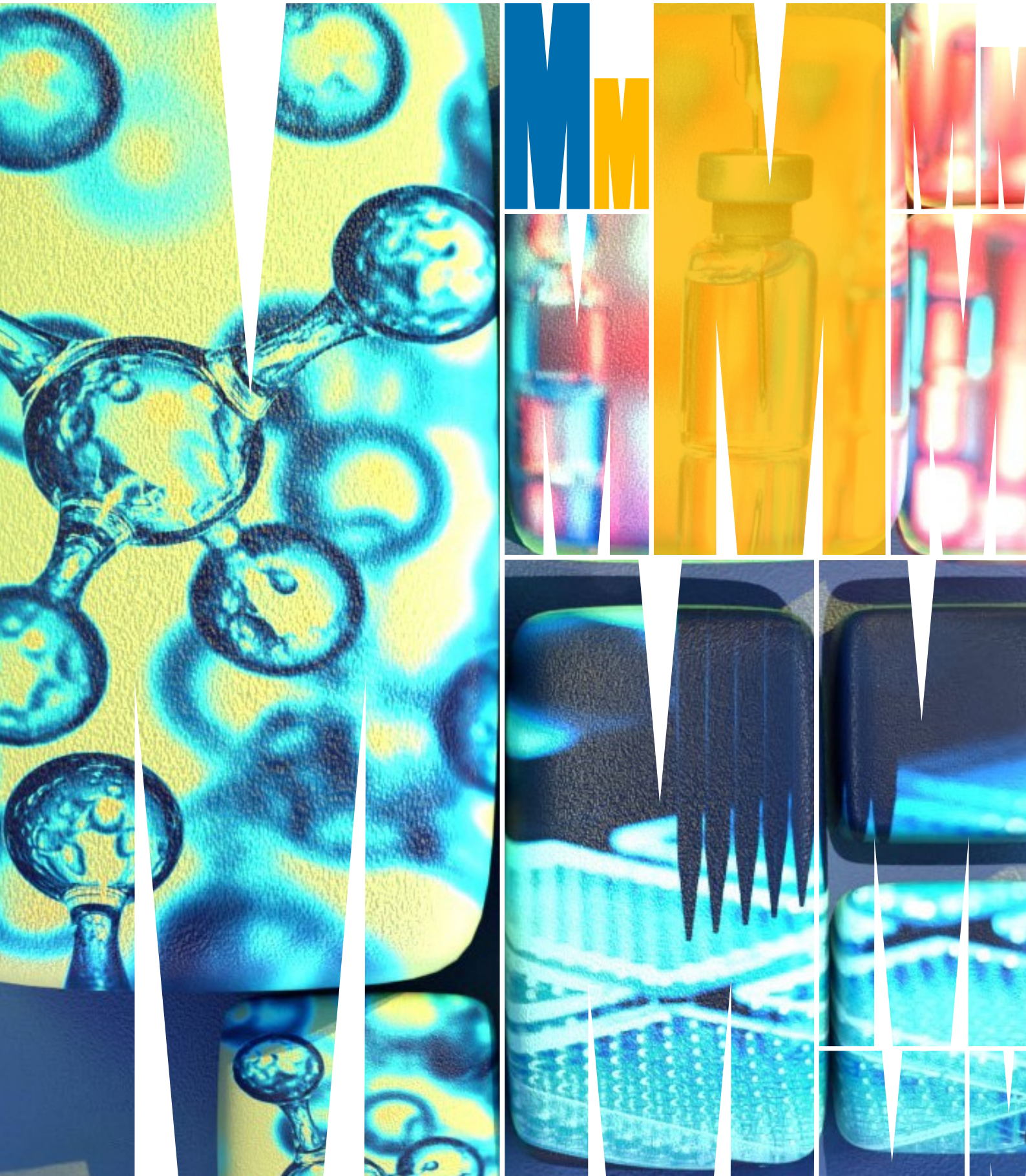


# PHARMACY AND PHARMACEUTICAL SCIENCES

INTERNATIONAL COURSE GUIDE  
2026



**AT MONASH PHARMACY AND  
PHARMACEUTICAL SCIENCES**

**WE'RE ON A  
MISSION TO MAKE  
HEALTHCARE BETTER**



## And our mission begins with what's most important: educating the next generation of pharmacists and pharmaceutical scientists.

It's why we focus on small group learning that allows you to receive individual attention from some of the world's leading educators.

It's why we focus on equipping you with not just the most up-to-date knowledge but also with the skills you need to put that knowledge into practice.

And it's why our undergraduate degrees offer extensive experiential opportunities, so you can integrate what you've learnt in the classroom with what goes on in the wider world.

It's the mission we've had since 1881, long before we became one of the world's most highly regarded institutions in our field, when we began serving Victoria as the Victorian College of Pharmacy.

Studying with us offers you a unique opportunity to become part of a tight knit community of people at the highest echelons of their professions, all utterly dedicated to improving the world around them.

Please, join us.

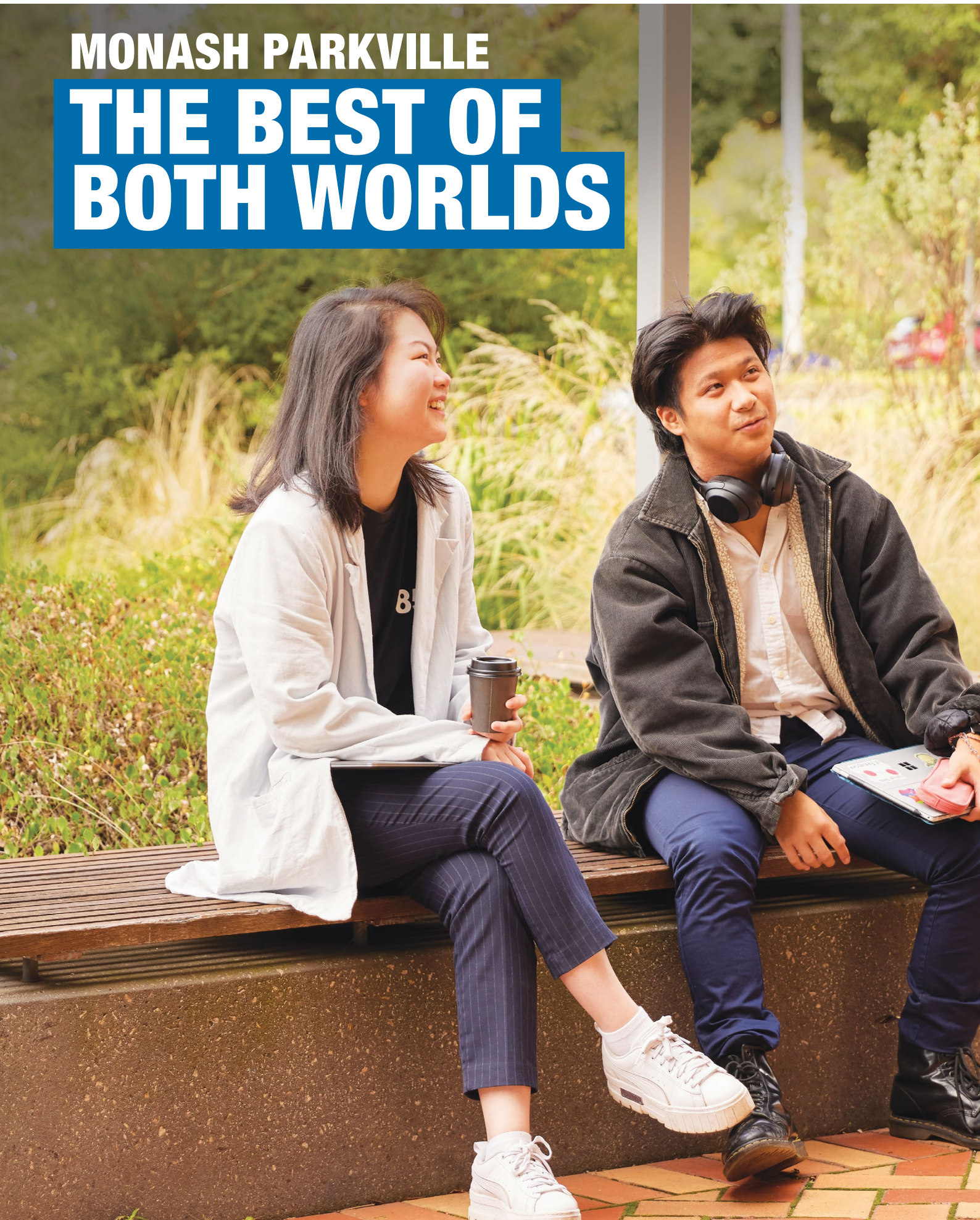
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MONASH UNIVERSITY recognises that its Australian campuses are located on the unceded lands of the people of the Kulin Nations, and pays its respects to their Elders, past and present.

**MONASH PARKVILLE**

**THE BEST OF  
BOTH WORLDS**





## IN ONE WAY, WE'RE SMALL

We're a community of about 3000 people (researchers, educators, students, administrators) bound together by a shared passion for the transformative power of medicines.

We're fascinated by the biology, chemistry and biomedical science that underpin pharmaceuticals and are dedicated to making sure medicines are used safely, effectively and with maximum benefit for our communities. Our small size means students make friends easily and get to know their instructors well.

## BUT IN ALL THE WAYS THAT MATTER, WE'RE BIG

We're part of Monash, Australia's largest university and a highly regarded global brand.

This means you can enjoy the resources of Australia's largest university. We offer many student services and extra-curricular activities on our campus, but you're welcome to take advantage of other opportunities at Monash's larger campuses as well.

## LOCATION IS EVERYTHING

Located on the edge of Melbourne's central business district and easily accessible by tram and train, we're close to vibrant inner-city suburbs like Carlton and Brunswick.

We're also in the heart of Melbourne's world-renowned Biomedical Precinct, a global hub for research and healthcare talent. This comes in handy when it's time to go on placement.

## STUDENT LIFE AT PARKVILLE

Transitioning into a new environment and routine can seem daunting. At Parkville, we have programs in place to make you feel welcome, help you develop friendships and encourage you to get the most out of your time with us.

From your first day, we ensure you have a strong sense of connection and belonging to our campus community, beginning with tailored orientation sessions for each course cohort. Undergraduates will be connected with a peer mentor, a more senior student who will help you settle into university life. You'll also connect with an academic staff member through skills coaching, a unique aspect of our teaching method that aims to develop the key soft skills you will need for career success.

There are opportunities to join clubs and societies, with some groups focussed on special interest areas, while others relate to the pharmacy and pharmaceutical sciences professions. You may wish to develop your leadership skills by taking on a leadership position in one of these groups, or by joining the Faculty's Student Ambassador Program, through which you can make an impactful contribution to events and activities for both current and prospective students.

We also strive to ensure you are well prepared for the workforce, so we provide ample opportunity for you to develop your employability skills and expand your professional networks.

# LIFE AS AN INTERNATIONAL STUDENT IN MELBOURNE

Moving away from home to study is exciting, but it can also be a little scary. The best way to set your mind at ease is to plan ahead and know what support is available. More than 35 % of our Parkville students come from overseas. We're well-equipped to support international students, and can direct you to the services you may need.





This image was taken by Hefeng Song, a graduate of the Bachelor of Pharmaceutical Sciences Advanced (Honours).

## EXPERIENCE MELBOURNE

Consistently ranked one of the world's most liveable cities<sup>1</sup>, Melbourne is known for welcoming international students and providing them with a memorable experience whilst they're here. A vibrant, multicultural city, it has something to offer every lifestyle, no matter what your interests. It boasts many tourist attractions, plays host to regular sporting and cultural events, is a hub for fashion, and has a thriving food scene that will satisfy any palate and budget.

There's an excellent public transport system, including a 'free tram zone' around Melbourne city and discounted public transport for students. You're able to work while you study, and many of our students take up casual jobs at local pharmacies to subsidise their expenses.

The City of Melbourne also has a dedicated 'hub' for international students to get advice on any issues they may be facing. For more information visit <https://studymelbourne.vic.gov.au/our-study-hubs/study-melbourne-hub-victoria>

## ACCOMMODATION AND COST OF LIVING

Melbourne offers a range of accommodation options to suit your lifestyle and budget. Rental accommodation is available in Parkville and nearby suburbs such as Melbourne City, Carlton and Brunswick. There are also several dedicated student accommodation providers in the city and surrounding areas.

If you're interested in living on campus, there are options available at our largest campus in Clayton (Parkville Campus does not have an on-campus accommodation option). Some of our international students do choose to live at Clayton, however it can mean quite a long journey to get to your classes at Parkville.

The Monash Residential Services Team can advise you on all your options.

[monash.edu/accommodation/students](https://monash.edu/accommodation/students)

For information about the daily costs of living in Melbourne,

[monash.edu/cost-of-living](https://monash.edu/cost-of-living)

## SETTLING IN TO YOUR NEW LIFE ABROAD

Everyone experiences different feelings and concerns when they move country, and it's important to know what support is available to help you manage how you're feeling at any given time. Monash provides support services and programs to assist in your academic and social success during your time with us.

### 24-hour security

On campus we have a visible 24-hour security desk, and many students know our security personnel by name. They're friendly and always on hand to walk you to nearby public transport or your car, should you wish.

[monash.edu/about/safety-security](https://monash.edu/about/safety-security)

Monash students are also encouraged to use the bSafe app that provides quick access to emergency services, urgent on-campus assistance, counselling, incident reporting tools and more.

[monash.edu/students/safety-security/bsafe-app](https://monash.edu/students/safety-security/bsafe-app)

### One place, all your questions answered

One of the most important places on campus is our Monash Connect Student Services desk. Staff can assist with information about admissions, enrolment, fees, student visas, accommodation, language support, academic support, graduations, scholarships and finding your way around campus. [monash.edu/students/support/connect](https://monash.edu/students/support/connect)



## Parkville International and Exchange Students Program (PIES)

PIES was designed by our staff specifically for international students studying Pharmacy or Pharmaceutical Science. Through a variety of fun and engaging activities, it offers support in three key areas: communication, social and networking, and well-being. PIES is an integral part of our commitment to nurturing a connected and inclusive community for all students.

### English and Study Skills

Many international students are able to greatly improve their spoken and written English during their time abroad. Much of this improvement happens naturally – from studying in a country with English as a first language – but Monash also offers a range of free English programs that allow you to practice your conversation and learn about Australian culture. [monash.edu/english-connect](https://monash.edu/english-connect)

The Student Academic Success team also runs some great programs to help you hone your study skills.

[monash.edu/student-academic-success](https://monash.edu/student-academic-success)

<sup>1</sup> The Economist Intelligence Unit Global Liveability Index 2025.



### **Be happy and healthy**

At Parkville, we're in the business of healthcare, so we know that it's important to look after our students' physical and mental health at all times. Monash Wellbeing offers expert services in a range of matters including physical health, counselling and religious services. We also provide assistance to students living with a disability.

📍 [monash.edu/health](https://monash.edu/health) and 📍 [monash.edu/disability](https://monash.edu/disability)

### **Make like-minded friends for life**

Research shows that if you're socially connected to your peers outside the classroom, you're more likely to perform better academically. We have more than 100 student-run clubs and societies across our campuses that you can get involved with. A number of these clubs are based at Parkville, and we even have a dedicated Student Experience Coordinator who's responsible for your social experience on campus. During Orientation Week, the Student Experience Coordinator will put you into a group with a current Parkville student and a number of other new students, allowing you to kick-start your university friendships from day one.

📍 [monash.edu/study/student-life/clubs-and-societies](https://monash.edu/study/student-life/clubs-and-societies)



# PHARMACY

## AN ESSENTIAL PROFESSION SUPPORTING HEALTHIER COMMUNITIES

Pharmacists are highly respected health professionals who are experts in the use of medicines and how they affect the body. They apply their knowledge to advise patients and other healthcare colleagues on the safe and effective use of medications. In Australia, medication related problems result in approximately 650,000 hospital visits annually<sup>1</sup>. This underscores the crucial role that pharmacists play in improving patient care and safety.

### JOB PROSPECTS ARE BRIGHT

In Australia, an ageing population combined with increased numbers of people living with chronic health conditions, mean that health professionals are in constant demand and pharmacists are no exception. In fact, most international pharmacy graduates are in full-time employment shortly after completing their studies.<sup>2</sup>

While many students who study pharmacy end up working as registered pharmacists, the COVID-19 pandemic opened up other roles suitable for pharmacy professionals, in areas as diverse as clinical trials, public health and education.

### AN EVOLVING SCOPE OF PRACTICE

It's an exciting time to be a pharmacist. Recently, pilot programs across Australia allowing pharmacists to prescribe medications have been permanently implemented, and our faculty is supporting education for pharmacists in this new area. Since mid-2024 the government has started to provide funding for a new speciality pharmacy role in aged-care settings. And as we enter an increasingly digital age, Digital Health Pharmacy roles are also starting to emerge.

One thing is clear; pharmacists are being set-up to make greater, more varied contributions to patient health, making for diverse career choices and even greater career satisfaction.



Monash is always striving to provide students with a unique edge. In my second year of pharmacy, I had the privilege of undertaking an early hospital placement, which allowed me to gain first-hand experience of the world of hospital pharmacy and shed light onto a passion that I did not realise I had.

From being part of a multidisciplinary team to dispensing for patients of all medical backgrounds, delivering medicines, compiling medication histories and counselling patients; all of these experiences really allowed me to put the theory I had learned into real-life practice.”

#### ISHARA KIRIELLA

Bachelor of Pharmacy (Honours) / Master of Pharmacy

<sup>1</sup> Pharmaceutical Society of Australia Report: Medicine Safety: Take Care  
<sup>2</sup> QILT Graduate Outcomes Survey 2023



Kevin Wu was part of the first cohort to graduate from the Bachelor of Pharmacy (Honours)/ Master of Pharmacy in 2021.

“I was attracted to the degree because it provided more depth in the same amount of time,” he explains. “I really enjoyed it.”

He completed his internship at Royal Melbourne Hospital, and says he enjoyed the huge variety of patient cases, medications and medical conditions.

He went on to spend a year as a Manager at Chemist Warehouse in Melbourne, before moving to Ballarat North to work at Blooms The Chemist, which he went on to buy into with his partner, Eunice, also a Monash Pharmacy graduate.

“I had always wanted to own a pharmacy, but I didn’t think I’d end up here so fast,” Kevin says. “We also have a more experienced senior pharmacist in the partnership, which is great.”

“It was an opportunity that resonated with me in terms of the community we are serving,” he says. “Sometimes regional pharmacies are overlooked, but they are integral to the communities they service.”

“There is a greater sense of community engagement than you get in a metro pharmacy,” Kevin says.

Having only bought in a couple of months ago, Kevin says it’s been a busy time and a steep learning curve that has been challenging but fulfilling.

“There are a lot of moving parts in managing a pharmacy, and the buck stops with us,” he says. “Monash Pharmacy prepared me well to become a pharmacist, and also equipped me with problem solving, resilience and teamwork skills that are all relevant to the challenges.”

“I enjoy talking to patients and the fact they seek us out as pharmacists,” he says. “As an owner you have to make an investment but you also reap the rewards of your hard work.”

#### KEVIN WU

Community Pharmacist and Managing Partner,  
Blooms The Chemist



## INNOVATIVE EDUCATION

It typically takes a minimum of five years to become a registered pharmacist in Australia. You can do this by completing a Bachelor of Pharmacy (Honours) followed by an internship program.

At Monash, we were the first in Australia to introduce an integrated Bachelor of Pharmacy (Honours) plus a Master of Pharmacy, which takes five years. In the fifth year you undertake your paid internship, graduating with two degrees.

### What’s unique about our degree?

Our staff members are experts and innovators in scientific teaching, and this is evident through the design of the pharmacy program. We’ve been intentional about researching best-practice science education – and then crafting our degree and teaching methods according to our findings.

We emphasise active learning through pre-reading materials, workshops, and authentic learning and assessment, such as role plays and simulations. We prioritise the development of your employability skills, including offering an annual Employability Week during which you connect with registered pharmacists across Australia. Particularly unique to us is the Skills Coaching program embedded within the degree. In small groups you’ll be coached to enhance key abilities pharmacists need, like problem-solving, teamwork and effective communication.

All this means our graduates are confident and primed to step into their new role as a pharmacy professional. You’ll be exactly what employers are looking for; equipped with strong scientific, technical, personal and professional skills and knowledge.

### Real world experience: placements and internship

As part of the program you’ll undertake work placements in community pharmacies, hospitals and other environments, practicing your new skills while learning from some of Australia’s best pharmacists about areas such as primary health care, medicines information, and patient-focused pharmacy services.

## Earn while you learn: how does the intern year work?

During your intern year (fifth year), you’ll combine supervised practice (for which you’ll be paid), with intern studies (Intern Training Program and Intern Foundation Program). This intensive combination of learning and working will ensure you’re well prepared for your final registration exams and confident to qualify as a practicing pharmacist.

Whilst all your placements are organised for you by the faculty, you’re required to secure your own internship – just as you would your first job. But don’t worry – historically, students rarely struggle to find internships, as intern pharmacists are in-demand. Further, you’ll have developed a network of pharmacy practitioners through your placements in earlier years.

### Flexibility to suit your needs

If you aim to register and work as a pharmacist in Australia, our Bachelor of Pharmacy (Honours) / Master of Pharmacy is a direct pathway to registration. However, we understand that everyone has different circumstances; you may not be willing to commit to five years of study quite yet, or you could be an international student aiming to work back in your home country. If this sounds like you, we have provision for students to enrol in our four-year Bachelor of Pharmacy (Honours) in the first instance.

### Scholars Program for High Achievers

We offer a Scholars Program for our highest achieving undergraduate students. The program provides extra benefits for those completing the Bachelor of Pharmacy (Honours) / Master of Pharmacy, including invitations to special events and seminars, and opportunities to engage with senior leaders in the faculty.

# Bachelor of PHARMACY (Honours) + Master of PHARMACY

## COURSE MAP

YEAR 1		UNITS		
<b>Semester 1</b> 24 credit points	<b>PHR1011</b> Professional practice 1 6 credit points	<b>PHR1021</b> How medicines work 1 6 credit points	<b>PHR1031</b> How the body works 12 credit points	
<b>Semester 2</b> 24 credit points	<b>PHR1012</b> Professional practice 2 6 credit points	<b>PHR1022</b> How medicines work 2 6 credit points	<b>PHR1122</b> How medicines work 3 6 credit points	<b>PHR1222</b> How medicines work 4 6 credit points
YEAR 2				
<b>Semester 1</b> 24 credit points	<b>PHR2011</b> Professional practice 3 6 credit points	<b>PHR2021</b> How medicines work 5 6 credit points	<b>PHR2041</b> Respiratory and gastrointestinal 6 credit points	<b>PHR2141</b> Dermatology and pain 6 credit points
<b>Semester 2</b> 24 credit points	<b>PHR2012</b> Professional practice 4 12 credit points		<b>PHR2042</b> Endocrinology and renal 6 credit points	<b>PHR2142</b> Cardiovascular 6 credit points
YEAR 3				
<b>Summer semester</b> 12 credit points	<b>PHR1001</b> Bridge to practice 1 (Graduate Entry Pharmacy students only) 12 credit points			
<b>Semester 1</b> 30 credit points	<b>PHR1101</b> Bridge to practice 2 (Graduate Entry pharmacy students only) 6 credit points	<b>PHR3041</b> Brain, blood and cancers 12 credit points		<b>PHR3141</b> Pathogens, host defence and treatment 12 credit points
<b>Semester 2</b> 24 credit points	<b>PHR3042</b> Acute care 12 credit points		<b>PHR3062</b> Student experiential placements 6 credit points	<b>PHR5052</b> Inquiry and innovation methods 6 credit points
YEAR 4				
<b>Semester 1</b> 24 credit points	<b>PHR4061</b> Student experiential placements 12 credit points		<b>PHR5151</b> Inquiry and innovation projects 12 credit points	
<b>Semester 2</b> 24 credit points	<b>PHR4012</b> Professional Practice 5 6 credit points	<b>PHR4042</b> Integrated care 12 credit points		<b>PHR5252</b> Inquiry and innovation communication 6 credit points
YEAR 5				
<b>Semester 1</b> 12 credit points	<b>PHR5061</b> Applied pharmacy practice 1 6 credit points	<b>PHR5161</b> Foundation practice 1 6 credit points	<b>Pharmacy internship</b> (supervised practice)	
<b>Semester 2</b> 12 credit points	<b>PHR5062</b> Applied pharmacy practice 2 6 credit points	<b>PHR5162</b> Foundation practice 2 6 credit points		

■ Professional practice units 
 ■ How medicines work units 
 ■ How the body works unit 
 ■ Comprehensive care units  
■ Bridge to Practice units 
 ■ Inquiry units 
 ■ Placement units 
 ■ Paid internship

\*Note that in order to enrol in the intern training program and intern foundation program, you must have arranged to undertake your internship under the supervision of a preceptor approved by the Pharmacy Board of Australia.

### Themed, integrated units

Like many primary healthcare courses, your units are taught thematically, ensuring you'll gain knowledge in an applied and engaging way. They also integrate with each other, meaning your knowledge will consolidate and build as you progress through the course.

If you want details about what you'll specifically be learning in your units, you'll find them in our online handbook: [handbook.monash.edu](https://handbook.monash.edu)

### Earlier and enhanced placements

You'll be exposed to real-life practice environments early in your course. From second year, you'll spend time in experiential placement sites working with some of the best pharmacists in Australia.

We ensure you are well prepared for placement and that you feel confident to assist in contributing to patient care.

# GRADUATE ENTRY PATHWAY

Graduate Entry Pharmacy provides a pathway for students who have studied a more general science degree and now wish to qualify as a pharmacist, or for those who didn't meet the pharmacy course requirements at the end of high school.

## ACCELERATE YOUR PHARMACY CAREER

You will gain accelerated entry into the third year of our Bachelor of Pharmacy (Honours) / Master of Pharmacy program, meaning that in just three years, you will attain an additional two degrees, have completed an internship and be eligible for registration.

The program commences in early January with a 6.5 week compulsory intensive summer school called Bridge to Practice 1 that helps you transition your existing scientific knowledge into a pharmacy context. Following that, you move into year 3 of the Bachelor/Master degree, while concurrently completing a second Bridge to Practice unit, and integrating with the rest of the cohort. You'll undertake studies in acute care, complete a research unit and a placement, building on these in the following year. During the Master's, you complete a paid internship alongside part-time studies that will help you consolidate your knowledge before sitting your registration exams.

## Who is the course for?

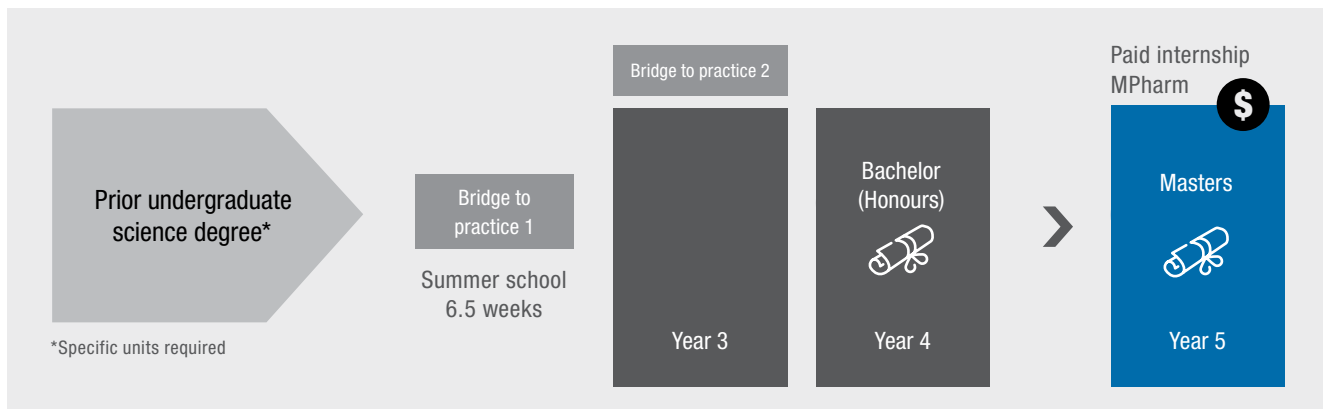
Relevant degrees include but are not limited to:

- Bachelor of Biomedical Science/Bachelor of Biomedicine
- Bachelor of Health Sciences
- Bachelor of Pharmaceutical Sciences
- Bachelor of Science

Students must also meet requirements of chemistry, mathematics and physiology.

For more information visit:

[monash.edu/pharm/future/courses/pharmacy/grad-pharmacy](https://monash.edu/pharm/future/courses/pharmacy/grad-pharmacy)



The Graduate Entry Pharmacy program was challenging at times, but it was also rewarding to see how far we all came in a short period. Although the course was structured quite differently to my previous Commerce/Science degree, it was designed to allow us to learn new information in lectures, and then further consolidate our knowledge and understanding.

I undertook my paid internship in a hospital setting at Monash Health. The process of applying for hospital internships is streamlined, and the exposure Monash gave us through placements, as well as the experience gained gave me the confidence to apply to these organisations. I would highly recommend the Graduate Entry program at Monash!"

### MADELEINE LACK

Graduate Entry Pharmacy graduate and Pharmacist, Monash Health



# CAREERS IN PHARMACY

## A DEGREE OF OPPORTUNITY

If you've ever had a prescription filled at your local community pharmacy, you probably think you know what pharmacists do. The fact is, community pharmacy represents only one of many career paths our graduates pursue.

### AGED CARE PHARMACIST

Older people often have complex needs when it comes to medications. They are frequently taking a number of different medications and can be more susceptible to side effects. They may also need adjustments to their medications to accommodate difficulties with vision, hearing, memory or cognitive function. Some aged care facilities are now employing pharmacists onsite to ensure continuous care for their residents.

### CLINICAL TRIALS PHARMACIST

Pharmacists in this area support the management and delivery of clinical trials of new medicines. The role involves coordinating studies from a medicinal perspective, ensuring that drugs used in the trials are imported, stored, accounted for, compounded, dispensed and used in accordance with strict protocols. It may involve liaising with hospital staff, counselling participants and carers, and educating medical and nursing staff.

### COMPLEX CARE COORDINATOR

A relatively new career path, complex care coordination involves working with a hospital healthcare team and is often combined with consultant pharmacy work. The role involves providing early post-discharge medication review and follow-up plans for patients identified as being 'high risk' by hospital clinicians.

### CONSULTANT PHARMACIST

Accredited consultant pharmacists conduct home medicines reviews and residential medication management reviews. As with many roles, consultant pharmacists often work part time undertaking medication reviews, while also working in other healthcare settings such as working at a community health centre, working with chronic disease management groups, or providing nurse education.

### DRUG SAFETY OFFICER

Pharmacovigilance is an area focusing on monitoring drug safety. A pharmacist working as a drug safety officer liaises regularly with government and industry bodies, consumers and other healthcare professionals. Their responsibilities include receiving and processing reports of adverse drug events and conducting regular conciliation with health authorities. They use their skills and qualifications to ensure the public has access to safe and reliable medications.

### HOSPITAL PHARMACIST

Hospital pharmacy involves a lot of collaboration as you find yourself working closely with a team of other healthcare professionals, including doctors and nurses, to provide the best care for patients.

According to the Society of Hospital Pharmacists of Australia (SHPA), "... it offers variety, both in the roles you can have, such as clinical [i.e. direct patient care] or management, and in the types of hospitals you can work in – city or country, small or large, general or specialist."

Working as a hospital pharmacist helps you develop valuable skills that are highly sought after in other pharmacy settings. Many pharmacists will spend some part of their career in a hospital environment.

### PRIMARY CARE PHARMACIST

A practice pharmacist doesn't dispense medicines. Instead, they work within a general medical practice to deliver direct support to general practitioners, practice nurses, and patients. They can often give more time and attention to individual cases, providing quality care and specialised services such as smoking cessation.

### PUBLIC HEALTH ADVISOR

Pharmacists have knowledge, skills and experience that can contribute to advisory roles, both for the government as well as non-government institutions, such as health funds and private hospitals. The range of possible roles in this area is extensive, including medicines access, public health, developing eHealth services and more.

### REGULATORY AFFAIRS ASSOCIATE

Working in regulation involves ensuring the appropriate licensing of and legal compliance by pharmaceutical and medical products. Following this career path, you're involved in ensuring that a company's products comply with regulations and legislation.

### RESEARCHER / ACADEMIC

Many students find their passion for research while studying, and go on to make a career of exploring and developing ideas in pharmacy. Through research and evaluation, pharmacists can make a huge practical difference to health policy and services. Common research areas for pharmacy graduates include pharmacy practice, pharmacotherapy, drug discovery, toxicology, clinical sciences, public health and much more.

### SPECIALTY PRACTICE PHARMACISTS

There are many different types of specialty practice pharmacists, below are just a few of the most common.

#### Mental health pharmacist

Mental health pharmacists in hospitals are responsible for providing clinical pharmacy services to the adult mental health in-patient wards, and psychiatric assessment and planning units. It's a highly specialised career path that includes managing the supply of anti-psychotic medications to mental health patients in government units, outpatient clinics, community centres and specialist hospitals.

#### Women's and newborns' pharmacist

Providing safe and effective dosing and administration of medications during pregnancy and for infants is the focus of the role. One of the biggest challenges can be assisting in the care of babies born prematurely. But it's also a highly rewarding area to work in; a skilled pharmacist can play a crucial role in giving a baby a better chance at a healthy life.

#### Antimicrobial steward

Antimicrobial stewardship is a vital role in any hospital and health facility, with responsibilities that include promoting the appropriate use of antimicrobials (including antibiotics), reducing microbial resistance, and decreasing the spread of drug resistant infections.

#### Pain educator and consultant

Chronic and acute pain are fascinating areas to work in. Pain management is a constantly evolving field that encompasses many areas of treatment, not just pharmacy and pain medications. Pharmacists work with patients to manage their medications and coordinate other forms of treatment.



I was considering many study options: biochemistry in the States, medicine in Vietnam or pharmacy in Australia. I decided to join the pharmacy faculty at Monash since I was good at chemistry but also wanted to contribute to healthcare, so either pharmacy or pharmaceutical sciences would work for me. I ultimately chose pharmacy due to the scope of future career prospects, and because I thought clinical practice would be fun.

Studying in Australia was not as lonely as I thought it would be. It was really nice to have other international students with whom I could make friends, as well as Australian students. Pharmacy has a relatively small cohort, which I loved, as it allows you to know everyone and create a more concentrated circle of connections. Also, there are wonderful teachers who are willing to help and even create opportunities to accelerate your study and career.

Apart from university life, I love the Melbourne coffee culture. There are always many local coffee shops to try out! I also enjoy playing classical guitar; I once played at the Melbourne Guitar Festival in 2018, which helped me relive the time when I was performing.

My internship at the Royal Hobart Hospital went very well. Every day, I was immersed in a pool of valuable knowledge and feedback, which helped me feel more prepared for the end-of-year intern exam. If you're considering pharmacy, I would suggest that you do research about the profession. Pharmacy is not for everyone, but for those passionate about it, pharmacy is truly rewarding. Further, seek a mentor, ask for help when you need it, and don't just limit university life to university. Grades are not the only important thing; foster your communication, interpersonal, and organisational skills. These are the skills that will greatly increase your employability."

#### **THOMAS DUONG**

**Bachelor of Pharmacy (Honours) and  
Master of Pharmacy graduate and  
Clinical Pharmacist, St Vincent's Hospital, Melbourne**

# HAVE AN INTERNATIONAL EXPERIENCE DURING YOUR STUDIES

## **An international experience is a great way to build networks and learn about other cultures.**

Our Malaysia campus offers exchange for both Pharmacy and Pharmaceutical Science undergraduate students, allowing you to study there for one semester or a whole year. The programs mirror those taught in Australia, so it's a fantastic opportunity to live abroad while continuing your studies.

Pharmacy students can also participate in a Global Intensive, travelling to Monash's centre in Prato, Italy, during the winter break to take an inquiry and innovation unit. They can also apply for an eight week research project at our partner institution, the University of North Carolina at Chapel Hill.



**FIND OUT ABOUT INTERNATIONAL OPPORTUNITIES:** [monash.edu/pharm/students/undergrad/international-experience](https://monash.edu/pharm/students/undergrad/international-experience)

# PHARMACEUTICAL SCIENCE

## MAKE A GLOBAL IMPACT ON HEALTHCARE

A degree in pharmaceutical science will equip you for a diverse career and enable you to make a genuine impact on human health and wellbeing. Your understanding of the entire drug discovery pipeline will be your key to success.

You'll be taught by internationally renowned scientists at the forefront of tackling global health challenges and learn what it takes to invent, develop and approve a new medicine.

### Hands-on experience

As well as gaining a deep theoretical understanding of the fundamental concepts in chemistry, biology and product formulation, you'll get plenty of time in the lab. You'll learn how to design and conduct experiments using industry-standard instrumentation and, most importantly, how to interpret and effectively communicate your data.

During third year you'll have the opportunity to undertake professional experience. Depending on your course, this could be an industry or laboratory placement, or you can opt for one of the University's Flagship Rich Educational Experiences. No matter which you choose, you'll gain valuable professional skills.

### A future-proofed sector brimming with opportunity

As the world continues to face emerging and existing health challenges, pharmaceutical scientists will play a central role in helping to solve these problems over the coming decades.

Victoria is a hub for biomedical research and health technology development and jobs. According to the Victorian Government\*, the health technology sector is growing rapidly, employing over 51,000 people, plus 20,000 research sector jobs. The government has invested heavily into our local mRNA industry, including the new Moderna manufacturing facility at Monash Clayton, the first of its type in the southern hemisphere. With companies such as CSL, Pfizer, Novartis, Merck, Bristol Myers Squibb and GSK operating locally, there's a strong demand for biomedical and pharmaceutical graduates in the state.

### Equip yourself for career diversity

Choosing pharmaceutical science opens doors to a broad spectrum of career opportunities beyond medical research and development. While pharmaceutical scientists are integral to the development of medicines, their versatile skills and knowledge can be applied in a wide range of industries, including skincare and cosmetics, paints and coatings, and food and beverage. Whether you aspire to be a product developer or formulation scientist, quality assurance officer or patent attorney, pharmaceutical science provides a solid foundation for roles that require an understanding of chemistry, or roles within businesses that develop chemically-based products.

### What will you study?

During the course, you'll have the opportunity to align your interests with particular aspects of the drug discovery pipeline.

You might be attracted to drug discovery biology, which is about gaining an understanding of what causes different types of diseases and how current medicines work at a molecular level to treat them. You'll get hands-on experience designing experiments to identify and test new biological targets for the development of novel drugs.

Or you might be drawn to medicinal chemistry, which represents the intersection of biology and chemistry, and involves the development of potential pharmaceutical compounds from conception through to their clinical use. You'll study how drugs work, and how they're designed and made. By applying the principles and techniques of organic chemistry, medicinal chemists discover and develop compounds that prevent, treat or cure disease.

There's also formulation science, which enables you to understand the principles of designing pharmaceutical products and how medicines are absorbed and travel around the body to the site of action.

Drawing on techniques used in the pharmaceutical industry, you'll also learn how to formulate chemical products in a wide range of applications, such as consumer products, cosmetics, paints and food.

### What's the difference between our three-and four-year programs?

Some students want to complete their degree and get out into the workforce. For them, the three-year Bachelor of Pharmaceutical Science is the perfect pathway into a career in the pharmaceutical sector or any of its allied industries.

Others want to work on innovative research, so are attracted to a degree with a significant research component. For those students, the Bachelor of Pharmaceutical Science Advanced (Honours) is ideal. The third year of the degree includes a placement which will give you the skills and independence to conduct a substantial research project in your fourth (Honours) year. Upon completion of an Honours year, students are eligible to apply for a PhD.

### Scholars Program for high achievers

We offer a Scholars Program for our highest achieving undergraduate students undertaking the Bachelor of Pharmaceutical Science Advanced (Honours). The program provides extra benefits, including invitations to special events and seminars, and opportunities to engage with senior leaders in the faculty.

\*Source: [djsir.vic.gov.au/priorities-and-initiatives/health-technologies](https://djsir.vic.gov.au/priorities-and-initiatives/health-technologies)



?

### DID YOU KNOW?

The first Australian COVID mRNA vaccine candidate was developed right here at Monash Parkville.



Georgie completed a Bachelor of Pharmaceutical Science and has gone on to found Mamave, her own skincare brand for mothers and babies, as well as working as a Cosmetic Development Chemist at Melbourne-based company, Art of Packaging.

“I love the creativity of being a cosmetic chemist working with start-up brands and helping them bring their incredible product ideas to life,” she says.

“I also love being a founder and making my own product dreams come true. It’s wonderful to work in an area that I am so passionate about”.

Georgie particularly enjoyed studying formulation science, especially the lab work, as it provided a more practical and hands-on aspect to her learning and helped her get a better understanding of where she wanted to go in her career.

Georgie’s advice to prospective students is: “Take every opportunity that comes your way as you never know where the smallest thing might take you. For me, a random babysitting job ended up leading me into a career in cosmetic development!”

#### GEORGIE PERCIVAL

Founder, Mamave, and Cosmetic Development Chemist, Art of Packaging

# Bachelor of PHARMACEUTICAL SCIENCE

# Bachelor of PHARMACEUTICAL SCIENCE ADVANCED (Honours)

## YEAR 1

### UNITS

<b>Semester 1</b>	<b>BPS1011</b> Human physiology 1: Cells to systems	<b>BPS1021</b> Medicinal chemistry 1: Structure	<b>BPS1031</b> Physical chemistry 1: Equilibria and change	<b>BPS1041</b> Scientific Inquiry
<b>Semester 2</b>	<b>BPS1012</b> Human physiology 2: Body systems	<b>BPS1022</b> Medicinal chemistry 2: Reactivity and biomolecules	<b>BPS1032</b> Physical chemistry 2: Solutions, surfaces and solids	<b>BPS1042</b> Pharmaceutical science in context

## YEAR 2

<b>Semester 1</b>	<b>BPS2011</b> Pharmacology 1: Biochemical signalling	<b>BPS2021</b> Synthetic chemistry 1: Structure and reactivity	<b>BPS2031</b> Analytical methods 1: Principles and applications	<b>BPS2041</b> Drug delivery and pharmacokinetics
<b>Semester 2</b>	<b>BPS2012</b> Pharmacology 2: Drug action	<b>BPS2022</b> Drug discovery and design	<b>BPS2032</b> Analytical methods 2: Investigation design	<b>BPS2042</b> Drug development

## YEAR 3

<b>Semester 1</b>	<b>Bachelor of Pharmaceutical Science choose four units; Pharmaceutical Science Advanced (Honours) choose three units:</b> <b>BPS3011</b> Disease-focused pharmacology <b>BPS3022</b> Microbiology and immunology <b>BPS3031</b> Computational drug design <b>BPS3041</b> Synthetic chemistry II: Advanced methods <b>BPS3061</b> Industrial formulation <b>BPS3071</b> Nanotechnology and polymer science in drug delivery			
<b>Semester 2</b>	<b>BPS3012</b> Applied pharmaceutical science: from concept to market	<b>Elective unit – Choose two units from:</b> <b>BPS3021</b> Biotechnology <b>BPS3032</b> Toxicology and advanced pharmacology <b>BPS3042</b> Advanced experimental spectroscopy <b>BPS3082</b> Applied pharmacokinetics, dynamics and product development		
<b>Full year</b>	<b>Bachelor of Pharmaceutical Science</b> <b>BPS3062</b> Professional experience or <b>MON3750</b> Monash Innovation Guarantee (MIG) or <b>MON3500</b> Research, Experimentation and Discovery (RED)	<b>Bachelor of Pharmaceutical Science Advanced (Honours)</b> <b>BPS3072</b> Advanced professional experience		

## YEAR 4 for Bachelor of Pharmaceutical Science Advanced (Honours)

<b>Full year</b>	<b>BPS4001</b> Advanced Pharmaceutical Science (coursework) – 12 points	<b>BPS4002</b> Research in Pharmaceutical Science – 36 points
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If you want details about what you'll be learning in each of your units, you'll find them in our online handbook: [handbook.monash.edu](https://handbook.monash.edu)

## BACHELOR OF PHARMACEUTICAL SCIENCE HONOURS YEAR

If you have completed a Bachelor of Pharmaceutical Science or other relevant science-based degree and wish to get a feel for a research career, and enhance your job prospects, you can undertake an Honours year in Pharmaceutical Science.

# Bachelor of PHARMACEUTICAL SCIENCE + Bachelor of ENGINEERING (Honours)

Combining chemical engineering with pharmaceutical science, this double degree is unique in Australia and rare worldwide.

Not only will you learn how to invent and test new products such as pharmaceuticals, food and cosmetics, but you will have the know-how to manage the product process beyond the laboratory stage.

This double degree allows you to graduate as a qualified engineer capable of covering the full spectrum of the pharmaceutical product design and production process.

Pharmaceutical engineers work in all aspects of the design and production process, from experimenting with innovative formulations to manufacturing commercialised products.

A pharmaceutical engineer might:

- design, develop and improve industrial processes and equipment for large scale chemical and pharmaceutical manufacturing
- plan and test methods of sustainable manufacturing
- devise production processes that are safe, efficient, profitable and environmentally sound
- develop and implement cleaner production technologies.

The Bachelor of Pharmaceutical Science / Bachelor of Engineering (Honours) is taught between two Monash campuses – Parkville and Clayton. You'll study Year 1 and 3 at Parkville, and Years 2, 4 and 5 at Clayton.



When I was around eight years old, I was taking Panadol and wondered how this small white tablet was able to help me recover from being sick. So I decided to pursue a career that involves the formulation of such drugs and hopefully the development of them too.

In this course, I have thoroughly enjoyed the multiple laboratory sessions – they are more challenging and appealing compared to the experiments I did in high school.

Doing an engineering and pharmaceutical science degree has really opened my eyes to the real world, to the point where I just see biology, chemistry and physics everywhere.

It's also opened up opportunities, such as being a peer mentor, a student ambassador, a committee member in the Pharmaceutical Science Society and an Access Monash mentor.

If you love the challenges of biology and chemistry and are intrigued by the mechanisms of drug interactions in the body, this course is definitely for you.”

**JAKE NGUYEN**

Bachelor of Engineering (Honours)/ Bachelor of Pharmaceutical Science student



# Master of PHARMACEUTICAL SCIENCE

If you have a science-based undergraduate degree and aspire to a career in the pharmaceutical sector or related industries, this course could be for you.



Designed in consultation with major employers and research leaders, the Master of Pharmaceutical Science builds on your scientific knowledge, delivering you the most current and highly sought-after skills required for success in the contemporary workplace.

## Impactful Learning

The course takes you through the drug discovery and development pipeline with detailed investigations of:

- target identification
- drug design and optimisation
- product formulation and analysis
- clinical trials
- regulatory processes
- employability skills.

You'll be taught using case studies, hypotheticals and laboratory experience to highlight and address key issues and challenges in the pharmaceutical and related industries. Learn from industry and research leaders as you deep-dive into what it takes to discover and develop new drugs.

You'll gain hands-on experience in a range of analytical, formulation, modelling and other techniques relevant to the practice of pharmaceutical science, with the guiding principles of social responsibility, sustainability and positive impact underpinning your learning.

## Practical Experience

In your final semester you'll undertake an extended placement in an industrial or research organisation. The placement is integrated with a capstone unit, giving you the opportunity to consolidate your learning across the entire degree and produce a folio of evidence that demonstrates your value in a professional environment. The placement is a great way to build your networks, and has resulted in some students being offered paid employment after completion.

During the course you are also able to undertake the Monash Innovation Guarantee, a program where you collaborate with students from across the university to deliver a solution to a real-world problem posed by an industry partner.

## Who is the course for?

Students who have completed one of the following degrees are eligible to apply:

- Bachelor of Pharmacy
- Bachelor of Pharmaceutical Science
- Bachelor of Biomedical Science
- Bachelor of Science
- Bachelor of Engineering (with a specialisation in a discipline such as pharmaceutical, chemical, biomedical or material engineering).

*Note this course is not a pathway to registration as a pharmacist.*

For more information:

[monash.edu/pharm/future/courses/master-of-pharmaceutical-science](https://monash.edu/pharm/future/courses/master-of-pharmaceutical-science)

## COURSE MAP

YEAR 1		UNITS				Entry level 1 commences semester one and completes 2 years full-time	Entry level 2 commences semester two and completes 1.5 years full-time	Entry level 3 commences semester one and completes 1 year full-time
Semester 1	MPS5101 Overview of drug discovery and development	MPS5102 Target identification and validation	MPS5103 Drug design and optimisation	MPS5104 Drug formulation, clinical trials and registration				
Semester 2	MPS5201 Drug stories: lessons from the past and now	MPS5202 From ideas to medicines: investigator perspectives	MPS5203 Experimental investigations: learning from the lab	MPS5204 Drug discovery and development: the next step				
YEAR 2		Semester 1	MPS5301 State-of-the-art and emerging technologies	MPS5302* Contemporary pharmaceutical technologies	MPS5303 Career tools: bridging the gap	MPS5304 Regulatory science and monitoring medicine use		
Semester 2	MPS5401 Professional placement and research project							

\*Students also have the option of completing MON5750 Monash Innovation Guarantee

# CAREERS IN PHARMACEUTICAL SCIENCE

The course material sounds fascinating, all that time using high-tech lab equipment seems really fun, and the placement and industry experience opportunities mean you'll graduate ready for the workforce. But where can a pharmaceutical science degree actually lead?

That's a trickier question to answer than you might think. Although the course is primarily focused on understanding medicines, the skills you learn will translate to a range of chemistry-related or biomedical research opportunities. Our graduates can be found in industries from paint and coatings to cosmetics to food manufacturing.

Here are some of our more common graduate destinations.

## BIOMEDICAL RESEARCHER

Biomedical researchers investigate how the human body works with the aim of finding new ways to improve health. Usually based in a laboratory, you'll conduct experiments and clinical tests to record and report on the findings.

In general, biomedical researchers within a university focus on improving tools and techniques, studying biological processes and the causes and progression of diseases. Private sector labs develop high value products that generate considerable income for the company.

## CLINICAL RESEARCH ASSOCIATE

As a clinical research associate you'll use your experience in running experiments, gathering data and documenting the results during clinical trials. Typical employers for this role include clinical research organisations, pharmaceutical and biotechnology companies and even hospitals and universities. There is growing demand for this role in Australia, as we are one of the leading countries for phase one clinical trials.

## FORENSIC SCIENTIST

Forensic science is the application of scientific techniques to help investigate crimes, accidents and other incidents. It's not always like what you see on your favourite crime investigation TV shows, but can entail tasks such as analysing illicit drugs or suspect situations.

## Real-world opportunities whilst you study

All our pharmaceutical science degrees offer the opportunity to go on placement. Placements are compulsory for single undergraduate degrees and optional for students studying the double degree with Engineering.

They are organised for you by the faculty and are a fantastic way for you to experience pharmaceutical science in the real world, including gaining an understanding of the discipline's breadth. As part of the placement process, you are also able to develop your resume writing, interview and presentation skills.

Below are just a few of the companies we place our students with.

**AlfredHealth**

**ego**™ the science  
of healthy skin™

**Swisse**  
— WELLNESS —

**Dulux**®



## INTERNATIONAL DEVELOPMENT OFFICER

For graduates with a desire to work in the social advancement field, one career path is to work with an International Non-Governmental Organization (INGO), like the World Health Organization (WHO).

With a goal to build a better, healthier future for people all over the world, WHO staff work side by side with governments and other partners to ensure the highest attainable level of health for all people.

## MEDICINAL CHEMIST

Medicinal chemistry is an interdisciplinary science, drawing graduates from a range of different fields. A career in this area usually involves working on the development and testing of potentially therapeutic compounds. This might be within a company that is developing new products, for a research facility exploring new compounds, or at a regulatory agency testing pharmaceuticals for compliance.

## PAINTS AND PROTECTIVE COATINGS SCIENTIST

Not all pharmaceutical science graduates go on to work with products for human consumption. Graduates can find a role working on the development of many of the products we come into daily contact with, such as paints, pigments and protective coatings.

These compounds are present in our living and working spaces, our clothing, our food packaging and many, many other products and environments. We're exposed to them on a regular basis, so manufacturers must study them and be sure that they are safe.

## PATENT ATTORNEY

To be successfully taken to market, new discoveries need to be commercialised and a company's intellectual property protected. That's where a patent attorney comes in.

A patent attorney will typically work for a specialist consultancy, advising a range of clients. A law degree is not required, but patent attorneys do need a deep understanding of relevant legislation, potentially across a number of different countries and regions.

## PHARMACEUTICAL SALESPERSON

The best people for selling the benefits of a product are often those with the deepest understanding of how it works. For complex products developed and manufactured using pharmaceutical or chemical science, there is often a need for sales and marketing representatives able to talk with authority about the science behind the product.

This is a skill many graduates have and for some, sales and marketing can be their next step beyond the lab after working in research and development.

## PRODUCT DEVELOPER/FORMULATION SCIENTIST

Product development scientists work in a variety of industries, including food, biotechnology, pharmaceutical science, and medical device manufacturing. They are typically based in the lab, developing new foods, drugs, and medical technologies or researching and developing ways to enhance existing products.

## QUALITY ASSURANCE (QA) AND QUALITY CONTROL (QC) CHEMIST

These two areas in manufacturing are closely related, but they have important differences. Where QA is about ensuring that development and maintenance processes are adequate in order for a system to meet its objectives, QC is a set of activities designed to evaluate the developed products.

QA is a systems-based career, often focused on designing, implementing and managing new systems for the manufacturing process to ensure their quality.

A QC chemist is responsible for testing the products themselves. They prepare and test samples from all phases of a manufacturing or other handling process, with the goal of determining if the substance meets particular standards or requirements.

## REGULATORY AFFAIRS ASSOCIATE

Regulatory affairs involves ensuring a company and its products meet government regulations. For companies producing new products, it's a crucial discipline. A skilled regulatory affairs associate can be the difference an effective product reaching the market or not. Regulatory professionals are expected to know the ins and outs of the medical regulation, and to understand how changing regulations will impact their industry.

## SKINCARE AND COSMETICS DEVELOPER

Youthful, clear skin is big business, with skin care and cosmetic companies around the world spending millions on researching and developing new products. There are plenty of opportunities in this fast-moving industry, with competing companies striving for the next breakthrough that will give them the edge.

It's not just big name international cosmetic brands that offer employment though. Many smaller companies exist in the field and it's ripe for entrepreneurs.

# INTERNATIONAL ENTRY REQUIREMENTS

	Pharmaceutical Science				Pharmacy		
	Bachelor of Pharmaceutical Science	Bachelor of Pharmaceutical Science Advanced (Honours)	Bachelor of Pharmaceutical Science Advanced Honours (Scholars Program)	Bachelor of Chemical Engineering (Honours) and Bachelor of Pharmaceutical Science	Bachelor of Pharmacy (Honours)	Bachelor of Pharmacy (Honours) and Master of Pharmacy	Bachelor of Pharmacy (Honours) (Scholars Program) and Master of Pharmacy
<b>Duration (years)</b>	3	4	4	5	4	5	5
<b>Monash code</b>	P2001	P3002	P3002	E3008	P3001	P6001	P6001
<b>Location</b>	PA <sup>1</sup>	PA	PA	CL <sup>2</sup>	PA	PA	PA
<b>Intake (semester)</b>	Feb	Feb	Feb	Feb	Feb	Feb	Feb

## ENGLISH REQUIREMENTS AND PREREQUISITES

Our undergraduate courses require you to have prior knowledge in maths and science to prepare you to succeed in your studies.

If you completed an **Australian Year 12 or International Baccalaureate Diploma Programme in or outside Australia**, you're required to meet the below prerequisites. Further information about English requirements can be found at [www.monash.edu/admissions/entry-requirements/english-language](http://www.monash.edu/admissions/entry-requirements/english-language)

<b>English</b>	<p><b>VCE:</b> Units 3 and 4: a study score of at least 25 in English (EAL) or 25 in English other than EAL</p> <p><b>IB:</b> At least 4 in one of the following SL subjects:</p> <ul style="list-style-type: none"> <li>English A: Literature</li> <li>English A: Language and Literature</li> <li>Literature and Performance, OR</li> </ul> <p>At least 3 in one of the following HL subjects:</p> <ul style="list-style-type: none"> <li>English A: Literature</li> <li>English A: Language and Literature, OR</li> </ul> <p>At least 5 in one of the following SL subjects:</p> <ul style="list-style-type: none"> <li>English AB</li> <li>English B, OR</li> </ul> <p>At least 4 in the following HL subject:</p> <ul style="list-style-type: none"> <li>English B</li> </ul> <p><b>Other qualifications:</b> English (Australian Year 12 equivalent)</p> <p><b>English test:</b></p> <ul style="list-style-type: none"> <li>IELTS (Academic): 6.5 overall (no band lower than 6.0) (or equivalent approved English test)</li> </ul>	<p><b>VCE:</b> Units 3 and 4: a study score of at least 25 in English (EAL) or 25 in English other than EAL</p> <p><b>IB:</b> At least 4 in one of the following SL subjects:</p> <ul style="list-style-type: none"> <li>English A: Literature</li> <li>English A: Language and Literature</li> <li>Literature and Performance, OR</li> </ul> <p>At least 3 in one of the following HL subjects:</p> <ul style="list-style-type: none"> <li>English A: Literature</li> <li>English A: Language and Literature, OR</li> </ul> <p>At least 5 in one of the following SL subjects:</p> <ul style="list-style-type: none"> <li>English AB</li> <li>English B, OR</li> </ul> <p>At least 4 in the following HL subject:</p> <ul style="list-style-type: none"> <li>English B</li> </ul> <p><b>Other qualifications:</b> English (Australian Year 12 equivalent)</p> <p><b>English test:</b></p> <ul style="list-style-type: none"> <li>IELTS (Academic): 6.5 overall (no band lower than 6.0) (or equivalent approved English test)</li> </ul>
<b>Chemistry</b>	<p><b>VCE:</b> Units 3 and 4: a study score of at least 25 in Chemistry.</p> <p><b>IB:</b> At least 4 at Standard Level (SL) or 3 at Higher Level (HL) Chemistry</p> <p><b>Other qualifications:</b> Chemistry (Australian Year 12 equivalent).</p>	<p><b>VCE:</b> Units 3 and 4: a study score of at least 25 in Chemistry.</p> <p><b>IB:</b> At least 4 at Standard Level (SL) or 3 at Higher Level (HL) Chemistry</p> <p><b>Other qualifications:</b> Chemistry (Australian Year 12 equivalent).</p>
<b>Mathematics</b>	<p><b>VCE:</b> Units 3 and 4: a study score of at least 25 in one of Mathematical Methods or Specialist Mathematics.</p> <p><b>IB:</b> At least 4 in the following SL subjects:</p> <ul style="list-style-type: none"> <li>Mathematics: Analysis and Approaches, OR</li> </ul> <p>At least 3 in one of the following HL subjects:</p> <ul style="list-style-type: none"> <li>Mathematics: Applications and Interpretations, OR</li> <li>Mathematics: Analysis and Approaches.</li> </ul> <p><b>Other qualifications:</b> Higher level mathematics (Australian Year 12 equivalent).</p>	<p><b>VCE:</b> Units 3 and 4: a study score of at least 25 in one of Mathematical Methods or Specialist Mathematics.</p> <p><b>IB:</b> At least 4 in the following SL subjects:</p> <ul style="list-style-type: none"> <li>Mathematics: Analysis and Approaches, OR</li> </ul> <p>At least 3 in one of the following HL subjects:</p> <ul style="list-style-type: none"> <li>Mathematics: Applications and Interpretations, OR</li> <li>Mathematics: Analysis and Approaches.</li> </ul> <p><b>Other qualifications:</b> Higher level mathematics (Australian Year 12 equivalent).</p>

<sup>1</sup> PA is Parkville campus.

<sup>2</sup> Pharmaceutical Science Subjects will be taught at Parkville campus; engineering subjects will be taught at Clayton campus (CL). See page 18 for details.

	Pharmaceutical Science				Pharmacy		
	Bachelor of Pharmaceutical Science	Bachelor of Pharmaceutical Science Advanced (Honours)	Bachelor of Pharmaceutical Science Advanced Honours (Scholars Program)	Bachelor of Chemical Engineering (Honours) and Bachelor of Pharmaceutical Science	Bachelor of Pharmacy (Honours)	Bachelor of Pharmacy (Honours) and Master of Pharmacy	Bachelor of Pharmacy (Honours) (Scholars Program) and Master of Pharmacy

## ASSUMED KNOWLEDGE

If you have completed a Monash-approved international senior secondary qualification (or higher qualification) with maths and chemistry at the required level, it will be assumed that you have reached the level of knowledge equivalent to the VCE prerequisite required for our courses. To make sure you are fully prepared for your studies, before you start with us, we strongly recommend that you strengthen your knowledge in relevant areas by completing online modules. Find more information at: [monash.edu/study/courses/prerequisite-subjects-and-assumed-knowledge](https://monash.edu/study/courses/prerequisite-subjects-and-assumed-knowledge).

English is a requirement for all our programs. Refer to table on page 22.

QUALIFICATION	ENTRY SCORE						
<b>AUSTRALIA</b>							
ATAR for International Students (Australian Year 12)	82.50	90	97.50	85	90	90	97.50
Monash University Foundation Year	72.50%	75%	85%	76.25%	75%	75%	85%
University of Melbourne Trinity College Foundation Studies	79%	86%	95%	81%	86%	86%	95%
UNSW Foundation Studies	7.75	8.5	9.5	8	8.5	8.5	9.5
<b>GLOBAL</b>							
Advanced Placement	7	8	10	7	8	8	10
GCE A Level	9.5	12	15	10	12	12	15
International Baccalaureate (IB) Diploma	29	33	39	30	33	33	39
SAT (Scholastic Aptitude Test) (Total Score out of 1600)	1220	1290	1420	1240	1290	1290	1420
<b>CANADA</b>							
Ontario Secondary School Diploma – Grade 12, Canada	83.20%	87.90%	92.50%	84.80%	87.90%	87.90%	92.50%
<b>CHINA</b>							
Gaokao (China)	65%	70%	N/A	75%	70%	70%	N/A
<b>HONG KONG</b>							
Hong Kong Diploma of Secondary Education	18	21	25	19	21	21	25
<b>INDIA</b>							
All India Senior School Certificate	78.50%	83%	90%	80%	83%	83%	90%
Indian School Certificate Examination	72.50%	77%	85%	75%	77%	77%	85%
<b>INDONESIA</b>							
SMA3, Indonesia – 100-point scale (60 pass)	80	88	95	81	88	88	95
<b>KOREA, REPUBLIC OF</b>							
College Scholastic Ability Test	330	350	380	340	350	350	380
High School Diploma, Republic of Korea	79%	86%	95%	81%	86%	86%	95%
<b>MALAYSIA</b>							
STPM, Malaysia	8.8	9.7	11	9.1	9.7	9.7	11
UEC, Malaysia	3.8	2.6	1	3.4	2.6	2.6	1
<b>VIETNAM</b>							
High School Diploma, Vietnam	8.35	8.56	9	8.42	8.56	8.56	9

Please check the Monash website for the most up-to-date entry requirements and for information on how to calculate the entry score for listed qualifications.

## GRADUATE ENTRY PHARMACY

An Australian Bachelor degree (or equivalent) in a relevant area (e.g. Biomedical Science or Biomedicine, Health Sciences, Pharmaceutical Sciences or Science) with a minimum 70% average and prior studies in chemistry, mathematics, English and physiology.

Full details: [monash.edu/pharm/future/courses/pharmacy/grad-pharmacy](https://monash.edu/pharm/future/courses/pharmacy/grad-pharmacy)

## MASTER OF PHARMACEUTICAL SCIENCE

An Australian Bachelor's degree (or equivalent) in Pharmacy, Pharmaceutical Science, Biomedical Science, Science or Engineering (in an appropriate discipline, such as Pharmaceutical, Chemical, Biomedical or Materials).

The program has three entry levels (1, 1.5 or 2 years duration) depending on your Bachelor studies and grades. English requirements must also be met. *Note this course is not a pathway to registration as a pharmacist.*

Full details: [monash.edu/pharm/future/courses/master-of-pharmaceutical-science](https://monash.edu/pharm/future/courses/master-of-pharmaceutical-science)

## PATHWAYS

If you don't meet our course requirements at the end of high school, we offer a number of pathway options. You may be able to move into either pharmacy or pharmaceutical science after completing the first year in another degree if you achieve a minimum GPA and meet course requirements. Monash College Foundation Year, is also a popular pathway.

## FOUNDATION YEAR

Monash University Foundation Year is a pre-university program that helps you develop academic and English skills to the level expected of first-year pharmacy and pharmaceutical science students, providing you with an easier transition to Monash University.

Even if you don't have our subject prerequisites of English, Chemistry and Maths to the required standard, these can be made up during Foundation Year. And if you apply and are accepted into Monash College, you'll receive a packaged offer to your preferred destination degree, conditional on achieving certain grades.

Monash University Foundation Year is offered in the following locations: Melbourne city, Indonesia, Malaysia, Sri Lanka, China. January and July intakes are available. [monashcollege.edu.au/study-areas/pharmacy-and-pharmaceutical-sciences](https://monashcollege.edu.au/study-areas/pharmacy-and-pharmaceutical-sciences)

Monash College also offers a number of English courses to help prepare you for your future studies. For further information, [monashcollege.edu.au/courses/english](https://monashcollege.edu.au/courses/english)

CRICOS: Standard 071178G

Intensive 071180C

Extended 072824G

[monashcollege.edu.au/foundation-year](https://monashcollege.edu.au/foundation-year)

## SCHOLARSHIPS AND STUDY GRANTS

Limited study grants are available for commencing international students who live offshore. You will automatically be assessed for a grant when you apply for one of our courses, so it's a good idea to apply early. The grant will be in the form of a fee discount. For more information: [monash.edu/study/fees-scholarships/international-study-grants](https://monash.edu/study/fees-scholarships/international-study-grants)

Additionally, the faculty offers a number of Pharmacy and Pharmaceutical Science International Merit Scholarships for high achieving international students. Again, there is no separate application, you will be automatically considered once you apply for one of our courses.

For more information about all Monash Scholarships, visit:

[monash.edu/study/fees-scholarships/scholarships](https://monash.edu/study/fees-scholarships/scholarships)



## HOW TO APPLY

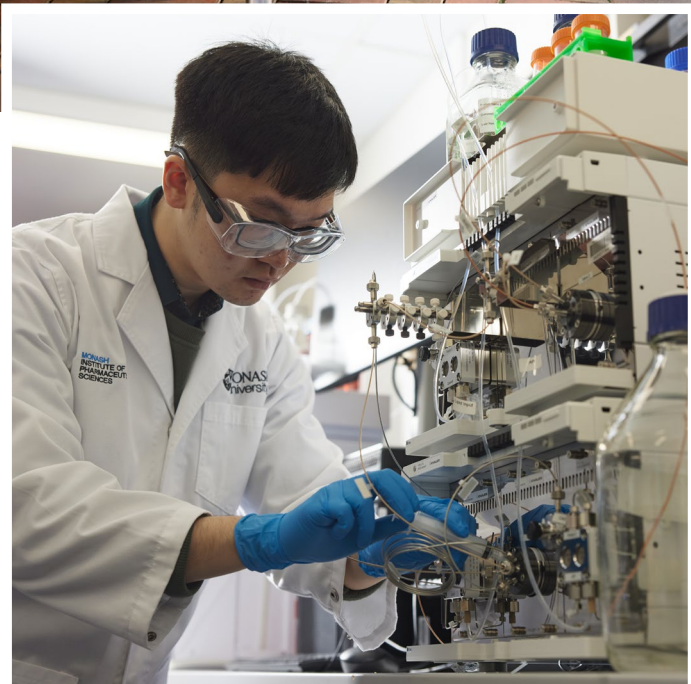
To apply to Monash University, use the step-by-step guide found at [monash.edu/admissions](https://monash.edu/admissions)

If you're applying through a Monash agent, please contact them for assistance. Some agents may charge a fee for additional services, so be sure you understand the fee structure before you make an appointment. Please ensure your agent is an authorised Monash agent by visiting

[monash.edu/study/agents-database](https://monash.edu/study/agents-database)



**IF YOU ARE STILL NOT SURE WHETHER PHARMACY OR PHARMACEUTICAL SCIENCE WOULD SUIT YOU BEST, CHECK OUT OUR VIDEO AND QUIZ.**



## GET TO KNOW US

The faculty offers a number of opportunities for prospective students to engage with us. Attend one of our events, watch a course presentation video or visit us on Open Day to see the campus in action and get a feel for uni life.

[monash.edu/pharm/future/get-to-know-us](https://monash.edu/pharm/future/get-to-know-us)



# #4 IN THE WORLD FOR PHARMACY AND PHARMACOLOGY

QS WORLD UNIVERSITY RANKINGS BY SUBJECT  
2025.

## MONASH PHARMACY AND PHARMACEUTICAL SCIENCES

[monash.edu/pharm](http://monash.edu/pharm)

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