

The University of Sydney

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Discover a career in pharmacy

Study guide, 2018



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# Discover a career in pharmacy

Study guide, 2018

# THE UNIVERSITY OF SYDNEY

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# **Dean's welcome**

Pharmacy at Sydney is one of the leading centres for pharmacy education and enjoys an outstanding national and international reputation for research and innovation.

Our undergraduate and postgraduate degrees provide the opportunity to become a registered pharmacist.

As a student here, you will learn from world-renowned academics who are leaders in their field and well regarded for the supportive and approachable learning environment they create.

Clinical practice is of critical importance to developing a thorough understanding of pharmacy. Through our placements program, you will apply the latest knowledge and industry developments to diverse challenges in health care, as well as working with other students to understand how best to treat patients.

University of Sydney pharmacy staff and students continually strive for excellence in learning, teaching and research. Our innovative teaching style, clinical and experiential placements will provide you with a well-rounded pharmacy degree that is professionally relevant and in high demand with employers.

During your course, you will get practical experience in a variety of community and clinical settings, including hospitals and industry, rural and overseas opportunities, enabling you to put your knowledge into action and develop important interpersonal skills that are critical to the work of practising pharmacists.

Research at pharmacy covers pharmaceutical and clinical sciences. Our research is structured around five priority areas: cancer, cardiovascular disease and diabetes, health services and patient safety, mental health, and respiratory disease.

I hope that you find your experience with us an enriching one that is intellectually, socially and culturally rewarding. Pharmacy at the University of Sydney has so much to offer – I encourage you to embrace all these opportunities to the full.

### Professor Iqbal Ramzan Dean of Pharmacy

### Mission statement

Our mission is to make a pivotal contribution to the health and wellbeing of all Australians by:

- implementing an integrated market-led and market-differentiated approach to pharmacy education and practice
- conducting high quality, cross-disciplinary research in our areas of research strength, which are aligned to national health priorities.

# Why study pharmacy with us?

Pharmacists are trusted and valued members of the community and have the opportunity to transform the lives and lifestyles of individuals, their families and carers, and the community.

Whether you decide to register as a pharmacist and work in a community or hospital pharmacy, enter the pharmaceutical industry, work for government agencies or contribute to research and academia, your knowledge and expertise will improve health and wellbeing.

In Australia, the majority of pharmacists work as community pharmacists, supplying and distributing medicinal products, giving information, advice and counselling. Community pharmacists review medication and advise medical practitioners about optimal drug therapy. This role is constantly evolving to meet changing disease patterns and consumer expectations.

Hospital pharmacists work in multidisciplinary teams with medical staff and allied health professionals to provide optimal patient care. They distribute and review medications, educate patients and health professionals to achieve quality use of medicines, and perform clinical and applied research, including clinical drug trials.

Pharmacists are also employed by various government agencies, in positions concerned with the control, manufacture, supply and distribution of medicines.

Pharmacy graduates are highly sought after by the pharmaceutical industry in product development, manufacturing, medical, sales and marketing roles. Our undergraduate and graduate-entry degrees provide experience and skills in research, allowing graduates to seek full-time research work or to pursue a research-based higher degree.

Our world-renowned academics are pursuing projects in areas such as cancer, cardiovascular disease and diabetes, health services and patient safety, mental health and respiratory disease. You can gain your own research experience through the advanced study options on offer.



# Becoming a registered pharmacist

To register with the Pharmacy Board of Australia, graduates of the Bachelor of Pharmacy, Bachelor of Pharmacy and Management, and Master of Pharmacy need to complete 1824 hours of supervised practical training after graduation, in addition to completing an Intern Training Program (ITP) during the pre-registration period, and a registration exam with the Pharmacy Board of Australia.

For more information see

- sydney.edu.au/pharmacy/itp
- www.pharmacyboard.gov.au

# Frontline community healthcare

Max Timmins Community pharmacist Bachelor of Pharmacy, 2012

### Why did you decide to study pharmacy?

My interest in chemistry, biology and the sciences in general, coupled with my enjoyment of interacting with people and healthcare, made pharmacy the perfect choice for me.

A career in pharmacy is really diverse and flexible – there are just so many avenues you can explore, from community and hospital pharmacy roles to the huge range of jobs in the pharmaceutical industry.

# Tell us about the course and what you enjoyed about it.

When I got to university and learned about the interaction between the human body, chemistry and microbiology, it blew my mind. It is amazing that such small changes at a molecular level can have such a huge impact on the human body.

I was impressed by how the course focused on disease states and different parts of the body. It gave me a well-rounded understanding of the chemistry behind pharmacy, before delving into the social, business and hospital aspects.

My Bachelor of Pharmacy helped me get my job because the University of Sydney is known for producing good graduates.

### What are you doing now?

I am working as a community pharmacist in Coffs Harbour, on the north coast of NSW. I love this work because we give the patients the care they need and deserve.

Community pharmacists are such a vital part of the healthcare system, especially in rural communities, where we are often the first point of healthcare contact for a large number of people. I find the job incredibly rewarding.

### - sydney.edu.au/discover-pharmacy





# Industry healthcare

### \_ . .. ..

**Dina Kayali** Pharmaceutical industry Bachelor of Pharmacy, 2005

### Why did you decide to study pharmacy?

A career in the pharmaceutical industry had always been of interest to me. Pharmacy is multifaceted, fast-paced and at the cutting edge of science, medicine, and technology, while also serving a wider societal beneficial objective of health and wellbeing. I felt that studying pharmacy would give me a well-rounded understanding of the pharmaceutical world and place me in a good position to pursue an industry career.

### What did you enjoy about the course?

The course was very well structured and provided depth of content across a range of subjects from pharmacology and dispensing to pharmacy practice and novel therapeutics. The structure allows you to develop close networks and peer connections with other students over the four years you spend studying together. I value the lifelong bonds and connections I have taken with me throughout my career and also in my personal life.

I also had great opportunities as part of the degree to experience placements in urban, community, rural, hospital, and industry settings. These opportunities broadened my horizons as to the possibilities that a pharmacy degree from the University of Sydney could offer.

### What are you doing now?

I currently work at Pfizer Australia as the Business Development Manager. This involves company strategy planning and development, and negotiation and relationship building with other pharmaceutical companies and partners for in-licensing, acquisitions, product development, and other joint ventures and partnerships.

# The Sydney Undergraduate Experience

The world is changing, and university education needs to change too.

We've reimagined the Sydney Undergraduate Experience - the way we teach and the way you'll learn - to prepare you for a future full of possibilities.

### Your degree

### We offer unparalleled choice

At Sydney you'll have access to a breadth and depth of excellence in disciplines and professional fields that is unparalleled in Australia.

### **Broaden your skills**

You can develop skills in entrepreneurial thinking, persuasive communication, project management and ethical reasoning by taking short, on-demand and workshop-supported courses in our Open Learning Environment.

### Your experience



### Academic rigour

Gain a deep understanding of your chosen disciplines of study and learn from those who are leaders in their fields.

### **Global perspectives**

Set yourself up to go anywhere in the world by gaining the skills and understanding to work effectively across cultural boundaries. Go on exchange, study a language or undertake projects in distinctive cultural settings here and overseas.

### Your future

You will leave university with the confidence and ability to think critically, collaborate productively, and influence the world.



# **Cross-disciplinary learning**

Study across or work with other disciplines to build your skills and tackle some of the most complex challenges of our time.



#### **Real-world projects**

Bridge the gap between theory and application by working on real-world industry, community, research and entrepreneurship projects.

sydney.edu.au/ug-experience



# **Bachelor of Pharmacy**

The Bachelor of Pharmacy is suitable for students with no prior university education. During the course, you will gain insights into how drugs are developed and how medications affect the human body, and obtain entry into a trusted and valued profession that focuses on improving people's quality of life.

The Bachelor of Pharmacy is a four-year, full-time professional degree combining advanced scientific investigation with training in clinical practice and optimum patient care. It covers the study of the chemical, physical, pharmaceutical, and pharmacological properties of medicinal substances and the application of these in the pharmacy profession.

In your first year, you will study biology, chemistry, and basic pharmaceutical sciences. The next three years are devoted to higher levels of biomedical and pharmaceutical sciences, with specialised clinical pharmacy studies. During third and fourth year, you will spend considerable time in clinical placements in both community and hospital pharmacies.

An honours program is offered to high-performing students in the final year of study and focuses on research into one of the faculty's key research areas. The Bachelor of Pharmacy is accredited by the Australian Pharmacy Council (APC) and allows graduates to progress towards registration as a pharmacist in Australia.

On completion of this degree, and following the compulsory pre-registration training period (including an Intern Training Program), you will be eligible for registration with the Pharmacy Board of Australia. Once registered, you will be able to practise as a professional pharmacist.

### **Course details**

UAC code: 513760 Duration: 4 years full time Intake: Semester 1 (March) Mode: Full time on campus Clinical placements: community, hospital, industry



"A love of science and a passion to help people were two of the main things that guided me to pharmacy. A career in pharmacy has allowed me to combine and explore both.

"At the University of Sydney, I learned from leaders in the industry, who were always willing to pass on their knowledge. One of the many great aspects of a degree in pharmacy is the wide variety of career opportunities in healthcare available to you after graduation."

Anne Nguyen Bachelor of Pharmacy, 2008



### **Course structure**

Semester 1	Semester 2
<ul> <li>Human Biology</li> <li>Chemistry A (Pharmacy)</li> <li>Foundations of Pharmacy</li> <li>Basic Pharmaceutical Sciences</li> </ul>	<ul> <li>Chemistry B (Pharmacy)</li> <li>Molecular Biology and Genetics (Intro)</li> <li>Social Pharmacy</li> <li>Physical Pharmaceutics and Formulation A</li> </ul>

Semester 1	Semester 2
<ul> <li>Drug Discovery and Design A</li> <li>Microbiology and Infection</li> <li>Therapeutic Principles</li> <li>Physiology for Pharmacy</li> </ul>	<ul> <li>Pharmacology for Pharmacy</li> <li>Drug Discovery and Design B</li> <li>Pharmacy Practice</li> <li>Physical Pharmaceutics and Formulation B</li> </ul>

#### Year 3

Semester 1	Semester 2
<ul> <li>Cardiovascular and Renal</li> <li>Respiratory</li> <li>Endocrine, Diabetes and Reproductive</li> <li>Gastrointestinal</li> <li>Pharmaceutical Skills and Dispensing A</li> </ul>	<ul> <li>Mental Health</li> <li>Neurology</li> <li>Musculoskeletal, Dermatological and Senses</li> <li>Oncology and Immunology</li> <li>Pharmaceutical Skills and Dispensing B</li> </ul>
<ul> <li>Clinical Placement A</li> </ul>	<ul> <li>Clinical Placement B</li> </ul>

### Year 4

Semester 1	Semester 2
<ul> <li>Pharmacotherapeutics</li> <li>Integrated Dispensing Practice</li> <li>Pharmacy Services and Public Health</li> <li>Pharmacy Management</li> <li>Clinical Placement C</li> </ul>	Either: - Novel Therapeutics, and - Professional Practice, and - Clinical Placement D Or: - Honours
	Or: – Major (International or Industrial)

### Full program description

For a full program description, including majors, honours and individual units of study, see:

- sydney.edu.au/handbooks/pharmacy

### Admission requirements

Fixed ATAR (2018): 90 IELTS: 6.5 (6.0 in each band) Assumed knowledge: Mathematics, Chemistry Recommended studies: Biology or Physics Prerequisite (from 2019): Mathematics (Band 4 or higher). For details, see sydney.edu.au/study/maths

### More information

To find out more, visit:

- sydney.edu.au/courses/bachelor-of-pharmacy

# **Bachelor of Pharmacy and Management**

Suitable for students with no prior university education, the Bachelor of Pharmacy and Management is an innovative five-year degree that teaches a unique combination of pharmacy skills and business knowledge.



Graduates of the Bachelor of Pharmacy and Management have excellent career options. Whether you decide to register as a pharmacist, run your own business, enter the pharmaceutical industry, work for a government agency or contribute to research and academia, you will be in demand.

During the degree, you will develop an understanding of sound business practices integrated with sustainable healthcare models. You will also develop the commercial, clinical and communication skills to thrive in a changing and competitive healthcare landscape.

The first year is a foundation year, in which you will study biology and chemistry and be introduced to pharmacy through foundation and social pharmacy studies, and to business through economics and accounting studies.

The next three years are devoted to higher levels of biomedical and pharmaceutical sciences together with specialised clinical pharmacy studies. You will also study relevant business subjects.

In your fifth year you will complete an additional business unit of study in lieu of the Pharmacy Management unit of study undertaken in the Bachelor of Pharmacy program. An honours program is offered to high-performing students in the final year of study, and focuses on research in one of the faculty's key research areas.

The Bachelor of Pharmacy and Management is accredited by the Australian Pharmacy Council, and allows graduates to progress towards registration as a pharmacist in Australia.

On completion of this degree, and following the compulsory pre-registration training period (including an Intern Training Program), you will be eligible for registration with the Pharmacy Board of Australia. Once registered, you will be able to practise as a professional pharmacist.

### Course details

UAC code: 513765 Duration: 5 years full time Intake: Semester 1 (March) Mode: Full time on campus Clinical placements: community, hospital, industry

### Course structure

Year 1	
Semester 1	Semester 2
<ul> <li>Human Biology</li> <li>Economics for Business Decision Making</li> <li>Chemistry A (Pharmacy)</li> <li>Foundations of Pharmacy</li> </ul>	<ul> <li>From Molecules to Ecosystems</li> <li>Accounting, Business and Society</li> <li>Chemistry B (Pharmacy)</li> <li>Social Pharmacy</li> </ul>

#### Year 2

Semester 1	Semester 2
<ul> <li>Foundations of Work and Employment</li> <li>Basic Pharmaceutical Sciences</li> <li>Microbiology and Infection</li> <li>Physiology for Pharmacy</li> </ul>	<ul> <li>Foundations of Business Law</li> <li>Pharmacology for Pharmacy</li> <li>Physical Pharmaceutics and Formulation A</li> <li>Pharmacy Practice</li> </ul>

#### Year 3

Semester 1	Semester 2
<ul> <li>Digital Business Innovation</li> <li>Drug Discovery and Design A</li> <li>Therapeutic Principles</li> <li>Foundations of Management</li> </ul>	<ul> <li>Drug Discovery and Design B</li> <li>Physical Pharmaceutics and Formulation B</li> <li>Marketing Principles</li> <li>HR Strategies and Processes</li> </ul>

#### Year 4

Semester 1	Semester 2
<ul> <li>Cardiovascular and Renal</li> <li>Respiratory</li> <li>Endocrine, Diabetes and</li></ul>	<ul> <li>Musculoskeletal,</li></ul>
Reproductive <li>Gastrointestinal</li> <li>Pharmaceutical Skills and</li>	Dermatological and Senses <li>Oncology and Immunology</li> <li>Mental Health</li> <li>Neurology</li> <li>Pharmaceutical Skills and</li>
Dispensing A	Dispensing B
– Clinical Placement A	– Clinical Placement B

#### Year 5

Semester 1         Semester 2           - Pharmacotherapeutics         Either:           - Integrated Dispensing         - Novel Therapeutics, and	
<ul> <li>Integrated Dispensing</li> <li>Novel Therapeutics, and</li> </ul>	
Practice       -       Professional Practice, ar         -       Pharmacy Services and Public       -       Clinical Placement D         +       Health       -       Clinical Placement C       Or:         -       Leadership       -       Honours         Or:       -       Major (International	d

"In the pharmaceutical industry, there are many roles for pharmacists that require strong business understanding and focus to help deliver the best outcomes for patients.

"The addition of the Bachelor of Pharmacy and Management is an exciting opportunity for those looking to begin a career in pharmacy, and one that will set you up for a variety of career options."

#### **Stuart Anderson**

Regional Vice-President Supply Asia Pacific, AstraZeneca

### Full program description

For a full program description including majors, honours and individual units of study, visit:

- sydney.edu.au/handbooks/pharmacy

### **Admission requirements**

Fixed ATAR (2018): 90 IELTS: 6.5 (6.0 in each band) Assumed knowledge: Mathematics, Chemistry Recommended studies: Biology or Physics Prerequisite (from 2019): Mathematics (Band 4 or higher). For details, see sydney.edu.au/study/maths

### More information

To find out more, visit:

 sydney.edu.au/courses/ bachelor-of-pharmacy-and-management

# **Master of Pharmacy**

If you already have a university degree, the Master of Pharmacy offers an entry pathway to the pharmacy profession.

The Master of Pharmacy is an accredited and innovative two-year graduate-entry coursework program designed to prepare you for all aspects of the pharmacy profession, including leadership in innovative and evidence-based practice.

You will benefit from outstanding and effective teaching and research, exposure to modern clinical settings and in-depth interaction with world-leading academics, placing you in a cohort of the most desirable pharmacy graduates in Australia.

The course has a strong practical focus, underpinned by evidence-based practice and research. It is designed to provide you with advanced clinical skills and prepare you for all aspects of the pharmacy profession and leadership in healthcare. You will attend a mix of lectures, tutorials, labs, small group work, problem-based learning and clinical placements, including community, hospital and industry, to develop valuable knowledge, practical skills and experience.

The Master of Pharmacy is accredited by the Australian Pharmacy Council (APC) and allows graduates to progress towards registration as a pharmacist in Australia. On completion of this degree, and following a compulsory pre-registration training period (including an Intern Training Program), you will be eligible for registration with the Pharmacy Board of Australia. Once registered, you will be able to practise as a professional pharmacist.

### **Course details**

Duration: 2 years full time Intake: Semester 1 (March) Mode: Full time on campus Clinical placements: community, hospital, industry

### **Course structure**

Semester 1	Semester 2
<ul> <li>Introductory Professional Practice</li> <li>Pharmaceutical Microbiology</li> <li>Medicinal and Pharmaceutical Chemistry</li> <li>Pharmaceutics and Formulations</li> </ul>	<ul> <li>Integrated Primary Healthcare 1</li> <li>Integrated Primary Healthcare 2</li> <li>Experiential Placement 1A</li> <li>Experiential Placement 1B</li> <li>Metabolism and Pharmacokinetics</li> </ul>

#### Year 2

Semester 1	Semester 2	
<ul> <li>Neurology and Mental Health</li> <li>Endocrine, Renal and</li></ul>	<ul> <li>Public Health and</li></ul>	
Cardiovascular <li>Immunology and Cancer</li> <li>Experiential Placement 2</li>	Pharmaceutical Policy <li>Dispensing Practice</li> <li>Professional Practice</li> <li>Pharmacy Capstone</li>	

#### **Full program description**

For a full program description, including individual units of study, visit:

- sydney.edu.au/handbooks/pharmacy

### Admission requirements

**Degree**: A bachelor's degree (or equivalent qualification), with one of the following:

- GPA (Grade Point Average): at least 5.0/7 (as a guide)
- WAM (Weighted Average Mark): 65 (as a guide)
- GAMSAT (Graduate Australian Medical Admissions Test): at least 55, with 50 in each section
- MCAT (Medical College Admission Test): at least 500 (new test version) or 8 (previous version).

IELTS: 7.0 (6.5 in each band)

**Prerequisites:** A minimum of 42 out of 54 credit points (or equivalent) in the following subjects at university level: Calculus, Statistics, Human Biology, Chemistry, Biochemistry, Pharmacology and Physiology

### **More information**

To find out more or apply, visit:

- sydney.edu.au/courses/master-of-pharmacy



"During my studies at the University of Sydney, I learned and worked alongside leaders in the pharmacy industry. Their knowledge was a major reason for my decision to study the Master of Pharmacy here too. I am still in contact with several faculty members and draw upon their experience and expertise as I navigate through my career as a hospital pharmacist."

**Bayan Hosseini** Master of Pharmacy, 2014



"The Master of Pharmacy appealed to me because I believe pharmacists play a major role in the community as frontline health professionals. I have an interest in helping people and this degree allows me to use my theoretical and clinical skills to assist a diverse range of patients in a community pharmacy setting."

Hana Yassin Master of Pharmacy



# Graduate Certificate in Evidence-Based Complementary Medicines

This new course is ideal for pharmacists who want to cultivate the skills to deliver high quality, evidence-based, patient-centred care involving complementary medicines.

New in 2018, the Graduate Certificate in Evidence-Based Complementary Medicines has been specifically developed to equip pharmacists with the knowledge and skills required to provide evidencebased information about the efficacy and safety of complementary medicines, including drug-herb and drug-nutrient interactions.

The course is taught by leading experts in complementary medicines, and provides students with theoretical and clinically applicable knowledge and skills. It is primarily delivered online and can be completed part time over one year. It consists of four units of study, including a capstone project.

You will learn how to identify reliable and reputable information resources relating to the efficacy and safety of complementary medicines commonly used in the management of disease and the maintenance of health. You will also learn how to translate this information into day-to-day, evidence-based practice.

The course is underpinned by a multiprofessional, collaborative approach that is patient centred and focuses on the integration of complementary medicines into overall health care.

### **Course details**

Duration: 1 year, part time only Intake: Semester 1 (March) or Semester 2 (July) Mode: Online (includes one capstone project)

### **Course structure**

Year 1			
Semester 1	Semester 2		
<ul> <li>Evidence-based Complementary Medicines 1</li> <li>Evidence-based Complementary Medicines 2</li> </ul>	<ul> <li>Evidence-based Complementary Medicines 3</li> <li>Evidence-based Complementary Medicines 4</li> </ul>		

### **Full program description**

For a full program description, including individual units of study, visit:

- sydney.edu.au/handbooks/pharmacy

### **Admission requirements**

**Degree**: A bachelor's degree or higher award in pharmacy (or equivalent qualification) **IELTS**: 6.5 (6.0 in each band)

### **More information**

To find out more or apply, visit:

 sydney.edu.au/courses/graduatecertificate-in-evidence-basedcomplementary-medicines

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# **Graduate Certificate in Pharmacy Practice**

This course is designed for pharmacy interns seeking registration, or registered pharmacists looking to enhance their professional skills.

The Graduate Certificate in Pharmacy Practice can be taken in either of two study pathways:

- Intern Training Program (ITP)
- Registered pharmacist

### Intern pharmacists - program overview

For pharmacy interns, this course provides the training, experience and education needed for professional registration, as it includes the ITP required for registration as a pharmacist in Australia (see page 17).

In the first year, you will complete two units of study comprising the ITP. This involves 1824 hours of supervised practice in a workplace setting of your choice, to gain essential skills and clinical experience.

Your occupational training is complemented with a flexible teaching model, involving face-to-face workshops, online collaborative exercises and workplace projects.

In second year, you will complete two additional units of study.

#### Registered pharmacists – program overview

This course is also recommended for registered pharmacists who are looking to develop exceptional clinical and professional skills relevant to contemporary practice in Australia, and gain a competitive advantage in the industry.

You will take four units of study from the options shown in the table. These can be completed over a year, as you can do two in each semester.

### **Course details**

**Duration**: 2 years for ITP pathway students; 1 year (or longer) for registered pharmacists **Intake**: Semester 1 (March) or Semester 2 (July) **Mode**: Online, intensive

#### **Course structure**

### Intern Training Program pathway

Year 1	
Semester 1	Semester 2
- Pharmacy Intern Training A	- Pharmacy Intern Training B
Year 2	
Choose any two from*: – Medications Management – Diabetes Mellitus – Mental Health – Cardiovascular and Renal	

#### **Registered pharmacist pathway**

Four units of study can be completed in one year (or longer). Choose from\*:

- Medications Management
- Diabetes Mellitus
- Mental Health
- Cardiovascular and Renal

 $^{\ast}$  Other units of study may be added to this list.

### **Admission requirements**

Intern pharmacists need to have:

- a Bachelor of Pharmacy, Bachelor of Pharmacy and Management or Master of Pharmacy degree from a tertiary education provider recognised by the Pharmacy Board of Australia
- arranged an Australian Health Practitioner Regulation Agency-approved workplace and pharmacist to undertake supervised training, to be completed during the course

### Registered pharmacists need to have:

 Pharmacist Practitioner registration with the Pharmacy Board of Australia

### IELTS: 7.0 (6.5 in each band)

### **More information**

To find out more or apply, visit:

 sydney.edu.au/courses/ graduate-certificate-in-pharmacy-practice

# Preparing for the workforce

From clinical placements to our Intern Training Program, there are plenty of opportunities for you to experience first-hand activities to prepare for pharmacy practice.

### **Clinical placements**

Clinical placements are an ideal way to put theory into practice in community, hospital, rural or industrial settings, and prepare for the real world of pharmacy and healthcare. All pharmacy students undertake clinical placements during their degree.

To successfully complete your degree, you will need to satisfactorily perform a number of clinical placements.

### **Rural placements**

You are encouraged to do rural placements as part of your clinical training, to acquire valuable experience in settings where healthcare services may be limited or delivered differently.

The Rural Pharmacy Student Placement Allowance can help to fund your travel and accommodation costs. This project is funded by the Australian Government Department of Health and Ageing as part of the Sixth Community Pharmacy Agreement. "I've undertaken clinical placements in community pharmacies and the pharmaceutical industry. Having exposure to different clinical experiences relating to pharmacy was one of the most valuable parts of my degree.

"I enjoyed experiencing first hand the work that pharmacists do in a real-life setting. Also, being able to apply the knowledge learned at university in a practical setting was invaluable.

"It was challenging to adapt from being a 'student' to being a 'professional' in a work environment. However, it allowed me to develop confidence in my knowledge and skills and take initiative with tasks I had been given."

David Truong Bachelor of Pharmacy





# **Intern Training Program**

After graduating from either the Bachelor of Pharmacy, Bachelor of Pharmacy and Management, or the Master of Pharmacy, you need to complete an Intern Training Program (ITP) to be eligible to register as a pharmacist in Australia.

- sydney.edu.au/pharmacy/itp

The ITP is delivered as the first two compulsory units of study within the Graduate Certificate in Pharmacy Practice, a two-year part-time postgraduate course (see page 15).

By completing the ITP, you will have the opportunity to fast-track completion of the Graduate Certificate in Pharmacy Practice. This is the only ITP in New South Wales that offers the opportunity to obtain a formal postgraduate qualification.

The Intern Training Program is designed to give you the edge during your transition from university to the workforce. It provides extensive support and resources for you to complete all requirements for general registration as a pharmacist practitioner in Australia, and get your career off to a great start.

Pharmacy's ITP is the only program in New South Wales to benefit from the National Alliance of Pharmacy Education (NAPE) course model. This was developed in conjunction with NAPE's partnering universities: Monash University, the University of South Australia, the University of Queensland and the University of Sydney. For details, visit:

- www.nape.edu.au

### **Program overview**

Interns undertake supervised practice in a workplace setting of their choice to gain essential skills and clinical experience. The NAPE ITP complements this occupational training with a flexible teaching model. It involves face-to-face workshops, online collaborative exercises and workplace projects that will enhance your intern learning portfolio.

A total of 1824 hours of supervised workplace training is required to attain professional registration. The ITP is structured to ensure you make the most of that time and complete the program fully prepared to register as a pharmacist in Australia.

### Entry requirements

Applicants for the ITP are required to have:

- a Bachelor of Pharmacy, Bachelor of Pharmacy and Management or Master of Pharmacy degree from a tertiary education provider recognised by the Pharmacy Board of Australia
- arranged an Australian Health Practitioner Regulation Agency-approved workplace and pharmacist to undertake supervised training, to be completed during the course
- English language proficiency (if relevant), such as IELTS of 7.0 (6.5 in each band).



# **Courses summary**

### **Bachelor of Pharmacy**

sydney.edu.au/courses/bachelor-of-pharmacy

UAC code: 513760 Duration: 4 years full time Intake: Semester 1 (March) Mode: Full time on campus Clinical placements: community, hospital, industry Available to international students: Yes

### **Admission requirements**

Fixed ATAR (2018): 90 IELTS: 6.5 (6.0 in each band) Assumed knowledge: Mathematics, Chemistry Recommended studies: Biology or Physics Prerequisite (from 2019): Mathematics (Band 4 or higher). For details, see sydney.edu.au/study/maths

# Bachelor of Pharmacy and Management

 sydney.edu.au/courses/ bachelor-of-pharmacy-and-management

UAC code: 513765

Duration: 5 years full time Intake: Semester 1 (March) Mode: Full time on campus Clinical placements: community, hospital, industry Available to international students: Yes

### **Admission requirements**

Fixed ATAR (2018): 90 IELTS: 6.5 (6.0 in each band) Assumed knowledge: Mathematics, Chemistry Recommended studies: Biology or Physics Prerequisite (from 2019): Mathematics (Band 4 or higher). For details, see sydney.edu.au/study/maths

### **Master of Pharmacy**

sydney.edu.au/courses/master-of-pharmacy

Duration: 2 years full time Intake: Semester 1 (March) Mode: Full time on campus Clinical placements: community, hospital, industry Available to international students: Yes

### **Admission requirements**

**Degree**: A bachelor's degree (or equivalent qualification), with one of the following:

- GPA: at least 5.0/7 (as a guide)
- WAM: 65 (as a guide)
- GAMSAT: at least 55, with 50 in each section
- MCAT: at least 500 (new test version) or 8 (previous version).

### IELTS: 7.0 (6.5 in each band)

**Prerequisites**: A minimum of 42 out of 54 credit points (or equivalent) in the following subjects at university level: Calculus, Statistics, Human Biology, Chemistry, Biochemistry, Pharmacology and Physiology.

All prerequisites need to have been completed in the last five years. You can enrol for up to 12 credit points of outstanding prerequisites as long as these are completed by the end of Semester 1 in the first year of the Master of Pharmacy program.

Abbreviations ATAR: Australian Tertiary Admissions Rank (or equivalent high school examination result) IELTS: International English Language Testing System (or equivalent English language test) UAC: Universities Admissions Centre GPA: Grade Point Average WAM: Weighted Average Mark GAMSAT: Graduate Australian Medical Admissions Test MCAT: Medical College Admission Test ITP: Intern Training Program

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# Graduate Certificate in Evidence-Based Complementary Medicines

- sydney.edu.au/courses/graduate-certificate-inevidence-based-complementary-medicines

Duration: 1 year part time only Intake: Semester 1 (March) or Semester 2 (July) Mode: Online (includes one capstone project) Available to international students: Not available to student visa holders, but available to international students offshore, or on other visas with study rights.

### Admission requirements

**Degree**: A bachelor's degree or higher award in pharmacy (or equivalent qualification) **IELTS**: 6.5 (6.0 in each band)

### **Graduate Certificate in Pharmacy Practice**

 sydney.edu.au/courses/ graduate-certificate-in-pharmacy-practice

Duration: 2 years for ITP pathway students; 1 year (or longer) for registered pharmacists Intake: Semester 1 (March) or Semester 2 (July) Mode: Online, intensive

**Available to international students**: Not available to student visa holders, but available to international students completing their Bachelor of Pharmacy or Master of Pharmacy at the University of Sydney, and who are eligible for an appropriate visa.

### Admission requirements

**Degree (for ITP pathway students only)**: Bachelor of Pharmacy, Bachelor of Pharmacy and Management or Master of Pharmacy degree from a tertiary education provider recognised by the Pharmacy Board of Australia

**Registration (for registered pharmacists only)**: Pharmacist Practitioner registration with the Pharmacy Board of Australia **IELTS**: 7.0 (6.5 in each band)

### Information for international students

Courses marked as being available to international students meet the CRICOS requirements for obtaining a student visa to study full time onshore.

Courses offered by online/distance modes are available to international students to study from their home country.

International students in Australia who are not on a student visa, depending on their visa type, may be able to take courses that are not offered full time onshore, such as courses that have intensive study periods onshore, combined with online study.

When applying for admission with a qualification awarded outside Australia, equivalencies and entry requirements are determined based on the country, institution and qualification. Check the exact details for your course at:

- sydney.edu.au/courses

### More help

For more information on our courses or admission criteria, please contact us.

1800 SYD UNI (1800 793 864) +61 2 8627 1444 (outside Australia)

- sydney.edu.au/ask

University of Sydney

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# How to apply

The process of applying for an undergraduate course (Bachelor of Pharmacy, or Bachelor of Pharmacy and Management), depends on your situation.

Domestic students, and any international students who are studying towards a Year 12 or IB examination in Australia, or the New Zealand NCEA, need to apply through the Universities Admissions Centre (UAC). www.uac.edu.au

All other international students should apply directly to the University of Sydney via our website:

- sydney.edu.au/courses

For entry to our postgraduate courses (Master of Pharmacy, Graduate Certificate in Evidence-Based Complementary Medicine, or the Graduate Certificate in Pharmacy Practice), domestic and international students need to apply directly to the University of Sydney via our website:

sydney.edu.au/courses

The following methods of entry to the Master of Pharmacy may also be considered:

### Domestic student transfers

We will consider transfers from current Master of Pharmacy students across Australia. Exemptions are addressed on a case-by-case basis.

### International pharmacy graduates and pharmacists

International pharmacy graduates are accepted, provided pharmacy registration has been within the last five years. It is not a requirement to have a GPA, WAM, GAMSAT, or MCAT for this application.

Learn more about the application process:

### - sydney.edu.au/study/how-to-apply

### **Alternative pathways**

If you are a domestic undergraduate applicant, we encourage you to consider every option for entry to the University of Sydney. We offer several alternative entry schemes that look beyond your ATAR when considering your application.

- sydney.edu.au/alternative-pathways

# **Application dates**

Applications can be submitted any time up to the relevant closing date. Refer to our website for the most up-to-date information on closing dates for your course.

sydney.edu.au/courses

Undergraduate UAC applicants should refer to the UAC website for closing dates.

- www.uac.edu.au/undergraduate/key-dates

To find out about other important University of Sydney dates and upcoming events, please visit:

- sydney.edu.au/dates
- sydney.edu.au/events-for-future-students

# **Recognition of prior learning**

Credit, in the form of waivers or reductions in the volume of learning, may be granted to postgraduate students in recognition of prior learning, such as completion of a major or honours in the subject area. Applications for credit are individually assessed. For more information, speak with the Faculty of Pharmacy, or refer to our website:

- sydney.edu.au/study/credit

### **Scholarships**

The University of Sydney offers a range of undergraduate scholarships to help you achieve your goals. These are generally awarded on the basis of merit or equity. Learn more:

- sydney.edu.au/scholarships/prospective

# **English language requirements**

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You will need to demonstrate English language proficiency, unless:

- English is your first language, or
- for undergraduate applicants only, if you have undertaken secondary or tertiary studies in English at an institution where the medium of instruction, assessment and examination was English, or
- for postgraduate applicants only, if you have undertaken tertiary studies in English in the last five years at an institution where the medium of instruction, assessment and examination was English.

You can demonstrate your proficiency by achieving a minimum result in an approved English language test such as IELTS or TOEFL.

### English language test scores needed for entry into our courses

Course	IELTS	TOEFL iBT
Bachelor of Pharmacy	6.5 overall, minimum of 6.0 in each band	85 overall, 17 in R,L,S and 19 in W
Bachelor of Pharmacy and Management	6.5 overall, minimum of 6.0 in each band	85 overall, 17 in R,L,S and 19 in W
Master of Pharmacy	7.0 overall, minimum of 6.5 in each band	96 overall, 20 in R,L,S and 22 in W
Graduate Certificate in Evidence-Based Complementary Medicines	6.5 overall, minimum of 6.0 in each band	85 overall, 17 in R,L,S and 19 in W
Graduate Certificate in Pharmacy Practice	7.0 overall, minimum of 6.5 in each band	96 overall, 20 in R,L,S and 22 in W

L-Listening, R-Reading, S-Speaking, W-Writing IELTS: International English Language Testing System TOEFL iBT: Test of English as a Foreign Language: internet based

To learn more, visit:

- sydney.edu.au/study/english-reqs

This guide provides the key information you need to choose and apply for a pharmacy degree at the University of Sydney. The next step is up to you.

To learn more, come and see us on Open Day, attend one of our information sessions, call our helpline or visit our website.

sydney.edu.au/pharmacy

### Any questions?

sydney.edu.au/ask 1800 SYD UNI (1800 793 864) +61 2 8627 1444 (outside Australia)