year of study towards a degree at a recognised institution in their home country and are continuing towards the degree of their home institution.

(See also Local student, Student type.)

## J

### Joining fee

Students enrolling for the first time pay a joining fee in addition to the standard subscription for the University of Sydney Union or equivalent student organisation. (See also Compulsory subscription.)

## L

### Leave

See Course leave.

### Legitimate co-operation

Any constructive educational and intellectual practice that aims to facilitate optimal learning outcomes through interaction between students. (See also Group work.)

### Life membership

Under some circumstances (e.g. after five full-time years of enrolments and contributions) students may be granted life membership of various organisations. This means they are exempt from paying yearly fees. (See also Compulsory subscriptions.)

### Load

The sum of the weights of all the units of study in which a student is enrolled. The weight is determined by the proportion of a full

year's work represented by the unit of study in the degree or diploma for which the student is a candidate. Student load is measured in terms of Equivalent Full-Time Student Units (EFTSU). (See also Equivalent Full-Time Student Units (EFTSU).)

#### **Local student**

Either an Australian or New Zealand citizen or Australian permanent resident. New Zealand citizens are required to pay their Higher Education Contribution Scheme (HECS) fees upfront. (See also Domestic student, HECS, International student.)

## M

#### **Major**

A field of study, chosen by a student, to represent their principal interest this would consist of specified units of study from later stages of the award course. Students select and transfer between majors by virtue of their selection of units of study. One or more majors may be awarded upon the graduands assessment of study. (See also Award course, Minor, Stream.)

#### **Major Timetable Clash**

The term used when a student attempts to enrol in units of study which have so much overlap in the teaching times that it has been decided that students must not enrol in the units simultaneously.

#### **Mark**

An integer (rounded if necessary) from 0 to 100 indicating a student's performance in a unit of study. (See also Grade.)

#### **Master's degree**

A postgraduate award. Master's degree courses may be offered by coursework, research only or a combination of coursework and research. Entry to the course often requires completion of an Honours year at an undergraduate level. (See also Award course.)

#### **Method of candidature**

A course is either a research course or a coursework course and so the methods of candidature are 'research' and 'coursework'. (See also Course - Coursework, Course - Research.)

#### **Minor**

Studies undertaken to support a Major. Requiring a smaller number of credit points than a major students select and transfer between minors (and majors) by virtue of their selection of units of study. One or more minors may be awarded upon the graduand's assessment of study. (See also Award course, Major, Stream.)

#### **Mixed Mode**

See Attendance mode.

#### **Mutually exclusive units of study**

See Prohibited combinations of units of study.

## N

**Non-award course** (see Course)

#### **Non-standard session**

A teaching session other than the standard February and August sessions - e.g. Summer School, in which units of study are delivered and assessed in an intensive mode during January. (See also Semester, Session.)

## O

#### **Orientation Week**

Orientation or 'O Week', takes place in the week before lectures begin in Semester 1. During O Week, students can join various clubs, societies and organisations, register for courses with departments and take part in activities provided by the University of Sydney Union.

## P

#### **Part-time student**

See Attendance Mode, Attendance Pattern, Equivalent Full-Time Student Units (EFTSU).

#### **Permanent home address**

The address used for all official University correspondence with a student, both inside and outside of semester time (e.g. during semester breaks), unless the student provides a different overridden by semester address for use during the semester. (See also Semester address.)

#### **PhD**

The Doctor of Philosophy (PhD) and other doctorate awards are the highest awards available at the University. A PhD course is normally purely research-based; the candidate submits a thesis that is an original contribution to the field of study. (See also Award course, Doctorate.)

#### **Plagiarism**

Presenting another person's ideas, findings or work as one's own by copying or reproducing them without the acknowledgement of the source. (See also Academic dishonesty.)

#### **Postgraduate**

A term used to describe a course leading to an award such as graduate diploma, a master's degree or PhD which usually requires prior completion of a relevant undergraduate degree (or diploma) course. A 'postgraduate' is a student enrolled in such a course. (See also Course - Coursework, Course - Research)

#### **Postgraduate Education Loans Scheme (PELS)**

An interest-free loans facility for eligible students who are enrolled in fee-paying, postgraduate non-research courses. It is similar to the deferred payment arrangements available under the Higher Education Contribution Scheme (HECS). This scheme will cease in this manner from 1 January, 2005, and will be replaced by the FEE-HELP scheme.

#### **Potential graduand**

A student who has been identified as being eligible to graduate on the satisfactory completion of their current studies. (See also Graduand, Graduation.)

#### **Pre-enrolment**

Pre-enrolment - also known as provisional re-enrolment - takes place in October, when students indicate their choice of unit of study enrolment for the following year. After results are approved, pre-enrolment students are regarded as enrolled in those units of study for which they are qualified. Their status is 'enrolled' and remains so provided they pay any money owing and comply with other requirements by the due date. Students who do not successfully pre-enrol in their units of study for the next regular session are required to attend the University on set dates during the January/February enrolment period. (See also Enrolment.)

#### **Prerequisite**

A unit of study that is required to be successfully completed before another unit of study can be attempted. Pre-requisites can be mandatory (compulsory) or advisory. (See also Assumed knowledge, Co-requisite, Waiver, Qualifier.)

#### **Prizes**

Awarded in recognition of outstanding performance, academic achievement or service to the community or University.

#### **Probationary candidature**

A student who is enrolled in a postgraduate course on probation for a period of time up to one year. The head of department is required to consider the candidate's progress during the period of probation and make a recommendation for normal candidature or otherwise to the faculty.



**Professional Practice**

Students undertake placement in a professional practice as a part of their course requirements. May require University approved supervision. Professional placements are located in a wide range of professional practices environments, and may not require additional criteria to be fulfilled.

**Progression**

Satisfactory progression is satisfying all course and faculty rules (normally assessed on an annual basis) to enable the completion of the chosen award within the (maximum) completion time allowed. (See also Exclusion.)

**Prohibited Combinations of units of study**

When two or more units of study contain a sufficient overlap of content, enrolment in any one such unit prohibits enrolment in any other identified unit. (See also Unit of Study.)

**Provisional re-enrolment**

See Pre-enrolment.

**Q****Qualification**

An academic attainment recognised by the University.

**Qualifier**

A mandatory (compulsory) pre-requisite unit of study which must have a grade of Pass or better. (See also Assumed knowledge, Co-requisite, Pre-requisite, Waiver.)

**R****Recycling**

The submission for assessment of one's own work, or of work which substantially the same, which has previously been counted towards the satisfactory completion of another unit of study, and credited towards a university degree, and where the examiner has not been informed that the student has already received credit for that work.

**Registration**

In addition to enrolling with the faculty in units of study, students must register with the department responsible for teaching each unit. This is normally done during Orientation Week. Note that unlike enrolment, registration is not a formal record of units attempted by the student.

**Research course**

See Course - research.

**Research supervisor**

A supervisor is appointed to each student undertaking a research postgraduate degree. The supervisor will be a full-time member of the academic staff or a person external to the University recognised for their association with the clinical teaching or the research work of the University. A research supervisor is commonly referred to as a supervisor. (See also Advisor, Associate supervisor, Instrumental supervisor/teacher, Supervision.)

**Result processing**

Refers to the processing of assessment results for units of study. For each unit of study, departments tabulate results for all assessment activities and assign preliminary results. (See also Assessment, Formative assessment, Examination period, Summative assessment)

**Result processing schedule**

The result processing schedule will be determined for each academic cycle. All departments and faculties are expected to comply with this schedule. (See also Assessment, Examination period, Result processing.)

**Result**

The official statement of a student's performance in each unit of study attempted as recorded on the academic transcript, usually expressed as a mark and grade. (See also Grade, Mark.)

**Research Training Scheme (RTS)**

The RTS provides Commonwealth-funded higher degree by research (HDR) students with an 'entitlement' to a HECS exemption for the duration of an accredited HDR course, up to a maximum period of four years' full-time equivalent study for a Doctorate by research and two years' full-time equivalent study for a Masters by research.

**S****Scholarships**

Financial or other form of support made available to enable students to further their studies. (See also Bursaries)

**School**

A school or academic unit shall encourage and facilitate teaching, scholarship and research and coordinate the teaching and examining duties of members of staff in the subjects or courses of study with which it is concerned.

**Semester**

A half-yearly teaching session whose dates are determined by the Academic Board. Normally all undergraduate sessions will conform to the semesters approved by the Academic Board. Any offering of an undergraduate unit not conforming to the semester dates (non-standard session) must be given special permission by the Academic Board. (See also Session, Non-standard session.)

**Semester address**

The address to which all official University correspondence is sent during semester time, if it is different to the permanent address.

**Senate**

The governing body of the University. (See the University Calendar for more details of its charter and powers.)

**Senate appeals**

Senate appeals are held for those students who, after being excluded by a faculty from a course, appeal to the Senate for readmission. While any student may appeal to the Senate against an academic decision, such an appeal will normally be heard only after the student has exhausted all other avenues, i.e. the department, faculty, board of study and - in the case of postgraduates -, the Committee for Graduate Studies. (See also Exclusion.)

**Session**

Any period of time during which a unit of study is taught. A session differs from a semester in that it need not be a six-month teaching period, but it cannot be longer than six months. Each session maps to either Semester 1 or 2 for DEST reporting purposes. Session offerings are approved by the relevant dean, taking into account all the necessary resources, including teaching space and staffing. The Academic Board must approve variation to the normal session pattern. (See also Semester, Non-standard session.)

**Session address**

See Semester address.

**Short Course**

A fee paying student undertaking a short course with the University of Sydney comprising professional development, executive training etc. The study undertaken by these students is a non-award course.

**Show Cause**

See Progression, Exclusion

**Special consideration**

Candidates who suffer serious illness or misadventure which may affect performance in any assessment, may request that they be

given special consideration in relation to the determination of their results.

### **Sponsorship**

Financial support of a student by a company or government body.

### **Stage**

A normal full time course of study taken in a year. (See also Course Rules, EFTSU, Progression)

### **Stream**

A defined award course, which requires the completion of set units of study as specified by the course rules for the particular stream, in addition to the core program specified by the course rules. A stream will appear with the award course name on testamurs, e.g. Bachelor of Engineering in Civil Engineering (Construction Management). (See also Award course, Major, Minor.)

### **Student**

Student means a person enrolled as a candidate for an award course or unit of study.

### **Student Identifier (SID)**

A 9-digit number which uniquely identifies a student at the University.

### **Student ID Card**

All students who enrol are issued with an identification card. The card includes the student's name, SID, the course code, a library borrower's bar code and a passport-style photo. The card identifies the student as eligible to attend classes and must be displayed at formal examinations. It must be presented to secure student concessions and to borrow books from all sections of the University Library.

### **Student Progress Rate (SPR)**

A calculation which measures the rate at which load undertaken is passed annually in each award program.

### **Student type**

Student type identifies whether a student is local or international and the type of study the student is undertaking. (See also International student, Domestic student, Exchange Student.)

### **Study Abroad Program**

A scheme administered by the International Office which allows international students who are not part of an exchange program to take units of study at the University of Sydney, but not towards an award program. In most cases the units of study taken here are credited towards an award at their home institution. (See also Exchange student.)

### **Subject Area**

A unit of study may be associated with one or more subject areas. The subject area can be used to define prerequisite and course rules, e.g. the unit of study 'History of Momoyama and Edo Art' may count towards the requirements for the subject areas 'Art History and Theory' and 'Asian Studies'.

### **Summative assessment**

See Assessment.

### **Summer School**

See Sydney Summer School.

### **Supervising Faculty**

The faculty which has the responsibility for managing the academic administration of a particular course, i.e. the interpretation and administration of course rules, approving students' enrolments and variations to enrolments. Normally the supervising faculty is the faculty offering the course. However, in the case of combined courses, one of the two faculties involved will usually be designated the supervising faculty. Further, in the case where one course is jointly offered by two or more faculties (e.g. the Liberal Studies course), a joint committee may make academic decisions about

candidature and the student may be assigned a supervising faculty for administration.

### **Supervision**

Refers to a one-to-one relationship between a student and a nominated member of the academic staff or a person specifically appointed to the role. (See also Advisor, Associate supervisor, Instrumental supervisor/teacher, Research supervisor.)

### **Suppression of results**

Results for a particular student can be suppressed by the University when the student has an outstanding debt to the University; or the student is facing disciplinary action. A student may also request a suppression for personal reasons.

### **Suspension**

See Course leave.

### **Sydney Summer School**

A program of accelerated, intensive study running for approximately 6 weeks during January and February each year. Both undergraduate and postgraduate units are offered. Summer School provides an opportunity for students at Sydney and other universities to catch up on needed units of study, to accelerate completion of a course or to undertake a unit that is outside their award course. All units attract full fees and enrolled students are also liable for compulsory subscriptions. Some fee-waiver scholarships are available.

## **T**

### **Teaching department**

See School.

### **Teaching End Date**

Official finish date of formal timetabled classes.

### **Teaching Start Date**

Official commencement date of formal timetabled classes

### **Terminated**

Term used when a student's candidature has been officially closed because they are not able to complete the Course requirements. (See also Candidature.)

### **Testamur**

A certificate of award provided to a graduand, usually at a graduation ceremony. The Award conferred will be displayed along with other appropriate detail.

### **Thesis**

A major work that is the product of an extended period of supervised independent research. (See also Course - Research.)

### **Timetable**

The schedule of lectures, tutorials, laboratories and other academic activities that a student must attend.

### **Transcript**

See Academic transcript.

### **Transfer**

See Course transfer.

### **Tuition fees**

Tuition fees may be charged to students in designated tuition fee-paying courses. Students who pay fees are not liable for HECS.

## U

### Universities Admissions Centre (UAC)

The UAC receives and processes applications for admission to undergraduate courses at recognised universities in NSW and the ACT. Most commencing, local undergraduate students at the University apply through the UAC.

### Universities Admission Index (UAI)

A measure of overall academic achievement in the HSC that assists universities in ranking applicants for university selection. The UAI is based on the aggregate of scaled marks in ten units of the HSC, and is a number between 0.00 and 100.00 with increments of 0.05.

### Under Examination

Indicates that a research student has submitted their written work (thesis) for assessment, and is awaiting the finalisation of the examiners' outcome and recommendation.

### Undergraduate

A term used to describe both a course leading to a diploma or bachelor's degree and a student enrolled in such a course.

### Unit of study

Unit of study or unit means a stand-alone component of an award course. Each unit of study is the responsibility of a department. (See also Prohibited Combinations of Unit of Study.)

### Unit of study enrolment status

The enrolment status indicates whether the student is still actively attending the unit of study (i.e. currently enrolled) or is no longer enrolled. (See also Discontinuation or Cancellation.)

### Unit of study level

Units of study are divided into Junior, Intermediate, Senior, Honours, Year 5, and Year 6. Most majors consist of 32 Senior credit points in a subject area (either 3000 level units of study or a mix of 2000 and 3000 level units of study).

### University

Unless otherwise indicated, University in this document refers to the University of Sydney.

### University Medal

A faculty may recommend the award of a University Medal to a student qualified for the award of an undergraduate Honours degree (or some master's degrees), whose academic performance is judged to be outstanding.

### Upgrade

Where a student enrolled in a Master's by research course is undertaking research at such a standard that either the University recommends that the student upgrade their degree to a PhD, or the student seeks to upgrade to a PhD and this is supported by the University.

### USYDnet

The University of Sydney's intranet system. It provides access to other services such as directories (maps, staff and student, organisations), a calendar of events (to which staff and students can submit entries), and a software download area.

## V

### Variation of enrolment

See Enrolment variation.

### Vice-Chancellor and Principal

The chief executive officer of the University, responsible for its leadership and management. The Vice-Chancellor and Principal is head of both academic and administrative divisions.

## W

### Waiver

In a prescribed course, a faculty may waive the pre-requisite or co-requisite requirement for a unit of study or the course rules for a particular student. Unlike credit, waivers do not involve a reduction in the number of credit points required for a course. (See also Credit, Exemption.)

### Winter School

An intensive session offered by the University during the mid-year break

### Weighted Average Mark (WAM)

This mark uses the unit of study credit point value in conjunction with an agreed "weight". The formula for this calculation is:

$$WAM = \frac{\sum(W_c \times M_c)}{\sum(W_c)}$$

Where  $W_c$  is the weighted credit point value - ie, the product of the credit point value and the level of weighting of 1, 2, 3, or 4 for a first, second, third or fourth year unit of study respectively; and where  $M_c$  is the greater of 45 or the mark out of 100 for the unit of study.

The mark is the actual mark obtained by the student for the unit of study, or in the case of a failing grade with no mark - 0. Pass/Fail assessed subjects and credit transfer subjects (from another institution) are excluded from these calculations; however, the marks from all attempts at a unit of study are included. (Effective from 1 January 2004.)

In addition, faculties may adopt other average mark formulae for specific progression or entry requirements. If such a formula is not specified in the faculty resolutions, the formula outlined above is used. (See also WAM Weight)

### WAM Weight

A weight assigned to each unit of study to assist in the calculation of WAMs.

## Y

### Year of First Enrolment (YFE)

The year in which a student first enrolls at the University. (See also Commencement date.)

### Youth Allowance

Youth Allowance is payable to a full-time student or trainee aged 16-24 years of age who is enrolled at an approved institution such as a school, college, TAFE or university, and undertaking at least 15 hours a week face-to-face contact.



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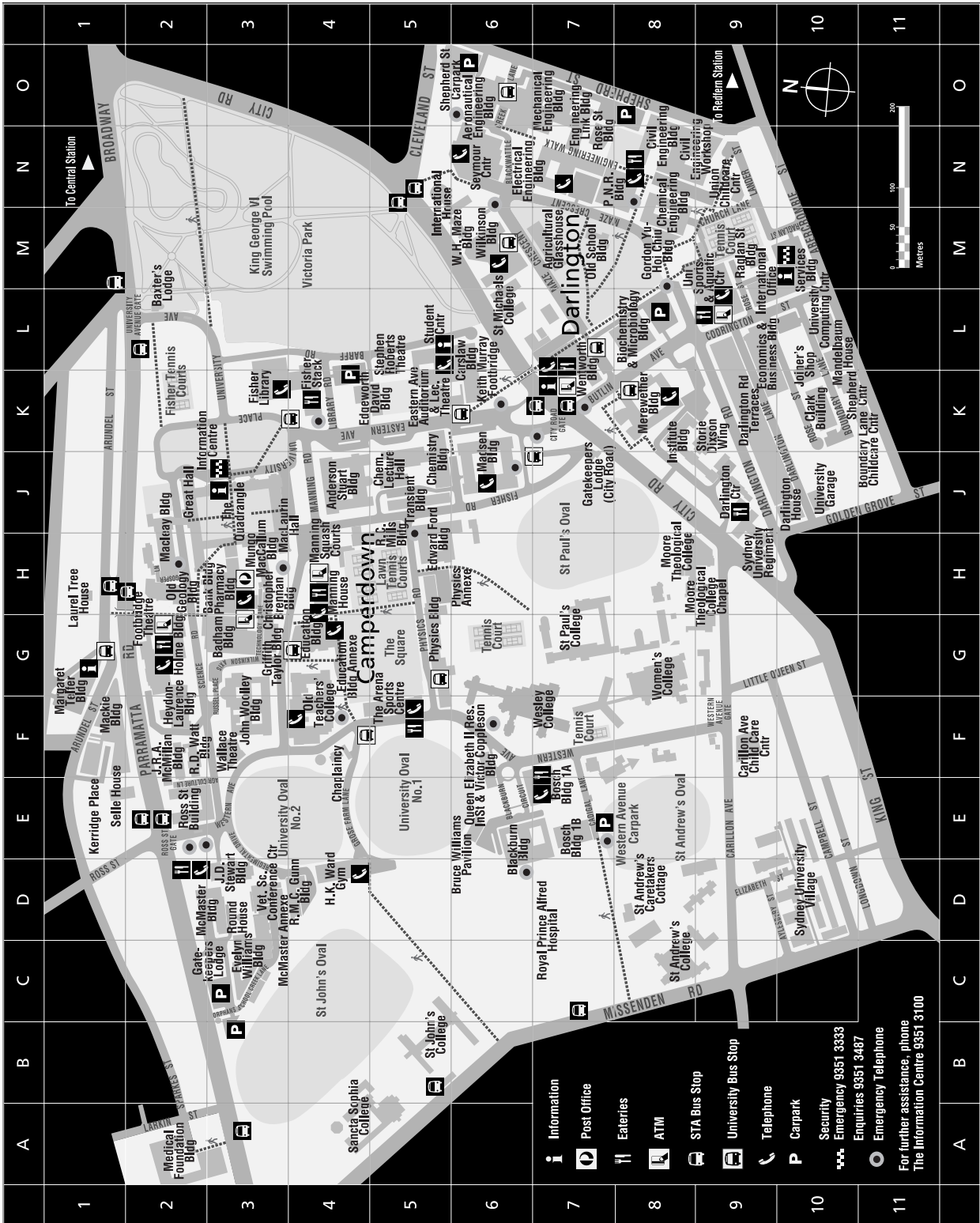
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Camperdown / Darlington campus map



**University Buildings**

- O6 Aeronautical Engineering Building
- J4 Anderson Stuart Building
- G3 Badham Building
- H3 Bank Building
- L2 Baxter's Lodge
- E8 Biochemistry and Microbiology Building
- L6 Blackburn Building
- E7 Bosch Building 1A
- E7 Bosch Building 1B
- E6 Bruce Williams Pavilion
- L6 Carslaw Building
- F4 Chaplaincy
- M8 Chemical Engineering Building
- J5 Chemistry Building
- H3 Christopher Brennan Building
- N8 Civil Engineering Building
- N9 Civil Engineering Workshop
- K10 Clark Building
- J9 Darlington Centre
- J10 Darlington House
- K9 Darlington Road Terraces
- K5 Eastern Avenue Auditorium and Lecture Theatre Complex
- L9 Economics and Business Building
- K4 Edgeworth David Building
- G4 Education Building
- G4 Education Building Annexe
- H5 Edward Ford Building
- N7 Electrical Engineering Building
- N7 Engineering Link Building
- C3 Evelyn Williams Building
- K3 Fisher Library
- K4 Fisher Library Stack
- C3 Gatekeeper's Lodge
- J7 Gatekeeper's Lodge (City Road)
- M8 Gordon Yu-Hoi Chui Building
- J2 Great Hall
- G3 Griffith Taylor Building
- D4 H.K. Ward Gymnasium
- F2 Heydon-Laurence Building
- G2 Holme Building
- K8 Institute Building
- N5 International House
- F2 J.R.A. McMillan Building
- D3 J.D. Stewart Building
- F3 John Woolley Building
- F1 Mackie Building
- H3 MacLaurin Hall
- H2 Macleay Building
- G1 Margaret Telfer Building
- J6 Madsen Building
- H4 Manning House
- H4 Manning Squash Courts
- D3 McMaster Annexe

- D3 McMaster Building
- O6 Mechanical Engineering Building
- A2 Medical Foundation Building
- K8 Merewether Building
- H3 Mungo MacCallum Building
- H2 Old Geology Building
- M7 Old School Building
- F4 Old Teachers' College
- H3 Pharmacy Building
- H6 Physics Annexe
- G5 Physics Building
- N8 P.N.R. Building
- E6 Queen Elizabeth II Research Institute
- H5 R.C. Mills Building
- F2 R.D. Watt Building
- D4 R.M.C. Gunn Building
- M9 Raglan Street Building
- N7 Rose Street Building
- E2 Ross Street Building
- G2 Science Road Cottage
- E1 Selle House
- M10 Services Building
- N6 Seymour Centre
- K10 Shepherd Centre
- O6 Shepherd Street Carpark
- L5 Stephen Roberts Theatre
- K9 Stone Dixon Wing
- F5 The Arena Sports Centre
- J3 The Quadrangle
- J5 Transient Building
- L10 University Computing Centre
- J10 University Garage
- M9 University Sports and Aquatic Centre
- D3 Veterinary Science Conference Centre
- E6 Victor Coppleson Building
- F3 Wallace Theatre
- K7 Wentworth Building
- E7 Western Avenue Carpark
- M6 W.H. Maze Building
- M6 Wilkinson Building

**Academic Colleges (offices)**

- H5 Health Sciences
- F4 Humanities and Social Sciences
- N8 Sciences and Technology

**Childcare Centres**

- K11 Boundary Lane
- F9 Carrillon Avenue
- H1 Laurel Tree House
- N9 Union

**Colleges and Residential Accommodation**

- J10 Darlington House
- K9 Darlington Road Terraces
- N5 International House
- L10 Mandelbaum House

- A4 Sancta Sophia College
- C8 St Andrew's College
- B5 St John's College
- L6 St Michael's College
- G7 St Paul's College
- E1 Selle House
- D10 Sydney University Village
- F7 Wesley College
- G8 Women's College

**Computer Access Centres (ITS)**

- G3 Brennan
- G4 Education
- K3 Fisher
- N7 Link
- L6 McGrath (Carslaw)
- H3 Pharmacy

**Cultural Venues**

- G2 Footbridge Theatre
- H2 Macleay Museum
- J3 Nicholson Museum
- N6 Seymour Centre
- K7 Sir Hermann Black Gallery
- M6 Tin Sheds Gallery
- J2 War Memorial Art Gallery

**Facilities (offices)**

- F2 Agriculture
- M6 Architecture
- H3 Arts
- K8 Economics and Business
- G4 Education and Social Work
- N7 Engineering
- H5 Medicine
- H3 Pharmacy
- L6 Science
- D3 Veterinary Science

**Libraries**

- M6 Architecture
- G3 Badham
- H5 Burkitt-Ford
- K3 Curriculum Resources
- N8 Engineering
- K3 Fisher
- J6 Madsen
- L6 Mathematics
- E7 Medical
- N6 Music
- H6 Physics
- H5 Schaeffer Fine Arts

**Retail**

- H3 Australia Post Office
- H3 Bank Building
- J9 Darlington Centre
- G2 Holme Building
- H4 Manning House

- F5 The Arena Sports Centre
- M9 University Copy Centre
- K7 University Health Service
- M9 University Sports and Aquatic Centre
- M9 University Co-op Bookshop
- D3 Veterinary Hospital and Clinic
- K7 Wentworth Building

**Security**

- M10 Emergency Services
- M10 Lost Property
- J3 Information Centre
- M10 Traffic and Parking

**Sports and Recreational Venues**

- K2 Fisher Tennis Courts
- D4 HK Ward Gymnasium
- H5 Lawn Tennis Courts
- H4 Manning Squash Courts
- F5 The Arena Sports Centre
- G5 The Square
- E5 University Oval No1
- E3 University Oval No2
- M9 University Sports and Aquatic Centre

**Unions and Associations (offices)**

- K7 Students' Representative Council (SRC)
- M9 Sydney University Postgraduate Representative Association (SUPRA)
- M9 Sydney University Sport
- G2 University of Sydney Union

**University Administration and Services**

- F3 Business Liaison Office
- F1 Careers Centre
- G1 Cashier
- F1 Centre for Continuing Education
- H3 Chancellor
- L10 Computing Centre
- H3 Development, Alumni Relations and Events
- M10 Development Services
- H2 Executive Offices
- J3 Information Centre
- L10 Information Technology Services
- L9 International Office
- G1 Personnel
- M10 Printing Services (UPS)
- H2 Publications Office
- H3 Research Office
- M10 Room Bookings and Venue Management
- F1 Scholarships Unit
- L5 Student Centre
- G1 Student Housing
- G4 Student Services Unit
- K8 Summer School
- C3 Veterinary Hospital and Clinic
- H2 Vice-Chancellor

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