



The University of Sydney

Faculty of Pharmacy Handbook 2003

University dates

University semester and vacation dates 2003

<i>Summer School</i>	
Lectures begin	Monday 6 January
Lectures ends	Friday 7 March
<i>Semester 1</i>	
Lectures begin	Monday 10 March
Easter recess:	
Last day of lectures	Thursday 17 April
Lectures resume	Monday 28 April
Study vacation: 1 week beginning	Monday 16 June
Examinations commence	Monday 23 June
Lectures end	Saturday 5 July
<i>Semester 2</i>	
Lectures begin	Monday 28 July
Mid-semester recess:	
Last day of lectures	Friday 26 September
Lectures resume	Tuesday 7 October
Study vacation: 1 week beginning	Monday 3 November
Examinations commence	Monday 10 November
Lectures end	Saturday 22 November

Last dates for withdrawal or discontinuation 2003

<i>Semester 1 units of study</i>	
Last day to add a unit	Friday 21 March
Last day for withdrawal	Monday 31 March
Last day to discontinue without failure (DNF)	Friday 2 May
Last day to discontinue (Discontinued -Fail)	Friday 13 June
<i>Semester 2 units of study</i>	
Last day to add a unit	Friday 8 August
Last day for withdrawal	Friday 29 August
Last day to discontinue without failure (DNF)	Friday 12 September
Last day to discontinue (Discontinued - Fail)	Friday 31 October

University semester and vacation dates 2001-2006 are listed in an Acrobat PDF document which can be downloaded from: policy.rms.usyd.edu.au/000004e.pdf.

The University of Sydney

NSW 2006

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The University of Sydney Faculty of Pharmacy Handbook 2003

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How to use this handbook

This is the Faculty of Pharmacy handbook. In it you will find a store of information about things you are likely to need to know about the Faculty.

In particular, it will help you to find out who the people in your Faculty are, the requirements for degrees in the Faculty and the ways that these can be satisfied, what units of study are offered and the books required to do these and where to turn for more information, advice and help.

Information and advice

Faculty Office

The offices of the Dean and the Faculty Manager are in the Pharmacy Building. The Dean is located on level 3 (ground floor) in Room S322 and the Faculty Manager is in N346.

Faculty advisers

The Undergraduate Students' adviser is Dr Parisa Aslani, located in N408, phone 02 9351 6711, email parisa@pharm.usyd.edu.au. The postgraduate students' adviser is Dr Andrew Machachlan, located in N405, phone 02 9351 4452, email andrewm@pharm.usyd.edu.au.

■ Beginning studies in the Faculty of Pharmacy - frequently asked questions

How do I qualify for the pass degree of Bachelor of Pharmacy?

You complete 192 credit points, 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 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 allotted 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 Office 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 2003, you must have completed by the end of 2012). If you have credit points from previous study, the time is reduced appropriately.

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 (these are publicised during Orientation Week). It is worth emphasizing here that if your first language is not English, or if you have specific learning problems, you should consult the Learning Assistance Centre.

Can I do any units through Summer School?

Some units of study may be done through the Summer School in January and February. In 2003, these included Biology and Biochemistry. Please consult the Sydney Summer School Web site for more information, www.usyd.edu.au/summerschool/.

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.

In 1996, the then Department of Pharmacy 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. On 1 January 2000, the Faculty of Pharmacy was established, becoming the first such Faculty in Australia. The Faculty has an enviable national and international reputation. As a student in the Faculty, you will meet and be taught by world-renowned academics on a daily basis and will have access to teaching laboratories that are leading world best practice, providing you with the world's best in technology.

The Faculty has continued the process of reviewing and refining the curriculum offered as part of the undergraduate program. Units of study offered in the second and third years of the program are currently being reviewed. The review process has included a number of student focus groups and has provided a range of other opportunities for student input. The Faculty expects to implement recommendations arising out of the review over the next few years. As Dean, I would encourage you to actively and fully participate in Faculty initiatives and activities.

The Faculty has fostered a spirit of innovation with the development of the Bachelor of Pharmacy (Rural), to be offered out of the University's campus in Orange. This new degree program commences in March 2003. Although it will be similar in content to the Bachelor of Pharmacy offered at the Broadway campus in Sydney, particular emphasis will be given 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.

In recognition of the exceptional calibre of our students, the Faculty is developing a talented students program which we expect to offer in 2003 to first year students of high academic standing. The Faculty has a Pharmacy Students Association that is active in providing students with access to a range of activities, both social and professional. Furthermore, elected student representatives from each year constantly interact with Faculty staff to provide constructive feedback.

A Bachelor of Pharmacy 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 Finemore, 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 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. 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 almost 600 prospective students in 2002 listing Pharmacy as their first preference. 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 100 postgraduates, Pharmacy has the largest postgraduate 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. 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.

Message from the 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! Make SUPA the first club you sign up to this year.

The aim of SUPA is to maximize 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 any tastes. BBQs, harbour cruises, trivia nights, pub crawls, a ski trip, the SUPA Olympics and the Pharmacy Ball are just some of the events organised for members at highly subsidised prices. SUPA also coordinates pharmacy's involvement in interfaculty sport, a year long University-wide competition for men and women in a variety of sports.

Of equal importance are the student services provided. SUPA is a support group, assisting members with any administrative or academic problems you may encounter. This role is taken very seriously by SUPA, and our influence is highly respected by the Faculty.

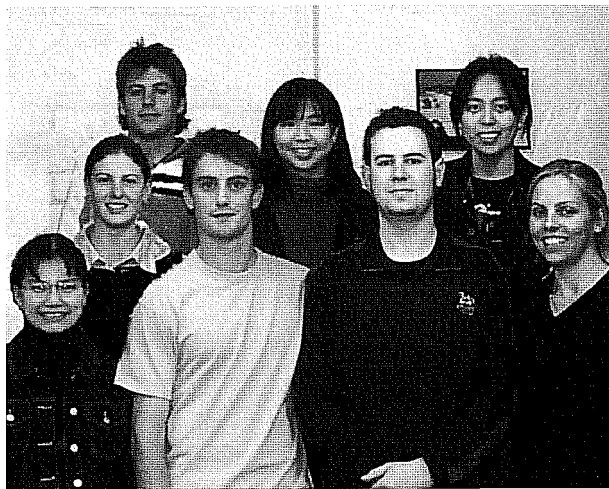
We offer members great discounts on pharmacy reference books and pharmacy equipment such as spatulas and dispensing weights - you can save the cost of your membership fee in just one purchase. SUPA also has its own range of merchandise available, fast becoming a highly prized commodity!

The SUPA committee consists of eight elected members who work together with two elected members from each pharmacy year. The SUPA committee for 2002/2003:

President: Lachlan Rose
Vice President: Tamarra Bernyk, Sharon Tan
Treasurer: Claire O'Reilly
Secretary: Jocelyn Ong
Events Coordinator: Matthew Allan
Merchandising: Sharon Leow
Sports Representative: James Digges

Get involved, become a member and join the other 600 pharmacy students that are already 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 \$45, or if you join during enrolment or O-week, receive the special rate of \$40.

For more information phone 02 9552 1299 or visit www.pharm.usyd.edu.au/SUPA.



SUPA Committee 2002-2003.



1 Staff

Dean's office

Dean

Professor Shalom Isaac (Charlie) Benrimoj

Pro Dean

Professor Basil Don Roufogalis

Associate Deans

Prof Carol Armour (Research)

Dr Parisa Aslani (Undergraduate)

Dr Andrew McLachlan (Postgraduate)

Assoc Prof Iqbal Ramzan (Admissions and Administration)

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

Pharmacia Chair in Clinical Pharmacy (St Vincent's Hospital)

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

MRPharmS MSHPA

Professor of Pharmaceutics

vacant

Associate Professors

Hak-Kim Chan, BPharm *NMDC Taipei* PhD

Douglas E Moore, MSc PhD

Iqbal M Ramzan, DipPharm *CITNZMSc* PhD

Senior Lecturers

Mano Chetty, BPharm *Durban* MSc *Rhodes* PhD *Durban*

Mary Collins, BSc PhD, MRACI

Colin C Duke, BSc *QldVhd James Cook*, MRACI

Ines Krass, BPharm GradDipEd DipHPharm PhD, MPS

Andrew J McLachlan, BPharm PhD, MPS MACPP

Susan J Taylor, MSc *Lond* BPharm PhD, MRPharmS

Lecturers

Alaina J Ammit, BAppSc *UTS* MSc PhD

Parisa Aslani, BPharm *Lond* MSc PhD GradDipEdStudies,

MRPharmS MPS

Beata Bajorek, BPharm DipHPharm PhD

Sinthia Bosnic-Anticevich, BPharm PhD

Timothy F Chen, BPharm DipHPharm PhD, MPS

Jane Hanrahan, BSc PhD *Warwick*

Michael Ivery, BSc *NSWTFhd*

Romina Nand, BSc PhD *Melb*

Erica Sainsbury, BPharm MSc GDipEdStudies, MPS

Paula Whitehead, BPharm *Curtin* GradDipSc

Kylie Williams, BPharm DipHPharm PhD

Associate Lecturers

Pauline Goh, BSc *Singapore* MSc PhD GradCertEd *UTS*

Rebekah Moles, BPharm DipHPharm

Joseph Turner, BMedSc

Academic (Research only)

Peter Coxeter, BHlthSc *AustCollNatMed MPH* Qld

Iain Duggin, BSc PhD

Rujee Duke, BSc *JCU* PhD *ANU*

Linda Gelgor, MSc PhD *StiAfrica*

J Margaret Hughes, BSc PhD

George Quan Li, BSc PhD *Zhongshon* (HMREC)

Teresa Rede, BSc *UNSW PhD*

Patricia Tang, BChemEng *UNSWVhd*

Research staff, Project staff

Anita Blake, BSc

Sheridan Henness, BChemEng BSc PhD

Ruth-Anne Khouri, BSc BPharm

Vicky Kritikos, BPharm

Adrian McInman, BA *Vic* BPhysEd DipEdMed *WA* BSocSc *QUT*

Catherine Raffaele, LLB BA

B andana S aini, MPharm MBA *India*

Premjeet Singh, MA

Jael Wolk, BSc MHealthAdmin *UNSW*

Joint appointments — Teacher Practitioners

Ben J Basger, BPharm MSc DipHPharm, MPS

Domenica Baskin, BPharm MPS

Betty Chaar, BPharm

Rosalind Dey, BPharm MPS FACPP

Cath Dwyer, BPharm DipHPharm

Ceridwyn Jones, BPharm DipHPharm

Margaret Jordan, BPharm, AACPA CGP

Carlene Smith, BPharm MPS AACPA

Gabrielle Smith, BPharm PhD

Cherie Tsingos, BPharm, MPS JP

Specialist Practitioners/Teachers

Alexandra Bennett, BPharm DipHPharm GradCertClinPharm
(Cardiology)

Jane Ludington, BPharm PhD MHPE *UNSW* (Diabetes)

Technical staff

Professional Officers Grade TV

Warren A Olsen, BCom *UNSW* BPharm MSc, MPS

Fred TK Wong, DipMedTech STC MSc, FACBS

Professional Officer Grade III

Bruce N Tattam, MSTIA

Senior Technical Officers

Bill Rae

Jiamin You, BSc *Shanghai* MPharmSc

Technical Officers

Christopher J Hick, ADAS *Syd InstTech*

Catherine H Mortimer, BSc DipEd ADAS *SydInstTech*

Laboratory Assistant

Jenny Bell

Glassware Cleaners

Freda Kambosos

Jie Li

Administrative staff

Faculty Manager

Anita Olga Anderson, BA *Adel*

Administrative Officers

Martin Carroll (PPF)

Michelle Colbran

Susan Putnam

Margaret Trimble (PPF)

Ann Williams, BA *Vic* MA *Auckland* DBA *Vic*

Administrative Assistants

Christopher Bates, BSc MSc DipEd *Tas*

Patrick Kelly

Marine Mackellar, BA

Helen Mina (QCPCSC)

Sherry Yam, BCom *W'gong* (HMREC)

Attendant

Jay O'Sullivan

(This information is correct as at December 2002.)

2 Undergraduate tables and units of study

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 degree, 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	

* 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.

The following Honours grades apply from 1999. A grade of Honours is determined by a WAM for years 1-4.

HI	Honours Class I	80+
H21	Honours Class II (Division 1)	75-79
H22	Honours Class II (Division 2)	70-74
F	Fail*	below 65
AF	Absent Fail*	

* Note that in these cases the award of the Pass degree is recommended.

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 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)

Note: The Senate has approved new Resolutions for the Bachelor of Pharmacy to take effect for new enrolments from 1997. The candidatures of students first enrolled before 1997 will continue to be governed by the pre-1997 Resolutions. The pre-1997 Resolutions are contained in the 1996 *Faculty of Science Handbook* and can be consulted at the Faculty Office. 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. **Candidates should note** that section 10 of these Resolutions requires that, except with the permission of the Dean, candidatures under the pre-1997 Resolutions must be completed by 31 December 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 below). 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 I.

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, if any. Any corequisite unit(s) of study not previously completed must be taken concurrently. (See Section 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.

Table 1: Bachelor of Pharmacy Pass degree and Honours degree

Unit of study	CP	A: Assumed knowledge	P: Prerequisite	Q: Qualifying	C: Corequisite	N: Prohibition	Session
Course code PH001							
■ Year 1							
BIOL 1001	Concepts in Biology	6	A HSC 2-unit Biology. Students who have not undertaken an HSC biology course are strongly advised to complete a biology bridging course before lectures commence. N May not be counted with BIOL (1901 or 1500).				1, Summer
BIOL 1003	Human Biology	6	A HSC 2-unit Biology. Students who have not undertaken an HSC biology course are strongly advised to complete a biology bridging course before lectures commence. N May not be counted with BIOL (1903 or 1500) or EDUH 1016.				2, Summer
CHEM 1611	Chemistry A (Pharmacy)	6	A HSC Chemistry and Mathematics.				1, Summer
CHEM 1612	Chemistry B (Pharmacy)	6	C CHEM 1611 Chemistry A (Pharmacy).				2, Summer
MATH 1605	Calculus (Pharmacy)	3	A HSC 2-unit Mathematics or equivalent (Students without this assumed knowledge are advised to attend a bridging course in February).				" ■ " 2
PHAR 1607	Introductory Pharmaceutical Science	4	A HSC Chemistry 2. C PHAR 1611 or PHAR 1621.				2
PHAR 1611	Concepts in Pharmacy	3					1
PHAR 1612	Social, Behavioural & Professional Pharm	5	C PSYC 1611				2
PSYC 1611	Introductory Psychology (Pharmacy)	6					1
STAT 1605	Statistics (Pharmacy)	3	A HSC 2-unit Mathematics or equivalent (Students without this assumed knowledge are advised to attend a bridging course in February).				1.
■ Year 2							
BCHM 2611	Proteins, Enzymes and Metabolism 1	3	P CHEM 1611 and CHEM 1612.				1, Summer
BCHM 2612	Metabolism 2 and Genes	3	P CHEM 1611, CHEM 1612. C BCHM 2611.				2, Summer
MICR 2605	Microbiology (Pharmacy)	3	P BIOL 1001.				1
PCOL 2603	Pharmacology 2A (Pharmacy)	2	P CHEM 1611, CHEM 1612, BIOL 1001, BIOL 1003. C BCHM 2611, PHSI 2604.				1
PCOL 2604	Pharmacology 2B (Pharmacy)	2	P CHEM 1611, CHEM 1612, BIOL 1001, BIOL 1003. C BCHM 2612, PHSI 2605, PCOL 2603.				2
PHAR 2607	Pharmaceutical Microbiology	4	P PHAR 1607, BIOL 1001. C MICR 2605.				2
PHAR 2609	Medicinal Chemistry 2A	6	P MATH 1605 and STAT 1605, CHEM 1611, CHEM 1612 and PHAR 1607. C BCHM 2611 and PCOL 2603.				1
PHAR 2610	Medicinal Chemistry 2B	4	P MATH 1605 and STAT 1605, CHEM 1611, CHEM 1612, PHAR 1607. C BCHM 2612, PCOL 2604, PHAR 2609.				2
PHAR 2611	Pharmacy Practice 2A	2	P PSYC 1611, PHAR 1612. C PCOL 2603, BCHM 2611, PHSI 2604, PHAR 2609.				1-
PHAR 2612	Pharmacy Practice 2B	3	P PSYC 1611, PHAR 1612. C PCOL 2604, BCHM 2612, PHSI 2605, PHAR 2610, PHAR 2611.				2
PHAR 2613	Physical Pharmaceutics 2A	5	p MATH 1605 and STAT 1605, CHEM 1611, CHEM 1612 and PHAR 1607.				1
PHAR 2614	Physical Pharmaceutics 2B	5	p MATH 1605 and STAT 1605, CHEM 1611, CHEM 1612, PHAR 1607. C PHAR 2613.				2
PHSI 2604	Physiology 2A (Pharmacy)	3	p CHEM 1611, CHEM 1612, BIOL 1003.				1
PHSI 2605	Physiology 2B (Pharmacy)	3	p CHEM 1611, CHEM 1612, BIOL 1003. C PHSI 2604.				2

Table 1: Bachelor of Pharmacy Pass degree and Honours degree (continued)

Unit of study	CP	A: Assumed knowledge	P: Prerequisite	Q: Qualifying	C: Corequisite	N: Prohibition	Session
■ Year 3							
PCOL 3603 Pharmacology 3A (Pharmacy)	6	p	BCHM 2611, BCHM 2612, PHSI2604 and PHSI2605.				1
PCOL 3604 Pharmacology 3B (Pharmacy)	2	p	BCHM 2611, BCHM 2612, PHSI 2604, PHSI 2605. C PCOL 3603.				2
PHAR 3601 Dispensing	4	p	PHAR 2613, PHAR 2614, PHAR 2607, PHAR 2611 and PHAR 2612.				2
PHAR 3607 Formulation A	3	p	PHAR 2607, PHAR 2613 and PHAR 2614.				1
PHAR 3608 Formulation B	2	p	PHAR 2607, PHAR 2613, and PHAR 2614. C PHAR 3607.				2
PHAR 3609 Medicinal Chemistry 3A	6	p	BCHM 2611, BCHM 2612, PCOL 2603, PCOL 2604, PHAR 2609 and PHAR 2610. C PCOL 3603.				1
PHAR 3610 Medicinal Chemistry 3B	6	p	BCHM 2611, BCHM 2612, PCOL 2603, PCOL 2604, PHAR 2609 and PHAR 2610. C PCOL 3604 and PHAR 3609.				2
PHAR 3611 Pharmacokinetics A	3	p	PHAR 2613 and PHAR 2614.				1
PHAR 3612 Pharmacokinetics B	3	p	PHAR 2613, PHAR 2614. C PHAR 3611.				2
PHAR 3613 Pharmacy Practice 3A	6	p	PCOL 2603, PCOL 2604, PHSI 2604, PHSI 2605, BCHM 2611, BCHM 2612, PHAR 2611 and PHAR 2612. C PCOL 3603, PHAR 3609 and PHAR 3611.				1
PHAR 3614 Pharmacy Practice 3B	7	p	PCOL 2603, PCOL 2604, PHSI 2604, PHSI 2605, BCHM 2611, BCHM 2612, PHAR 2611, PHAR 2612. C PCOL 3604, PHAR 3610, PHAR 3612, PHAR 3613.				2
■ Year 4							
PHAR 4601 Integrated Dispensing	4	p	PHAR 3601, PHAR 3613 and PHAR 3614.				1
PHAR 4602 New Drug Technologies	4	p	PHAR 3609, PHAR 3610, PCOL 3603, PCOL 3604.				1
PHAR 4603 Pharmaceutics Workshop	4	p	PHAR 3611, PHAR 3612, PHAR 3607 and PHAR 3608.				1
PHAR 4604 Clinical Pathology A	2	p	PHAR 3609, PHAR 3610, PHAR 3613, PHAR 3614, PCOL 3603, PCOL 3604.				1
PHAR 4607 Clinical Pathology B	2	p	PHAR 3609, PHAR 3610, PHAR 3613, PHAR 3614, PCOL 3603, PCOL 3604.				2
PHAR 4606 Clinical Information Technology	2	p	PHAR 3611, PHAR 3612, PHAR 3613, PHAR 3614, PCOL 3603, PCOL 3604.				2
PHAR 4612 Pharmacotherapeutics A	5	p	PHAR 3611, PHAR 3612, PHAR 3613, PHAR 3614, PCOL 3603 and PCOL 3604.				1
PHAR 4614 Pharmacotherapeutics B	4	p	PHAR 3611, PHAR 3612, PHAR 3613, PHAR 3614, PCOL 3603, PCOL 3604.				2
PHAR 4613 Clinical Practice A	5	p	PHAR 3613, PHAR 3614, PCOL 3603, PCOL 3604, PHAR 3611 and PHAR 3612.				1
PHAR 4615 Clinical Practice B	10	p	PHAR 3611, PHAR 3612, PHAR 3613, PHAR 3614, PCOL 3603, PCOL 3604.				1,2
PHAR 4608 Ethics and History of Pharmacy	2						2
PHAR 4609 Pharmaceutical Management	4						2
PHAR 4921 Pharmaceutics A (Advanced)	10	p	All third year pharmacy units of study. Enrolment is only by invitation to those with a high WAM. <i>NB: Department permission required for enrolment.</i>				1
PHAR 4924 Pharmaceutics B (Advanced)	10	p	PHAR 4921 at a credit level or better. <i>NB: Department permission required for enrolment.</i>				2
PHAR 4922 Pharmaceutical Chemistry A (Advanced)	10	p	All third year pharmacy units of study. Enrolment only by invitation to those with a high WAM. <i>NB: Department permission required for enrolment.</i>				1
PHAR 4925 Pharmaceutical Chemistry B (Advanced)	10	p	PHAR 4922 at a credit level or better. <i>NB: Department permission required for enrolment.</i>				2
PHAR 4923 Pharmacy Practice A (Advanced)	10	p	All third year pharmacy units of study. Enrolment is only by invitation to those with a high WAM. <i>NB: Department permission required for enrolment.</i>				1
PHAR 4926 Pharmacy Practice B (Advanced)	10	p	PHAR 4923 at a credit level or better. C PHAR 4614. <i>NB: Department permission required for enrolment.</i>				2
PCOL 4907 Pharmacology A Advanced (Pharmacy)	10	p	All third year pharmacy units of study. Enrolment only by invitation to those with a high WAM. <i>NB: Department permission required for enrolment.</i>				1.
PCOL 4908 Pharmacology B Advanced (Pharmacy)	10	p	PCOL 4907 at a credit level or better. <i>NB: Department permission required for enrolment.</i>				2

■ Bachelor of Pharmacy (Rural)

The new 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. It 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, the Bachelor of Pharmacy (Rural) degree is not limiting in that it does allow graduates to be registered by the Pharmacy Board of NSW and to retain graduate mobility between various pharmacy settings. 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 below). 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.

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 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 BPharm (Rural) course has been successfully completed.

The following table outlines subjects which comprise the course of study for the Bachelor of Pharmacy (Rural).

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

Unit of study	CP	A: Assumed knowledge	P: Prerequisite	Q: Qualifying	C: Corequisite	N: Prohibition	Session
Note: Summer School is only available at the Camperdown Campus.							
Note: Only Year 1 of this program is offered in 2003.							
■ Year 1							
BIOL 1001	Concepts in Biology	6	A HSC 2-unit Biology. Students who have not undertaken an HSC biology course are strongly advised to complete a biology bridging course before lectures commence. N May not be counted with BIOL (1901 or 1500).				1, Summer
CHEM 1611	Chemistry A (Pharmacy)	6	A HSC Chemistry and Mathematics.				1, Summer
MATH 1011	Life Sciences Calculus	3	A HSC Mathematics. N May not be counted with MATH (1001 or 1901 or 1906).				• 1
PHAR 1621	Pharmacy in Rural Society	3					1
PSYC 1611	Introductory Psychology (Pharmacy)	6					1
BIOL 1003	Human Biology	6	A HSC 2-unit Biology. Students who have not undertaken an HSC biology course are strongly advised to complete a biology bridging course before lectures commence. N May not be counted with BIOL (1903 or 1500) or EDUH 1016.				2, Summer
CHEM 1612	Chemistry B (Pharmacy)	6	C CHEM 1611 Chemistry A (Pharmacy).				2, Summer
MATH 1005	Statistics	3	A HSC Mathematics. N May not be counted with MATH (1905 or 1015) or ECMT Junior units of study or STAT (1021 or 1022).				2, Summer
PHAR 1607	Introductory Pharmaceutical Science	4	A HSC Chemistry 2. C PHAR 1611 or PHAR 1621.				2
PHAR 1622	Roles of Rural Health Care Practitioners	5					2

■ Units of study

Year 1

BIOL 1001 Concepts in Biology

6 credit points. **Session:** 1, Summer. **Classes:** 3 lec & 3 prac/wk. **Assumed knowledge:** HSC 2-unit Biology. Students who have not undertaken an HSC biology course are strongly advised to complete a biology bridging course before lectures commence. **Prohibition:** May not be counted with BIOL (1901 or 1500). **Assessment:** One 2.5hr exam, assignments, classwork.

'Concepts in Biology' is an introduction to the major themes of modern biology. Starting with interactions between organisms in biological communities, we move on to the diversity of microorganisms. This is followed by introductory cell biology, which particularly emphasises how cells obtain and use energy, and leads into an introduction to molecular biology through the role of DNA in protein synthesis and development. The genetics of organisms is then discussed, leading to consideration of theories of evolution and the origins of the diversity of modern organisms. It is recommended that this unit of study be taken before all other Junior units of study in Biology.

Textbooks

Knox R B et al. Biology. McGraw-Hill, 2nd ed, 2001.

BIOL 1003 Human Biology

6 credit points. **Session:** 2, Summer. **Classes:** 2 lec, 1 session independent study & 3 prac/wk. **Assumed knowledge:** HSC 2-unit Biology. Students who have not undertaken an HSC biology course are strongly advised to complete a biology bridging course before lectures commence. **Prohibition:** May not be counted with BIOL (1903 or 1500) or EDUH 1016. **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 Concepts in Biology 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 1901, provides entry to Intermediate units of study in Biology, but the content of BIOL 1002/1902 is assumed knowledge for BIOL 2001, 2002, 2003 and 2004 and students entering from BIOL 1003 or 1903 will need to do some preparatory reading.

Textbooks

Seeley, RR et al. Essentials of Anatomy and Physiology. McGraw Hill, 4th ed, 2002

Benjamin C L. et al. Human Biology. McGraw Hill, 2000 (Chapters 19, 20, 21, 22)

CHEM 1611 Chemistry A (Pharmacy)

6 credit points. See School of Chemistry for list of staff. **Session:** 1, Summer. **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.

CHEM 1612 Chemistry B (Pharmacy)

6 credit points. See School of Chemistry for list of staff. **Session:** 2, Summer. **Classes:** 3 lec & 1 tut/wk & 3hrs prac/wk for 10 wks. **Corequisite:** 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 1005 Statistics

3 credit points. **Session:** 2, Summer. **Classes:** 2 lec & 1 tut/wk. **Assumed knowledge:** HSC Mathematics. **Prohibition:** May not be counted with MATH (1905 or 1015) or ECMT Junior units of study or STAT (1021 or 1022). **Assessment:** One 1.5 hour examination, assignments and quizzes.

MATH 1005 is designed to provide a thorough preparation for further study in mathematics and statistics. It is a core unit of study providing three of the twelve credit points required by the Faculty of Science as well as a Junior level requirement in the Faculty of Engineering.

This unit offers a comprehensive introduction to data analysis, probability, sampling, and inference including t-tests, confidence intervals and chi-squared goodness of fit tests.

There are comprehensive details of this unit of study in the Junior Mathematics Handbook distributed at the time of enrolment.

Textbooks

As set out in the Junior Mathematics Handbook

MATH 1011 Life Sciences Calculus

3 credit points. **Session:** 1. **Classes:** 2 lec & 1 tut/wk. **Assumed knowledge:** HSC Mathematics. **Prohibition:** May not be counted with MATH (1001 or 1901 or 1906). **Assessment:** One 1.5 hour examination, assignments and quizzes.

MATH 1011 is designed to provide calculus for students of the life sciences who do not intend to undertake higher year mathematics and statistics.

This unit of study looks at the fitting of data to various functions, introduces finite difference methods, and demonstrates the use of calculus in optimisation problems. It extends differential calculus to functions of two variables and develops integral calculus, including the definite integral and multiple integrals.

There are comprehensive details of this unit of study in the Junior Mathematics Handbook distributed at the time of enrolment.

Textbooks

As set out in the Junior Mathematics Handbook

MATH 1605 Calculus (Pharmacy)

3 credit points. **Session:** 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 MATH 1605 Calculus (Pharmacy)

PHAR 1607 Introductory Pharmaceutical Science

4 credit points. Miss E Sainsbury. **Session:** 2. **Classes:** 2.5hr lec & 1.5hr seminar/wk. **Assumed knowledge:** HSC Chemistry 2. **Corequisite:** PHAR 1611 or PHAR 1621. **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 PHAR 1611 Concepts in Pharmacy

PHAR 1611 Concepts in Pharmacy

3 credit points. Ms E Sainsbury. Session: 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.

Reference Books

Ansel, Allen & Popovich, *Pharmaceutical Dosage Forms and Drug Delivery Systems* (7th ed), Kluwer 1999.

Stocklosa & Ansel, *Pharmaceutical Calculations* (11th ed), Williams & Wilkins 2001

PHAR 1612 Social, Behavioural & Professional Pharm

5 credit points. Dr Ines Krass. **Session: 2. Classes:** 3 hr lec/wk, 2 hr tut/wk for 9 wks, 4 x 3 hr externship. **Corequisite:** PSYC 1611.

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 1621 Pharmacy in Rural Society

3 credit points. **Session:** 1.

PHAR 1622 Roles of Rural Health Care Practitioners

5 credit points. **Session:** 2.

PSYC 1611 Introductory Psychology (Pharmacy)

6 credit points. Dr Julie Hatfield. Session: 1. Classes: 3 lec & 2 tut/wk. Assessment: 2 hrs examination (60%), 1000 word essay (20%), tutorial quizzes (15%), participation as a subject in experiments (5%-optional).

This unit is intended to be a general introduction to the main topics and methods of psychology. Topics covered in lectures include: Health Psychology (subject matter and methods; stress and health; personality and health; risk-perception, precaution adoption and health promotion; communication); Abnormal Psychology (definition, classification and related issues; anxiety disorders; substance abuse and addiction; schizophrenia; depression; disorders of childhood and adolescence); Sensory Processes (introduction to the eye and vision, to the auditory system and hearing, to taste and smell, and to touch); Social Psychology (subject matter and methods; impressions, attitudes and stereotypes; communication and persuasion; aggression, group behaviour and leadership; inter-personal relationships; disorders of old age); Psychobiology (synaptic transmission and the effects of drugs of abuse; schizophrenia and depression; the involvement of various brain areas in sleep and wakefulness, emotionality, sensory and motor function, and language; the biological basis of motivation, learning and memory).

The tutorials will allow more detailed and interactive consideration of these topics using video, computer games and group discussion.

STAT 1605 Statistics (Pharmacy)

3 credit points. **Session:** 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 (25%), one 1.5 hr exam (75%).

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.

Year 2**BCHM 2611 Proteins, Enzymes and Metabolism 1**

3 credit points. Assoc Prof A Jones and Biochemistry staff. Session: 1, Summer. Classes: 3 lec/wk. Prerequisite: CHEM 1611 and CHEM 1612. Assessment: One 3hr 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

Campbell. *Biochemistry* (3rd ed) Saunders, 1999.

BCHM 2612 Metabolism 2 and Genes

3 credit points. Assoc Prof A Jones and Biochemistry staff. Session: 2, Summer. Classes: 3 lec/wk. Prerequisite: CHEM 1611, CHEM 1612. Corequisite: BCHM 2611. Assessment: One 3hr 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? 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 syntheses; 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

Campbell M K *Biochemistry* (3rd e) Saunders, 1999

MICR 2605 Microbiology (Pharmacy)

3 credit points. Mrs Dalins. **Session:** 1. **Classes:** 2 lec & 2 or 2.5hr prac/wk for 10 wks. **Prerequisite:** BIOL 1001. **Assessment:** One 2hr exam, prae.

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).

Practical: The practical component focuses on basic, safe microbiological techniques and the use of these to study examples of microbial activity which are illustrative of the lecture series.

Reference

Tortora GT et al. *Microbiology: An Introduction*. 7th ed, Addison Wesley Longman, 2001

PCOL 2603 Pharmacology 2A (Pharmacy)

2 credit points. Assoc Prof E Mylecharane. Session: 1. Classes: 2 lec/wk & 1 x 1 hr tut. Prerequisite: CHEM 1611, CHEM 1612, BIOL 1001, BIOL 1003. Corequisite: 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, 4th edn. Churchill Livingstone, 1999

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, 7th edn. Oxford, 1996

Hardman JG et al (eds). Goodman and Gilman's The Pharmacological Basis of Therapeutics, 9th edn. McGraw-Hill, 2001

PCOL 2604 Pharmacology 2B (Pharmacy)

2 credit points. Assoc Prof E Mylecharane. **Session:** 2. **Classes:** 2 lec/wk & 1x 1hr tut. **Prerequisite:** CHEM 1611, CHEM 1612, BIOL 1001, BIOL 1003. **Corequisite:** 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. **Session:** 2. **Classes:** 1 hr lec & 3hr prac/wk.

Prerequisite: PHAR 1607, BIOL 1001. **Corequisite:** MICR 2605.

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, antisepsis, 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, antisepsis and preservation - principles and methods, and antibiotics in infection control.

Reference book

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

PHAR 2609 Medicinal Chemistry 2A

6 credit points. Dr Jane Hanrahan. **Session:** 1. **Classes:** 2hr lec & 1.5hr tut/wk & 3hr lab/workshop for 2 wk. **Prerequisite:** MATH 1605 and STAT 1605, CHEM 1611, CHEM 1612 and PHAR 1607. **Corequisite:** BCHM 2611 and PCOL 2603. **Assessment:** One 2hr exam (56%); laboratories, workshops, quizzes (44%).

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

Textbooks

Watson DG Pharmaceutical Analysis. Churchill Livingstone 1999.

Nogarty 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 2610 Medicinal Chemistry 2B

4 credit points. Dr C C Duke. **Session:** 2. **Classes:** 3hr lec, 0.5hr tut & 0.5 workshop/wk. **Prerequisite:** MATH 1605 and STAT 1605, CHEM 1611, CHEM 1612, PHAR 1607. **Corequisite:** BCHM 2612, PCOL 2604, PHAR 2609. **Assessment:** One 2hr exam (70%), classwork (30%).

Drug design; QS AR 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/QS AR computer-based problem-solving workshop (3 hrs) and the cardiovascular

workshop (2 x 3 hrs). 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 2611 Pharmacy Practice 2A

2 credit points. Dr P Aslani. **Session:** 1. **Classes:** 1 lec/wk & 6 x 2hr tut.

Prerequisite: PSYC 1611, PHAR 1612. **Corequisite:** PCOL 2603, BCHM 2611, PHSI 2604, PHAR 2609. **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, the use of compliance aids, and questioning and listening techniques. The use of video equipment will allow self- and group assessment of communication exercises, such as scripted role plays.

Reference

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

PHAR 2612 Pharmacy Practice 2B

3 credit points. Dr P Aslani. **Session:** 2. **Classes:** 2 lec/wk & 6 x 2hr tut.

Prerequisite: PSYC 1611, PHAR 1612. **Corequisite:** PCOL 2604, BCHM 2612, PHSI 2605, PHAR 2610, PHAR 2611. **Assessment:** One 1.5hr exam (70%); oral/role-play assessment (20%); Preparation for, 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 and other health professionals. 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 (2nd ed) (Churchill Livingstone, Edinburgh, 1999)

Misan, G (ed) Australian Medicines Handbook (PSA, RACGP & ASCEPT2002)

Tatro, D (ed) Drug Interaction Facts (St Louis 1997)

References

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

MEVIS 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-Chatgilaou 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)

PHAR 2613 Physical Pharmaceutics 2A

5 credit points. Assoc Prof H K Chan. **Session:** 1. **Classes:** 3 lec/wk & 36hrs prac & tuts. **Prerequisite:** MATH 1605 and STAT 1605, CHEM 1611, CHEM 1612 and PH AR 1607. **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

PHAR 2614 Physical Pharmaceutics 2B

5 credit points. Assoc Prof H K Chan. **Session:** 2. **Classes:** 3 lec/wk and 36 hrs prac. **Prerequisite:** MATH 1605 and STAT 1605, CHEM 1611, CHEM 1612, PHAR 1607. **Corequisite:** PHAR 2613. **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; biophysical properties of protein and peptide drugs.

Textbooks

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

PHSI2604 Physiology 2A (Pharmacy)

3 credit points. Dr L Cottee. **Session:** 1. **Classes:** 3 lec/wk. **Prerequisite:** 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)

PHSI 2605 Physiology 2B (Pharmacy)

3 credit points. Dr L Cottee. **Session:** 2. **Classes:** 3 lec/wk. **Prerequisite:** CHEM 1611, CHEM 1612, BIOL 1003. **Corequisite:** 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).

Year 3

PCOL 3603 Pharmacology 3A (Pharmacy)

6 credit points. Assoc Prof E Mylecharane. **Session:** 1. **Classes:** 2 lec & 4hr prac/wk. **Prerequisite:** BCHM 2611, BCHM 2612, PHSI 2604 and PHSI 2605. **Assessment:** One 1.5hr exam (70%) and one 1 hr 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 PCOL 2603 Pharmacology 2A (Pharmacy)

PCOL 3604 Pharmacology 3B (Pharmacy)

2 credit points. Assoc Prof E Mylecharane. **Session:** 2. **Classes:** 2 lec/wk. **Prerequisite:** BCHM 2611, BCHM 2612, PHSI 2604, PHSI 2605. **Corequisite:** 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 PCOL 2603 Pharmacology 2A (Pharmacy)

PHAR 3601 Dispensing

4 credit points. Miss E Sainsbury. **Session:** 2. **Classes:** 0.5 hr lec/wk & 3.5 hr prac/wk. **Prerequisite:** PHAR 2613, PHAR 2614, PHAR 2607, PHAR 2611 and PHAR 2612. **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 (18th ed) 2002.

PHAR 3607 Formulation A

3 credit points. Dr M Chetty. **Session:** 1. **Classes:** 2 lec/wk & 10 hrs prac. **Prerequisite:** 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.

Practical: Two practical sessions will investigate the formulation, manufacture and evaluation of solid dose forms.

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 (Churchill Livingstone, 2002)

Reference books

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

Martin A & Bustamante P Problem solving: Physical Pharmacy (4th ed) Lea & Febiger, 1993

Connors et al Chemical Stability of Pharmaceuticals (Wiley-Interscience, 1979).

PHAR 3608 Formulation B

2 credit points. Dr M Chetty. **Session:** 2. **Classes:** 2 lec/wk & 3 hrs workshop. **Prerequisite:** PHAR 2607, PHAR 2613, and PHAR 2614. **Corequisite:** PHAR 3607. **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 3609 Medicinal Chemistry 3A

6 credit points. Dr M Ivery. **Session:** 1. **Classes:** 3 lec & 1 hr tut/wk & 4hr of prac for 6 weeks. **Prerequisite:** BCHM 2611, BCHM 2612, PCOL 2603, PCOL 2604, PHAR 2609 and PHAR 2610. **Corequisite:** PCOL 3603. **Assessment:** One 3 hr exam (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 PHAR 2609 Medicinal Chemistry 2A

PHAR 3610 Medicinal Chemistry 3B

6 credit points. Dr M Collins. **Session:** 2. **Classes:** 3 lec & 1 hr tut/wk & 26 hrs of prac over 8 weeks. **Prerequisite:** BCHM 2611, BCHM 2612, PCOL 2603, PCOL 2604, PHAR 2609 and PHAR 2610. **Corequisite:** PCOL 3604 and PHAR 3609. **Assessment:** One 3 hr exam (70%), classwork (30%).

This unit of study continues on the principles of medicinal chemistry established and developed in Medicinal Chemistry 3 A (PHAR 3609).

Lectures will be on the following: drugs acting as antitumor agents and antimicrobials (antibacterial and antiviral); drugs acting on hormones to include antihormone therapy, hormone therapy, sex hormone analogues, corticosteroids, vitamins and minerals; photochemistry and photobiology; drugs from plants to include organic and inorganic substances; herbal medicines and remedies and their active ingredients; pharmacognosy.

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

Textbooks

As for PHAR 2609

PHAR 3611 Pharmacokinetics A

3 credit points. Assoc Prof I Ramzan. **Session:** 1. **Classes:** 3 x 1 hr sessions per week. **Prerequisite:** 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.

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 3612 Pharmacokinetics B

3 credit points. Dr Andrew McLachlan. **Session:** 2. **Classes:** 3 x 1 hr sessions per week. **Prerequisite:** PHAR 2613, PHAR 2614. **Corequisite:** PHAR 3611. **Assessment:** One 1.5 hr exam (80%), 1 quiz (10%) and 1 assignment (10%).

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

Clinical Pharmacokinetic aspects include: General Principles of Drug Dosage Design and Adjustment, Variability in Drug Pharmacokinetics and Pharmacodynamics, Perturbations in Pharmacokinetics/Pharmacodynamics in Disease, General Principles of Therapeutic Drug Monitoring, Pharmacokinetic Interpretation of Product/Consumer Information and Pharmacokinetic Considerations in Drug Interactions.

Recommended reading

Rowland M and Tozer TN Clinical Pharmacokinetics (3rd ed) Lea & Febiger, 1995.

Birkett DJ Pharmacokinetics Made Easy (McGraw Hill, 1999)

PHAR 3613 Pharmacy Practice 3A

6 credit points. Dr K Williams. **Session:** 1. **Classes:** 2 lec/wk & 12 x 2 hr tuts & 11 x 3 hr field work sessions. **Prerequisite:** PCOL 2603, PCOL 2604, PHSI 2604, PHSI 2605, BCHM 2611, BCHM 2612, PHAR 2611 and PHAR 2612. **Corequisite:** PCOL 3603, PHAR 3609 and PHAR 3611. **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 and HIV/AIDS. 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 (2nd ed) 1999

Rossi S (managing ed) Australian Medicines Handbook. 2002 Therapeutic Guidelines (Victorian Drug Usage Advisory Committee 1997-2002)

PHAR 3614 Pharmacy Practice 3B

7 credit points. Dr T Chen. **Session:** 2. **Classes:** 3 lec/wk & 12 x 2 hrtuts & 11 x 3 hr field work sessions. **Prerequisite:** PCOL 2603, PCOL 2604, PHSI 2604, PHSI 2605, BCHM 2611, BCHM 2612, PHAR 2611, PHAR 2612. **Corequisite:** PCOL 3604, PHAR 3610, PHAR 3612, PHAR 3613. **Assessment:** 0.5 hr oral exam (50%), tutorials (10%), externship assessment (15%), written case (15%), two computer quizzes (10%).

Therapeutics: This section is a continuation of the therapeutics section of Pharmacy Practice 3A (PHAR 3613). Topics covered include obstetrics and gynaecology, neurology, psychiatry, urology, dermatology, nutrition, oncology and palliative care. 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

Year 4

PHAR 4601 Integrated Dispensing

4 credit points. Dr A McLachlan and Dr P Aslani. **Session:** 1. **Classes:** 2 hr tut and 2 hr prac class/wk. **Prerequisite:** 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 PHAR 3601 Dispensing

PHAR 4602 New Drug Technologies

4 credit points. Dr Mary Collins. **Session:** 1. **Classes:** 12 lect & 4 specialised lectures/tutorials; Workshops: 3 x 4 hr. **Prerequisite:** PHAR 3609, PHAR 3610, PCOL 3603, PCOL 3604. **Assessment:** Continuous assessment, including one major assignment (20%), two minor assignments (30%) and one examination (50%).

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 PHAR 2609 Medicinal Chemistry 2A

Reference Book

Shen WC & Louie SG, Introduction to Immunology for Pharmacy Students (Harwood Academic, Amsterdam, 1999)

PHAR 4603 Pharmaceutics Workshop

4 credit points. Assoc Prof I Ramzan. **Session:** 1. **Classes:** 4hr workshop/wk. Prerequisite: PHAR 3611, PHAR 3612, PHAR 3607 and PHAR 3608. **Assessment:** Learning portfolio (20%), oral presentation (30%) and open book assessment (50%).

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, biopharmaceuticals, pharmacokinetics and pharmacodynamics.

There will be twelve workshop scenarios (plus an introductory session) dealing with Drug Discovery, Dose Form Design, Bioavailability/Bioequivalence Evaluation, Product and Consumer Information, Pharmacodynamics, Biopharmaceutics and Pharmacokinetics of Biologicals, and Dosage Adjustment and Dose Form Design.

At the end of each workshop session, one student from each sub-group 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 (20% of assessment). An open book assessment in the last session will count for 50% of the final assessment.

Textbooks

As for PHAR 3611 Pharmacokinetics A and PHAR 3607 Formulation A.

PHAR 4604 Clinical Pathology A

2 credit points. Dr M Ivery, Mr T Chen. **Session:** 1. **Classes:** 10 x 1 hr lects; 16 hrs tuts (or equivalent). **Prerequisite:** PHAR 3609, PHAR 3610, PHAR 3613, PHAR 3614, PCOL 3603, PCOL 3604. **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 regimens. 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 4606 Clinical Information Technology

2 credit points. Dr K Williams. **Session:** 2. **Classes:** 4 x 2 hr lectures, 4 x 2 hr workshops and 6 x 2 hrs lab time. Prerequisite: PHAR 3611, PHAR 3612, PHAR 3613, PHAR 3614, 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. Dr M Ivery, Mr T Chen. **Session:** 2. **Classes:** 10 x 1 hr lects; 16 hrs tuts (or equivalent). **Prerequisite:** PHAR 3609, PHAR 3610, PHAR 3613, PHAR 3614, PCOL 3603, PCOL 3604. **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 regimens. 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 PHAR 4604 Clinical Pathology A

PHAR 4608 Ethics and History of Pharmacy

2 credit points. Dr Ines Krass. **Session:** 2. **Classes:** 1 lec/wk & 7 x 2hr tuts. **Assessment:** Ethics strand: case study (25%), assignment (25%), History strand: tutorial tasks (25%), group project (25%), 0%.

There are two components in this unit of study. The Ethics components prepares 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 chosen. The History component involves an exploration of the growth of the pharmacy profession both in Australia and internationally. It will commence with a survey of its beginnings in antiquity; trace developments in Asian, European and American pharmacy and culminate with an examination of the growth and diversity of pharmacy practice in Australia and its role in and contribution to the contemporary health care system.

Textbooks

Buerki R and Vottero L, Ethical Responsibility in Pharmacy Practice

(AIHP, Madison WI, 1996)

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

Sonnedecker, Kremers and Urdangs, History of Pharmacy (4th ed)

American Institute of the History of Pharmacy, University of Wisconsin, Madison 1976. (Closed reserve, Pharmacy Library).

Chapters 1-3, 7, 8, 15 & 16.

Haines, G Pharmacy in Australia — the National Experience (The Aust Pharmaceutical Publishing Co Ltd, Sydney, 1988)

PHAR 4609 Pharmaceutical Management

4 credit points. Prof C Armour & Ms L Bronger. **Session:** 2. **Classes:** 2 hrs lect & 2 hrs tut per week. **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, stages of team development and the need for planning and resource allocation; 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 and be able to construct and analyse a business plan as a tool for purchasing a business.

Textbooks

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)

PHAR 4612 Pharmacotherapeutics A

5 credit points. Dr S Bosnic-Anticevich. **Session:** 1. **Classes:** 1 hr lec & 4hrs tuts/wk. Prerequisite: PHAR 3611, PHAR 3612, PHAR 3613, PHAR 3614, PCOL 3603 and PCOL 3604. **Assessment:** Examination (60%), tutorial participation (40%).

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

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

Herfindal, ET, Gourley DR & Lloyd Hart L (eds). Clinical Pharmacy and Therapeutics (1998)

PHAR 4613 Clinical Practice A

5 credit points. Ms P Whitehead. **Session:** 1. **Classes:** 5 hrs clinical placement per week (or equivalent). **Prerequisite:** PHAR 3613, PHAR 3614, PCOL 3603, POOL 3604, PHAR 3611 and PHAR 3612. **Assessment:** Case assessment (75%) and clinical placement assessment (25%). 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 2002* (Adelaide)

PHAR 4614 Pharmacotherapeutics B

4 credit points. Dr S Bosnic-Anticevich. **Session:** 2. **Classes:** 1 hr/lect and 2 hr tut/wk. **Prerequisite:** PHAR 3611, PHAR 3612, PHAR 3613, PHAR 3614, PCOL 3603, PCOL 3604. **Assessment:** Examination (50%), case study (20%), tutorial participation (30%).

This unit of study continues on from PHAR 4612 Pharmacotherapeutics A. Therapeutics lectures will be followed up with tutorials which will be practice-based in order to illustrate specific practice situations.

The focus of this unit is not only to gain a deeper and broader understanding of drug use in different populations, disease states and clinical situations, but also to understand the elements of a pharmacist-provided disease state management service. The unit will expand the role of the pharmacist in monitoring therapeutic outcomes and participation in therapeutic decision-making. The ability to communicate this information will also be considered.

Textbooks

As for PHAR 4612 Pharmacotherapeutics A

PHAR 4615 Clinical Practice B

10 credit points. Ms P Whitehead. **Session:** 1,2. **Classes:** 10 hrs clinical placement per week (or equivalent). **Prerequisite:** PHAR 3611, PHAR 3612, PHAR 3613, PHAR 3614, PCOL 3603, PCOL 3604. **Assessment:** Case assessment (75%) and clinical placement assessment (25%). 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 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 PHAR 4613 Clinical Practice A

PHAR 4921 Pharmaceutics A (Advanced)

10 credit points. Dr A McLachlan. **Session:** 1. **Classes:** 1 hr lec/tut, 1 hr Seminar & 8 hr Project/wk. **Prerequisite:** All third year pharmacy units of study. Enrolment is only by invitation to those with a high WAM. **Assessment:** Assignment, oral presentation, report on research project.

NB: Department permission required for enrolment.

This unit of study is designed to extend the Pharmacy undergraduate's knowledge and skills in research methodology, problem solving and written and oral scientific communication in specialist areas of Pharmaceutics. It provides an important basis in advanced coursework and laboratory research for those who wish to become candidates for the PhD, MSc and MPharm degrees. (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 10 students will be enrolled by invitation only.

PHAR 4922 Pharmaceutical Chemistry A (Advanced)

10 credit points. Dr C Duke. **Session:** 1. **Classes:** 5 hr lec/tut/seminar & 5 hr Project/wk. **Prerequisite:** All third year pharmacy units of study. Enrolment only by invitation to those with a high WAM. **Assessment:** Examination/assignment (36%), Oral presentation (34%), Report on project (30%).

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. Prof C Amour. **Session:** 1. **Classes:** 5 lec & 5 tut/wk. **Prerequisite:** 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 10 students will be enrolled by invitation only.

PHAR 4924 Pharmaceutics B (Advanced)

10 credit points. Dr A McLachlan. **Session:** 2. **Classes:** 1 hrtutorial, 1hr seminar & 8 hrs research project/wk. **Prerequisite:** 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, research institutions and also for those considering continuation to postgraduate studies.

The lecture/tutorial and seminar components of the unit of study (2 credit points) will assist in the development of advanced research skills and will complement the research project. The individual research project prepared in the February semester will be pursued under the supervision of a member of the academic staff (8 credit points). A final research presentation and report describing research results and conclusions is to be presented at the end of the July Semester.

PHAR 4925 Pharmaceutical Chemistry B (Advanced)

10 credit points. Dr C Duke. **Session:** 2. **Classes:** 1 hr lec/tut/seminar & 9 hr practical work/wk. **Prerequisite:** 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 February 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 July Semester.

PHAR 4926 Pharmacy Practice B (Advanced)

10 credit points. Prof C Armour. Session: 2. Classes: 1 hr lec/tuff seminar & 9 hrs Research Project/ wk. Prerequisite: PHAR 4923 at a credit level or better. Corequisite: PHAR 4614. Assessment: Protocol presentation (30%), written report (60%), 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 4907 Pharmacology A Advanced (Pharmacy)

10 credit points. Dr R Vandenberg, Assoc Prof E Mylecharane. **Session:** 1. **Classes:** Two x 2hr seminar & 5hr prac/wk. **Prerequisite:** 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 select and prepare for an experimental pharmacology research project, which will be undertaken in PCOL 4908 Pharmacology B Advanced (Pharmacy), by preparing a literature review and research proposal for both oral and written presentation.

Textbooks

Textbooks, study aids and reference books

As for PCOL 2603 Pharmacology 2A (Pharmacy)

PCOL 4908 Pharmacology B Advanced (Pharmacy)

10 credit points. Dr R Vandenberg, Assoc Prof E Mylecharane. **Session:** 2. **Classes:** 10hr research laboratory placement/wk. **Prerequisite:** 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. Students are selected for participation in their individual research projects following initial preparation in 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 PCOL 2603 Pharmacology 2A (Pharmacy).

3 Undergraduate degree regulations and policies

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.

■ University of Sydney (Coursework) Rule 2000

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 sequence 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 all examination, assessment and attendance requirements for the unit of study; and
 - (c) 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.

■ 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 I. 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.

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 I.

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 I. 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 80 or greater
- (ii) Second Class Honours, division I: WAM of 75-79
- (iii) Second Class Honours, division II: WAM of 70-74

- (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 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 I.
- (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 I.
- (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 I, 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 I, 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 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 whom 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 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 (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

1. 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 for the following grades:
- (i) First Class Honours: WAM of 80 or greater
 - (ii) Second Class Honours, division I: WAM of 75-79
 - (iii) Second Class Honours, division II: WAM of 70-74
 - (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 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 unit 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 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 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(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 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.
- (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.

10. 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 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 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.

4 Postgraduate degree requirements

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 at www.usyd.edu.au/su/calendar/.

Additional valuable resources for intending and current research students are the Postgraduate research Studies Handbook, published by the University of Sydney, The Thesis Guide and the Survival Manual published by SUPRA (Sydney University Postgraduate Representative Association). The Postgraduate Research Studies Handbook is also on the Web at www.usyd.edu.au/su/ab/committees/committees.html.

■ Research degrees

Research degrees offered by the Faculty are:

- Doctor of Philosophy
- Master of Pharmacy
- Master of Pharmaceutical Sciences
- Graduate Diploma in Pharmaceutical Sciences.

Doctor of Philosophy (PhD)

Course code: PBOOO

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 master's degree or a bachelor's 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 in three years in the case of candidates holding a bachelor's 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. Normally the minimum period of candidature will 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 Resolutions: see University of Sydney Calendar.

Master of Pharmacy (MPharm)

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 bachelor's degree with first or second-class honours from the University of Sydney in pharmacy or science (eg, pharmacology, chemistry or biochemistry), or a bachelor's 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 bachelor's degree with first or second-class honours from the University of Sydney in pharmacy or science (eg, pharmacology, chemistry or biochemistry), or a bachelor's 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: PFOOO

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.

Structure

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.

■ 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.

Pharmaceutical Chemistry

Calcium Regulation and Cell Signalling

- The role of calcium translocating ATPases responsible for regulating calcium levels in cells
- Investigation of the effects of calcium and drugs and, in particular, the role of magnesium-dependent ATPase in the control of phospholipid distribution

- Cancer and Anticancer Agents
- Investigation of the mechanism of transport of chemotherapeutic agents and the search for agents which can reverse multidrug resistance in cancer
- Development of agents which are to be released as the active anticancer drug by enzymes chemically linked to antibodies targeted to tumour cells
- Purinergic receptors as potential targets for the treatment of leukemias and for inducing normal blood-cell maturation in the bone marrow

Drug Macromolecule Interactions and Rational Drug Design

- Isolation and identification of bioactive natural substances and syntheses of related substances for evaluation as medicinal agents
- Development of molecular modelling techniques for predicting the three-dimensional structures of proteins. Photobiology of Drugs and Pollutants
- Studies of adverse reactions to sunlight following transformation of drugs and chemicals by ultraviolet stimulation

Radiopharmaceutical Agents

- The development and testing of diagnostic and/or therapeutic agents which localise in malignant tissues
Neuropharmacology and Medicinal Chemistry
- Structure-activity relationships of neuropeptides and their receptors involved in hormone secretion, memory and learning, appetite and sexual activity
- The design, development and testing of neuroactive agents acting on neuronal nicotinic receptors, and GABA receptor and transporters as potential drugs for treating neurological disorders such as epilepsy, schizophrenia and Alzheimer's disease
- To investigate the effects of dietary substances on the function of GABA and nicotinic acetyl choline receptors in the brain, and to develop new chemical entities for the treatment of brain disorders
- To investigate the role(s) played by the different subtypes of nicotinic and GABA receptors in the brain
- To investigate modulatory sites and identify important amino acid residues that are involved in binding and function of these receptors
- To investigate changes of DNA, mRNA and protein levels of GABA receptors and transporters between normal human post-mortem and schizophrenic brains

Pharmaceutics

Formulation and delivery of proteins and drugs

- Stabilisation of therapeutic proteins in the dry state for drug delivery
- Formulation of microparticles of drugs, peptides and proteins for potential nasal, pulmonary or oral delivery
- The preparation and in vitro characterisation of pharmaceutical aerosols of drugs and proteins
- Study of the in vivo deposition of aerosols using gamma scintigraphy techniques
- Study of the systemic absorption of drugs given by inhalation
- Formulation and manufacture of low solubility drugs for oral delivery
- Formulation of 'GI safe' anti-inflammatory drugs
- Novel formulation of micronised drugs using supercritical fluid technology

Pharmacokinetics and Pharmacodynamics

- Investigation of pharmacokinetics and pharmacodynamics of drugs under different physiological conditions such as obesity and pregnancy and various disease states like diabetes
- Pharmacodynamics of neuromuscular blocking drugs in adults and children
- Use of neuromuscular paralysis as a pharmacodynamic probe of liver function during liver transplantation surgery
- Drug disposition and metabolism in the isolated perfused rat liver preparation
- Population pharmacokinetic investigations in special subgroups of patients including children with malignant disease, transplant recipients, people with HIV infection and patients with rheumatoid arthritis
- In vitro metabolism of inhaled glucocorticoids in homogenates of human lung, liver and gut tissue
- The distribution and disposition of immunosuppressants and other drugs in transplant recipients

- Development of theoretical pharmacokinetic models to describe drug absorption, distribution and elimination processes
- Using physiologically-based pharmacokinetic models to describe and predict drug disposition
- Examination of pharmacodynamic drug interactions with neuromuscular blocking and other drugs used during anaesthesia using in vivo models
- Renal handling of drugs
- Application of artificial neural networks in pharmacokinetics
- Pharmacokinetic/pharmacodynamic investigation of highly extracted drugs in experimental colitis, arthritis and endotoxemia
- Pharmacokinetic/pharmacodynamic investigation of chiral proton pump blockers
- Microdialysis as a research tool in pharmacokinetics and pharmacodynamics
Studies on pharmaceutical powders
- Characterisation of the solid state properties of pharmaceutical powders including mixing and flow properties
- Identification of physical forms of drugs such as polymorphs, solvates and crystal habits

Pharmacy Practice

Asthma

- Investigation of factors involved in the allergic asthmatic state and the role of inflammation
- Optimisation of the pharmacist's role in asthma management

Community Pharmacy Practice

- Disease state management in diabetes and asthma
- Development of interventions to increase the professional contact between pharmacists and medical practitioners using medication regimen review
- Health promotion and screening in community pharmacy
- Innovative modes of practice: development, implementation and evaluation
- Use of technology in the delivery of pharmaceutical services
- Facilitation of behaviour change in community practice
- Domiciliary medication review
- Development of clinical services from community pharmacy

Consumers

- Consumer perceptions of, experiences of and satisfaction with professional services and how these impact on the use of pharmacy services
- The impact of consumer medicines information on medication taking behaviour

Clinical Pharmacy and Quality Use of Medicines

- Establishment and evaluation of models of clinical pharmacy training
- Clinical pharmacokinetics and therapeutic drug monitoring services
- The optimal long-term treatment of patients admitted with heart failure
- Drug use policy - the role of Drug Committees in clinical, legal and ethical dilemmas
- Development of methodology for evaluation of outcomes of clinical pharmacy services - towards evidence based practice
- Quality use of medicine programs in clinical pharmacy practice
- Clinical pharmacy services in the continuum of care across hospital and community patient transfers

■ 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, the Postgraduate Research Studies Handbook and the Faculty of Science for the most current and detailed advice. The Postgraduate Research Studies Handbook is available on the web at www.usyd.edu.au/su/ab/committees/committees.html.

Formal requirements

Number of copies to be submitted - MSc: 3; PhD: 4. The four copies of theses submitted for examination for the degree of Doctor of Philosophy 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.

Similar formal requirements exist for the presentation of MSc theses.

■ 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 (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.

The resolutions of Senate relating to these degrees may be found in the next chapter.

Postgraduate coursework programs in Clinical Pharmacy

Master of Pharmacy (Clinical) (MPharmClin), Graduate Diploma in Clinical Pharmacy (GradDipClinPharm), Graduate Certificate in Clinical Pharmacy (GradCertClinPharm)

Dr Beata Bajorek

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.

The Master of Clinical Pharmacy and Graduate Diploma in Clinical Pharmacy are available on a part-time and full-time basis. The Graduate Certificate is a part-time only program. There are 24 hours of coursework per week for the full-time Master's program, 18 hours of coursework per week for the full-time Graduate Diploma, and eight hours of coursework per week for the part-time programs. Additional time is required to complete assignments, clinical placements and research projects. Individual subjects are also available to suitably qualified students as Professional Development modules.

Admission requirements

Applicants for the Master's degree must have a bachelor's degree in pharmacy with one of the following: an honours degree, a relevant graduate diploma, or 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 bachelor's degree in pharmacy (or equivalent qualification that is acceptable to the Dean).

Awards in Clinical Pharmacy

If all coursework is completed a Graduate Certificate of Clinical Pharmacy will be awarded.

If all coursework plus clinical placements are completed, the student will qualify for a Graduate Diploma of Clinical Pharmacy.

If all coursework plus a research project is completed the student will qualify for the Master of Pharmacy (Clinical).

Transfer between programs in Clinical Pharmacy

Students may upgrade from the Graduate Certificate to the Graduate Diploma or Master's degree, subject to satisfactory progress. Students may also convert to the Graduate Certificate or Graduate Diploma after initially enrolling in the Master's.

PC031 Master of Pharmacy - Clinical (full-time)
 PC031 Master of Pharmacy - Clinical (part-time)
 PF003 Graduate Diploma in Clinical Pharmacy (full-time)
 PF003 Graduate Diploma in Clinical Pharmacy (part-time)
 PG001 Graduate Certificate in Clinical Pharmacy (part-time only)

Unit of study	Credit points
Full-time program	
<i>Semester 1</i>	
PHAR 5002 Medication Review	4
PHAR5012 Advanced Therapeutics A	2
PHAR 5003 Drug Information	2
PHAR 5005 Pharmacoepidemiology	2
PHAR 5014 Advanced Therapeutics C	2
PHAR 5006 Statistics	2
PHAR 5015 Research Project Design	2
<i>Graduate Diploma</i>	
PHAR 5016 Clinical Placement A	2
PHAR 5018 Clinical Placement C*	4
<i>Master</i>	
PHAR 5106 Research Project A	8
<i>Semester 2</i>	
PHAR 5013 Advanced Therapeutics B	2
PHAR 5008 Scientific Presentation	2
PHAR 5009 Clinical Pharmacokinetics	2
PHAR 5010 Pharmacoeconomics	2
<i>Graduate Diploma</i>	
PHAR 5017 Clinical Placement B	10
<i>Master</i>	
PHAR 5103 Research Project B	8
PHAR 5104 Research Project C	8
Part-time program	
<i>Semester 1</i>	
PHAR 5002 Medication Review	4
PHAR 5003 Drug Information	2
PHAR 5012 Advanced Therapeutics A	2
<i>Semester 2</i>	
PHAR 5013 Advanced Therapeutics B	2
PHAR 5008 Scientific Presentation	2
PHAR 5009 Clinical Pharmacokinetics	2
PHAR 5010 Pharmacoeconomics	2
<i>Semester 3</i>	
PHAR 5005 Pharmacoepidemiology	2
PHAR 5014 Advanced Therapeutics C	2
PHAR 5006 Statistics	2
PHAR 5105 Research Methods	2
<i>Semester 4</i>	
<i>Graduate Diploma</i>	
PHAR5016 Clinical Placement A	2
PHAR 5017 Clinical Placement B	10
PHAR 5018 Clinical Placement C*	4
<i>Master</i>	
PHAR 5106 Research Project A	8
<i>Semester 5 (Master only)</i>	
PHAR 5103 Research Project B	8
<i>Semester 6 (Master only)</i>	
PHAR 5104 Research Project C	8

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

Duration: the full-time Master's (48 credit points total) or Graduate Diploma (36 credit points total) can be completed in one year, involving two semesters of coursework (24 credit points) plus either a research project (24 credit points) or clinical placements (12 credit points) as per program. Semester 1 lectures are given for four hours on three evenings a week in addition to day-time attendance for Research Project Design, Statistics, and either the Research Project A or Clinical Placement A (+/-

optional Clinical Placement C, instead of Statistics and Research Project Design). 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.

In the part-time programs, there are eight hours of coursework each week. The Master's degree may be completed in three years, involving three semesters of coursework plus three semesters of research project. The Graduate Diploma can be completed in two years, involving four semesters of coursework combined with clinical placements. The Graduate Certificate can be completed in 18 months by coursework or by a combination of coursework and clinical placement.

Clinical Pharmacy units of study

PHAR 5002 Medication Review 1

4 credit points. **Session:** 1. **Classes:** 1 hr 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. **Session:** 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 mis 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. **Session:** 1. **Classes:** 1 hr lec/wk for 14 wks & 1 hr 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. **Session:** 1. **Classes:** 1 hr lec/wk & 1 hr 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. **Session:** 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. **Session:** 1, 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.

PHAR5010 Pharmacoeconomics

2 credit points. Session: 1, 2. Classes: 1 hr 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. Session: 1,2. 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. **Session:** 1,2. **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. **Session:** 1,2. **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 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 5015 Research Project Design

2 credit points. Session: 1. Classes: Daytime, 2 hrs lect or tutorial/wk.
Assessment: Participation in presentation sessions-10%, research diary - 20%, journal article critique - 30%, preparation of a research protocol - 40%.
The methods available to carry out Pharmacy Practice research will be explored through illustrations presented by staff members involved in research. The research process from planning to implementation, the research question and the hypotheses tested and the research design will be presented and discussed. In addition, the difference between qualitative and quantitative research, the problems associated with sampling, reliability, validity and source of error will be highlighted. The protocol for a research project will be designed.

PHAR 5016 Clinical Placement A

2 credit points. **Session:** 1,2. **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.

PHAR 5017 Clinical Placement B

10 credit points. Session: 1,2. 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 expected 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. Session: 1,2. Classes: 16 hrs/semester. **Assessment:** Oral case presentation - 30%; written case presentation - 10%; preceptor feedback - 30%; portfolio of clinical cases - 30%.
Clinical Placement is optional and may be undertaken instead of Statistics and 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. Session: 1. **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 has prepared a written proposal for their research project.

PHAR 5104 Research Project C

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

PHAR 5105 Research Methods

2 credit points. Session: 1. Classes: 2hrs tut/wk for 14 wks.
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. Session: 1,2. **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).

Postgraduate coursework programs in Herbal Medicines

Including Master of Herbal Medicines (MHerbMed), Graduate Diploma in Herbal Medicines (GradDipHerbMed), Graduate Certificate in Herbal Medicines (GradCertHerbMed)
Course Coordinator: Dr Colin Duke, Dr George Q Li

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 and clinical application of herbal medicines for healthcare professionals or science graduates, to enable them to become specialized in herbal medicine, and traditional Chinese medicine.

The programs are suitable for postgraduate studies of pharmacists, complementary medicine and Chinese medicine practitioners and pharmacists, medical practitioners, quality assurance managers, international marketing managers from industry, hospital, university and government departments.

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 Bachelor's degree in pharmacy, medicine, nursing, Chinese medicine, complementary medicine, science, veterinary science, agriculture or other appropriate disciplines from approved universities. 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 programs are for part-time and full-time study. Part-time study is only available to local students. The course consists of lectures, tutorials, laboratory practical, excursion, 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, assignment, and other self-directed study.

For part-time study, candidates are required to complete 48 credit points over two years to qualify for the Master degree, or 36 credit points over one and half years to qualify for the Graduate Diploma, or 24 credit points over one year to qualify for the Graduate Certificate. For full-time study, candidates are required to complete 48 credit points over one year to qualify for the Master degree, or 36 credit points over one year to qualify for the Graduate Diploma, or 24 credit points over half year to qualify for the Graduate Certificate.

For part-time study, the Master of Herbal Medicines is to be taken over two years (four semesters) and the maximum time to complete the program is four years (8 semesters). The Graduate Diploma in Herbal Medicines is to be taken over one and half years (three semesters), and the maximum time to complete the program is three years (six semesters). The Graduate Certificate in Herbal Medicines is to be taken over one year (2 semesters) and the maximum time to complete the program is two years (4 semesters).

For full-time study, the Master of Herbal Medicines is to be taken over one year (two semesters) and the maximum time to complete the program is two years (four semesters). The Graduate Diploma in Herbal Medicines is to be taken over one year (two semesters), and the maximum time to complete the program is one and half years (three semesters). The Graduate Certificate in Herbal Medicines is to be taken over half year (one semester) and the maximum time to complete the program is one year (two semesters).

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

Course structure

The Master of Herbal Medicines program has 15 units of study and are offered in two blocks with 24 credit points on Tuesday and Thursday, and 24 credit points offered on Wednesday and Friday. Full-time candidates are required to enroll on all the four days (evenings).

PC032 Master of Herbal Medicines PF002 Graduate Diploma in Herbal Medicines PG000 Graduate Certificate in Herbal Medicines Table 1: Units of study for the graduate programs in herbal medicines

Unit of study	Credit points
Semester 1	
<i>Tuesday and Thursday</i>	
HERB 5005 Medicinal botany	3
HERB 5006 Pharmacology of herbal medicines	5
HERB 5007 Safety and toxicology of herbal medicines	4
<i>Wednesday and Friday</i>	
HERB 5001 Introduction to traditional medicine	2
HERB 5002 Basic Chinese medicine	4
HERB 5003 Chinese materia medica	3
HERB 5004 Chemistry of herbal medicines	3
Semester 2	
<i>Tuesday and Thursday</i>	
HERB 5013 Pharmacognosy-identification of herbs	4
HERB 5014 Monographs of common herbs	4
HERB 5015 Regulation and dispensing of herbal medicines	4
<i>Wednesday and Friday</i>	
HERB 5008 Introduction to pharmaceutical technology of herbal medicines	2
HERB 5009 Quality analysis of herbal medicines	2
HERB 5010 Basic principles of clinical studies	2
HERB 5011 Formulary of Chinese medicine	4
HERB 5012 Processing of Chinese herbal medicines	2
Total	48

Timetable

The 2003 intake will commence on March 2003. Four evening sessions (Tuesday to Friday), will be held each week during semester (around 16 weeks, two semesters each year). They will run from 6 to 10 pm at the Pharmacy Building, A15, University of Sydney. The commencement of full-time study in 2003 is subject to final confirmation.

Fees

These courses are fee paying and are not HECS funded. Local students are eligible to Postgraduate Education Loans Scheme (PELS) similar to HECS. The fee for 2003 is \$7500 per year for local part-time students and \$19,000 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.

Credit

Prior to admission to candidature, a candidate who has completed graduate coursework in The University of Sydney or another university may receive up to 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 degree. The graduate study completed (within five years) must be considered by the Faculty to be equivalent to programs prescribed by the degree.

Herbal Medicines units of study

HERB 5001 Introduction to Traditional Medicine

2 credit points. **Session:** 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, Traditional Chinese Medicine and Acupuncture, 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. **Session:** 1. **Assessment:** Examinations (25%), assignments (25%), practical work (50%).

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:

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

Other reference books:

Maciocia, 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. **Session:** 1. **Assessment:** Examinations (25%), assignments (50%) and 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. **Session:** 1. **Assessment:** Examinations (25%), assignments (50%) and 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; Flavonoids; 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. **Session:** 1. **Assessment:** Examination (25%), assignments (25%), practical work (50%).

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: 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:

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. **Session:** 1. **Assessment:** Examinations (25%), assignments (50%), 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. **Session:** 1. **Assessment:** Examinations (25%), assignments (50%), 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:

Klaasen, 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 PharmTech of Herbal Medicines

2 credit points. **Session:** 2. **Assessment:** Examination (25%), assignments (50%), 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; prescription and dispensing of herbal medicines.

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. Session: 2. **Assessment:** Examination (25%), assignments (25%), practical work (50%).

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 methodology 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)

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

HERB 5010 Basic Principles of Clinical Studies

2 credit points. Session: 2. **Assessment:** Examination (25%), assignments (25%), practical work (50%).

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 (OUR 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. **Session:** 2. **Assessment:** Examinations (25%), assignments (50%), 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. Session: 2. **Assessment:** Examination (25%), assignments (25%), practical work (50%).

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. Session: 2. **Assessment:** Examination (25%), assignments (25%), practical work (50%).

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. **Session:** 2. **Assessment:** Examinations (25%), assignments (50%), practical work (25%).

Information and application of common herbs and herbal preparations available in Australia. Topics will cover botanic 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 Cooperative on Phytotherapy).

HERB 5015 Regulation/Dispensing of Herbal Medicine

4 credit points. Session: 2. **Assessment:** Examinations (25%), assignments (50%), 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 Ann Liebert, 1999)

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

Therapeutic Goods Regulations (AGPS, Canberra, March 1995)

5 Postgraduate degree regulations

■ Resolutions of the Senate

Constitution of the Faculty of Pharmacy

1. The Faculty of Pharmacy shall comprise the following persons:
 - (a) 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;
 - (b) the Dean or a nominee of the Dean of each of the Faculties of Health Sciences, Dentistry, Medicine, Nursing and Science;
 - (c) 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;
 - (d) 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;
 - (e) 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;
 - (f) not more than four students (two undergraduate, two postgraduate), elected in the manner prescribed by the Resolutions of Senate;
 - (g) 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;
 - (h) the President of the Pharmacy Practice Foundation;
 - (i) the President of the Pharmacy Board of New South Wales;
 - (j) 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.

Degrees, diplomas and certificates in the Faculty of Pharmacy

1. The degrees in the Faculty of Pharmacy shall be:
 - (a) Bachelor of Pharmacy (BPharm)
 - (b) Bachelor of Pharmacy (Rural) (BPharm(Rural))
 - (c) Master of Pharmacy (MPharm)
 - (d) Master of Pharmacy (Clinical) (MPharm(Clin))
 - (e) Master of Pharmaceutical Sciences (MPharmSc)
 - (f) Master of Herbal Medicines (MHerbMed)
 - (g) Master of Pharmaceutical Industry (MPharmInd)
 - (h) Doctor of Philosophy (PhD)
2. The diplomas and certificates in the Faculty of Pharmacy shall be:
 - (a) Graduate Diploma in Clinical Pharmacy (GradDipClinPharm)
 - (b) Graduate Diploma in Pharmaceutical Sciences (GradDipPharmSc)
 - (c) Graduate Diploma in Hospital Pharmacy (GradDipHPharm)
 - (d) Graduate Diploma in Herbal Medicines (GradDipHerbMed)
 - (e) Graduate Diploma in Pharmaceutical Industry (GradDipPharmInd)
 - (f) Graduate Certificate in Clinical Pharmacy (GradCertClinPharm)
 - (g) Graduate Certificate in Herbal Medicines (GradCertHerbMed)
 - (h) Graduate Certificate in Pharmaceutical Industry (GradCertPharmInd)

Master of Pharmacy

1. An applicant for admission as a candidate for the degree of Master of Pharmacy shall:
 - (a) be a Bachelor of Pharmacy 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 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).
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-laws¹, 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.

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.

Master of Pharmaceutical Industry

Eligibility for admission

1. Except as provided in chapter 10 of the by-laws¹, 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.

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-laws¹, 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 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-laws², 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.

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.

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

1. 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

1. 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-laws³, 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 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.

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.

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,

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.

6 General University information

See also the Glossary for administrative information relating to particular terms.

Accommodation Service

The Accommodation Service assists students to find off-campus accommodation by maintaining an extensive database of suitable accommodation in various areas but primarily close to University or within easy access via public transport.

Level 7, Education Building, A35

The University of Sydney

NSW 2006 Australia

Phone: (02)9351 3312

Fax: (02) 9351 8252

Email: accomm@stuserv.usyd.edu.au

Web: www.usyd.edu.au/accomm

Admissions Office

The Admissions Office (see address below) is responsible for overseeing the distribution of offers of undergraduate admission and can advise prospective local undergraduate students regarding 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.

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

Applying for a course

Local applicants for undergraduate courses and programs of study

Citizens and permanent residents of Australia and citizens of New Zealand are considered local applicants for the purpose of admission and enrolment. If you are in this group and you wish to apply for admission into an undergraduate course, you would generally apply through the Universities Admissions Centre (UAC) by the last working day of September of the year before enrolment. Go to 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

Citizens and permanent residents of Australia and citizens of New Zealand are considered local applicants for the purpose of admission and enrolment. Application is direct to the faculty (not to the department, Student Centre or the Admissions Office) which offers the course in which you are interested. Application forms for postgraduate coursework, postgraduate research and the Master's qualifying or preliminary program, or for non-award postgraduate study can be found at www.usyd.edu.au/su/studentcentre/applications/applications.html.

Please note that not all faculties use these application forms for admission into their courses. Some faculties prefer to use their own specially tailored application forms rather than the standard ones. Please contact the relevant faculty.

International applicants for all course types (undergraduate and postgraduate)

All applicants other than Australian citizens, Australian permanent residents and citizens of New Zealand are considered to be international applicants. In the vast majority of cases applicants apply for admission through the University's

International Office. All of the information international applicants need, as well as downloadable application forms, is available from the International Office's section of the University's Web site, www.usyd.edu.au/io.

Assessment

For matters regarding assessment, refer to the relevant department or school.

Careers information

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

The University of Sydney

NSW 2006 Australia

Phone: (02) 9351 3481

Fax: (02) 9351 5134

Email: info@careers.usyd.edu.au

Web: www.careers.usyd.edu.au

Casual Employment Service

The Casual Employment Service helps students find casual and part-time work during their studies and in University vacations. 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

Web: www.usyd.edu.au/cas_emp

Centre for Continuing Education

Bridging courses, study skills courses, essay writing courses, accounting extension courses, university preparation courses, access to university courses, non-award short courses.

Mackie Building, K01

The University of Sydney

NSW 2006 Australia

Phone: (02) 9351 2907

Fax: (02) 9351 5022

Email: info@cce.usyd.edu.au

Web: www.usyd.edu.au/cce

Centre for English Teaching

The Centre for English Teaching (CET) offers a range of English language courses including Academic English, General & Business English and IELTS preparation. CET programs help international students to reach the required English language levels for entry to degrees at the University. Students have the opportunity to take the CET university direct entry test at the completion of their language programs.

Level 2, Building F, 88 Mallett St

University of Sydney (M02)

NSW 2006 Australia

Phone: (02) 9351 0706

Fax: (02) 9351 0710

Email: info@cet.usyd.edu.au

Web: www.usyd.edu.au/cet

Child care

Contact the Child Care Coordinator for information about children's services for students and staff of the University who are parents.

Child Care Coordinator

Level 7, Education Building, A35

Phone: (02) 9351 5667

Fax: (02) 9351 7055

Email: childc@stuserv.usyd.edu.au

Web: www.usyd.edu.au/childcare

The Co-op Bookshop

As well as providing textbooks for all courses, the Co-op stocks a wide range of supplementary material including recommended readings, course notes, study aids, reference titles, general fiction, non fiction, academic and professional titles. Co-op members receive up to 15 per cent discount and the shop stocks software at up to 70 per cent off for students and academics.

The Co-op is located in the Sydney University Sports and Aquatic Centre.

Phone: (02) 9351 3705 or (02) 9351 2807

Fax: (02) 9660 5256

Email: sydu@mail.coop-bookshop.com.au

Web: www.coop-bookshop.com.au

Counselling Service

The Counselling Service aims to help students fulfil their academic, individual and social goals through professional counselling which is free and confidential. Counselling presents an opportunity to: gain greater self awareness; learn to cope more efficiently with the problem at hand; discuss any work related, social or personal issues that cause concern; explore options with professionally trained staff. In addition, workshops are offered each semester on topics such as stress management, relaxation, exam anxiety, communication skills and others.

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

Web: www.usyd.edu.au/counsel

Disability Services

Disability Services is the principal point of contact and 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 all areas of their study. Assistance available includes the provision of notetaking, 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

Web: www.usyd.edu.au/disability

Enrolment and pre-enrolment

Students entering first year

Details of the enrolment procedures will be sent with the UAC Offer of Enrolment. Enrolment takes place at a specific time and date, depending on your surname and the Faculty in which you are enrolling, but is usually within the last week of January. You must attend the University in person or else nominate, in writing, somebody to act on your behalf. On the enrolment day, you pay the compulsory fees for joining the Student Union, the Students' Representative Council and sporting bodies and nominate your preferred 'up front' or deferred payment for your Higher Contribution Scheme (HECS) liability. You also choose your first-year units of study, so it's important to consult the 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.

Examinations

The Examinations and Exclusions Office (see address below) looks after the majority of exam papers, timetables and exclusions. 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, Carslaw 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

Fees

For information on how to pay, where to pay, and if payments have been received.

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 has a number of loan funds and bursaries to assist students who experience financial difficulties. Assistance is not intended to provide the principal means of support but to help in emergencies and to supplement other income.

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

Web: 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;
- enables a member of the public to ensure that records held by the University concerning his or her personal affairs are not incomplete, incorrect or out of date.

(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 be made within a specified time period, generally 21 days. Determinations are made by the University's Registrar.

While application may be made for access 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 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 and function and the kinds of documents held. The Summary of Affairs identifies the University's policy documents and provides information regarding how to make application for access to University documents.

Further information, and copies of the current reports may be found at 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

Many decisions about academic and non-academic matters are made each year and you may consider that a particular decision affecting your candidature for a degree or other activities at the University may not have taken into account all the relevant matters.

In some cases the by-laws or resolutions of the Senate (see University Calendar) specifically 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.

GENERAL UNIVERSITY INFORMATION

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 Web site at www.usyd.edu.au/su/planning/policy/.

If you wish to seek 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

Student Centre
Ground Floor, Carlaw 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 (helpdesk.usyd.edu.au), located in the University Computer Centre (Building H08), or through the University Access Labs (www.usyd.edu.au/su/is/labs/). The access labs on main campus are located in:

- Fisher Library (Level 2)
- Carlaw (Room 201)
- Education (Room 232)
- The Link Building (Room 222)
- Pharmacy (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 Web site.

Each student is supplied with an account, called a 'Unikey' or 'extro' account, which allows access to a number of services including:

Free email (www-mail.usyd.edu.au);

- Access to the Internet both from home and from the access labs (helpdesk.usyd.edu.au/services.html);
- Online course material (groucho.ucc.usyd.edu.au:9000/webct/public/home.pl);
- Student facilities via the intranet (www.intranet.usyd.edu.au), including exam results and seating, student timetables and bulletin boards; and
- Free courses in Microsoft Word and Excel, Photoshop, Internet use and html.

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 International Office 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
Web: www.usyd.edu.au/io

International Student Services Unit

Phone: (02) 9351 4749
Fax: (02) 9351 6818
Email: info@issu.usyd.edu.au
Web: 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
Web: www.usyd.edu.au/io/studyabroad

Exchange

Phone: (02) 9351 3699
Fax: (02) 9351 2795
Email: exchange@io.usyd.edu.au
Web: www.usyd.edu.au/io/exchange

Intranet

The University is continually increasing the amount of information and services it provides through the Web. This can be seen in the University's intranet, called USYDnet. Here, students and staff can find information on everything, from University policies, through to courses and units of study. As well as delivering this information, USYDnet provides interactive services such as a calendar of events, where students and staff can enter events and publish them on the Web, access to a single point of email, the ability to search for housing and casual jobs, and other student/staff specific information.

MyUni is the personalised section of USYDnet. All staff and students are provided with access to MyUni through a login name and password. MyUni enables them to receive delivery of personal information such as exam results, enrolment variations and seat numbers. MyUni is a portal from which students and staff can complete tasks that were previously only able to be done in person, offline.

Koori Centre and Yooroang Garang

The Koori Centre provides tutorial assistance: access to computers, Indigenous counsellor, Aboriginal Studies library study rooms, Orientation program at the beginning of the year, and assistance in study and learning skills. Education unit: courses in Education for ATSI students. Indigenous Studies unit: aims to increase the awareness of Indigenous Australian issues through courses across the University.
Ground Floor, Old Teachers' College, A22

The University of Sydney
NSW 2006 Australia
Phone: (02) 9351 2046 general enquiries,
(02) 9351 7003 Liaison Officer
Fax: (02) 9351 6923
Email: koori@koori.usyd.edu.au
Web: www.koori.usyd.edu.au

Language Centre

Provides self-access course materials in over 140 languages. Beginner and intermediate courses in Modern Spanish, Modern Russian, Modern Welsh, Modern Irish, Modern Portuguese languages and cultures; Diploma course in Modern Language Teaching.

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
Web: www.arts.usyd.edu.au/Arts/departs/langcent/home.html

Learning Centre

The Learning Centre helps students to develop the generic learning and communication skills which 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 are an Individual Learning Program, a special program for international students, faculty-based workshops, computer-based learning resources, publications of learning resources and library facilities.

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
Web: www.usyd.edu.au/lc

Library

Students are welcome to use any of the 20 libraries in the University. The student card is also the library borrower's card. Further details of the libraries, including services provided, locations and opening hours are available on the Library's Web page, www.library.usyd.edu.au, as well as in the printed Library Guide, available at any library. Consult the Library staff for assistance.

The libraries listed below are located on the Camperdown/Darlington campus unless otherwise specified.

Architecture Library

Wilkinson Building, G04
Phone: (02) 9351 2775
Fax: (02) 9351 4782
Email: architecture@library.usyd.edu.au

Badham Library

Badham Building, A16
Phone: (02) 9351 2728
Fax: (02) 9351 3852
Email: badham@library.usyd.edu.au

Biochemistry Library

Biochemistry Building, G08
Phone: (02) 9351 2231
Fax: (02) 9351 7699
Email: biochemistry@library.usyd.edu.au

Burkitt-Ford Library

Sir Edward Ford Building, A27
Phone: (02) 9351 4364
Fax: (02) 9351 7125
Email: burkittford@library.usyd.edu.au

Camden Library

University Farms, Werombi Rd, Camden, C15
Phone: (02) 9351 1627
Fax: (02) 4655 6719
Email: camden@library.usyd.edu.au

Chemistry Library

From December 2002, merged with the Geosciences Library in the Madsen Building

Curriculum Resources Library

Relocated to Fisher Library, Floor 1
Phone: (02) 9351 6254
Fax: (02) 9351 7766
Email: curriculum@library.usyd.edu.au

Dentistry Library

United Dental Hospital, 2 Chalmers St, Surry Hills, C12
Phone: (02) 9351 8331
Fax: 9212 5149
Email: dentistry@library.usyd.edu.au

Engineering Library

PN Russell Building, J02
Phone: (02) 9351 2138
Fax: (02) 9351 7466
Email: engineering@library.usyd.edu.au

Fisher Library

Eastern Ave, F03
Phone: (02) 9351 2993
Fax: (02) 9351 4328
Email: fishinf@library.usyd.edu.au

Geosciences Library

Madsen Building, F09
Phone: (02) 9351 6456
Fax: (02) 9351 6459
Email: geosciences@library.usyd.edu.au

Health Sciences Library

East St, Lidcombe, C42
Phone: (02) 9351 9423
Fax: (02) 9351 9421
Email: library@fhs.usyd.edu.au

Law Library

Law School, 173-175 Phillip St, Sydney, C13
Phone: (02) 9351 0216
Fax: (02) 9351 0301
Email: library@law.usyd.edu.au

Mathematics Library

Carslaw Building, F07
Phone: (02) 9351 2974
Fax: (02) 9351 5766
Email: mathematics@library.usyd.edu.au

Medical Library

Bosch Building, D05
Phone: (02) 9351 2413
Fax: (02) 9351 2427
Email: medical@library.usyd.edu.au

Music Library

Seymour Centre, J09
Phone: (02) 9351 3534
Fax: (02) 9351 7343
Email: music@library.usyd.edu.au

Nursing Library

88 Mallett St, Camperdown, M02
Phone: (02) 9351 0541
Fax: (02) 9351 0634
Email: nursing@library.usyd.edu.au

Orange Library

Leeds Parade, Orange
Phone: (02) 6360 5593
Fax: (02) 6360 5637
Email: lib@orange.usyd.edu.au

Physics Library

New Wing, Physics Building, A29
Phone: (02) 9351 2550
Fax: (02) 9351 7767
Email: physics@library.usyd.edu.au

Schaeffer Fine Arts Library

Mills Building, A26
Phone: (02) 9351 2148
Fax: (02) 9351 7624
Email: john.spencer@arthist.usyd.edu.au

Sydney College of the Arts Library

Balmain Rd, Rozelle, N01
Phone: (02) 9351 1036
Fax: (02) 9351 1043
Email: scalib@sca.usyd.edu.au

Sydney Conservatorium of Music Library

Macquarie St (opposite Bridge St), Sydney, C41
Phone: (02) 9351 1316
Fax: (02) 9351 1372
Email: library@conmusic.usyd.edu.au

Mathematics Learning Centre

The Mathematics Learning Centre assists students to develop the mathematical knowledge, skills and confidence that are needed for studying mathematics or statistics at university. The Centre runs bridging courses in mathematics at the beginning of the academic year (fees apply). The Centre also provides on-going support during the year through individual assistance and small group tutorials to eligible students.

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

Web: www.usyd.edu.au/mlc

Part-time, full-time

Undergraduate students

Undergraduate students are normally considered as 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)

Whether a postgraduate coursework student is part-time or full-time is determined solely by credit-point load for all coursework programs. A student is classed as enrolled full-time in a semester if he/she is enrolled in units of study which total at least 18 credit points. Anything under this amount is considered a

part-time study load. Please note that classes for some coursework programs are held in the evenings (generally 6-9 pm).

Postgraduate students (research)

Full-time candidates for research degrees do not keep to the normal semester schedule but work continuously throughout the year except for a period of four weeks' recreation leave. There is no strict definition of what constitutes full-time candidature but, generally speaking, 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 as may be required) you should enrol as a part-time candidate. If in doubt you should consult your faculty or supervisor.

International students

International students who are resident in Australia are normally required under the terms of their entry visa to undertake full-time candidature only.

Privacy

The University is subject to the NSW Privacy and Personal Information Protection Act 1998 (the Act). Central to the Act are the twelve Information Protection Principles (IPPs) which regulate the collection, management, use and disclosure of personal information. The University has 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 new 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.

Any questions regarding the Freedom of Information Act, the Privacy and Personal Information Protection 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

Scholarships for undergraduates

Scholarships Unit, Room 147
Ground Floor, Mackie Building, KOI
The University of Sydney
NSW 2006 Australia
Phone: (02) 9351 2717
Fax: (02) 9351 5134
Email: scholarships@careers.usyd.edu.au
Web: www.usyd.edu.au/study/scholarships.shtml

Student Centre

Ground Floor, Carlaw Building, F07
The University of Sydney
NSW 2006 Australia
Phone: (02) 9351 3023 General Enquiries
(02) 9351 4109 Academic Records
(02) 9351 3023 Discontinuation of Enrolment
(02) 9351 5057 Handbooks
(02) 9351 5060 Prizes
Fax: (02) 9351 5081, (02) 9351 5350 Academic Records

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 for a range of purposes within the University. 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 incorporating head and shoulders only for lamination to this card. Free lamination is provided at a range of sites throughout the University during the January/February enrolment/pre-enrolment period. Cards which are not laminated or do not include a photograph will not be accepted. New identity cards are required for each year of a student enrolment.

Student Services

Student Services exists to help you achieve your educational goals by providing personal, welfare, and academic support services to facilitate your success at University. Many factors can impact on your well being while studying at University and Student Services can assist you in managing and handling these

more effectively. Refer to Accommodation Service, Casual Employment Service, Child Care, Counselling Service, Disability Services, Financial Assistance Office, Learning Centre, Mathematics Learning Centre. The Web site is at www.usyd.edu.au/stuserv.

The Sydney Summer School

Most faculties at the University offer units of study from undergraduate degree programs during January/February. There are also some units of study available from postgraduate coursework programs from some faculties. As the University uses all of its HECS quota 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 requisite subjects before they commence their degrees. Units start on 6 January and run for up to six weeks (followed by an examination week). Notice of the units available is contained in the various faculty handbooks, on the summer school Web site (www.summer.usyd.edu.au) and is usually circulated to students with their results notices.

Timetabling unit

The timetabling unit in the Student Centre is responsible for producing students' class and tutorial timetables. Students can obtain their Semester 1 timetables from the Wednesday of Orientation Week via the Web.

The Sydney Conservatorium of Music operates in accordance with a local calendar of dates and produces a complete timetable for all teaching that it delivers. The timetable is available on enrolment at the Conservatorium.

University Health Service

Provides full general practitioner services and emergency medical care to the University community.

Email: director@unihealth.usyd.edu.au
Web: 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

■ Student organisations

Students' Representative Council

Level 1, Wentworth Building, G01
The University of Sydney
NSW 2006 Australia
Phone: (02) 9660 5222 Editors, Honi Soit/Legal Aid
(02) 9660 4756 Second-hand Bookshop
(02) 9351 0691 Mallett St
(02) 9351 1291 Pitt St - Conservatorium
Fax: (02) 9660 4260

Email: postmaster@src.usyd.edu.au

Sydney University Postgraduate Representative Association (SUPRA)

SUPRA is an organization which 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
Web: www.usyd.edu.au/supra/

Sydney University Sports Union

Services, facilities and clubs for sport, recreation and fitness.

Noel Martin Sports and Aquatic Centre, G09

The University of Sydney

NSW 2006 Australia

Phone: (02) 9351 4960

Fax: (02) 9351 4962

Email: sports_union@susu.usyd.edu.au

University of Sydney Union

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

Box 500, Holme Building, A09

The University of Sydney

NSW 2006 Australia

Phone: (02) 9563 6000 Switchboard/Enquiries

Fax: (02) 9563 6239

Email: email@usu.usyd.edu.au

Web: www.usu.usyd.edu.au

Women's Sports Association

Provides for students, predominantly women, to participate in sport and recreation through the provision of facilities, courses and personnel.

The Arena Sports Centre, A30

The University of Sydney

NSW 2006 Australia

Phone: (02)9351 8111

Fax: (02) 9660 0921

Email: secretary@suwsa.usyd.edu.au

Web: www.suwsa.usyd.edu.au

Glossary

This glossary describes terminology in use at the University of Sydney.

Academic Board

The Academic Board is 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 of students. (For further information, see the University Calendar.)

Academic cycle

The Academic cycle is 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 record

The academic record is 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. A student's academic record is not released to a third party without the written authorisation of the student. (See also *Academic transcript*.)

Academic transcript

An academic transcript is 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

An academic year is a normal full-time program taken in a course in a year. Some courses consist of stages, which may readily be equated with academic year. Others use the aggregation of credit points to do this (eg, 48 credit points = an academic year). (See also *Academic cycle*, *Stage*.)

Addresses

All enrolled students need to have a current postal address recorded on FlexSIS to which all official University correspondence is sent. (See also *Business address*, *Permanent home address*, *Semester address*, *Temporary address*.)

Admission

Admission is governed by the University's admission policy and 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 criterion 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

Admission mode is 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. The main admission period takes place before Semester 1, but there may also be an admission period for mid-

year applicants before the beginning of Semester 2 and other admission periods.

Admission reply

A code used by FlexSIS to indicate whether an applicant who has received an offer has accepted the offer or not.

Admission result

A code used by FlexSIS to indicate the result of a direct application to study at the University (eg, offer, unsuccessful, withdrawn).

Admission year

The year the student began the course.

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*.)

Annual Progress Report

The Annual Progress Report is a form issued by faculties 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 nominee). The completed form is attached to the student's official file. FlexSIS records that the form has been sent out and that it has been satisfactorily completed.

APA

Australian Postgraduate Awards. (See also *Scholarships*, *UPA*.)

Appeals

Students may lodge appeals against academic or disciplinary decisions. FlexSIS will record an academic appeal (eg, against exclusion) while they are under consideration and will record the outcome of the appeal. Disciplinary (that is, non-academic) appeals are not recorded on FlexSIS.

ARTS

Automated Results Transfer System. This system was developed on behalf of ACTAC (Australasian Conference of Tertiary Admissions Centres) to allow the electronic academic record of a student to be accessible, via an admission centre, between tertiary institutions.

Assessment

The process of measuring the performance of students in units of study and courses. The assessment of performance in a unit of study may include examinations, essays, laboratory projects, or assignments. (See also *Board of examiners*, *Result processing*, *Result processing schedule*.)

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 mode

A DEST classification defining the manner in which a student is undertaking a course - ie, internal, external, mixed or offshore.

Attendance pattern/type

Refers to whether the student is studying part-time or full-time. For coursework students this is a function of course load - ie, the

proportion being undertaken by the student of the normal full-time load specified for the course in which the student is enrolled. To be considered full-time, a coursework student must undertake at least 0.75 of the normal full-time load over the academic cycle or at least 0.375 if only enrolling in half of an academic year. It is important to note, however, that, for some purposes, to be considered full-time a student may need to be enrolled in at least 0.375 in each half year. Research students, with the approval of their faculty, nominate whether they wish to study part-time or full-time. The attendance status is then recorded on FlexSIS as part of the application or enrolment process. (See also *Coursework*, *Student load*.)

AusAID

Australian Agency for International Development.

AUSCHECK

AUSCHECK is the software provided by Centrelink to validate data prior to reporting to Centrelink.

AUSTUDY

Replaced by Youth Allowance. (See also *Youth Allowance*.)

Award course

An award course is a formally approved program of study that can lead to an academic award granted by the University. An award course requires the completion of a program of study specified by course rules. (See also *Course rules*.)

Award courses are approved by Senate, on the recommendation of the Academic Board. Students normally apply to transfer between Award courses through the UAC. The award course name will appear on testamurs. The University broadly classifies courses as undergraduate, postgraduate coursework or postgraduate research. The award courses offered by the University are:

- Higher doctorates
- Doctor of philosophy (PhD)
- Doctorates by research and advanced coursework
- Master's degree by research
- Master's degree by coursework
- Graduate diploma
- Graduate certificate
- Bachelor's degree
- Advanced diplomas
- Diplomas
- Certificates

(See also *Bachelor's degree*, *Course rules*, *Diploma*, *Doctorate*, *Major*, *Master's degree*, *Minor*, *PhD*, *Stream*.)

Bachelor's degree

The highest undergraduate award offered at the University of Sydney. 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

A barrier is an instruction placed on a student's FlexSIS record that prevents the student from re-enrolling or graduating. (See also *Deadline (fees)*, *Suppression of results*.)

Board of examiners

A Board of examiners was a body appointed by a faculty or board of studies which met to approve the results of all students undertaking courses supervised by that faculty or board of studies. Boards of examiners were dis-established following revision of the University's examination procedures in 2000. (See also *Assessment*, *Result processing*, *Result processing schedule*.)

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

See *Scholarships*.

Business address

FlexSIS can record a student's business address and contact details. (See also *Addresses*, *Permanent home address*, *Semester address*, *Temporary address*.)

Cadigal Program

The Cadigal Program is a University wide access and support scheme for Aboriginal and Torres Strait Islanders.

Campus

The grounds on which the University is situated. There are eleven campuses of the University of Sydney: Bunen Street (Institute

for International Health, Institute of Transport Studies), Camperdown and Darlington (formerly known as Main Campus), Camden (Agriculture and Veterinary Science), Conservatorium (Conservatorium of Music), Cumberland (Health Sciences), Mallett Street (Nursing), Orange (Faculty of Rural Management), Rozelle (Sydney College of the Arts), St James (Law) and Surry Hills (Dentistry).

Census date

See *HECS census date*.

Centre for Continuing Education

The Centre for Continuing Education develops and conducts courses, conferences and study tours for the general public and professional groups. The Centre offers approximately 1,000 courses for approximately 20,000 students each year. Most of these courses are held over one of the four main sessions that are conducted each year, though the Centre is offering an increasing number of ad hoc courses in response to increased competition and changing demands. The Centre operates on a cost recovery/income generation basis. (See also *Continuing professional education*.)

Centrelink

Centrelink is the agency responsible for providing information and assistance on a range of Commonwealth Government programs including Youth Allowance. (See also *Youth Allowance*.)

Ceremony

See *Graduation ceremony*.

Chancellor

The non-executive head of the University. An honorary position, the Chancellor chairs meetings of the University's governing body, the Senate, and presides over graduation ceremonies amongst other duties.

Class list

A listing of all currently enrolled students in a particular unit of study. (See also *Unit of study*.)

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

See *Combined course*.

Commencing student

A student enrolling in an award course at the University of Sydney for the first time. The DEST glossary provides a more detailed definition.

Comp subs

See *Compulsory subscriptions*.

Compulsory subscription rates

There are two rates for some annual subscriptions: full-time and part-time. (See also *Compulsory subscriptions*.)

Compulsory subscription waiver provision

Certain students over a certain age or with disabilities or medical conditions may be exempted from the subscription to the sports body.

Students with a conscientious objection 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*.)

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. These organisations are different on different campuses. There are different organisations for undergraduate and postgraduate students.

At the Camperdown/Darlington campus (formerly known as Main Campus), compulsory submissions depend on the level of study.

Undergraduate: the University of Sydney Union, Students' Representative Council (SRC) and the University of Sydney Sports Union or the Sydney University Women's Sports Association.

Postgraduate: the University of Sydney Union and the Sydney University Postgraduate Representative Association (SUPRA).

Student organisations at other campuses 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 rates*, *Compulsory subscription waiver provision*, *Joining fee*, *Life membership*.)

Confirmation of Enrolment form

A Confirmation of Enrolment form is issued to students after enrolment showing the course and the units of study they are enrolled in, 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.

For postgraduate research students¹ the form also lists candidature details and supervisor information.

Where students have an appointed advisor, the advisor information is also shown.

Continuing professional education

The continuing professional education process 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 Continuing Education and a number of departments and Foundations across the University. This process supports the whole of life learning concept and requires/promotes the maintenance of a long term relationship between the student and the University. It is envisaged that the importance of this mode of education will increase in the future. (See also *Centre for Continuing Education*.)

Convocation

Convocation is the body comprising all graduates of the University.

Core unit of study

A unit of study that is compulsory for the course or subject area. (See also *Unit of study*.)

Corequisite

A corequisite is 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*.)

Course

An award course or non-award course undertaken at the University of Sydney. (See also *Award course*, *Non-award course*.)

Course alias

Each course in FlexSIS is identified by a unique five-digit alphanumeric code.

Course code

See *Course alias*.

Course leave

Students (undergraduate and postgraduate) 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 and recorded on FlexSIS (leave for periods of less than one semester should be recorded internally by the faculty). 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 reapply formally for admission. The term 'suspension of candidature' was previously used to describe research students on course leave.

Course (research)

A classification of courses in which students undertake supervised research leading to the production of a thesis or other piece of written or creative work over a prescribed period of time. The research component of a research course must comprise 66 per cent or more of the overall course requirements.

Course rules

Course rules govern the allowable enrolment of a student in a course; eg, 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; eg, a candidate must have completed a minimum of 144 credit points. Course rules may be expressed in terms of types of units of study taken, length of study, and credit points accumulated. (See also *Award course*.)

Course suspension

See *Course leave*.

Course transfer

A course transfer occurs where a student changes from one course in the University to another course in the University without the requirement for an application and selection (eg, from a PhD to a master's program in the same faculty).

Course type

Course type is a DEST code.

Coursework

Coursework is a classification used to describe those courses that consist of units of study rather than research work. All undergraduate courses are coursework programs. Postgraduate courses can be either research courses or coursework courses. (See also *Course (research)*.)

Credit

The recognition of previous studies successfully completed at this or another recognised (by the University of Sydney) university or tertiary institution as contributing to the requirements for the award of the course in which the applicant requesting such recognition has been admitted.

Where the University agrees to recognise successfully completed previous studies, their contribution to the requirements for the award of the course, in which the applicant has been admitted, will be expressed as specific or non-specific credit.

Credit awarded to a credit applicant - whether specific or non-specific - will be recorded with a mark and grade of 50 pass, unless in individual cases the credit is assessed by the faculty as having a mark and grade greater than 50 pass. This equivalent mark and grade will be used for the purposes of calculating a student's weighted average mark and for the purposes of satisfying prerequisite rules where a level of passing grade is specified.

(See also *Precedents*, *Specific credit*, *Non-specific credit*, *Waiver*, *Weighted average mark (WAM)*)

Creditpoints

Credit points are a measure of value indicating the contribution each unit of study provides towards meeting course completion requirements stated as a total credit point value. Each unit of study will have a credit point value assigned to it, normally in the range 3 to 24. Resolutions of Senate set the number and level of credit points required for graduation.

Cross-institutional enrolment

Cross-institutional enrolment is 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 - ie, the university which will award their degree). (See also *Non-award course*, *Enrolment non-award*.)

DAC (Data Audit Committee)

DAC is a sub-committee of the VCAC Enrolment Working Party, chaired by the Registrar, with membership including the deans, the Student Centre, FlexSIS and the Planning Support Office. Its role is to oversee the integrity and accuracy of the course and unit of study data as strategic university data. It has a role in advising the Academic Board on suggested policy changes with relation to course and unit of study data.

Deadlines (enrolment variations)

See *Enrolment variations*.

Deadlines (fees)

The University has deadlines for the payment of fees (eg, HECS, compulsory subscriptions, course fees, etc). 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*.)

Dean

The head of a faculty or the principal or director of a college (such as the 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.

Deferment

See *Admission (deferment), Leave.*

Degree

(See also *Award course, Bachelor's degree.*)

Delivery mode

Indicates the mode of delivery of the instruction for a unit of study - eg, normal (ie, by attending classes at a campus of the University), distance (ie, remotely by correspondence or other distance means - eg, Web delivery). The delivery mode must be recorded for each unit as distinct from the attendance mode of the student - ie, an internal student may take one or more units by distance mode and an external student may attend campus for one or more units.

Department

For the purposes of FlexSIS, a department is the academic unit, which is responsible for teaching and examining a unit of study. It may be called a school, a department, a centre or a unit within the University.

DEST

The Department of Education, Science and Training is the Commonwealth Government department responsible for higher education. The University is required to provide DEST with information about its students several times a year. The Government uses this information in its funding deliberations.

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. Graduate diploma courses are only available to students who already hold an undergraduate degree. (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, registered on FlexSIS and considered by the relevant department or faculty body. Decisions are recorded on FlexSIS and FlexSIS produces letters to applicants advising them of the outcome. (See also *Admission, UAC admissions.*)

Disability information

Students may inform the University of any temporary or permanent disability, other than a financial disability, which affects their life as a student. Disability information is recorded in FlexSIS but it is only visible to particular authorised users because of its sensitive nature.

Discipline codes

Discipline codes are four-letter codes for each area of study available at the university (eg, CHEM Chemistry, ECON 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 dissertation is a written exposition of a topic and 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 and flexible learning

Distance and flexible learning affords the opportunity to provide higher education to a much wider market - including students from anywhere in the world- at times, locations and modes that suit them.

Doctor of philosophy (PhD)

See *Award course, Doctorate, PhD.*

Doctorate

The doctorate and the PhD are high-level postgraduate awards available at the University of Sydney. 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 of Sydney. (See also *Award course, PhD.*)

Earliest date

See *Research candidature.*

EFTSU

The equivalent full-time student unit (EFTSU) is a measure of student load expressed as a proportion of the workload for a standard annual program for a student undertaking a full year of study in a particular award course. A student undertaking the standard annual program of study (normally 48 credit points) generates one EFTSU.

EFTYR

The effective full-time enrolment year (EFTYR) is a calculation of how long, in terms of equivalence to full-time years of enrolment, a student has been enrolled in a course. If a student has always been full-time, the calculation is straightforward (eg, the fifth year of enrolment is EFTYR 5). If the student has had a mixture of part-time and full-time enrolment, this can be equated with an EFTYR. (See also *Stage.*)

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. The student pays whatever fees are owing to the University by the deadline for that semester. New students currently pay on the day they enrol which is normally in early February. Students already in a course at the University re-enrol each year or semester, for most students pre-enrolment is required. (See also *Pre-enrolment.*)

Enrolment non-award

Non-award enrolment is an enrolment in a unit or units of study, which does not count towards a formal award of the University. Non-award enrolments are recorded in various categories used for reporting and administrative purposes. (See also *Cross-institutional enrolment, Non-award course.*)

Enrolment status

A student's enrolment status is either 'enrolled' or 'not enrolled'. An enrolment status is linked to an enrolment status reason or category.

Enrolment status reason/category

Not enrolled status reasons/categories include: withdrawn, totally discontinued, cancelled, on leave (suspended), transferred, lapsed, terminated, qualified and conferred.

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.*)

Enrolment year

See *EFTYR, Stage.*

Examination

See *Examination paper code, Examination period, Supplementary exams.*

Examination paper code

A code that identifies each individual examination paper. Used to help organise examinations.

Examination period

The examination period is the time set each semester for the conduct of formal examinations.

Exchange student

An exchange student is 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

The faculty may ask a student whose academic progress is considered to be unsatisfactory to 'show 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. 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 *Senate appeals*.)

Extended semesters

Distance learning students may be allowed more time to complete a module/program if circumstances are beyond the student's control - eg, drought, flood or illness, affect the student's ability to complete the module/program in the specified time.

External

See *Attendance mode*.

External transcript

An external transcript is 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 (but not any unit of study which has the status of withdrawn). It also includes any scholarships or prizes the student has received. Two copies are provided to each student on graduation (one with marks and grades for each unit of study and one with grades only). External transcripts are also produced at the request of the student. The student can elect either to have marks appear on the transcript or not. (See also *Academic transcript*, *Internal transcript*.)

Faculty

A faculty, consisting mainly of academic staff members and headed by a dean, is a formal part of the University's academic governance structure, responsible for all matters concerning the award courses that it supervises (see the 2001 University Calendar, pp.140-141). Usually, a faculty office administers the faculty and student or staff inquiries related to its courses. The Calendar sets out the constitution of each of the University's 17 faculties. (See also *Board of studies*, *Supervising faculty*.)

Fail

A mark of less than 50% which is not a concessional pass. (See also *Results*.)

Fee-paying students

Fee-paying students are students who pay tuition fees to the University and are not liable for HECS.

Fee rate

Local fees are charged in bands, a band being a group of subject areas. The bands are recommended by faculties and approved by the DV-C (Planning and Resources).

Fee type

Fee type can be 'international' or 'local'.

Flexible learning

See *Distance and Flexible learning*.

Flexible start date

Full fee-paying distance students should not be restricted to the same enrolment time frames as campus-based or HECS students.

FlexSIS

FlexSIS is the computer-based Flexible Student Information System at the University of Sydney. Electronically 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. FlexSIS also holds the complete academic records of many (but not all) past students of the university. For past students whose complete records are not held on FlexSIS, there will be a reference on FlexSIS to card or microfiche records where details are kept.

Full-time student

See *Attendance status*, *EFTSU*.

Grade

A grade is a result outcome for a unit of study normally linked with a mark range. For example, in most faculties, a mark in the range 85-100 attracts the grade 'high distinction' ('HD'). (See also *Mark*.)

Graduand

A Graduand is a student who has completed all the requirements for an award course but has not yet graduated. (See also *Graduation*, *Potential graduand*.)

Graduate

A graduate is 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*.

Graduate register

The graduate register is a list of all graduates of the University. (See also *Graduation*.)

Graduation

Graduation is the formal conferring of awards either at a ceremony or in absentia.

(See also *In absentia*, *Potential graduand*.)

Graduation ceremony

A graduation ceremony is a ceremony where the Chancellor confers awards upon graduands. The Registrar publishes annually the schedule of graduation ceremonies.

HECS

See *Higher Education Contribution Scheme (HECS)*.

HECS census date

The date at which a student's enrolment, load and HECS liability are finalised before reporting to DEST. The following dates apply:

Semester 1: 31 March

Semester 2: 31 August.

HECS code

A code used by DEST to identify the HECS status of a student (eg, 10 deferred, 11 upfront).

Higher doctorates

See *Award course*.

Higher Education Contribution Scheme (HECS)

All students, except international students, local fee-paying students and holders of certain scholarships are obliged to contribute towards the cost of their education under the Higher Education Contribution Scheme (HECS). HECS liability depends on the load being taken.

Current students, except possibly those who began their studies prior to 1997, have a HECS rate charged for each unit of study in their degree program which depends on the 'discipline group' it is in, and the 'band' to which the Government has assigned it. These are all determined annually by the Government.

Honorary degrees

A degree *honoris causa* (translated from the Latin as 'for the purpose of honouring') is an honorary award, which is conferred on a person whom the University wishes to honour.

A degree *ad eundem gradum* (translated as 'at the same level') is awarded to a member of the academic staff who is not a graduate of the University in recognition of outstanding service to the University. The award of an honorary degree is noted on the person's academic record.

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, Class III) and sometimes there are two divisions within Class II.

HSC

The HSC is the NSW Higher School Certificate, 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.

In absentia

In absentia is Latin for 'in the absence of'. Awards are conferred in absentia when a graduand does 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 Conservatorium of Music and BMus students on the Camperdown campus have an instrumental teacher appointed.

(See also *Advisor*, *Associate supervisor*, *Research supervisor*, *Supervision*.)

Internal

See *Attendance mode*.

Internal transcript

An Internal transcript is a record of a student's academic record for the University's own internal use. It includes the student's name, 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

An International student is required to hold a visa to study in Australia and may be liable for international tuition fees. Any student who is not an Australian or New Zealand citizen or a permanent resident of Australia is an international student. New Zealand citizens are not classified as international students but have a special category under HECS that does not permit them to defer their HECS liability.

(See also *Local student, Student type.*)

Joining fee

Students enrolling for the first time pay, in addition, a joining fee for the University of Sydney Union or equivalent student organisation.

(See also *Compulsory subscription.*)

Leave

See *Course leave.*

Life membership

Under some circumstances (eg, after five full-time years of enrolments and contributions) students may be granted life membership of various organisations, which means they are exempt from paying yearly fees.

(See also *Compulsory subscription.*)

Load

Load for an individual student is the sum of the weights of all the units of study in which the student is enrolled.

(See also *EFTSU, HECS.*)

Local student

A local student is either an Australian or New Zealand citizen or Australian permanent resident. New Zealand citizens are required to pay their HECS upfront. (See also *Fee type, HECS, International student.*)

Major

A major is a defined program of study, generally comprising 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 prescribed in order to satisfy course requirements. Majors may be included on testamurs. (See also *Award course, Minor, Stream.*)

Major timetable clash

Used by FlexSIS to denote occasions 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 together.

Mark

An integer (rounded if necessary) between 0 and 100 inclusive, 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, Course (research), Coursework.*)

Minor

A minor is 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. Students select and transfer between minors (and majors) by virtue of their selection of units of study.

One or more minors may be prescribed in order to satisfy course requirements. Minors may be included on testamurs.

(See also *Award course, Major, Stream.*)

Minor timetable clash

Used by FlexSIS to denote occasions when a student attempts to enrol in units of study which have some identical times of teaching.

Mixed mode

See *Attendance mode.*

Mode

See *Attendance mode and Delivery mode.*

Mutually exclusive units of study

See *Prohibited combinations of units of study.*

MyUni

MyUni is a personalised space for staff and students on the University of Sydney's intranet, called USYDnet. MyUni is used to deliver information and services directly through a central location, while also allowing users to customise certain information. Students are able to access such services as exam seat numbers, results, timetables and FlexSIS pre-enrolment and enrolment variations on MyUni. (See also *UsydNet.*)

Non-award course

Non-award courses are courses undertaken by students who are not seeking an award from the University. These may be students enrolled in an award course at another institution or students not seeking an award from any institution. Non-award courses are assigned a course code in the same way as award courses. A separate course code is assigned for each faculty, level (undergraduate or postgraduate) and method (research or coursework) which offers a non-award course. Various categories of non-award enrolment are recorded on FlexSIS for reporting and administrative purposes. (See also *Course, Cross-institutional enrolment, Enrolment non-award.*)

Non-award enrolment

See *Enrolment non-award.*

Non-specific credit

Non-specific credit is awarded when previous studies are deemed to have satisfied defined components of a course other than named units of study. These components include, but are not limited to:

- entire years in courses that progress through the successful completion of a set of prescribed units of study per year
 - a set number of credit points within a particular discipline or level (ie, first, second or third year)
 - one or more semesters for research courses.
- (See also *Credit, Specific credit.*)

Non-standard Teaching Period

A non-standard teaching period is when a unit of study is delivered in a teaching session of less than a standard semester (6 months). Summer School units of study, which are delivered and assessed in intensive mode during January of each year, are an example of non-standard teaching periods. (See also *Semester, Session.*)

OPRS

Overseas Postgraduate Research Scholarship.

Orientation Week

Orientation or 'O Week', takes place during the week prior to lectures 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.

Part-time student

See *Attendance status, EFTSU.*

PELS

See Postgraduate Education Loans Scheme

Permanent home address

The permanent home address is the address for all official University correspondence both inside and outside of semester time (eg, during semester breaks), unless overridden by semester address. (See also *Addresses, Business address, Semester address, Temporary address.*)

PhD

The Doctor of Philosophy (PhD) and other doctorate awards are the highest awards available at the University of Sydney. A PhD course is normally purely research-based; the candidate submits a thesis that is an original contribution to the field of study. Entry to a PhD course often requires completion of a master's degree course. Note that the PhD course is available in most departments in the University of Sydney. (See also *Award course, Doctorate.*)

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.

Postgraduate Education Loans Scheme (PELS)

The Postgraduate Education Loans Scheme (PELS) is 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).

Potential graduand

Potential graduands are students who have been identified as being eligible to graduate on the satisfactory completion of their current studies. See also *Graduand, Graduation.*)

Precedents

Where a credit applicant has credit approved in terms of the granting of specific or non-specific credit on the basis of study previously taken, a precedent is established at system level. Any other credit applicant subsequently seeking credit on the basis of the same pattern of previous study will be eligible to have the item of credit to be immediately approved on the basis of the previously approved precedent. (See also *Credit.*)

Pre-enrolment

Pre-enrolment takes place in October for the following year. Students indicate their choice of unit of study enrolment for the following year. After results are approved, registered students are regarded as enrolled in those units of study they chose and for which they are qualified. Their status is 'enrolled' and remains so provided they pay any money owing or comply with other requirements by the due date. Re-enrolling students who do not successfully register 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. Pre-enrolment is also known as provisional re-enrolment. (See also *Enrolment.*)

Prerequisite

A prerequisite is a unit of study that is required to be completed before another unit of study can be attempted. Prerequisites can be mandatory (compulsory) or advisory. (See also *Assumed knowledge, Corequisite, Waiver, Qualifier.*)

Prizes

Prizes are awarded by the University, a faculty or a department for outstanding academic achievement. Full details can be found in the University Calendar.

Probationary candidature

A probationary candidate is 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.

Progression

See *Course progression.*

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. A unit related in this way to any other unit is linked in tables of units of study via use of the symbol N to identify related prohibited units.

Provisional re-enrolment

See *Pre-enrolment.*

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 - eg, 'no more than one sixth of the total credit points for a course can be made up from PCON results'.
F	Fail	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.

Qualification

A qualification is 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, Corequisite, Prerequisite, Waiver.*)

Registrar

The Registrar is responsible to the Vice-Chancellor for the keeping of official records and associated policy and procedures within the University. (See the University Calendar for details.)

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 person will be a full-time member of the academic staff or a person external to the University appointed in recognition of 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.*)

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.

Resolutions of Senate

Regulations determined by the Senate of the University of Sydney that pertain to degree and diploma course requirements and other academic or administrative matters.

Result processing

Refers to the processing of assessment results for units of study. Departments tabulate results for all assessment activities of a unit of study and assign preliminary results for each unit of study. Preliminary results are considered by the relevant board of examiners, which approves final results. Students are notified of results by result notices that list final marks and grades for all units of study. (See also *Assessment, Examination period.*)

Result processing schedule

The result processing schedule will be determined for each academic cycle. It is expected that all departments and faculties will comply with this schedule. (See also *Assessment, Examination period, Result processing.*)

Results

The official statement of the student's performance in each unit of study attempted, as recorded on the academic transcript, usually expressed as a grade:

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 (ie, 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.
DF	Discontinued - fail	Recorded on transcript. This applies from the time DNF ceases to be automatically available up to the cessation of classes for the unit of study.
MINC	Incomplete with a mark of at least 50	This result may be 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 mark and passing grade. Except in special cases approved by the Academic Board, this result will be converted to a normal passing mark and grade either: (a) 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 (b) automatically to the indicated mark and 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.
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: (a) 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 (b) 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 (eg, Honours).

RTS

See *Research Training Scheme*.

Scholarships

Scholarships are financial or other forms of support made available by sponsors to assist Australian and international students to pursue their studies at the University. When a student's means are a criterion, scholarships are sometimes called bursaries. (See also *Prizes*.)

School

See *Department*.

SCR

System change request.

Semester

A semester is 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 teaching period) must be given special permission by the Academic Board. (See also *Session*, *Non-Standard Teaching Period*.)

Semester address

The semester address is the address to which all official University correspondence is sent during semester time, if it is different to the permanent address. Unless overridden by a temporary address all official University correspondence during semester (including Session 4 for students enrolled in Summer School) will be sent to this address. (See also *Addresses*, *Business address*, *Permanent home address*, *Temporary address*.)

Senate

The Senate of the University is the governing body of the University. (See the University Calendar.)

Senate appeals

Senate appeals are held for those students who, after being excluded by the 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 - ie, the department, faculty, board of study and, in the case of postgraduates, the Committee for Graduate Studies. (See also *Exclusion*.)

Session

A session is 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 Teaching Period*.)

Session address

See *Semester address*.

Special consideration

Candidates who have medical or other serious problems, which may affect performance in any assessment, may request that they be given special consideration in relation to the determination of their results.

They can obtain an official form from the Student Centre. The Student Centre stamps the form and the medical or omer documentation. The student gives a copy of the material to the Student Centre staff and takes copies to the relevant departments. The student retains the originals. The dates for which special consideration is sought are recorded on FlexSIS and printed on the examination register.

Special permission

See *Waiver*.

Specific credit

Specific credit is awarded when previous studies are entirely equivalent to one or more named units of study offered by the University of Sydney that contribute to the course in which the applicant has been admitted. (See also *Credit*, *Non-specific credit*.)

Sponsorship

Sponsorship is the financial support of a student by a company or government body. Sponsors are frequently invoiced directly.

SRS

SRS is the student record system responsible, prior to FlexSIS, for the processing of student records. The functions of SRS are gradually being incorporated into FlexSIS. (See also *FlexSIS*.)

Stage

For the purposes of administration, a course may be divided into stages to be studied consecutively. The stages may be related to sessions or they may relate to an academic cycle. Part-time students progress through a course more slowly and would often enrol in the same stage more than once.

Status

Status is a variable for students both with relation to course and unit of study. With relation to course, students can have the status of enrolled or not enrolled. 'Not enrolled' reasons can be: totally discontinued, withdrawn, suspended, cancelled, awarded, etc. With relation to unit of study, students can have the status of CURENR or WITHDN, discontinued, etc.

Stream

A stream is a denned program of study within an award course, which requires the completion of a program of study specified by the course rules for the particular stream, in addition to the core program specified by the course rules for the award course. Students enrolled in award courses that involve streams will have the stream recorded in their enrolment record. Students normally enter streams at the time of admission, although some award courses require students to enrol in streams after the completion of level 1000 units of study. Where permitted to do so by faculty resolution, students may transfer from one stream to another, within an award course, provided they meet criteria approved by the Academic Board on the advice of the faculty concerned. A stream will appear with the award course name on testamurs - eg, Bachelor of Engineering in Civil Engineering (Construction Management). (See also *Award course, Major, Minor.*)

Student ID card

All students who enrol are issued with an identification card. The card includes the student name, SJD, the course code, and a library borrower's bar code. 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 identifier (SID)

A 9-digit number which uniquely identifies a student at the University.

Student load

See *Load*.

Study Abroad Program

A scheme administered by the International Education 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 - eg, 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'.

Slimmer School

See *Sydney Summer School*.

Supervising faculty

The supervising faculty is the faculty which has the responsibility for managing the academic administration of a particular course - ie, 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 at any given time. Further, in the case where one course is jointly offered by two or more faculties (eg, the Liberal Studies course) a joint committee may make academic decisions about candidature and the student may be assigned a supervising faculty for administration.

The International Office has a supporting role in the administration of the candidatures of international students and alerts the supervising faculty to any special conditions applying to these candidatures (eg, that enrolment must be full-time). (See also *Board of studies.*)

Supervision

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 position. (See also *Advisor, Associate supervisor, Instrumental supervisor (teacher), Research supervisor.*)

Supplementary examinations

Supplementary exams may be offered by faculties to students who fail to achieve a passing grade or who were absent from assessment due to illness or misadventure.

Suppression of results

Results for a particular student can be suppressed by the University for the following reasons:

- the student has an outstanding debt to the university
- the student is facing disciplinary action.

Suspension

See *Course leave*.

Sydney Summer School

Sydney Summer School is 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 are full fee-paying and enrolled students are also liable for compulsory subscriptions. Some fee-waiver scholarships are available.

Teaching department

See *Department*.

Temporary address

Students may advise the University of a temporary address. Correspondence will be sent to this address between the dates specified by the student. (See also *Addresses, Business address, Permanent home address, Semester address.*)

Testamur

A testamur is a certificate of award provided to a graduate usually at a graduation ceremony.

Thesis

A thesis is a major work that is the product of an extended period of supervised independent research. 'Earliest date' means the earliest date at which a research student can submit the thesis. 'Latest date' means the latest date at which a research student can submit the thesis.

Timetable

Timetable refers to 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.

UAC

The Universities Admissions Centre (UAC) receives and processes applications for admission to undergraduate courses at recognised universities in NSW and the ACT. Most commencing undergraduate students at the University apply through UAC.

UAC admissions

Most local undergraduates (including local undergraduate fee payers) apply through the Universities Admission Centre (UAC). The University Admissions Office coordinates the processing of UAC applicants with faculties and departments and decisions are recorded on the UAC system. Applicants are notified by UAC and an electronic file of applicants who have been made offers of admission to courses at the University is loaded onto FlexSIS. (See also *Admission, Direct admissions.*)

UAI (Universities Admission Index)

The Universities Admission Index (UAI) is a number between 0.00 and 100.00 with increments of 0.05. It provides 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.

Undergraduate

A term used to describe a course leading to a diploma or bachelor's degree. An 'undergraduate' is a student enrolled in such a course.

Unit of study

A unit of study is the smallest stand-alone component of a student's course that is recordable on a student's transcript. Units of study have an integer credit point value, normally in the range 3-24. Each approved unit of study is identified by a unique sequence of eight characters, consisting of a four character alphabetical code which usually identifies the department or subject area, and a four character numeric code which identifies the particular unit of study. Units of study can be grouped by subject and level. (See also *Core unit of study, Course, Major.*)

Unit of study enrolment status

The enrolment status indicates whether the student is still actively attending the unit of study (ie, currently enrolled) or is no longer enrolled (withdrawn or discontinued)

Unit of study group

A grouping of units of study within a course. The units of study which make up the groups are defined within FlexSIS.

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 students qualified for the award of an undergraduate Honours degree or some master's degrees, whose academic performance is judged outstanding.

UPA

University Postgraduate Award.

USYDnet

USYDnet is the University of Sydney's intranet system. In addition to the customised MyUni service, 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. (See also *MyUni*.)

Variation of enrolment

See *Enrolment variation*.

Vice-Chancellor

The chief executive officer of the University, responsible for its leadership and management. The Vice-Chancellor is head of both academic and administrative divisions.

Waiver

In a prescribed course, a faculty may waive the prerequisite or corequisite 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*.)

Weighted average mark (WAM)

The Weighted Average Mark (WAM) is the average mark in the unit of study completed, weighted according to credit point value and level. The formulae used to calculate the WAMs are course-specific: there are many different WAMs in the University.

Year of first enrolment (YFE)

The year in which a student first enrolls at the University.

Youth Allowance

Youth Allowance is payable to a full-time student or trainee aged 16-24 years of age; and 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. Youth Allowance replaces AUSTUDY.

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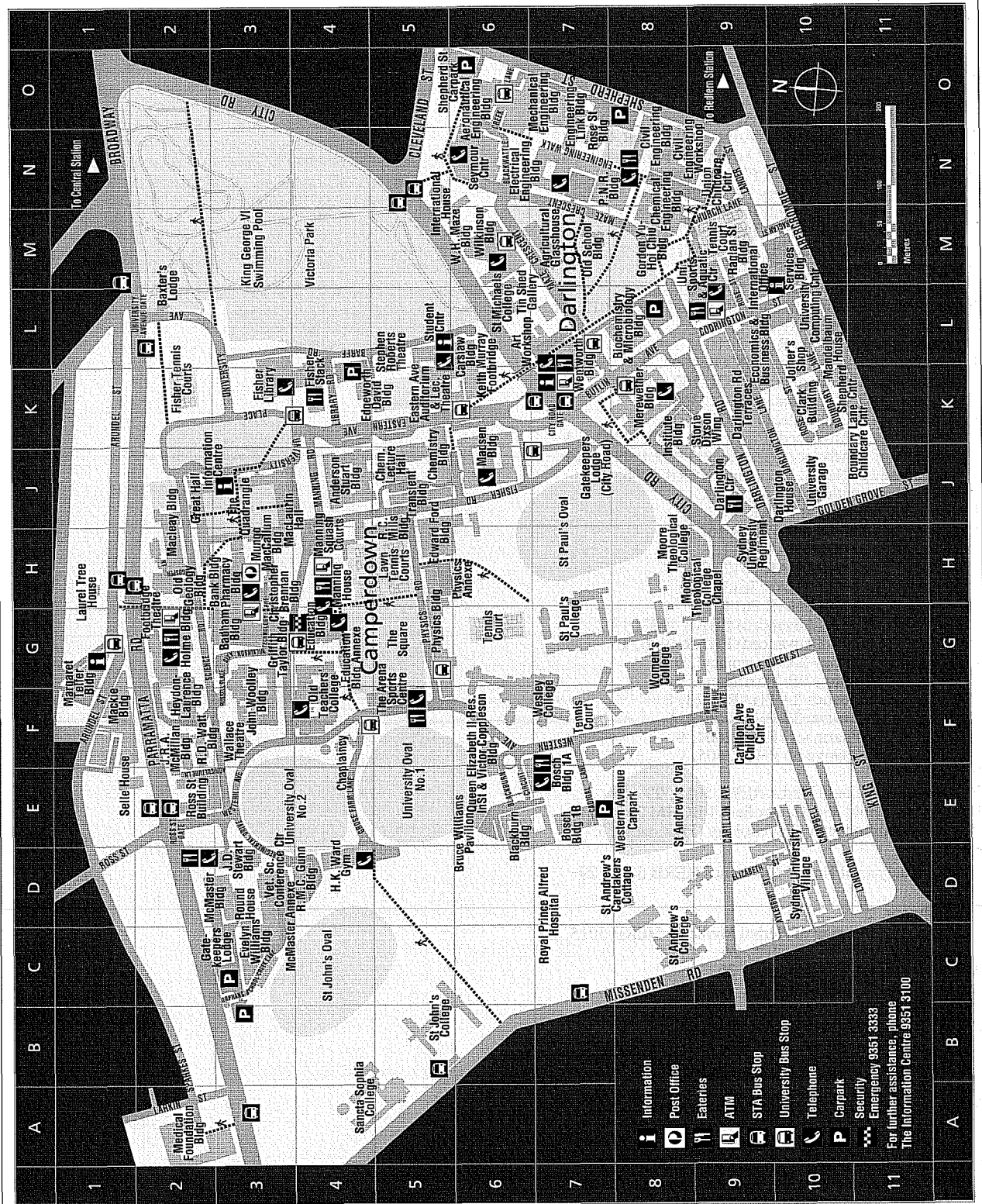
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Main campus map



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06 Aeronautical Engineering Building
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L7 Art Workshop
G3 Badham Building
H3 Bank Building
L2 Baxter's Lodge
L8 Biochemistry and Microbiology Building
E6 Blackburn Building
E7 Bosch Building IA
E7 Bosch Building IB
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 & 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 HK Ward Gymnasium
F2 Heydon-Laurence Building
G2 Holme Building
K8 Institute Building
N5 International House
F2 JRA McMillan Building
D3 JD 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
06 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 PNR Building
E6 Queen Elizabeth II Research Institute
H5 RC Mills Building
F2 RD Watt Building
D4 RMC Gunn Building
M9 Raglan Street Building
N7 Rose Street Building
E2 Ross Street Building
F2 Science Road Cottage
E1 Selle House
M10 Services Building
N6 Seymour Centre
K10 Shepherd Centre
06 Shepherd Street Carpark
L5 Stephen Roberts Theatre
K9 Storie Dixon Wing
F5 The Arena Sports Centre
J3 The Quadrangle
J5 Transient Building
L10 University Computing Centre
J10 University Garage
M9 University Sports & Aquatic Centre
D3 Veterinary Science Conference Centre
E6 Victor Coppleson Building
F3 Wallace Theatre
K7 Wentworth Building
E7 Western Avenue Carpark
M6 WH Maze Building
M6 Wilkinson Building
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H5 Health Sciences
F4 Humanities and Social Sciences
N8 Sciences and Technology
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K11 Boundary Lane
F9 Carillon Avenue
H1 Laurel Tree House
N9 Union
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J10 Darlington House
KS Darlington Road Terraces
N5 International House
K10 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
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H3 Nicholson Museum
N6 Seymour Centre
K7 Sir Hermann Black Gallery
L6 Tin Sheds Gallery
H2 War Memorial Art Gallery
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E2 Agriculture
L6 Architecture
H3 Arts
J8 Economics & Business
G4 Education
N7 Engineering
H5 Medicine
G3 Pharmacy
K6 Science
D3 Veterinary Science
Libraries
L6 Architecture
G3 Badham
K8 Biochemistry
H5 Burkitt-Ford
J5 Chemistry
F4 Curriculum Resources
M7 Engineering
K3 Fisher
K4 Geosciences
K6 Mathematics
D7 Medical
N6 Music
H3 Pharmacy
H6 Physics
H5 Schaeffer Fine Arts
Retail
H3 Australia Post Office
H3 Bank Building
J9 Darlington Centre
G2 Holme Building
H4 Manning House

