



Curtin University



2020 POSTGRADUATE
COURSE GUIDE

PHARMACY AND BIOMEDICAL SCIENCES

COURSEWORK AND RESEARCH DEGREES

Make tomorrow better.



healthsciences.curtin.edu.au

WELCOME TO CURTIN



Curtin is a vibrant, young university where ideas and cultures combine to create a place of enthusiasm, endeavour and achievement.

When you choose Curtin, you are choosing an innovative, global university with extensive industry connections and campuses in Western Australia, Malaysia, Singapore, Dubai and Mauritius.

You'll learn in technology-rich environments and feel inspired by our high-impact research spanning many areas including astronomy and planetary science, emerging technologies, economics, health, minerals, energy and sustainability.

THE SCHOOL OF PHARMACY AND BIOMEDICAL SCIENCES

We are dedicated to leading the way in local and global innovations in healthcare and biotechnology.

With the support of experienced, dedicated teaching staff and modern facilities, we help aspiring pharmacists and biomedical scientists to develop the right knowledge, skills and attributes to excel in their professional or academic careers.

STUDYING AT POSTGRADUATE LEVEL

A postgraduate degree at Curtin can change your life. It will give you additional knowledge to advance your career, specialise in a particular area or take your career in a promising new direction.

Postgraduate options

Curtin offers postgraduate coursework and research qualifications. A graduate certificate is six months' full-time study; a graduate diploma is one year of full-time study; and a master degree is one-to-three years' full-time study.

A research degree involves independent, original research and completion of a thesis, and may involve up to four years of full-time study.

Convenient and flexible study

Course flexibility enables you to combine your current work commitments with study. Many courses allow domestic students to study full-time, part-time or online.

Financial assistance

You could be eligible to apply for a Curtin scholarship or other support such as FEE-HELP, employer-funded study or income tax deductions.



Ranked in the top one per cent of universities in the world.

(Academic Ranking of World Universities 2018)

Top 10 in Australia

Ranked 10th nationally for Clinical, Pre-Clinical and Health Subjects.

(Times Higher Education World University Rankings by Subject 2019)



Curtin research is ranked at or above world standard in 95 per cent of areas, including inorganic chemistry, medicinal and biomolecular chemistry, macromolecular and material chemistry, and genetics.

(Excellence in Research Australia 2018).

LOOKING FOR A CAREER CHANGE?

Our Graduate Entry Foundation course can help.

This enabling course is for domestic students who want to start a career in health but have a degree in a different field. It enables you to complete prerequisite undergraduate level units for application to our graduate entry master (GEM) courses, such as the Master of Pharmacy.

You may select prerequisite units that you need to become eligible to apply for a postgraduate program. You can study a maximum of four units.

Entry to our GEM courses is competitive and a strong course weighted average is required.

For more information, visit curtin.edu/en-gehlth.

EXPERIENCE PERTH

Located on the beautiful west coast of Australia, Perth is multicultural, prosperous and safe – an ideal destination for students and tourists alike.

AFFORDABLE LIVING

Perth has lower living costs than Sydney, Melbourne, Brisbane and Adelaide¹.

TRANSPORT

The metropolitan area is serviced with an extensive road network and easy-to-use public transport.

SHOPPING AND CULTURE

Perth is home to Elizabeth Quay, Forrest Place, Murray Street Mall and numerous galleries. Close to Perth, the port city of Fremantle is a great place to learn about WA history.

FOOD AND DRINK

Cafés and restaurants offer a variety of global cuisine. You can try the best of WA produce at Yagan Square; and find wineries, cheese shops and chocolate factories in the Swan Valley, WA's oldest wine region.

ENTERTAINMENT

Perth hosts numerous domestic and international sports competitions, music concerts and festivals throughout the year.

NATURE AND WILDLIFE

There are many magnificent parks and gardens in and around Perth. Kings Park, which is larger than New York's Central Park, showcases more than 3,000 species of WA's unique flora. Caversham Wildlife Park has many Australian animals, including kangaroos you can handfeed.

AQUATIC AND COASTAL

Perth's coast features breath-taking beaches and scenery. Don't forget to visit Rottnest Island – a famous holiday destination near Perth that is home to the friendly quokka.

¹. Economist Intelligence Unit Worldwide Cost of Living Survey 2018.

PERTH WEATHER

Perth has a Mediterranean climate



	High / Low (°C)
Summer (December to February)	30° / 17.5°
Autumn (March to May)	26° / 13.7°
Winter (June to August)	19° / 8°
Spring (September to November)	23° / 11.7°

source: australia.com

PERTH TIMEZONE



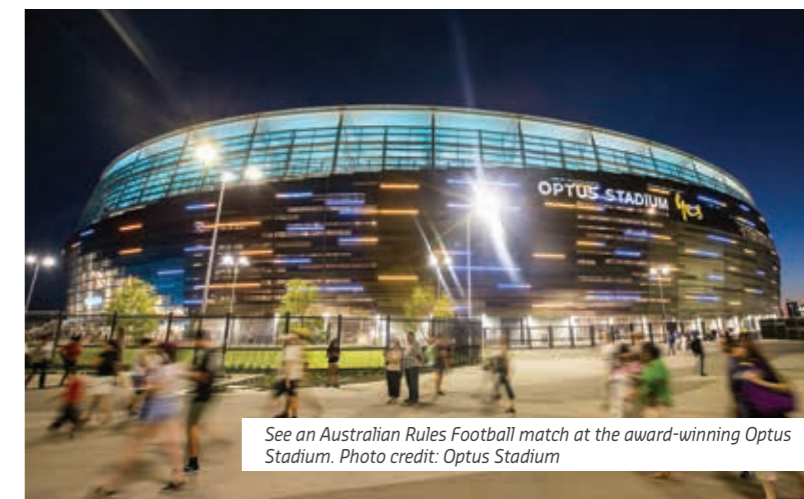
Perth GMT+8



Explore Perth Fringe World Festival in the summertime.



Head to Rottnest Island and take a #quokkaselfie.



See an Australian Rules Football match at the award-winning Optus Stadium. Photo credit: Optus Stadium

GET THE CURTIN EDGE



Curtin ensures you gain the knowledge and skills required to get ahead in today's changing workplace.

WORK-INTEGRATED LEARNING

Pharmacy students can practise and develop knowledge and skills learned in class by undertaking a professional placement. You will work alongside professionals from diverse disciplines, developing your practical, interprofessional and leadership abilities.

CAREER SUPPORT

Curtin Careers, Employment and Leadership can help you find part-time work in Perth to support you while you're studying. We also offer career planning services to identify further study or career options, while our Global Careers service can connect you with employers around the world.

careers.curtin.edu.au

FACILITIES

Modern learning environments recreate real workplaces that enhance your studies.

Model Pharmacy

As a pharmacy student, you will be able to train in our model pharmacy dispensary, the only one of its kind in Western Australia. You will learn how to dispense medications using simulated prescriptions, work closely with the community to address their medication or health needs, manage stock and understand risk management procedures of dispensing medications.

You will also have access to a manufacturing laboratory, asepsis suite and contemporary compounding facilities.

Take a virtual tour:
curtin.edu/pharm-biomed-facilities.

Laboratories

Theoretical learning is reinforced through simulation-based laboratory training. Using modern equipment and information technology hardware, you will practice contemporary methods in wet laboratories and computer suites under supervision.

CAMPUS LIFE



The Perth campus is located just six kilometres from the city centre. Through our 20-year master plan, we're transforming the campus into a contemporary cultural precinct that brings together higher education, business, technology, the arts and recreation.

LIVING ON CAMPUS

We offer more than 1,000 places to stay at our Perth campus. You'll enjoy comfortable and tidy single or shared accommodation, free wi-fi, parking and an off-peak gym membership at Curtin Stadium.

Rooms are fully furnished and there are plenty of recreation facilities and support services, plus you're in easy walking distance of your classes, the library, shopping centre, gym and public transport. You can also participate in a range of weekly activities and social events.

curtin.edu/housing

COURSE ADVICE

Our Curtin Connect staff provide advice on courses, applications, enrolment, getting your ID card and organising your course timetable.

WELLBEING SERVICES

There is a range of confidential wellbeing services if you ever need help or advice, or you're unsure where to find the support you need.

You can also consult a doctor, physiotherapist, counsellor and other health professionals at our campus-based medical centre and health and wellness clinics.

curtin.edu/personalsupport

CHILDCARE AND SCHOOLING

The Curtin University Early Childhood Centre is a popular on-campus childcare facility for children under the age of five. We strongly recommend you apply for a place for your child as early as possible.

curtin.edu/earlychildhoodcentre

Subsidised schooling

If you're an international student and have school-aged children, your children may be eligible to access government schooling at the same subsidised fee levels that apply to local students.

curtin.edu/familyfriendly

SECURITY AND PERSONAL SAFETY

Curtin provides a range of safety resources including swipe-card building access, 24/7 security patrols, well-lit pathways, after-hours security escort, a campus courtesy bus, emergency telephone stations and the SafeZone security app.

curtin.edu/safety




Curtin housing



24-hour security patrols

MASTER OF MOLECULAR MEDICINE

 International students accepted. Refer to inside back cover for details.



Molecular medicine is a rapidly growing field of science with increasing global application in everyday life.

It affects individuals and society in many ways, from the development of new medicines and drugs, to the creation and delivery of diagnostic technologies, and progression towards revolutionary clinical therapies.

You will learn the latest knowledge and technologies in diagnosis, epidemiology, microbiology, biotechnology and data analysis. Your studies will be complemented with hands-on laboratory work through a laboratory masterclass and individual research projects.

Your professional and personal development will be encouraged through active learning, and you will apply and test the knowledge you have gained through information gathering and analysis.

You can improve your research capabilities and technical skills through laboratory workshops, research projects, report writing and professional oral presentations.

ADMISSION CRITERIA

- A bachelor degree in a biomedical/life science-based discipline or equivalent, with a minimum course-weighted average of 65 per cent
- Meet Curtin's English language proficiency requirements.

CAREER SPECIALISATIONS

- Biotechnologist
- Forensic scientist
- Genetic technologist
- Molecular biologist
- Science educator

INDUSTRIES

- Bioinformatics
- Drug and pharmaceutical
- Education and research

THE FUTURE OF MOLECULAR MEDICINE

Personalised medicine is now a reality, and advanced biomolecular technologies and data analysis will continue to improve our understanding of the biology of diseases of infectious, immune and neoplastic origins.

The revolution in cancer therapeutics is built on predictive and diagnostic biomarkers identified in gene expression profiles and bioinformatics. Big data that can be mined for information is key to unravelling novel improvements in cancer prevention, diagnosis, therapy and prognosis.

MASTER OF MOLECULAR MEDICINE

COURSE ESSENTIALS

CRICOS CODE 098136G

DURATION 2 years full-time

COURSE CODE MC-MOLMED

STUDY MODE Full-time, part-time

INTAKE February

LOCATION Perth


PROFESSIONAL RECOGNITION

Graduates are eligible for membership of the Australian Biotechnology Association and equivalent industry organisations internationally.



For more information visit curtin.edu/master-molmed

MASTER OF PHARMACY

 International students accepted. Refer to inside back cover for details.



This graduate-entry master course enables science graduates to become pre-registered pharmacists. It provides a comprehensive theoretical base in chemical, biological, physiological, pharmaceutical and pharmacotherapeutics studies.

You will complete two semesters each year and an additional study period each summer. The first study period is an intensive six-week training program involving continuous assessment. In this period, you'll be introduced to important concepts in pharmaceutical chemistry and pharmacy practice.

The remainder of your first year will focus on pharmaceutical science, pharmaceutical biology, pharmacology, therapeutics, pharmacy practice, and research skills development. At the start of your second year, you'll complete a community pharmacy placement under the supervision of a practising pharmacist to develop your skills in the clinical setting.

In your second year, you'll continue to focus on pharmacology and therapeutics, and further develop your research skills. You'll also complete a hospital placement to refine your practical abilities.

ADMISSION CRITERIA

- A recognised bachelor degree with a history of above-average grades and evidence of the following five prerequisites:
 - mathematics (advanced mathematics at senior secondary school level is also acceptable) or physics
 - statistics or research methods with evidence of a statistics component or epidemiology
 - chemistry
 - biochemistry
 - physiology or pathophysiology or a related discipline

- Meet Curtin's English language proficiency requirements.

Additional requirements

You will be required to provide supplementary information with your application. For more information, visit curtin.edu/hs-admission-requirements.

You will need to undergo health and criminal screenings before commencing any external placement, practicum or fieldwork. For more information on screenings, see page 7.

PROFESSIONAL RECOGNITION

This course is accredited by the Australian Pharmacy Council.

To practise as a pharmacist in Australia, upon graduation you must complete 12 months of supervised practice and pass the Pharmacy Board of Australia's registration examination to become a registered pharmacist.

Registered pharmacists are able to practice in all states and territories in Australia.

This course also provides a pathway to registration in New Zealand, the UK and the Republic of Ireland. Some countries may require you to complete additional practical training programs.

MASTER OF PHARMACY

COURSE ESSENTIALS

CRICOS CODE 068621J

DURATION 2 years full-time

COURSE CODE MG-PHARM

STUDY MODE Full-time

INTAKE January

LOCATION Perth

This course has an earlier application deadline: curtin.edu/hs-application-deadlines.

THE FUTURE OF PHARMACY

The pharmacy sector is undergoing radical change, driven by the need for pharmacists to be an integral part of health outcomes and delivery. To release the pressure on hospitals and general practices, pharmacies increasingly will become 'ports of call' for the community, with pharmacists providing expert health advice and directly overseeing patients' medicinal needs. In the research space, advances in gene therapy will provide new possibilities for individualised treatment and disease prevention.

CAREER SPECIALISATIONS

- Community pharmacist
- Consultant pharmacist
- Hospital pharmacist
- Industrial pharmacist
- Health policy advisor
- Researcher



For more information visit curtin.edu/master-pharm

RESEARCH DEGREES



Our research degrees enable you to conduct independent, original research under the supervision of a senior academic. You'll be supported through the University's facilities and industry partnerships, helping you turn your discoveries into real-world outcomes.

The following overarching research degrees encompass many specialist subjects:

- Doctor of Philosophy
- Master of Philosophy
- Master of Research.

Find a supervisor at research.curtin.edu.au.

Alternatively, contact our Graduate Research School for more information:

Tel: +61 8 9266 3337

Email: GRS.FutureStudents@curtin.edu.au

Web: curtin.edu/postgrad-research

OUR RESEARCH FOCUS

The School of Pharmacy and Biomedical Sciences is committed to research excellence and innovation through collaboration with other research institutions, the pharmaceutical and biotechnology industries, healthcare providers and government.

Examples of our research areas of focus include:

Biomolecular interactions

Simulation and experimental biophysical approaches to studying the structure, function and interactions of biomolecules of importance in health and disease mechanisms.

Cancer

Translational approaches for pancreatic cancer, melanomas, the cancer-promoting immune cells, macrophages, and cancer recurrence, chemo-resistance and metastatic disease.

Immunology

Viral immunology, tumour immunology, cytokines, chemokines and inflammation, haemostasis and inflammation and muscle regeneration.

Metabolic disorders

Molecular and cellular mechanisms underlying diabetes and fatty liver disease and development of novel therapies.

Microbiology

Molecular approaches spanning medical microbiology, and environmental and industrial microbiology.

Neuroscience

Mechanisms of diseases and progression in neurodegenerative diseases, such as Alzheimer's.

Pharmacology and pharmaceutical biology

Experimental cancer therapeutics, pharmacokinetics and pharmacodynamic, infections and immunity, pharmacology of drug transport proteins, and biometals.

Pharmaceutical science and medicinal chemistry

Synthetic medicinal chemistry, drug discovery and development, peptide and nano drug delivery.

Professional pharmacy practice

Pharmacy education, quality use of medicines, drug safety, professional services in pharmacies, and technologies in health.

NEW STUDY GIVES INSIGHT INTO ALZHEIMER'S AND DIABETES LINK

Alzheimer's disease and diabetes are chronic conditions that impact the health of thousands of Australians. Diabetes is a major risk factor for the early development of Alzheimer's disease.

Curtin researchers – Associate Professor Giuseppe Verdile, Dr Kevin Keane, Professor Erik Helmerhorst and Professor Phillip Newsholme – are exploring commonalities between diabetes and Alzheimer's disease, including the presence of insulin resistance in the brains of Alzheimer's patients.

"We determined that increases in insulin resistance are associated with reductions in cognitive performance and verbal memory. It is also associated with an increase in abnormal tau, a molecule that causes neuronal death," says Verdile.

"We now need to determine the time points when type 2 diabetes impacts the progression of Alzheimer's disease."

Once this is done, the researchers hope to exploit the link between the diseases to reduce the severity of their harmful effects.

"We know the pathology of Alzheimer's disease can start up to two decades before symptom onset," says Dr Keane.

"If we learn more about the mechanisms of type 2 diabetes, and its link to Alzheimer's, then we could intervene early, prevent the chance of patients developing type 2 diabetes and hopefully reduce the incidence of patients developing Alzheimer's later in life."

curtin.edu/hs-research

SCREENING AND REGISTRATION



Before applying for a health sciences course, you should be aware that some additional screening may be required.

CRIMINAL RECORD SCREENING

Many of our health sciences courses require you to undertake external placements, clinical practice or fieldwork involving contact with the public. External agencies, such as government departments, non-government agencies and hospitals may require you to obtain a criminal record screening prior to undertaking any external placement, practicum or fieldwork. Please note that external agencies can vary their requirements without notice and may not always advise Curtin of these changes.

A criminal record screening may not necessarily preclude you from participating in any of the above. However, serious crimes of a violent or sexual nature, where the victim was under 18 years of age or elderly, involving fraud or the dealing or trafficking of drugs; or any offence that resulted in a jail sentence, may render a person unsuitable for employment and/or provision of services to clients.

If you apply for a clearance and have a conviction relating to offences of a violent or sexual nature, or where the victim was under 18 years of age or elderly, this information will be placed on a national database and made available to other authorities.

Full details about obtaining the relevant criminal record screening will be provided upon your enrolment or as part of your Curtin offer.

curtin.edu/healthscreening

CLINICAL HEALTH SCIENCES SCREENING

If you are enrolled in a course that includes supervised practice (including research) in a clinical setting, you are required to undergo screening for and vaccination against a range of infectious diseases before beginning your placement.

If you test positive to a blood-borne virus, you are advised to contact your course coordinator for career advice. You may also need to complete other requirements at your own cost, such as senior first aid training.

For specific details relating to these requirements, visit curtin.edu/healthfieldwork.

WORKING WITH CHILDREN

The *Working with Children (Criminal Record Checking) Act 2004* aims to protect children from harm by introducing a high standard of compulsory national criminal record checking for people working with children in Western Australia.

As a health sciences student, you may be required to work with children between the ages of zero and 17 as part of your practicum. In such cases, you will need to have a Working with Children Check. Your course coordinator will advise you when you need to obtain this check.

workingwithchildren.wa.gov.au

STUDENT REGISTRATION

The following courses, which lead to registration as a health professional, require Curtin to register students with the Australian Health Practitioner Regulation Agency (AHPRA):

- Doctor of Physiotherapy
- Graduate Diploma in Midwifery
- Master of Occupational Therapy
- Master of Pharmacy
- Master of Nursing Practice.

Under national law, it is a requirement that Curtin notifies AHPRA if it believes a student may place members of the public at risk as a result of a health impairment or criminal history. Curtin or its staff may also make a voluntary notification if a student has been charged, convicted or found guilty of an offence punishable by an imprisonment of 12 months, or contravened a condition of their student registration. Students who have impairments or a criminal record that has resulted in imprisonment are required to self-report to AHPRA.

ahpra.gov.au

SCHOLARSHIPS AND FEES



SCHOLARSHIPS

You may be eligible for a scholarship to support your study. Sign up to the scholarships email alert to make sure you don't miss an opportunity. scholarships.curtin.edu.au

FEES

Tuition fees

Tuition fees are calculated on a semester basis. Fees are subject to annual increase and are calculated according to the credit points within a course. Indicative course fees for the 2020 commencement year are available from September 2019.

fees.curtin.edu.au/course_fees.cfm

Student Services and Amenities Fee

The Student Services and Amenities Fee (SSAF) is used for supporting a comprehensive range of non-academic services and amenities. SSAF does not apply to international students.

fees.curtin.edu.au/amenities.cfm

FINANCIAL ASSISTANCE

Postgraduate study is an investment in your future. If you are concerned that you cannot afford postgraduate study, there are several options for financial assistance you can explore.

Employer-paid study

Your employer may help you with the cost of postgraduate study. Many organisations have employee-education policies designed to share the costs of education that is mutually beneficial.

FEE-HELP

If you are an Australian citizen or a New Zealand Special Category Visa holder or a permanent humanitarian visa, you may be eligible for the Australian Government's FEE-HELP loan for all or part of your tuition fees.

curtin.edu/fee-help

Tax benefits

If there is a direct connection between your postgraduate course and your current employment, you may be entitled to an income tax deduction for tuition fees and expenses.

ato.gov.au

APPLYING TO CURTIN



STUDY OPTIONS

Curtin offers flexible study options to help you manage work and family commitments. You can study full-time, part-time or online*, subject to availability.

To study full-time, you must enrol in three or four units per semester (75 or 100 credits), while part-time study involves as few as one or two units (25 or 50 credits) per semester.

If you study online, you will complete the same coursework and assessments as students who study on campus.

*International students studying in Australia on a student visa must study full-time and on campus.

APPLYING AS A DOMESTIC STUDENT

You are a domestic applicant if:

- you are an Australian citizen, Australian dual citizen or New Zealand citizen, or
- you are a permanent resident of Australia, or
- you hold an Australian permanent humanitarian visa.

curtin.edu/pg-apply

Course content

Note that some course units are common to undergraduate and postgraduate courses and classes may therefore include undergraduate and postgraduate attendees

This publication is available in alternative format on request.

Disclaimer

Information in this publication is correct at the time of printing but is subject to change.

Curtin University reserves the right to change the content and/or method of assessment, to alter tuition fees of any unit of study, to withdraw any unit of study or program that it offers, to impose limitations on enrolment in any unit or program and to vary arrangements for any program. For the latest information about courses and fees, visit study.curtin.edu.au.

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APPLYING AS AN INTERNATIONAL STUDENT

You are an international applicant if:

- you are not a citizen of Australia and New Zealand, or
- you are not a permanent resident of Australia, or
- you are required to hold a student visa to study in Australia.

curtin.edu/int-apply

PREVIOUS LEARNING

You may have undertaken previous study or work experience that matches the knowledge required for some of your Curtin course units. If so, we encourage you to also apply for credit for recognised learning (CRL), which exempts you from having to study certain course units. Getting CRL means you could finish your degree in less time.

curtin.edu/pg-crl

ENGLISH LANGUAGE PROFICIENCY

The admission criteria of all Curtin postgraduate courses include English language proficiency. Some courses have specific and higher English requirements than others.

curtin.edu/english-proficiency

Curtin English

Completing a program at our Curtin English language centre will help you meet the English language proficiency. If you receive an offer to study at Curtin but don't meet the English requirement, you may qualify for a free 10-week program.

english.curtin.edu.au

International students

Some information in this publication may not apply to international students. International students studying in Australia on a student visa must study full-time and satisfy specific entry requirements. Australian citizens, permanent residents and international students studying outside Australia may have the choice of full-time, part-time and external study, depending on course availability and in-country requirements. Refer to international.curtin.edu.au for further information.

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