

## Domestic Undergraduate

### Course Guide 2023

## Welcome to our community



Professor Amit Chakma Vice-Chancellor

We're delighted you are considering embarking on the next stage of your education journey with us.

Our role is to give you the knowledge and skills so that you can achieve your goals - whatever they may be. Our courses will equip you for success in an increasingly globalised world, where knowledge is the universal currency.

We offer an experience-rich curriculum, which in partnership with industry we continue to evolve to suit employer demands, ensuring that we can propel you into the workplace, ready to change the world. Whether studying remotely or on campus, all our students are equal and valued members of our diverse community.

UWA is an inclusive and multicultural community that embraces and values a diversity of backgrounds.

You'll find your time here thoughtprovoking and stimulating, and when you leave UWA you'll have made lifelong friends, precious memories, and have a sense of purpose and enquiry that will empower you to make a difference.

We look forward to you joining our community and supporting you in shaping your future career goals.



## Course Guide 2023 | uwa.edu.au/study

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By choosing UWA you're not just choosing a world top 100 university and a globally recognised degree, you're also choosing to live in a city that's the perfect base for study – and for launching your career when you graduate.

#### Perth's accessible

Perth shares a time zone with about 60 per cent of the world's population (plus or minus two hours) meaning businesses, research projects and other enterprises based here have better access to huge global resources and markets.

#### Perth's affordable

 It's one of Australia's most affordable capital cities – more affordable than Melbourne, Sydney or Brisbane

#### Perth offers a great lifestyle

- It's ranked 6th most liveable city in the world
- It has more than eight hours of sunshine per day with good to very good air quality all year round
- Perth City is just 20 minutes from beaches, national parks and beautiful countryside
- A thriving arts and culture scene, with Australia's premier multi-arts festival, and the third-largest Fringe Festival in the world

#### Perth's a hub of industry and innovation

- It's home to corporate HQs of more than 30 per cent of businesses on the Australian Stock Exchange and six of the world's top 10 energy companies
- Perth-based startups receive twice the national average of angel investment
- It has the 4th highest concentration of engineers in the world per capita
- It's home to the largest medical treatment, research and education centre in the Southern Hemisphere



Our industry connections, innovative courses, commitment to our student experience and high-impact research place us as a world top 100 university – the only one in WA.

#### #1 IN WA FOR GRADUATE EMPLOYABILITY

(QS GRADUATE EMPLOYABILITY RANKING 2022)

#### MORE THAN 4,500 GLOBAL INDUSTRY PARTNERSHIPS

#### AWARD-WINNING TEACHERS

(AUSTRALIAN AWARDS FOR UNIVERSITY TEACHING 2020)

#### **FIVE STARS FOR**

- TEACHING QUALITY
- STUDENT DEMAND
- STUDENT:TEACHER RATIO

(GOOD UNIVERSITIES GUIDE 2021)

#### RANKED IN THE WORLD'S TOP 100 UNIVERSITIES

(96<sup>TH</sup> IN ARWU 2021 AND 92<sup>ND</sup> IN QS 2021)





#### Ranked in the world's top 50 for

- Anatomy and Physiology
- · Civil and Structural Engineering
- Earth and Marine Sciences
- Geology
- · Geophysics
- · Mineral and Mining Engineering
- Psychology
- Sports-related Subjects
   (QS WUR BY SUBJECT 2021)
- Agricultural Sciences
- Biological Sciences
- Clinical Medicine
- · Earth Sciences
- Ecology
- Environmental Science and Engineering
- Human Biological Sciences
- Marine/Ocean Engineering
- Mining and Mineral Engineering
- Oceanography
- Water Resources

(ARWU 2021)

## Get career-ready with a UWA degree

WA's #1 university for graduate employability\* will help you successfully navigate your career journey

Getting a job at the end of your degree will likely be your top priority. At UWA, we've made it our top priority too, offering a wide range of degrees and programs to help you stand out in the job market and increase your employability. All our degrees include the option to take internships or Work Integrated Learning units, and, along with mentoring and volunteering opportunities, these can enhance your standing in your future employers' eyes.





#### Career and Employability Award

Practical real-world experiences, skills and knowledge to guide you on an enriching career journey.



#### **UWA Innovation Academy**

Work with real companies to tackle the biggest challenges facing business, governments and society today.



#### Practicums and field trips

Practical units with workplace and fieldwork placements across WA, Australia and even overseas.



#### McCusker Centre for Citizenship

An award-winning internship program, making a difference in our communities locally, nationally and globally.



#### Jobs board

Job listings and alerts from a wide range of employers for full-time and part-time positions, internships, scholarships, volunteering and more.



#### Work Integrated Learning (WIL)

Gain industry knowledge, develop career-ready skills, and network with industry professionals as part of your course or as a co-curricular activity.



#### Volunteering

Make an impact and get involved, developing skills and experience that stand out on your résumé and final transcript.



#### World-class learning

Learn at the cutting-edge of knowledge from passionate and inspirational academics with real industry experience and connections.



#### **Bloom WA**

A creative lab to turn your big business or community ideas into a startup, all credited towards your degree.





#### Career Mentor Link

Be matched with professionals and get insider industry knowledge from people with real career experience.



#### **Careers Centre**

Understand and engage with your chosen industry, enhance your employability skills, find work and internships, and nail your résumé and interview.



#### More than 160 student clubs and societies

Attend social, professional-development and networking events, and take on leadership and management roles to develop your skills.

From the day you arrive at UWA to after you've graduated, we're here to provide all the help and guidance you need. Our academic staff, career advisers and industry experts combine their collective wisdom to help identify opportunities specific to you. With their resources – and your resolve – you can begin to create a robust plan to get set for your future career.

#### **REAL-WORLD EXPERIENCE**

We'll get you moving in the right direction, helping you gain tangible and hands-on experience in your chosen area, and ensuring you hit the ground running with future-based skills that will make you stand out from the competition.

#### **NETWORKING**

"It's not just what you know, it's who you know."

It may be an old saying, but it's as relevant today as ever before. At UWA, we can facilitate access to a network of like-minded and professional contacts from across the world. And by leveraging our extensive industry connections, you'll get more than just a foot in the door.

To find out more about how we can prepare you for your dream career, from first job to long-term goals, visit

uwa.edu.au/graduate-career-ready

Explore your options



Specialise in one area or create a degree that combines your interests. Whatever career you seek, you'll find a degree that fits.

UWA's experience-rich curriculum and global network prepares you for the ever-changing world outside your degree. You'll gain industry connections even before you graduate, and kick-start a successful career.

Our dedicated team can help find the best option for you.

#### Undergraduate degree types

Seeking your first university degree? Our undergraduate courses allow you to start your journey to a fulfilling career.

#### Comprehensive degrees

Design your own course with our comprehensive bachelor's degrees.

Choose one or two majors from a wide range, then add electives and/or a minor to suit your interests and career goals. Explore your interests with the flexibility to change your mind - choose your major(s) when you enrol and if you'd like to change during your degree you can.

#### Specialised degrees

Prepare for your dream career with a specialised bachelor's degree.

You'll take an extended major with a carefully designed study plan to give you in-depth knowledge of your chosen career or profession. You can complement this with a minor or electives from almost any study area.

#### Combined bachelor's degrees

Pursue your passions and maximise your career options with our combined bachelor's degrees.

You'll complete two bachelor's degrees - one comprehensive (where you'll choose a major from a wide range of options) and one specialised (where you'll take a defined study plan).

#### Honours

Improve your career prospects or take a path to further study with an honours course.

Honours is a one-year program you can apply for after completing your bachelor's degree with strong academic performance in your major. An honours year includes advanced coursework and a major research or creative project.

We also offer some integrated honours courses. These four-year courses also include advanced coursework and a major research or creative project in your final year.

#### What makes up my undergraduate degree?

A bachelor's degree is made up of several parts.

#### **Majors**

You'll take at least one major – a sequence of units that will give you in-depth knowledge in your chosen degree. We offer a wide range of majors (which typically make up at least one-third of your course) and extended majors (up to two-thirds of your course) within our bachelor's degrees. Depending on the course, you may be able to take more than one major.

#### Minors

You also have the option to choose a minor (or two, depending on your course structure). Minors are shorter sequences of four units that allow you to gain knowledge in an area that may complement your major(s), suit your career goals or simply be of personal interest.

#### Other units

The rest of your study plan will be filled by different kinds of units (depending on your chosen course and major[s]).

- Foundational units: Required units (in certain courses) that give you broad grounding and key skills in your chosen degree area, irrespective of your choice of major(s).
- Bridging units: If you don't have the required ATAR subject or equivalent for your chosen major, you can take these additional units in your first year as part of the major.
- Elective units: Elective units provide you with the opportunity to explore a range of interests and new disciplines. If you have space for elective units you can choose (almost!) anything you like to expand your knowledge in a new field, provided that you meet the unit rules.



#### Postgraduate pathways

Prepare to enter your ideal career with our packaged undergraduate and postgraduate degrees. You'll gain the knowledge and networks you need for success.

#### **Assured Pathways**

Our Assured Pathways, formerly known as Direct Pathways, give you a guaranteed place in one of our high-demand postgraduate courses at the start of your studies. Your place is guaranteed on the basis of your high school performance or equivalent (subject to satisfactory performance in your bachelor's degree).

This provides you with clear progression towards a postgraduate qualification and, in some cases, the chance for faster completion of your postgraduate degree.

#### Combined bachelor's and master's degrees

Take the express path to your postgraduate qualification with our combined bachelor's and master's degrees (CBM).

You'll start advanced postgraduate-level studies in the third year of your bachelor's degree and complete two degrees in just four years so you can enter your dream career sooner.

If you don't achieve the ATAR (or equivalent) required to secure your place in one of our postgraduate pathways, you can always apply for your chosen postgraduate degree after you have completed your bachelor's degree.

For more information, visit uwa.edu.au/study/our-courses-explained

### Choosing what to study

UWA offers a wide range of courses in 12 broad areas of study. Perhaps you already have a subject you're passionate about and that matches your career plans, or maybe you're still deciding – here are some ideas to help you choose the best course for you and your career goals.

I'M INTERESTED IN	I'D LIKE A CAREER IN	STUDY AREAS TO EXPLORE	
Exploring environmental issues, food security and sustainability	<ul> <li>Agriculture</li> <li>Biotechnology</li> <li>Conservation (Wildlife and Environmental)</li> <li>Environmental Management</li> <li>Natural Resource Management</li> <li>Policy</li> </ul>	Agriculture, Environmental and Biological Sciences Advances in technology and science are transforming our world at an incredible pace. Join us and tackle global, regional and local issues to make the world a better place.	
Creating sustainable built environments	<ul><li>Architecture</li><li>Landscape Design</li><li>Urban Design</li><li>Environmental Planning</li><li>Regional Planning</li></ul>	Architecture, Design and Planning Be part of a collaboration of creative and strategic thinkers who come together to push the boundaries of knowledge, culture, habitats and landscapes.	
Becoming an entrepreneur, launching businesses and fostering innovation	<ul> <li>Accounting</li> <li>Business</li> <li>Economics</li> <li>Marketing</li> <li>Human Resources</li> <li>Management</li> <li>Finance</li> </ul>	Business and Commerce Develop your business acumen, grow expertise knowledge and manage business case studies, internships and real world projects to prepare you for a fulfilling career in business, government or not-for-profit sectors.	
Fighting for social justice, and improving access to legal services	<ul><li>Law</li><li>Legal Practice</li><li>Policy</li><li>Criminology</li></ul>	Law Join a world-class law school that uses innovative teaching methods to nurture the knowledge, expertise and skills needed for a broad array of diverse careers, nationally and internationally, in the legal profession and across other sectors.	
Cybersecurity, making and breaking technology, and society's interaction with the digital world	<ul> <li>Cybersecurity</li> <li>Data Science</li> <li>Artificial Intelligence</li> <li>Automation</li> <li>App and Tech Development</li> </ul>	Data and Computer Science Drive businesses forward, shape societies and find solutions to big challenges through data and technology.	
Shaping the future of children through teaching and lifelong learning	<ul><li>Teaching</li><li>Education</li><li>Corporate Training</li></ul>	Education  Help young people achieve their full potential. Join a university at the forefront of teacher education and ignite your passion to educate and inspire a love of learning in others.	

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uwa.edu.au/study

I'M INTERESTED IN	I'D LIKE A CAREER IN	STUDY AREAS TO EXPLORE	
Thinking outside the box and finding solutions to complex challenges	Engineering (Automation and Robotics, Biomedical, Chemical, Civil, Electrical and Electronic, Environmental, Mechanical, Mining, Software)	Engineering Are you keen to tackle global challenges through engineering innovation? Embark on an engineering pathway and gain the skills needed to meet future global needs - from creating some of the world's biggest buildings to designing minuscule electronic devices to make a large impact.	
Understanding global pandemics, solving complex problems and finding cures for disease	<ul><li>Medical Research</li><li>Biotechnology</li></ul>	Health and Biomedical Sciences If you want to advance the health and wellbeing of communities, join WA's top university for Clinical Medicine (ARWU	
Caring for people and improving the health of individuals and communities	<ul> <li>Health</li> <li>Medicine</li> <li>Exercise Rehabilitation</li> <li>Pharmacy</li> <li>Public Health</li> <li>Nutrition</li> <li>Sports Management</li> </ul>	2020). Or if you're passionate about biomedical sciences, you can join us in delivering knowledge and discoveries to guarantee our healthy futures.	
Understanding the mind and human behaviour	Psychology	Psychology Seek to answer questions about how and why people behave the way they do by developing a scientific understanding of human thoughts and behaviours.	
Travel, learning new languages, and cultural studies	<ul><li>Politics</li><li>Teaching</li><li>Communications</li><li>Foreign Affairs</li><li>Policy</li></ul>	Humanities and Social Sciences Power lifelong career success in any field, with transferable skills in critical thinking, communicating and influencing.	
Creating ideas, content, music or art	<ul><li>Music</li><li>Art</li><li>Teaching</li></ul>	Music and Fine Arts Learn from leading arts professionals and release your full creative potential.	
The abstract science of numbers and the natural phenomena of the Earth and all its processes and components	<ul> <li>Data Scientist</li> <li>Physicist</li> <li>Statistician</li> <li>Aerospace and Defence</li> <li>Nanotechnology</li> <li>Chemistry</li> <li>Mining</li> <li>Petroleum</li> </ul>	Physical Sciences and Mathematics If you're a natural problem-solver, develop your skills to tackle the fast- paced challenges in today's world and prepare yourself for an interesting and rewarding career in a growing space.	

#### COMPREHENSIVE DEGREE

## Bachelor of Philosophy (Honours)

Minimum ATAR 98 or equivalent

STAT Not applicable

Intake month February

Completion 4 years full time or part-time equivalent



This innovative and inspiring course for high-achieving students offers an individually designed program in your chosen area of specialisation. You can choose any major and will also receive intensive research training, academic mentoring, and professional skills development; have the opportunity to learn a language and study abroad; and attend an on-campus residential experience.

#### Career opportunities

Graduates of this course have a wealth of career opportunities. Many choose to pursue postgraduate research or courses leading to professional qualifications such as Engineering, Medicine, Dentistry or Law – whatever you choose, you'll be highly employable on graduation. Recent graduates have taken jobs in top-tier consulting companies, as engineers and analysts with companies such as Woodside and Rio Tinto, in investment banking, at the Reserve Bank, and in graduate programs with government departments such as the Department of Finance, Department of Premier and Cabinet, and the Productivity Commission.

#### Why study this degree at UWA

- You'll have access to individual mentoring from leading researchers and a network of talented alumni
- The research training embedded throughout the course will ensure you develop high-level skills to address global challenges in your chosen field
- You'll expand your international connections and crosscultural knowledge through a scholarship-supported study abroad experience

#### You'll learn to

- identify and solve complex problems
- independently manage and lead projects
- communicate effectively across a range of platforms

uwa.edu.au/study/bachelor-of-philosophy



## Agricultural, Environmental and Biological Sciences

Advances in technology and science are transforming our world at an incredible pace. Take up study in this field to tackle local, regional and global issues, from the environmental impacts of climate change and sustainability managing natural resources, to providing food and water security.

Increasing populations and greater demands on resources are putting pressure on our environment, now more than ever. This means it is crucial we understand our planet to maintain its health.

Our State's diverse landscape is the perfect location in which to gain the knowledge and experience to maintain balance in our natural environment. Choose from areas such as crop production, animal production and management, environmental impact assessment, forestry resource management, or soil and water conservation. Or focus on aquatic or natural resource management, geographical sciences, botany, geology, agricultural science or aquaculture.

Your studies will involve not only theory, but also the crucial technical skills of your chosen field. Whether it's through world-class laboratories, exciting field trips or real-world industry placements, you'll be immersed in the hands-on side of science, and gain the ability to help protect the world we live in.

#### Top five reasons to study Agriculture, Environmental and Biological Sciences at UWA

- We have 100+ units offering practical work
   experience or gain hands-on, industry-relevant
   experience and skills through placement opportunities
- Our **22:1 student-to-staff ratio** is one of the best in Australia.
- You'll learn from award-winning researchers and expert academics.
- UWA is ranked 1st in Australia for Agricultural Sciences and Environmental Science and Engineering (ARWU 2021).
- Our strong industry, business and government networks include Alcoa, BHP, CSIRO, Department of Agriculture and Mining, Department of Biodiversity, Conservation and Attractions, Fortescue Metals Group, Kings Park, Perth Zoo, Rio Tinto, Woodside and more.

uwa.edu.au/study/areas/agricultural-environmental-biological-sciences

## Bachelor of **Agribusiness**

Minimum ATAR 80 or equivalent STAT Not applicable Intake months February and July Completion 3 years full time or part-time equivalent

#### **CAREER OPPORTUNITIES**

Agricultural scientist, policy analyst, commodity trade analyst

The Bachelor of Agribusiness teaches you how to apply business and economic principles to address managerial and policy challenges in the food systems and value chains that sustain humanity. You'll learn about the management and regulation of businesses operating from the farm gate to consumers. A quality education in Agribusiness from UWA will equip you with attributes that are highly valued and sought after by a diverse range of employers in agriculture, finance, marketing, international trade, policy analysis, business management, and rural development in Australia and overseas. The specific skills and knowledge developed and demonstrated by graduates are highly valued by employers and will make you competitive in the job market.

#### Why study this degree at UWA

- UWA is ranked 1st in Australia for Agricultural Sciences (ARWU 2021)
- Gain the professional skills, knowledge and expertise that shape global agricultural production
- With continued world population growth, job opportunities associated with the science, economics and business of agriculture, continue to expand your knowledge

#### You'll learn to

- demonstrate broad and coherent knowledge of economic and business management principles and their application to agribusiness management and policy
- exercise critical thinking and judgement in identifying, defining and solving problems in agribusiness with intellectual independence
- demonstrate skills and knowledge necessary for employment in agribusiness and the capacity for further study in the field

#### Major

 Agribusiness and Agricultural Science (Extended Major)

#### Combined Bachelor's and Master's

• Bachelor of Agribusiness and Master of Agricultural Economics

Minimum ATAR: 90 or equivalent

uwa.edu.au/study/bachelor-of-agribusiness



Minimum ATAR 80 or equivalent STAT Not applicable Intake months February and July Completion 3 years full time or part-time equivalent



#### **CAREER OPPORTUNITIES**

Agricultural consultant, researcher, AgTech professional

The Bachelor of Agricultural Science teaches understanding, reasoning and improving the natural world through systematic observation, experimentation, modelling and calculation. A quality education in Agricultural Science from UWA will equip you with attributes that are highly valued and sought after by a diverse range of employers around the globe, and provides the opportunity to harness the skills and knowledge necessary to make a real contribution to the global challenges facing humanity.

#### Why study this degree at UWA

- UWA is ranked 1st in Australia for Agricultural Sciences (ARWU 2021)
- By taking the Bachelor of Agricultural Science you'll gain specialised advanced training in the field of agricultural science to set you on the path to your dream career
- The specific skills and knowledge developed and demonstrated by graduates are highly valued by employers and will make you highly competitive in the job market

#### You'll learn to

- demonstrate broad and coherent theoretical and technical knowledge with depth in the discipline of Agricultural Science
- apply well-developed cognitive, creative and communication skills in diverse contexts
- review critically, analyse, consolidate and synthesise knowledge
- exercise critical thinking and judgement in identifying and solving problems with intellectual independence
- demonstrate skills and knowledge necessary for employment in the discipline of Agricultural Science and further study

#### Major

• Agricultural Science and Technology (Extended Major)

#### Combined Bachelor's and Master's

• Bachelor of Agricultural Science and Master of Agricultural Science

Minimum ATAR: 90 or equivalent

uwa.edu.au/study/bachelor-of-agricultural-science

## Bachelor of **Biological Science**

Minimum ATAR 80 or equivalent

**STAT** Not applicable

Intake months February and July

Completion 3 years full time or part-time equivalent

#### **CAREER OPPORTUNITIES**

Wildlife officer, conservation biologist, zoologist

The Bachelor of Biological Science teaches you how living organisms, ranging from microbes to megaflora and megafauna, grow, reproduce, adapt and evolve. You'll learn how species and ecological communities can be managed, conserved and restored, using techniques ranging from genetic analysis, to data collection from whole populations and ecosystems, to big data synthesis science. A quality education in Biological Science from UWA will equip you with attributes that are highly valued and sought after by a diverse range of employers around the globe, and provides the opportunity to harness the skills and knowledge necessary to understand the vulnerabilities and resilience of life on our planet.

#### Why study this degree at UWA

- UWA is ranked 1st in Australia for Biological Sciences (ARWU 2021)
- Australia's fauna is megadiverse, and Western Australia is home to almost half our animal species
- The specific skills and knowledge developed and demonstrated by graduates are highly valued by employers and will make you highly competitive in the job market

#### You'll learn to

- demonstrate broad and coherent theoretical and technical knowledge with depth in the discipline of Biological Science
- apply well-developed cognitive, creative and communication skills in diverse contexts
- review critically, analyse, consolidate and synthesise knowledge
- exercise independent and critical thinking and judgement in identifying and solving problems
- demonstrate skills and knowledge necessary for employment in the discipline of Biological Science and further study

#### Major

- Biodiversity and Evolution (Extended Major)
- Plant Biology (Extended Major)
- Wildlife Conservation (Extended Major)

#### Combined Bachelor's and Master's

- Bachelor of Biological Science and Master of Biological Science
- Bachelor of Biological Science and Master of Biotechnology

Minimum ATAR: 90 or equivalent

uwa.edu.au/study/bachelor-of-biological-science

SPECIALISED DEGREE

## Bachelor of **Environmental Science**

Minimum ATAR 80 or equivalent

**STAT** Not applicable

**Intake months** February and July

Completion 3 years full time or part-time equivalent

#### **CAREER OPPORTUNITIES**

Environmental consultant, conservation officer, soil scientist

The Bachelor of Environmental Science teaches understanding, reasoning and improving the natural world through systematic observation, experimentation, modelling and calculation. A quality education in Environmental Science from UWA will equip you with attributes that are highly valued and sought after by a diverse range of employers locally and around the globe, and provides the opportunity to harness the skills and knowledge necessary to make a real contribution to the global challenges facing humanity.

#### Why study this degree at UWA

- UWA is ranked 1st in Australia for Environmental Science and Engineering (ARWU 2021)
- By taking the Bachelor of Environmental Science you'll gain specialised advanced training in the field of environmental science to set you on the path to your dream career
- The specific skills and knowledge developed and demonstrated by graduates are exceedingly valued by employers and will make you highly competitive in the job market

#### You'll learn to

- demonstrate broad and coherent theoretical and technical knowledge with depth in the discipline of Environmental Science
- apply well-developed cognitive, creative and communication skills in diverse contexts
- review critically, analyse, consolidate and synthesise knowledge
- exercise critical thinking and judgement in identifying and solving problems with intellectual independence
- demonstrate skills and knowledge necessary for employment in the discipline of Environmental Science and further study

#### Major

- Environmental Science and Ecology (Extended Major)
- Environmental Science and Management (Extended Major)

#### Combined Bachelor's and Master's

 Bachelor of Environmental Science and Master of Environmental Science

Minimum ATAR: 90 or equivalent

uwa.edu.au/study/bachelor-of-environmental-science



## Bachelor of **Marine Science**

Minimum ATAR 80 or equivalent STAT Not applicable Intake months February and July Completion 3 years full time or part-time equivalent

#### **CAREER OPPORTUNITIES**

Marine environmental consultant, coastal planner, marine conservationist

The Bachelor of Marine Science offers the full breadth of the Marine Science discipline, combining knowledge of marine life with a solid understanding of the physical environment across all levels of biological organisation. You'll learn about the complex interactions that occur in marine ecosystems and how to manage these systems in a changing world through lectures, laboratory exercises and field excursions.

#### Why study this degree at UWA

- UWA is ranked 2nd in Australia in Earth and Marine Sciences (QS 2021) and has brand new facilities and resources unique to Australia that are used across our marine studies
- This degree at UWA is the ultimate multi- and interdisciplinary learning experience and leads you to clear choices in a master's degree
- The specific skills and knowledge developed and demonstrated by graduates are highly valued by employers and will make you highly competitive in the job market

#### You'll learn to

- demonstrate broad and coherent theoretical and technical knowledge with depth in the discipline of Marine Science
- apply well-developed cognitive, creative and communication skills in diverse contexts
- review critically, analyse, consolidate and synthesise knowledge
- exercise critical thinking and judgement in identifying and solving problems with intellectual independence
- demonstrate skills and knowledge necessary for employment in the discipline of Marine Science and further study

#### Major

• Marine Science (Extended Major)

#### Combined Bachelor's and Master's

- Bachelor of Marine Science and Master of Environmental Science
- Bachelor of Marine Science and Master of Marine Biology

Minimum ATAR: 90 or equivalent

uwa.edu.au/study/bachelor-of-marine-science

SPECIALISED DEGREE

## Bachelor of **Molecular Sciences**

Minimum ATAR 80 or equivalent STAT Not applicable Intake months February and July Completion 3 years full time or part-time equivalent

#### **CAREER OPPORTUNITIES**

Agricultural scientist, animal scientist, biochemist, food scientist

In Molecular Sciences you'll learn about life at the molecular level. Starting with the building blocks of life (DNA, RNA, proteins, lipids and carbohydrates) you'll work towards understanding the complex function of cells, tissues and organisms. Training in cutting-edge technologies will equip you with the tools to answer the many challenges in the biological and/or health sciences. The degree serves as an excellent stepping stone into any career in the biosciences. Successful completion of the Molecular Life Sciences extended major allows you to progress to a Master of Biotechnology or other postgraduate studies in relevant bioscience disciplines. Alternatively, the successful completion of the Biochemistry of Nutrition extended major will enable you to pursue postgraduate studies in the Master of Biomedical Science or a related discipline.

#### Why study this degree at UWA

- Learn about the most recent advances in the molecular life sciences, how these affect our everyday lives and how we can use this knowledge to solve global challenges
- This degree at UWA is the ultimate multi- and inter-disciplinary learning experience
- The specific skills and knowledge developed and demonstrated by graduates are highly valued by employers and will make you highly competitive in the job market

#### You'll learn to

- demonstrate broad and coherent theoretical and technical knowledge with depth in the discipline of Molecular Sciences
- apply well-developed cognitive, creative and communication skills in diverse contexts
- review critically, analyse, consolidate and synthesise knowledge
- exercise independent and critical thinking and judgement in identifying and solving problems
- demonstrate skills and knowledge necessary for employment in the discipline of Molecular Sciences and further study

#### **Majors**

- Biochemistry of Nutrition (Extended Major)
- Molecular Life Sciences (Extended Major)

#### Combined Bachelor's and Master's

- Bachelor of Molecular Sciences and Master of Biomedical Science
- Bachelor of Molecular Sciences and Master of Biotechnology
- Bachelor of Molecular Sciences and Master of Bioinformatics

Minimum ATAR: 90 or equivalent

uwa.edu.au/study/bachelor-of-molecular-sciences

#### COMPREHENSIVE DEGREE

#### Bachelor of Science

Minimum ATAR 75 or equivalent

STAT Written English and Verbal or Quantitative
Intake months February and July

Completion 3 years full time or part-time equivalent

#### **CAREER OPPORTUNITIES**

Agricultural scientist, environmental consultant, marine conservationist, zoologist, biochemist, software developer, analyst, engineer\*, forensic scientist, psychologist\*, sports coach, astronomer

Our Bachelor of Science gives you the skills and knowledge to make a real contribution to the challenges facing humanity. Scientists study the universe, its properties, the life that exists within it and the laws that govern it. Discipline areas range from cutting-edge pure and applied science to new multidisciplinary fields. The importance of science in determining the wellbeing of our society is recognised by industry, business and government.

#### Why study this degree at UWA

- You'll be taught by the world's leading teachers and researchers
- You'll gain highly valued and sought-after skills that will ensure you are well-prepared for many diverse and exciting careers
- You'll have Work Integrated Learning (WIL)
   opportunities to gain practical industry experience
   and employability skills

#### You'll learn to

- explore and investigate the big issues confronting our planet
- develop skills in reasoning, logic, observation, analysis, creativity and more
- gain practical, hands-on, industry-relevant experience and skills
- bridge the gap between theory and practice through work experience opportunities
- think critically and push boundaries

#### uwa.edu.au/study/bachelor-of-science

#### Majors

- Agribusiness
- Agricultural Science
- Agricultural Technology
- Anatomy and Human Biology
- Biochemistry and Molecular Biology
- Botany
- Chemistry
- Computer Science
- Conservation Biology
- Cybersecurity
- Data Science
- Environmental Management
- Environmental Science
- Exercise and Health
- Genetics
- Geographical Sciences
- Geology
- Marine and Coastal Processes
- Marine Biology
- Mathematics and Statistics
- Microbiology and Immunology
- Neuroscience
- Physics
- Physiology
- Psychological and Behavioural Sciences
- Sport Science
- Zoology

#### Combined Bachelor's and Master's

 Bachelor of Science and Master of Teaching (Secondary)

#### Minimum ATAR: 88 or equivalent

• Bachelor of Science Frontier Physics and Master of Physics

Minimum ATAR: 96 or equivalent

<sup>\*</sup> Postgraduate studies required

#### COMBINED BACHELOR'S DEGREES

### Bachelor of Agribusiness and Bachelor of Science

Minimum ATAR 85 or equivalent

**STAT** Not applicable

Intake months February and July

Completion 4 years full time or part-time equivalent

uwa.edu.au/study/bb/agribusiness-and-science

## Bachelor of Agricultural Science and Bachelor of Science

Minimum ATAR 85 or equivalent

**STAT** Not applicable

Intake months February and July

Completion 4 years full time or part-time equivalent

uwa.edu.au/study/bb/agricultural-science-andscience

#### Bachelor of Agricultural Science and Bachelor of Arts

Minimum ATAR 85 or equivalent

**STAT** Not applicable

Intake months February and July

Completion 4 years full time or part-time equivalent

uwa.edu.au/study/bb/agricultural-science-and-arts

## Bachelor of Agricultural Science and Bachelor of Commerce

Minimum ATAR 88 or equivalent

**STAT** Not applicable

Intake months February and July

Completion 4 years full time or part-time equivalent

uwa.edu.au/study/bb/agricultural-science-and-commerce

## Bachelor of Environmental Science and Bachelor of Science

Minimum ATAR 85 or equivalent

**STAT** Not applicable

Intake months February and July

Completion 4 years full time or part-time equivalent

uwa.edu.au/study/bb/environmental-science-and-science

### Bachelor of Environmental Science and Bachelor of Arts

Minimum ATAR 85 or equivalent

STAT Not applicable

Intake months February and July

Completion 4 years full time or part-time equivalent

uwa.edu.au/study/bb/environmental-science-and-arts

## Bachelor of Environmental Science and Bachelor of Commerce

 $\textbf{Minimum ATAR} \ \ 88 \ or \ equivalent$ 

**STAT** Not applicable

Intake months February and July

Completion 4 years full time or part-time equivalent

uwa.edu.au/study/bb/environmental-science-and-commerce

#### MAJORS IN AGRICULTURAL, ENVIRONMENTAL AND BIOLOGICAL SCIENCES

#### Agribusiness

#### **CAREER OPPORTUNITIES**

Policy analyst, commodity trade analyst, production supervisor

**Bachelor's degree:** Science or Philosophy (Honours)

Agribusiness encompasses the entire food production process, from business activities involved in production, financing and processing to marketing of food and fibre in order to feed a growing population. This major will prepare you to apply business and economic principles to address global challenges in food security, farming systems and evolving consumer markets.

#### Why study this course at UWA

- Build the knowledge and professional work skills you need to contribute solutions to issues of food security and global food production
- Explore different facets of the agricultural industry, such as international trade, business management, marketing, policy formation and more
- Learn the business and economics behind assuming managerial and leadership roles in the field

#### You'll learn to

- demonstrate a fluency with the factors and conditions affecting the agricultural industry
- build practical and transferable skills in management, teamwork, critical thinking and communication directed toward the strategies needed to implement growth and sustainability in the agri-food and farming sectors
- apply skills and knowledge to real-world scenarios in agricultural planning, distribution and innovation

**Trending second majors:** Agricultural Technology; Environmental Management; Marketing

#### Prerequisites:

- Mathematics Methods ATAR OR Mathematics
   Applications ATAR with a mathematics unit taken in
   the first year
- Students without ATAR Mathematics will take two first-year mathematics units

#### Agribusiness and Agricultural Science

(Extended Major)

#### **CAREER OPPORTUNITIES**

Agricultural scientist, policy analyst, commodity trade analyst

**Bachelor's degree:** Agribusiness or Philosophy (Honours)

The global population is increasing, and with it comes the need for a profitable and economically viable agribusiness sector to meet the food and fibre demand of humanity. This extended major will combine practical business skills with your interests in agriculture to tackle the global challenge of creating a sustainable food future.

#### Why study this course at UWA

- Gain the professional skills and knowledge expertise that shape global agricultural production
- With continued world population growth, job opportunities associated with the science, economics and business of agriculture, continue to expand
- Learn the science underlying animal husbandry and crop systems and apply business strategies to capitalise on innovation and cutting-edge best practice

#### You'll learn to

- obtain a focused expertise on the physical and social sciences of the agricultural sector, including economics and marketing, agribusiness finance, principles of agribusiness management, farm management, crop and animal production, soil science and genetics
- research and apply principles associated with clean, ethical and sustainable production
- develop hands-on, transferable scientific and business skills for attractive employability across the spectrum of the agricultural industry

#### **Prerequisites:**

- Mathematics Methods ATAR OR Mathematics
   Applications ATAR with a mathematics unit taken in
   the first year
- Students without ATAR Mathematics will take two first-year mathematics units
- Chemistry ATAR OR a chemistry unit taken in the first year

uwa.edu.au/study/agricultural-science-andagribusiness

#### **Agricultural Science**

#### **CAREER OPPORTUNITIES**

Agricultural scientist, environmental consultant, environmental manager

Bachelor's degree: Science or Philosophy (Honours)

Australia's agricultural industry is a key part of the world's food supply system. The challenges of a rapidly growing population, climate change, and the limitations of land and fresh water all impact on the ability of agriculture to meet the demand for food, fibre and fuel. As part of the Agricultural Science major, you'll investigate how to address this demand by developing an understanding of the complex factors that shape agricultural systems. Agricultural Science provides the research, technology and information for the sustainable and ethical development of the agricultural industry. Your studies will include soil science, genetics, cropping systems, soil-plant interaction, livestock production, agricultural economics and grain marketing.

#### Why study this course at UWA

- There is a high demand for skilled agriculture graduates with a strong science background
- UWA aims to contribute to sustainable food production
- UWA is ranked 1st in Australia for Agricultural Sciences (ARWU 2021)

#### You'll learn to

- be critical thinkers who are scientifically skilled and able to address global challenges such as climate change and increasing demand for food and fibre
- assess how climate, soils, plants, animals and farm management practices influence agricultural production
- evaluate how agricultural trade and commodity marketing can be applied to manage price risk

**Trending second majors:** Environmental Science; Botany; Chemistry

#### Prerequisites:

- Mathematics Methods ATAR OR Mathematics
   Applications ATAR with a mathematics unit taken in
   the first year
- Students without ATAR Mathematics will take two first-year mathematics units
- Chemistry ATAR **OR** a chemistry unit taken in the first year

uwa.edu.au/study/agricultural-science

## Agricultural Science and Technology (Extended Major)

#### **CAREER OPPORTUNITIES**

Agricultural consultant, researcher, AgTech professional

**Bachelor's degree:** Agricultural Science or Philosophy (Honours)

There is a critical need to produce food and fibre more efficiently and in a more sustainable manner. There are currently rapid changes in the agricultural sector, largely due to developments in agricultural technology (digital agriculture). This extended major provides knowledge in both the traditional agricultural science areas as well as the emerging data-intensive agricultural technologies.

#### Why study this course at UWA

- Agricultural technology ('AgTech') is rapidly developing and there is a high demand for graduates, especially those who are also skilled in agricultural science
- UWA aims to contribute to sustainable food production
- UWA is ranked 1st in Australia for Agricultural Sciences (ARWU 2021)

#### You'll learn to

- integrate agricultural knowledge with skills in geographic information systems (GIS), programming and data analysis to guide decision making for improved agricultural productivity
- be critical thinkers who are scientifically skilled and able to address global challenges such as climate change and increasing demand for food and fibre
- assess how climate, soils, plants, animals and farm management practices influence agricultural production
- evaluate how agricultural trade and commodity marketing can be applied to manage price risk

#### Prerequisites:

- Mathematics Methods ATAR OR Mathematics
   Applications ATAR with a mathematics unit taken in
   the first year
- Students without ATAR Mathematics will take two first-year mathematics units
- Chemistry ATAR OR a chemistry unit taken in the first year

uwa.edu.au/study/agricultural-science-and-technology

#### Agricultural Technology

#### **CAREER OPPORTUNITIES**

Agricultural adviser, AgTech professional, agricultural researcher

Bachelor's degree: Science or Philosophy (Honours)

Agricultural technology is transforming the agricultural sector. This data-intensive technology has the potential to significantly increase food production, effectively, efficiently and sustainably. The Agricultural Technology major provides a broad agricultural background along with the necessary skills in data management and analysis, geographic information systems (GIS) and remote sensing. You'll learn how to integrate this information to develop strategies for agricultural and farming systems.

#### Why study this course at UWA

- Agricultural technology ('AgTech') is rapidly developing and there is high demand for graduates who are skilled in this area
- UWA aims to contribute to sustainable food production
- UWA is ranked 1st in Australia for Agricultural Sciences (ARWU 2021)

#### You'll learn to

- integrate agricultural knowledge with skills in geographic information systems (GIS), programming and data analysis, to guide decision making for improved agricultural productivity
- be a critical thinker who is scientifically skilled and able to address global challenges such as climate change and increasing demand for food and fibre
- show knowledge of farming in Western Australia and skills to assess agricultural systems using scientific methods

#### **Trending second majors:** Agribusiness; Business; Finance **Prerequisites:**

- Mathematics Methods ATAR OR Mathematics
   Applications ATAR with a mathematics unit taken in
   the first year
- Students without ATAR Mathematics will take two first-year mathematics units
- Chemistry ATAR OR a chemistry unit taken in the first year

uwa.edu.au/study/agricultural-technology

#### **Botany**

#### **CAREER OPPORTUNITIES**

Botanist, plant conservation officer, research assistant

Bachelor's degree: Science or Philosophy (Honours)

Botanists study how plants evolve and adapt to changing climates and environments and have a proactive role in mitigating the loss of biodiversity. Botany is an ideal major if you are enthusiastic about Western Australia's unique native flora or agricultural crops, and are interested in addressing current and future threats to plant conservation and sustainability.

#### Why study this course at UWA

- UWA is ranked 1st in Australia and in the world's top 50 for Biological Sciences (ARWU 2021)
- It's perfect if you are enthusiastic about Western
   Australia's unique native flora or agricultural crops, and
   are interested in addressing current and future threats
   to plant conservation and sustainability
- There are up to three overnight field trips on which you'll get the chance to apply your knowledge in real-life situations

#### You'll learn to

- understand plant structure, functioning, adaptation, diversity and evolution
- appreciate the pivotal relationship between plants and their environment
- demonstrate a knowledge of basic plant processes at different levels of an organism from the molecular to whole plant scale through to populations, communities and ecosystems.
- be conversant in the terminology, issues and practice of the core principles of botany: diversity, ecology, genetics and evolution, and physiology

**Trending second majors:** Conservation Biology;

Zoology; Genetics

#### **Prerequisites:**

- Mathematics Methods ATAR OR Mathematics
   Applications ATAR with a mathematics unit taken in
   the first year
- Students without ATAR Mathematics will take two first-year mathematics units

**Recommended subject:** Chemistry ATAR

uwa.edu.au/study/botany

#### Biodiversity and Evolution

(Extended Major)

#### **CAREER OPPORTUNITIES**

Conservation officer, environmental consultant, wildlife manager

**Bachelor's degree:** Biological Science or Philosophy (Honours)

This extended major is designed for students interested in understanding the evolution and maintenance of the outstanding biodiversity that exists in Australia, with a special emphasis on Western Australia, a globally recognised hotspot of animal and plant diversity. This extended major explores the basics of animal and plant biology and how these systems have evolved, adapted and diversified.

#### Why study this course at UWA

- Study animals and plants living in a diverse range of habitats, from deserts to forests and tropical reefs, with the opportunity to carry out your studies in both the classroom and in the field
- Gain discipline-specific expertise and practical skills from world-leading academics and industry partners
- This extended major will also prepare you for entry into Honours in Zoology and the Master of Biological Science

#### You'll learn to

- explain the major differences in the development, structure and functioning of animals and plants and explain animal and plant diversity in a phylogenetic context
- explain broad patterns of global biodiversity and the evolutionary history of Australia's biodiversity
- explain how animals and plants diversify and function in different environments using evolutionary, physiological, ecological and molecular genetic concepts
- develop and apply relevant employability skills for roles related to biodiversity and evolution

#### **Prerequisites:**

- Mathematics Methods ATAR OR Mathematics Applications ATAR with a mathematics unit taken in the first year
- Students without ATAR Mathematics will take two first-year mathematics and statistics units
- Chemistry ATAR **OR** chemistry unit taken in the first year

#### **Conservation Biology**

#### **CAREER OPPORTUNITIES**

Conservation biologist, conservation planner, conservation officer

Bachelor's degree: Science or Philosophy (Honours)

Conservation biologists work to prevent the extinction of the world's plant and animal species. This is the ideal major if you are interested in fieldwork and want to help mitigate the increasing pressure on the world's ecosystems by actively participating in the management and research of threatened species and communities, as well as understanding the principles and policies behind their recovery.

#### Why study this course at UWA

- UWA is ranked 1st in Australia and in the world's top 50 for Biological Sciences (ARWU 2021)
- Study near the South West of Western Australia, one of the world's 25 'biodiversity hotspots' (Conservation International)
- Apply your knowledge in real-life situations on field trips

#### You'll learn to

- understand global biodiversity and its distribution, and the evolutionary history of biodiversity in Australia
- appreciate the relationship between species biology and ecology and vulnerability to environmental change
- discuss major threats to biodiversity, their causes, and management, and research to mitigate them
- explain the role of different stakeholders in shaping policy and decision making
- demonstrate the analytical and communication skills for modern conservation research

**Trending second majors:** Genetics; Botany; Environmental Science; Marine Biology

#### Prerequisites:

- Mathematics Methods ATAR OR Mathematics
   Applications ATAR with a mathematics unit taken in
   the first year
- Students without ATAR Mathematics will take two first-year mathematics units

**Recommended subject:** Chemistry ATAR

uwa.edu.au/study/conservation-biology

## **Environmental Geography** and Planning

#### **CAREER OPPORTUNITIES**

Urban planner, environmental researcher and consultant, conservationist

**Bachelor's degree:** Environmental Design or Philosophy (Honours)

This major focuses on how to ensure the sustainable use of the natural and built environment, ranging from urban design, managing natural resources and ensuring an appropriate quality of life for all in urban environments. You'll develop essential skills in qualitative and quantitative data collection and analysis, fieldwork, the use of Geographic Information Systems (GIS) and remote sensing, analysing environmental policy and applying environmental planning techniques, all of which are essential for advancing your career.

#### Why study this course at UWA

- You'll be taught by experts across a range of disciplines, from urban planning through to natural resource management and conservation
- You'll gain valuable practical skills through fieldwork and desk-based data collection and analysis
- Employers prioritise graduates with experience across a broad range of disciplines, whose skills are transferable and adaptable to the variety of issues affecting industry and society

#### You'll learn to

- develop skills in data collection, analysis and interpretation, using data from both the human and natural environment
- apply your knowledge of policy to identify solutions that ensure sustainable usage of natural resources and urban development
- develop workplace-relevant skills including adaptability, teamwork, oral presentations and professional report writing for employers
- use advanced technology to explore data and present commanding data visualisations

**Trending second majors:** Geographical Sciences; Human Geography and Planning; Landscape Architecture; Environmental Management

uwa.edu.au/study/environmental-geography-and-planning

#### Environmental Management

#### **CAREER OPPORTUNITIES**

Environmental consultant, conservation planner, environmental policy analyst

Bachelor's degree: Science or Philosophy (Honours)

With growing populations globally, managing our environment and natural resources is becoming more important than ever. In this major, you'll learn how to apply scientific, economic, policy and social analysis to help society make better decisions to protect the environment. If you want to play a role in the future of our environment, you'll be well-suited to study this major.

#### Why study this course at UWA

- UWA Centre for Environmental Economics and Policy is a recognised centre of excellence for the impact of its environmental policy analysis
- UWA is 1st in Australia and 21st in the world for Environmental Science and Engineering (ARWU 2021)
- You'll learn to help society resolve conflicts caused by the increasing demands of growing populations on the environment and natural resources, including problems like climate change and biodiversity loss

#### You'll learn to

- integrate science, economics and social science to guide decision making with respect to human intervention in the environment
- demonstrate the knowledge to manage and rehabilitate environmental systems
- analyse environmental policies from an economic and social science perspective
- apply economic principles to environmental management decisions

#### Trending second majors: Geology; Conservation Biology Prerequisites:

- Mathematics Methods ATAR OR Mathematics
   Applications ATAR with a mathematics unit taken in
   the first year
- Students without ATAR Mathematics will take two first-year mathematics units

uwa.edu.au/study/environmental-management

#### **Environmental Science**

#### **CAREER OPPORTUNITIES**

Environmental consultant, conservation officer, environmental compliance officer

Bachelor's degree: Science or Philosophy (Honours)

Environmental Science assesses the impact of human activity on the global environment and develops scientific, risk-based solutions to help secure a sustainable future. By choosing to major in Environmental Science, you'll help to develop solutions to global environmental issues including climate change, carbon trading, greenhouse gas emissions, water resource management, salinity, deforestation and others.

#### Why study this course at UWA

- UWA is 1st in Australia and 21st in the world for Environmental Science and Engineering (ARWU 2021)
- Western Australia is home to a number of large companies in the mining, agriculture and environmental sector, leading to increasing demand for highly qualified graduates in Environmental Science.
- It is expected there will be 14,000 job openings in the next five years, with weekly wages being higher than the average (joboutlook.gov.au)

#### You'll learn to

- demonstrate the skills and knowledge to assess environmental systems, using field, laboratory, modelling and statistical methodologies
- integrate ecological, physical and chemical processes to guide decision making with respect to human intervention in the environment
- demonstrate the knowledge to manage and rehabilitate disturbed systems such as natural and agricultural catchments, post-mining landscapes, contaminated sites, urban environments, etc.

**Trending second majors:** Marine Biology; Marine and Coastal Processes; Geology

#### **Prerequisites:**

- Mathematics Methods ATAR OR Mathematics
   Applications ATAR with a mathematics unit taken in
   the first year
- Students without ATAR Mathematics will take two first-year mathematics and statistics units
- Chemistry ATAR **OR** a chemistry unit taken in the first year

### Environmental Science and Ecology (Extended Major)

#### **CAREER OPPORTUNITIES**

Environmental consultant, ecologist, conservation officer

**Bachelor's degree:** Environmental Science or Philosophy (Honours)

Environmental science assesses the impact of human activity on the global environment and develops scientific, risk-based solutions to help secure a sustainable future. As a student of the Environmental Science and Ecology extended major, you'll be trained to apply a combination of scientific knowledge from environmental science, botany and animal science to solve real-world problems.

#### Why study this course at UWA

- UWA is ranked 1st in Australia for Environmental Science and Engineering (ARWU 2021)
- We'll provide you the environment to build technical skills and valuable connections through hands-on learning, work integrated learning, in the lab and out in the field
- Gain the skills and knowledge exceedingly valued by employers making you highly competitive in the job market

#### You'll learn to

- demonstrate broad and coherent theoretical knowledge and applied technical skills in the discipline
- exercise critical thinking and solving problems around climate change impacts, environmental assessments, as well as ecological and environmental rehabilitation
- demonstrate competency in laboratory practice, fieldwork study, report writing and team work skills

#### **Prerequisites:**

- Mathematics Methods ATAR OR Mathematics
   Applications ATAR with a mathematics unit taken in the first year
- Students without ATAR Mathematics will take two first-year mathematics and statistics units
- Chemistry ATAR OR a chemistry unit taken in the first year

uwa.edu.au/study/environmental-science-and-ecology

## Environmental Science and Management

(Extended Major)

#### **CAREER OPPORTUNITIES**

Environmental consultant, conservation officer, soil scientist

**Bachelor's degree:** Environmental Science or Philosophy (Honours)

Environmental science assesses the impact of human activity on the global environment and develops scientific, risk-based solutions to help secure a sustainable future. As a student of the Environmental Science and Management extended major, you'll be trained to apply scientific, economic and regulatory knowledge to help society resolve global conflicts such as climate change, deforestation and water pollution.

#### Why study this course at UWA

- UWA is ranked 1st in Australia for Environmental Science and Engineering (ARWU 2021)
- You'll learn to help society resolve conflicts, caused by the increasing demands of growing populations on the environment
- You can be a leader in environmental science and policy analysis with good job opportunities and weekly wages being higher than average (joboutlook.gov.au)

#### You'll learn to

- develop skills and knowledge to assess environmental systems, using field, laboratory, modelling and statistical methodologies
- integrate science, economics and social science to guide decision making with respect to human intervention in the environment
- analyse environmental policies from an economic and social science perspective

#### Prerequisites:

- Mathematics Methods ATAR OR Mathematics
   Applications ATAR with a mathematics unit taken in
   the first year
- Students without ATAR Mathematics will take two first-year mathematics and statistics units
- Chemistry ATAR **OR** chemistry unit taken in the first year

uwa.edu.au/study/environmental-science-andmanagement

#### **Geographical Sciences**

#### **CAREER OPPORTUNITIES**

Environmental manager, spatial analyst, climate scientist

Bachelor's degree: Science or Philosophy (Honours)

Geography is the science of place and space, standing at the intersection of natural and social sciences.

Geographers study the Earth's landscapes, peoples, places and environments, and how these interact.

Understanding contemporary urban and environmental problems requires an appreciation of the interdependence between human activities and the natural and cultural environment. This major provides you with these insights, focusing on the major challenges facing our planet.

#### Why study this course at UWA

- Learn skills in a range of research techniques, including fieldwork, survey design, statistical analysis and spatial data analysis
- Study in one of the world's 25 biodiversity hotspots
- Gain hands-on experience in field research, group work and leadership

#### You'll learn to

- understand the importance of spatial processes in shaping the nature of human and natural environments
- appreciate the complex relationships that exist between humans and the natural environment, and the ways in which these are manifested in spatial patterns and processes
- develop methods for the investigation and interpretation of spatial patterns and processes in the natural and human environment

#### Prerequisites:

- Mathematics Methods ATAR OR Mathematics
   Applications ATAR with a mathematics unit taken in
   the first year
- Students without ATAR Mathematics will take two first-year mathematics units

**Trending second majors:** Environmental Science; Botany; Agricultural Science

uwa.edu.au/study/geographical-sciences

### Integrated Earth and Marine Sciences (Extended Major)

#### **CAREER OPPORTUNITIES**

Minerals explorer, petroleum explorer, energy geoscientist

**Bachelor's degree:** Earth Sciences or Philosophy (Honours)

This extended major offers a research-led experience in studying the Earth, from the planet's early history to its foreseeable future, and from the ocean floors to its highest mountains. You'll learn high-level skills in the collection and interpretation of geoscientific data, in both terrestrial and marine settings, as well as advanced data analysis and synthesis techniques.

#### Why study this course at UWA

- Within Australia, this is the only major that integrates Earth and Marine Sciences, providing a unique set of skills nationally
- UWA is ranked in the top 40 global universities (QS 2021) in this discipline, and students are connected with world-class research teams
- This major will provide a high level of interdisciplinary skills for the nation's future leaders in research and sustainable industry

#### You'll learn to

- collect geoscientific data, on land, at sea and in the laboratory
- analyse and interpret data in spatial and spatialtemporal contexts
- synthesise and integrate data across multiple scales of observation and over discipline boundaries
- understand the past and present processes of Earth, and its planetary neighbours, from the deep interior to the atmosphere

#### **Prerequisites:**

- Mathematics Methods ATAR OR Mathematics
   Applications ATAR with a mathematics unit taken in
   the first year
- Students without ATAR Mathematics will take two first-year mathematics units

uwa.edu.au/study/integrated-earth-and-marinesciences

### Marine and Coastal Processes

#### **CAREER OPPORTUNITIES**

Coastal and marine consultant, coastal planner, academic

Bachelor's degree: Science or Philosophy (Honours)

Coastlines globally face unprecedented threats from continued development and climate change. Majoring in Marine and Coastal Processes will provide you with the understanding of how our coastal and marine environments operate such that you can apply this knowledge to ensure coastal communities and marine ecosystems remain resilient in the future.

#### Why study this course at UWA

- UWA is ranked 2nd in Australia for Oceanography (ARWU 2021) and has brand new facilities and resources unique to Australia
- Learning is led by UWA's global experts who have access to one of the largest pools of marine field instrumentation in Australia used in units and field trips
- This interdisciplinary major provides students with the knowledge required to develop solutions to the threats facing our marine and coastal environments

#### You'll learn to

- use a range of techniques and instrumentation to collect data in the field and in the laboratory
- analyse, synthesise and interpret data that varies in space and time
- integrate knowledge of marine and coastal processes and their links to biological processes in order to address real-world problems

#### **Prerequisites:**

- Mathematics Methods ATAR OR Mathematics
   Applications ATAR with a mathematics units taken in
   the first year
- Students without ATAR Mathematics will take two first-year mathematics units

uwa.edu.au/study/marine-and-coastal-processes

#### Marine Biology

#### **CAREER OPPORTUNITIES**

Marine biologist, fisheries officer, marine conservation officer

**Bachelor's degree:** Science or Philosophy (Honours)

Marine biology is the study of marine organisms, and their behaviours and interactions with the environment. If you're fascinated by our amazing marine life and the coastal environments in which they live, then this major is for you. With complex issues such as climate change, growing populations, food production and depleting natural resources, the need for marine science professionals continues to grow.

#### Why study this course at UWA

- UWA is ranked 2nd in Australia in Earth and Marine Sciences (QS 2021)
- Brand new facilities and resources unique to Australia that are used across our marine studies
- Learning is richly embedded with internationally recognised research, often led by UWA's global experts

#### You'll learn to

- use a range of contemporary techniques and instrumentation to collect data in the field and in the laboratory
- analyse, synthesise and interpret data that varies in space and time
- interpret patterns and integrate knowledge of physical and biological processes to address real-world problems

**Trending second majors:** Conservation Biology; Environmental Science; Zoology

#### **Prerequisites:**

- Mathematics Methods ATAR OR Mathematics
   Applications ATAR with a mathematics unit taken in
   the first year
- Students without ATAR Mathematics will take two first-year mathematics units
- Chemistry ATAR **OR** a chemistry unit taken in the first year

uwa.edu.au/study/marine-biology

#### **Marine Science**

(Extended Major)

#### **CAREER OPPORTUNITIES**

Marine environment consultant, coastal planner, marine conservationist

Bachelor's degree: Marine Science or

Philosophy (Honours)

This extended major will expose you to the full breadth of the marine science discipline, allowing deeper understanding of both the physical and biological components through the Marine Biology and Coastal Processes majors. Western Australia's coastline is a biodiversity hotspot with up to 80 per cent of marine life found nowhere else in the world, making it the ideal living laboratory for your studies.

#### Why study this course at UWA

- UWA is ranked 2nd in Australia in Earth and Marine Sciences (QS 2021) and has brand new facilities and resources unique to Australia that are used across our marine studies
- Learning is richly embedded with internationally recognised research, often led by UWA's global experts, encouraging research-based inquiry through cutting-edge science
- This interdisciplinary major provides students with the knowledge required to develop solutions to the threats facing our marine and coastal environments

#### You'll learn to

- use a range of contemporary techniques and instrumentation to collect data in the field and in the laboratory
- analyse, synthesise and interpret data that varies in space and time
- interpret patterns and integrate knowledge of physical and biological processes to address real-world problems

#### **Prerequisites:**

- Mathematics Methods ATAR OR Mathematics
   Applications ATAR with a mathematics unit taken in
   the first year
- Students without ATAR Mathematics will take two first-year mathematics units
- Chemistry ATAR OR a chemistry unit taken in the first year

uwa.edu.au/study/marine-science

#### Molecular Life Sciences

(Extended Major)

#### **CAREER OPPORTUNITIES**

Agricultural scientist, animal scientist, biochemist

**Bachelor's degree:** Molecular Sciences or Philosophy (Honours)

The Molecular Life Sciences extended major will help you develop a scientific understanding of the biochemistry, molecular biology and genetics of all living organisms. By understanding how molecules are organised and interact in living cells, you'll also gain the tools to improve our quality of life. This may be through the development of new vaccines or advances in drought-resistant crops.

#### Why study this course at UWA

- Learn about the most recent advances in the molecular life sciences, how these affect our everyday lives and how we can use this knowledge to solve global challenges
- Learn through hands-on laboratories while also gaining skills in data analysis and interpretation and critical thinking
- Develop a solid foundation in molecular life sciences with professional and transferable skills that open up many exciting possibilities for future career development and/or study

#### You'll learn to

- demonstrate a profound understanding of the theoretical basis of biochemistry, molecular biology, genetics in animals, plants and microorganisms
- gain technical competency and practical skills to master state-of-the-art molecular techniques
- develop and demonstrate your skills in critical thinking, experimental design, data analysis and interpretation

#### **Prerequisites:**

- Mathematics Methods ATAR OR Mathematics
   Applications ATAR with a mathematics unit taken in the first year
- Students without ATAR Mathematics will take two first-year mathematics units
- Chemistry ATAR OR a chemistry unit taken in the first year\*

**Recommended subjects:** Biology or Human Biology ATAR

#### uwa.edu.au/study/molecular-life-sciences

 Mid-year applicants must have Chemistry ATAR and Biology or Human Biology ATAR to complete their degree in three years.

#### Plant Biology

(Extended Major)

#### **CAREER OPPORTUNITIES**

Agricultural scientist, food scientist, plant breeder

**Bachelor's degree:** Biological Science or Philosophy (Honours)

Plant Biology is an exciting and rapidly developing subject, with many applications in fields as diverse as agriculture, conservation and environmental biology. You'll be trained to apply a combination of scientific knowledge from botany, molecular sciences and genetics, working on applications to real-world problems such as how plants adapt to climate change and how to produce healthier and more sustainable foods for the future.

#### Why study this course at UWA

- Study in the South West of Western Australia, one of the world's 25 'biodiversity hotspots' (Conservation International)
- We'll provide you the environment to build technical skills and valuable connections through hands-on learning in the classroom and out in the field, visiting places across WA from the desert to forests and tropical reefs
- Gain the skills and knowledge exceedingly valued by employers making you highly competitive in the job market

#### You'll learn to

- describe the development, structure and functioning of plants from the molecular scale through to the whole plant
- demonstrate competency in scientific methodologies such as filed and laboratory sampling, experimentation and data analysis in the plant sciences
- demonstrate understanding of the different ways genome sequencing, genome editing, genome diversity and evolution are used to solve both fundamental and applied problems in the plant sciences

#### **Prerequisites:**

- Mathematics Methods ATAR OR Mathematics
   Applications ATAR with a mathematics unit taken in the first year
- Students without ATAR Mathematics will take two first-year mathematics and statistics units
- Chemistry ATAR OR chemistry unit taken in the first year

#### Wildlife Conservation

(Extended Major)

#### **CAREER OPPORTUNITIES**

Wildlife officer, conservation biologist, zoologist

**Bachelor's degree:** Biological Science or

Philosophy (Honours)

Focusing on unique Australian fauna, you'll learn about the processes leading to the exceptional biodiversity that exists today, the threats facing this biodiversity and the management strategies and policies that can be used to limit, and in some cases reverse, the impact of these threats. You'll be immersed in nature both in the classroom and out in the field.

#### Why study this course at UWA

- Australia faces serious challenges to conserve its threatened fauna and needs skilled graduates to fill positions in state management agencies and an expanding number of conservation NGOs
- Australia's fauna is megadiverse, and Western Australia is home to almost half our animal species
- UWA is ranked first in Australia and 34th in the world for Biological Sciences (ARWU 2021)

#### You'll learn to

- recognise threatened animal species and the functioning ecosystems that they require for survival
- understand patterns of global biodiversity and the evolutionary history of biodiversity in Australia
- appreciate the relationships between an animal's biology, ecology and physiology and its vulnerability to environmental change
- discuss major threats to biodiversity, their causes, and the management and research to mitigate them

#### **Prerequisites:**

- Mathematics Methods ATAR OR Mathematics
   Applications ATAR with a mathematics unit taken in the first year
- Students without ATAR Mathematics will take two first-year mathematics units

uwa.edu.au/study/wildlife-conservation

#### Zoology

#### **CAREER OPPORTUNITIES**

Zoologist, biosecurity officer, fauna and conservation officer

Bachelor's degree: Science or Philosophy (Honours)

A Zoology degree will give you a deep understanding of the processes that generate animal diversity and how natural selection shapes the behaviour, ecology and physiological processes that allow animals to occupy diverse and challenging environments.

#### Why study this course at UWA

- It will provide you with the opportunity to study animals and their habitats
- You'll gain a sound knowledge and understanding of animal structure and function, and the evolutionary processes that have engendered animal diversity
- You'll have the option to take an eight-day field trip to Coral Bay, in the heart of the Ningaloo Reef World Heritage Area, to learn techniques such as mist netting, mammal trapping, marine fauna surveys and experimental design and analysis

#### You'll learn to

- understand how the structure, functioning and behaviour of animals underpins their distributions and interactions with the environment
- appreciate the local importance of animals in a conservation context
- undertake animal surveys and handle animals under field conditions
- demonstrate the high-level analytical and communication skills necessary for impactful applied and fundamental science

**Trending second majors:** Agricultural Science; Botany; Conservation Biology

#### Prerequisites:

- Mathematics Methods ATAR OR Mathematics
   Applications ATAR with a mathematics unit taken in
   the first year
- Students without ATAR Mathematics will take two first-year mathematics and statistics units

Recommended subject: Chemistry ATAR

uwa.edu.au/study/zoology



Architecture, Design and Planning

Study architecture, design and planning to create cities, cultures and communities for a sustainable future. In this field, creative and strategic thinking come together.

Tackle pressing issues facing global cities, learn how to create liveable environments, and make your mark on infrastructure projects while developing socially engaged designs and responsible heritage practices.

Study in this field will develop your critical-thinking skills and help you find creative solutions to bring spaces to life, while addressing challenges presented by environmental, social and economic change. You'll participate in real projects, enabling you to develop and apply your skills using various technologies and techniques to make a difference.

Our courses help you forge a strong foundation for your future career, ensuring you graduate with the skills to design your own path and shape the world around you.

#### Top five reasons to study Architecture, Design and Planning at UWA

- We produce award-winning students and graduates
  who get jobs we're first in WA for full-time
  employment for postgraduate coursework students in
  Architecture and Urban Environments (QILT Graduate
  Outcomes Survey 2020).
- Work on real projects, from housing and museums to space stations, through our industry and community engagement opportunities.
- Use **state-of-the-art facilities and equipment** such as plastic-extrusion 3D printers, laser cutters, printmaking studios and 24/7 computer labs.
- **Learn from award-winning**, internationally recognised teachers and practitioners.
- We have the best reputation among employers for architecture (QS World University Rankings by Subject 2020).

uwa.edu.au/study/areas/architecture-designplanning

#### COMPREHENSIVE DEGREE

## Bachelor of **Environmental Design**

Minimum ATAR 75 or equivalent

STAT Written English and Verbal or Quantitative

Intake months February and July

Completion 3 years full time or part-time equivalent

#### **CAREER OPPORTUNITIES\***

Architect, landscape architect, conservationist, urban designer, environmental consultant

Environmental Design is a broad study area that involves design and planning in relation to natural and constructed environments. It promotes synergy between objects and settings, built form and landscape across a range of scales, climates and cultures. Incorporating architecture, landscape architecture, urban design and environmental planning, it includes the analysis, conception and representation of places, objects and policies as they shape our environments.

#### Why study this degree at UWA

- You'll be learning from academic staff who are leaders in their fields
- You can engage with industry partners from private and government sectors
- You'll be embarking upon a career essential to the future shaping of our built and natural environments

#### You'll learn to

- understand the histories and theories of environmental, urban, architectural and landscape design, planning and policy
- apply principles of design and planning to the creation, preservation and sustaining of both natural and constructed environments
- develop strategic and analytical skills that inform design approaches
- become accomplished in various modes of graphic and technical communication and representation

#### **Majors**

- Architecture (Extended Major)
- Environmental Geography and Planning
- Landscape Architecture

uwa.edu.au/study/bachelor-of-environmental-design





**Bachelor's degree:** Environmental Design or Philosophy (Honours)

Architecture is the conceptualisation and design of individual buildings and urban landscapes in response to existing and emerging economic, technical and social needs. The Architecture extended major prepares you for postgraduate studies, which can lead to registration as an architect.

#### Why study this course at UWA

- Architecture offers the chance to blend multiple ways of thinking about how to house human activities and needs
- Learn a comprehensive and innovative approach to design for improved living environments and more resilient and sustainable urban places
- Discover your creative talents as you develop skills in the art and science of architectural design

#### You'll learn to

- imagine and create design outcomes and applications
- apply a range of approaches to design problems and find creative solutions
- interpret historical, theoretical and ethical aspects of architecture
- apply principles of sustainable design and construction
- create drawings, models and prototypes

uwa.edu.au/study/architecture

#### Sample study plan

Bachelor of Environmental Design with a degree-specific major in Architecture (Extended Major)

SEM1	Art, Technology and Society	Techniques of Visualisation	Environmental Science and Technology	Design Studio – Groundings
SEM 2	Architecture Studio 1	Drawing History	Fine Arts Studio: Space, Time & Beyond	
SEM1	Architecture Studio 2		Parallel Modernities in Architecture	Materials and Small Constructions
SEM 2	Environmental Design	Art and Urban Experience	Design Studio	
SEM1	History and Theories of the Built Environment	Being Human: Culture, Identity and Society	Architecture Studio 3	
SEM 2	Architecture Studio 4		Advanced Design Thinking	Construction
	SEM 2 SEM 1 SEM 2 SEM 1	SEM 1 Society  SEM 2 Architecture Studio 1  SEM 1 Architecture Studio 2  SEM 2 Environmental Design  History and Theories of the Built Environment  Architecture Studio 4	SEM 1 Society  Architecture Studio 1  Drawing History  SEM 2  Architecture Studio 2  SEM 2  Environmental Design  Art and Urban Experience  SEM 1  History and Theories of the Built Environment  Architecture Studio 4  Architecture Studio 4	SEM 1 Society Technology  SEM 2 Architecture Studio 1 Drawing History Fine Arts Studio: Space, Time & Beyond  SEM 1 Architecture Studio 2 Parallel Modernities in Architecture  SEM 2 Environmental Design Art and Urban Experience Design Studio  SEM 1 History and Theories of the Built Environment Being Human: Culture, Identity and Society Architecture Studio 4 Advanced Design Thinking

**Key:** ■ Degree-specific major ■ Electives

Students who complete the Architecture (Extended Major) at a sufficiently high level may proceed to the Master of Architecture by Coursework (MArch). The MArch is accredited by the Architects Boards in each state and territory, and recognised by a number of international accreditation bodies.

<sup>\*</sup> Postgraduate study may be required

"A major in Landscape Architecture has enabled me to focus on areas that interest me, such as climate adaptation, urban flood management, river restoration and master planning. The endless learning, whether it is from the curriculum or from the people, has been most enjoyable and enriching. It has broadened my knowledge and exposed me to new experiences, and thus pushed me to explore different ways to express my ideas in my design."

#### HALEY

LANDSCAPE ARCHITECTURE

#### Landscape Architecture

#### **CAREER OPPORTUNITIES\***

Landscape architect, environmental consultant, urban designer

**Bachelor's degree:** Environmental Design or Philosophy (Honours)

Landscape architecture is the planning, design and management of our natural and built landscapes for the benefit of communities and the future health of the planet. Landscape architects respond to issues like climate change and biodiversity loss by applying systems thinking and practice to develop long-term, large-scale solutions. This major will prepare you for postgraduate studies in landscape architecture or related fields.

#### Why study this course at UWA

- Study in and learn how to design for our uniquely located biodiversity hotspot
- Experience a range of approaches to the design and construction of landscape settings
- Learn to create sustainable and resilient natural environments and urban areas

#### You'll learn to

- analyse and understand landscapes, ecologies and communities
- design and plan for dynamic and resilient places and environments
- demonstrate theoretical and practical knowledge for producing creative design outcomes

**Trending second majors:** Environmental Geography and Planning; Environmental Science; Human Geography and Planning; Indigenous Knowledge, History and Heritage

uwa.edu.au/study/landscape-architecture

\*Postgraduate study may be required

# Course Guide 2023 | Architecture, Design and Planning

# Environmental Geography and Planning

#### **CAREER OPPORTUNITIES**

Urban planner, environmental researcher and consultant, conservationist

**Bachelor's degree:** Environmental Design or Philosophy (Honours)

This major focuses on how to ensure the sustainable use of the natural and built environment, ranging from urban design, managing natural resources and ensuring an appropriate quality of life for all in urban environments. You'll develop essential skills in qualitative and quantitative data collection and analysis, fieldwork, the use of Geographic Information Systems (GIS) and remote sensing, analysing environmental policy and applying environmental planning techniques, all of which are essential for advancing your career.

#### Why study this course at UWA

- You'll be taught by experts across a range of disciplines from urban planning through to natural resource management and conservation
- You'll gain valuable practical skills through fieldwork and industry projects
- Employers prioritise graduates with experience across a broad range of disciplines, whose skills are transferable and adaptable to the variety of issues affecting industry and society

#### You'll learn to

- develop skills in data collection, analysis and interpretation, using data from both the human and natural environment
- apply your knowledge of policy to identify solutions that ensure sustainable usage of natural resources and urban development
- develop workplace-relevant skills including adaptability, teamwork, oral presentations and professional report writing for employers
- use advanced technology to explore data and present commanding data visualisations

**Trending second majors:** Geographical Sciences; Human Geography and Planning; Landscape Architecture; Environmental Management

uwa.edu.au/study/environmental-geography-and-planning

# Human Geography and Planning

#### **CAREER OPPORTUNITIES**

Urban planner, economic development adviser, international aid worker

Bachelor's degree: Arts or Philosophy (Honours)

Creating sustainable, liveable communities and vibrant economies are key challenges facing society. Human societies must increasingly grapple with growing population and economic pressures, increasing cultural diversity and the challenge of ecological sustainability under a changing climate. You'll develop critical, technical and communicative skills to address major policy and planning challenges. With an emphasis on fieldwork, this major will guide you through the complex interplay of environmental, economic, social and political processes that influence the spatial organisation of human activities at a range of scales.

#### Why study this course at UWA

- Gain the knowledge and skills to resolve major urban and regional problems
- Contribute to the creation of liveable communities, vibrant economies and sustainable places
- Human Geography at UWA achieved the highest possible ranking of 'well above world standard' in the national assessment of research (Australian Research Council 2019)

#### You'll learn to

- demonstrate an understanding of geography as an academic discipline
- identify the role of planning systems in shaping the characteristics of cities and regions
- conduct quantitative and qualitative research into urban and regional challenges
- communicate geographical perspectives and knowledge effectively
- understand the geographic and planning methods, policies and approaches used to address urban and regional challenges

**Trending second majors:** Landscape Architecture; Political Science and International Relations; Geographical Sciences, Environmental Management

uwa.edu.au/study/human-geography-and-planning

#### ASSURED PATHWAY

## Master of Architecture

The Master of Architecture enables you to apply concepts to the design of specialised building projects. After completing this professionally accredited course, undertaking at least two years' professional work experience under the direction of a registered architect and passing the Architectural Practice Examination, you'll be eligible to register as an architect in Australia.

#### **Prerequisites:**

- Mandatory undergraduate major: Architecture (Extended Major)
- Completion of a bachelor's degree, with a UWA weighted average mark of at least 60 per cent

ATAR: 92, or 98 via BPhil (Hons)

uwa.edu.au/study/m/architecture

#### ASSURED PATHWAY

# Master of Landscape Architecture

Landscape architecture is the planning, design and management of our natural and built landscapes for the benefit of our communities and the future health of the planet. Landscape architects respond to complex issues like climate change and biodiversity loss by applying systems thinking and practice to develop long-term, large-scale solutions. This Australian Institute of Landscape Architects-accredited course will prepare you for entry into the profession.

#### Prerequisites:

- Mandatory undergraduate major: Landscape Architecture
- Completion of a bachelor's degree, with a UWA weighted average mark of at least 60 per cent

ATAR: 92, or 98 via BPhil (Hons)

uwa.edu.au/study/m/landscape-architecture





Develop your business acumen, grow expert knowledge and manage business case studies, internships and practical projects to prepare you for a fulfilling career in business, government or not-for-profit sectors.

and Commerce

By studying business and commerce, you'll gain an understanding of how businesses and organisations work from the inside out. You can expect to develop the critical decision-making skills needed in projects and build a career transferable to the workforce anywhere in the world. Through practical activities where business theory is applied, you'll learn the nuts and bolts of industries such as:

- · Accounting
- Sales
- Finance
- · Marketing
- Business management
- Human resources

A degree from the UWA Business School is your passport to the world. Globally, employers recognise the quality of a UWA degree in business.

# Top five reasons to study Business and Commerce at UWA

- Dual accreditation UWA Business School is one
  of the few institutions in Australia to be accredited
  by the European Quality Improvement System and
  Association to Advance Collegiate Schools of Business.
- 15+ Business School student clubs including the Student Managed Investment Fund, Women in Business, Bloom Startup, Enactus, UWA Consulting Society, ECOMS and the Graduate Management Association.
- 30+ active industry supporters including AGL Energy, CBH Group, Reserve Bank of Australia, Fortescue Metals, Chevron, Wesfarmers Limited and Woodside.
- UWA Business School is a signatory of the UN PRME.
   An initiative of the United Nations Global Compact.
- An exceptional MBA program that ranks best in Oceania for alumni outcomes. Its graduates are the highest earners in Australia.

uwa.edu.au/study/areas/business-commerce

#### COMPREHENSIVE DEGREE

# Bachelor of **Business**

Minimum ATAR 75 or equivalent

STAT Written English and Verbal or Quantitative
Intake months February and July

Completion 3 years full time or
part-time equivalent

#### **CAREER OPPORTUNITIES**

Management consultant, market analyst, small business entrepreneur

The modern business leader requires a range of skills and knowledge to be successful. UWA's Bachelor of Business is designed to provide you with relevant, practical skills across a range of areas, including management, marketing, applied business economics, business leadership, communication, innovation and entrepreneurship. Coupled with access to real-world industry experiences through our internship and work integrated learning programs, this degree will help you kick-start your career.

#### Why study this degree at UWA

- You'll gain state-of-the-art business knowledge from global experts
- You'll develop key personal and project-based skills that are required in the modern workplace
- You'll gain real-world industry experience through our internship and work integrated learning programs

#### You'll learn to

- apply discipline-specific knowledge to critically analyse applied business problems
- develop the required cognitive, technical and research skills for lifelong learning
- develop effective communication and team-based skills

#### Majors

- Business Management
- Enterprise and Innovation
- Global Business

uwa.edu.au/study/bachelor-of-business

#### Sample study plan

Bachelor of Business with a degree-specific major in Enterprise and Innovation and a second major in Marketing

/R1	SEM 1	Business Reporting and Analysis	Business Communication for Change, Influence and Impact	Data Analytics for Business	Introduction to Enterprise and Innovation
	SEM 2	Management and Organisations	Introduction to Marketing	Economics for Business	Italian Studies 1
YR2	SEM1	Changing the World: Social Innovation, Finance and Enterprise	Consumer Behaviour	Power, Participation and Meaning	Psychology: Behaviour in Context
	SEM 2	Organisational Learning and Innovation	Small Business Management	Marketing Research	Advertising and Branding
R3	SEM1	Enterprise Systems	Professional Experience Practicum	Digital Marketing	Entrepreneurship
>	SEM 2	New Product Development Project	Strategic Marketing	Consumers Around the World	Italian Studies 2

 $\textbf{Key:} \quad \textbf{Foundational units} \quad \textbf{Degree-specific major} \quad \textbf{Second major} \quad \textbf{Electives}$ 

#### COMPREHENSIVE DEGREE

# Bachelor of **Commerce**

Minimum ATAR 80 or equivalent
STAT Written English and Verbal or Quantitative
Intake months February and July
Completion 3 years full time or part-time equivalent

#### **CAREER OPPORTUNITIES**

Entrepreneur, marketer, accountant, managing director

Our Bachelor of Commerce develops your analytical, communication and problem-solving skills, providing you with a global perspective on business and preparing you to pursue a career within the private, government or not-for-profit sectors.

#### Why study this degree at UWA

- You'll learn from leading academics and develop high-level industry networks
- UWA has partnered with Harvard Business School (HBX) so you'll have access to their online learning platform, HBX CORe, to further enrich your study
- You'll have access to our award-winning real-time Trading Room simulation
- There are many Business School student societies to join that will increase your base of industry connections and contacts

#### You'll learn to

- apply discipline-specific knowledge to critically analyse applied business problems
- confidently apply your skills in real-world situations through industry placements, projects and work integrated learning opportunities
- develop effective communication and team-based skills

#### **Majors**

- Accounting
- · Business Analytics
- Business Law
- Economics
- Finance
- Human Resource Management
- Management
- Marketing

uwa.edu.au/study/bachelor-of-commerce

#### Sample study plan

Bachelor of Commerce with a degree-specific major in Accounting and a second major in Finance

YR1	SEM1	Financial Accounting	Microeconomics: Prices and Markets	Introduction to Marketing	Introduction to Law
	SEM 2	Introduction to Finance	Organisational Behaviour	Economic and Business Statistics	Macroeconomics: Money and Finance
YR2	SEM1	Management Accounting	Taxation	Business Analysis and Valuation	Indonesian 1
	SEM 2	Corporate Accounting	Corporate Financial Policy	Financial Planning	Indonesian 2
YR3	SEM1	Financial Accounting: Theory and Practice	Australia and Asia	Investment Analysis	International Finance
	SEM 2	Auditing	Financial Statement Analysis	Trading in Securities Markets	Company Law

#### SPECIALISED DEGREE

# Bachelor of **Economics**

Minimum ATAR 85 or equivalent
STAT Not applicable
Intake months February and July
Completion 3 years full time or part-time equivalent

#### CAREER OPPORTUNITIES

Professional economist, economic consultant, economic analyst, policy adviser

This degree is designed for students who seek to become professional economists and pursue careers as economic consultants, economic analysts, policy advisers and specialist economists in government and business. Economists are experts in understanding how individuals, firms and governments make choices, and the consequences of those choices for all constituents of society, both today and in the future.

#### Why study this degree at UWA

- You'll study alongside the best students in the state and beyond
- You'll learn from internationally renowned specialists across diverse areas of research
- Our economics graduates are highly regarded among key employers including the Reserve Bank of Australia, the Productivity Commission, and the Treasury

#### You'll learn to

- employ the framework of micro- and macroeconomics to rationally analyse general economic problems and arrive at analytically sound conclusions
- interpret and undertake quantitative economic research
- identify and critically reflect on landmark events in Australia's economic history and in the rise of the global economy
- undertake specific economic research that critically evaluates theoretical and/or applied issues in the area of economics
- communicate the results of economic research to fellow economists as well as to a range of potential stakeholders, including other business professionals, policymakers in government and the public at large
- demonstrate an awareness of, and sensitivity to, the personal, social, ethnic and/or international backgrounds of other team members as well as stakeholders

#### Maior

• Professional Economics (Extended Major)

#### Combined Bachelor's and Master's

• Bachelor of Economics and Master of Economics

Minimum ATAR: 90 or equivalent

uwa.edu.au/study/bachelor-of-economics

#### **MAJORS IN BUSINESS AND COMMERCE**

## Accounting

#### **CAREER OPPORTUNITIES**

Accountant, chief executive, managing director

Bachelor's degree: Commerce or Philosophy (Honours)

Accounting prepares you for a career across borders.

Acknowledged as 'the language of business', accounting is spoken by all organisations – big and small – including government agencies and departments, and all not-for-profit institutions around the globe.

#### Why study this course at UWA

- You'll build practical, industry-based experience through units that involve workshops, team exercises and group projects
- This major is recognised by Australian and international professional bodies as a critical step towards gaining professional accreditation. You can seek accreditation with Chartered Accountants Australia and New Zealand, CPA Australia and the Institute of Public Accountants. Some additional electives may be required

#### You'll learn to

- prepare financial accounting reports
- analyse accounting information to evaluate business performance
- use accounting information for optimal resource allocation
- communicate the results of financial analysis

**Trending second majors:** Business Law; Finance; Marketing

#### Recommended subject:

- Mathematics Methods ATAR OR Mathematics
   Applications ATAR AND a mathematics unit taken in the first year.
- Students without ATAR Mathematics will take two first-year mathematics and statistics units

uwa.edu.au/study/accounting

## **Business Analytics**

#### **CAREER OPPORTUNITIES**

Data analyst, economist, marketing analyst

Bachelor's degree: Commerce or Philosophy (Honours)

Combine knowledge in statistics and programming with practical applications to inform real-world business and economic decisions. You'll apply your knowledge in a work-integrated learning internship or practical industry-based project.

#### Why study this course at UWA

- You'll be taught by world-class experts across a range of data-related fields
- You'll develop technical analytical skills that are in extremely high demand by employers
- Through the experiential units, you'll apply your learned knowledge and skills to real-world situations

#### You'll learn to

- develop your computer programming skills (e.g., Python)
- develop skills in using data analytic statistical software (e.g., R)
- evaluate and interpret data to communicate to stakeholders

**Trending second majors:** Finance, Data or Computer Science, Marketing

uwa.edu.au/study/business-analytics

#### **Business Law**

#### **CAREER OPPORTUNITIES**

Business adviser, investment banker, policy and planning manager

**Bachelor's degree:** Commerce or Philosophy (Honours)

This major focuses on the fundamental relationship between law and business, and is ideal for those planning careers in a range of business areas, including professional accounting, business management, online commerce, international trade and industrial relations. It will equip you with important skills in teamwork and communication, as well as high-level analytical, problem-solving and research skills.

#### Why study this course at UWA

- The legal knowledge behind business is highly sought-after by employers, as personal liability and contracts are vital parts of working in the corporate sector
- You'll gain the analytical skills to hold you in good stead for a career in business
- Business Law is an essential area of study for the incoming age of electronic commerce and digitalisation

#### You'll learn to

- understand the Australian legal system and legal aspects of business
- recognise and analyse potential legal problems that can arise from common business transactions
- intelligently request, understand and act on legal services and advice
- acquire practical skills such as simulation of contract management
- use transferable analytical, communication, teamwork, problem-solving and self-management skills

**Trending second majors:** Accounting; Economics; Finance; Management; Global Business

uwa.edu.au/study/business-law

## **Business Management**

#### **CAREER OPPORTUNITIES**

Small business owner, manager in private, public or not-for-profit sectors

**Bachelor's degree:** Business or Philosophy (Honours)

This major covers the foundations of business and organisational management. It will give you a grounding in essential business knowledge, taking in technical and theoretical disciplines such as business reporting, economics, marketing and management principles, as well as key practical communications and data literacy skills. You'll also be able to put your knowledge into practice through a range of internships, industry projects or work integrated learning to further enhance your career options.

#### Why study this course at UWA

- You'll be taught by globally renowned experts in management
- You'll develop key personal and project-based skills that are highly sought-after in the modern workplace
- You'll gain real-world industry experience through our internship and work integrated learning programs

#### You'll learn to

- apply knowledge from a broad range of disciplines to critically analyse applied business problems
- develop the required cognitive, creative, and critical skills for lifelong learning
- be an effective and perceptive communicator to a wide variety of audiences

**Trending second majors:** Enterprise and Innovation; Global Business; Marketing; Accounting

uwa.edu.au/study/business-management

# Communication and Media Studies

#### **CAREER OPPORTUNITIES**

Editor, media planner, social media manager, content developer, journalist, advertising professional

Bachelor's degree: Arts or Philosophy (Honours)

Explore your interest in the ever-changing worlds of digital media, social media, journalism, video-making, interactive media and games, while perfecting your ability to express, persuade and argue. This major provides you with practical training in communication and digital-media skills, alongside essential theoretical knowledge, to teach you how to be an effective and powerful communicator.

#### Why study this course at UWA

- Gain sought-after skills in creativity, problem-solving, teamwork, project management and persuasion
- Learn to use the latest digital and multimedia tools
- Become a versatile, creative and responsible communicator

#### You'll learn to

- engage in creative, critical and reflective thinking, and be able to express yourself eloquently and effectively
- use a range of industry relevant production tools
- work collaboratively to manage complicated tasks and produce media content to professional standards
- develop a critical understanding of cultural and ethical implications associated with media and communication

**Trending second majors:** English and Literary Studies; Marketing; Political Science and International Relations

uwa.edu.au/study/media-studies

#### **Economics**

#### **CAREER OPPORTUNITIES**

Economist, finance manager, financial broker

**Bachelor's degree:** Commerce or Philosophy (Honours)

Economics is fundamental to understanding how individuals, firms, governments and nations interact as economic agents to allocate scarce resources across unlimited needs. This major provides a solid grounding in fundamental economic theory, reasoning and practice.

#### Why study this course at UWA

- Understand the causes and consequences of the economic behaviours and interactions of individuals, firms, governments and nations
- Develop valuable skills in economic analysis and rigorous reasoning
- Provide a deeper economic grounding and broader perspective to complement other majors both within and outside of UWA's Business School

#### You'll learn to

- analyse economic problems using micro- and macro-economics
- critically evaluate issues using economic research
- communicate the results of economic research to economists, business professionals, policymakers in government and the public at large
- work both as an individual analyst and as a member of a team while being aware of, and sensitive to, personal, social, ethnic and/or international backgrounds

**Trending second majors:** Business Law; Finance; Political Science and International Relations; Philosophy

#### Recommended subject:

- Mathematics Methods ATAR OR Mathematics
   Applications ATAR AND a mathematics unit taken in
   the first year.
- Students without ATAR Mathematics will take two first-year mathematics and statistics units

uwa.edu.au/study/economics

## **Enterprise and Innovation**

#### **CAREER OPPORTUNITIES**

Innovation strategist, consultant, entrepreneur

Bachelor's degree: Business or Philosophy (Honours)

If you want to develop your skills, knowledge and practical engagement with the principles of entrepreneurship and innovation in a local and global context, then this major is for you. You'll develop solution-based skills to complex real-world problems and learn to critically apply business solutions to them.

#### Why study this course at UWA

- With our globally-recognised experts, you'll be able to develop your technical knowledge in the business of innovation
- You'll develop key transferable interpersonal and communications skills that are in high demand in the modern workplace
- Learn to combine technical and communications skills and apply them to real-world applications, by gaining access to industry experiences through our employability, internship and work integrated learning programs

#### You'll learn to

- develop an understanding of the entrepreneurial process through exposure to theoretical concepts and current developments in the field
- identify and evaluate strategies that drive entrepreneurial performance and growth
- understand the process of innovation management in both small and large firms
- understand the new product development process and the role that customers play in product definition
- critically reflect on the contemporary marketing and management theories as they apply in small business management and in particular, the ability of a small business to create and maintain a competitive advantage in the market

**Trending second majors:** Business Management; Marketing; Global Business; Chinese Studies

**Recommended subject:** Mathematics Methods ATAR

#### **Finance**

#### **CAREER OPPORTUNITIES**

Financial consultant, investment banker, financial analyst

**Bachelor's degree:** Commerce or Philosophy (Honours)

Finance is the lifeblood of the economy. Discover how managers make financial decisions, what influences the decisions of investors, the means by which companies obtain their financing, and the kinds of risks and rewards associated with financial choices.

#### Why study this course at UWA

- You'll have access to the state-of-the-art Rosemarie Nathanson Financial Markets Trading Room. The largest trading room and training facility of its kind in Australia
- Take a professional experience unit, which bridges the gap between university and the workplace by providing opportunities to gain hands-on, practical experience

#### You'll learn to

- understand and explain the basis for optimal portfolio construction
- apply investment theory to the evaluation of projects
- appreciate the value and limitations of financial instruments such as options and futures
- identify and make use of appropriate riskmanagement techniques
- engage in critical debate on issues in finance

**Trending second majors:** Accounting; Economics; Management; Business Law

#### Recommended subject:

- Mathematics Methods ATAR OR Mathematics
   Applications ATAR AND a mathematics unit taken in
   the first year.
- Students without ATAR Mathematics will take two first-year mathematics and statistics units

uwa.edu.au/study/finance

#### Global Business

#### **CAREER OPPORTUNITIES**

Business owner, business development manager, consultant, entrepreneur

Bachelor's degree: Business or Philosophy (Honours)

Global Business is for students interested in developing key business skills within a broad international context. You'll engage with a range of issues across a number of different disciplines including the principles of international management, the future of work, and the social, cultural and economic implications for businesses of globalisation in the twenty-first century.

#### Why study this course at UWA

- With our globally-recognised experts, you'll be able to develop your understanding of what it means to be a manager for an international business
- You'll develop an appreciation of the interpersonal communications skills required in an international context, which will enhance your ability to work in a culturally diverse workplace
- You'll combine these technical and communications skills and apply them to real-world applications, gaining access to industry experiences through our employability, internship and work integrated learning programs

#### You'll learn to

- identify the key external and internal factors that influence the management of international organisations, and demonstrate how major management functions and skills vary as a result of managing organisations internationally
- recognise why and how ethics and corporate social responsibility vary when managing organisations internationally
- identify the key contextual issues affecting the formulation and implementation of an international business venture, and articulate appropriate responses to specific international business issues
- demonstrate an understanding of how personal and cultural values are related and differ within and across countries, and evaluate how people and their consumption are shaped by their environment and personal experiences
- communicate and work with people from diverse cultures

**Trending second majors:** Business Management; Human Resource Management; Economics

 $\textbf{Recommended subject:} \ \mathsf{Mathematics} \ \mathsf{Methods} \ \mathsf{ATAR}$ 

# Human Resource Management

#### **CAREER OPPORTUNITIES**

Human resource professional, management consultant, recruitment consultant

Bachelor's degree: Commerce or Philosophy (Honours)

Managing people is a valuable skill required by all managers in all industries. By studying Human Resource Management, you'll explore how the proper management of employees contributes to strategic staffing and organisational effectiveness.

#### Why study this course at UWA

- Engage with a wide range of experienced lecturers who bring both practical and research experience to their teaching
- Interact with real-world problems through course content and regular contact with industry practitioners
- Participate in a work-based learning experience

#### You'll learn to

- identify and analyse concepts and techniques
- explain the importance, purpose and objectives of HR
- gain an awareness of the internal and external factors that influence HR
- apply learning about HR concepts to practical contexts and issues

**Trending second majors:** Management; Marketing; Business Law; Work and Employment Relations

uwa.edu.au/study/human-resource-management

## Management

#### **CAREER OPPORTUNITIES**

Business administration manager, project manager, management consultant

**Bachelor's degree:** Commerce or Philosophy (Honours)

Management is the backbone of any organisation, providing organisational, operational, staffing and resourcing expertise that can be applied anywhere, anytime. Gain a comprehensive understanding of managing organisations effectively within different economic, social, political and legal contexts.

#### Why study this course at UWA

- Learn from a diverse range of academic staff who bring to their teaching a combination of both management theory and practical application
- Balance core units with relevant and varied electives
- Participate in a work-based learning experience

#### You'll learn to

- evaluate and understand key concepts, theories and practices important to the management of organisations
- diagnose situations and problems in organisations, and identify appropriate managerial actions
- understand the principles of ethical behaviour and social responsibility in management decision-making
- research management-related issues, topics and problems

**Trending second majors:** Human Resource Management; Marketing; Business Law; Work and Employment Relations; Enterprise and Innovation

uwa.edu.au/study/management

## Marketing

#### **CAREER OPPORTUNITIES**

Advertising professional, brand manager, digital marketer, marketing manager

**Bachelor's degree:** Commerce or Philosophy (Honours)

Do you want to know why customers choose certain products and brands, and what influences these decisions? Studying marketing provides you with the understanding and skills needed to align customer needs to an organisation's output of goods, services or information.

#### Why study this course at UWA

- Marketing is vital to business performance
- Gain the frameworks and knowledge you need to translate data into insights, develop and test new products and services, create a digital marketing campaign and competitive marketing strategy
- Focus on entrepreneurship and new business development, with significant local industry participation from organisations such as Metrix Consulting, Destination Perth, PerthCool Magazine and The Higher Mix

#### You'll learn to

- apply various components of marketing to create customer value
- critically analyse customer decision-making and customer-facing interactions
- research and analyse market opportunities
- evaluate both personal and an organisation's communication strategies

**Trending second majors:** Communication and Media Studies; Management; Enterprise and Innovation

#### Recommended subject:

- Mathematics Methods ATAR OR Mathematics
   Applications ATAR AND a mathematics unit taken in
   the first year.
- Students without ATAR Mathematics will take two first-year mathematics and statistics units

uwa.edu.au/study/marketing

# Work and Employment Relations

#### **CAREER OPPORTUNITIES**

Human resource professional, management consultant, workplace relations adviser

**Bachelor's degree:** Arts or Philosophy (Honours)

This multi-disciplinary course blends politics, law, sociology, economics, history and more to investigate and challenge the policies and institutions designed to help both employers and employees get the most out of their relationship.

#### Why study this course at UWA

- Study across multiple disciplines
- You'll apply theory to real-life problems
- Interact with a diverse range of academics and industry personnel

#### You'll learn to

- understand key concepts, theories and practices in employment relations
- gain perspectives on the transformation of work and society, drawn from relevant social and legal studies
- apply theories to practical contexts and issues
- understand the interests of workers, unions, managers, employers and the state within the workplace and the broader social context of work
- formulate appropriate responses to relevant policy and managerial issues
- understand the principles of ethical behaviour and social responsibility in organisations
- work with and manage teams

**Trending second majors:** Human Resources Management; Management; Political Science and International Relations

uwa.edu.au/study/work-and-employment-relations

#### **Professional Economics**

(Extended Major)

#### **CAREER OPPORTUNITIES**

Professional economist, economic consultant, economic analyst, policy advisor

Bachelor's degree: Economics or Philosophy (Honours)

The Professional Economics (Extended Major), available in the Bachelor of Economics, is designed for students who seek to become professional economists and pursue careers as economic consultants, economic analysts, policy advisers and specialist economists in government and business. Economists are experts in understanding how individuals, firms and governments make choices, and the consequences of those choices for all constituents of society, both today and in the future.

#### Why study this course at UWA

- You'll learn from internationally renowned economists
- You'll develop exceptional skills in economic analysis and rigorous reasoning
- Our graduates are highly regarded by employers both in the public and private sectors, including the Reserve Bank of Australia, the Productivity Commission, and the Treasury, as well as by large and multinational financial institutions and consultancy firms

#### You'll learn to

- employ the framework of micro- and macroeconomics to rationally analyse general economic problems and arrive at analytically sound conclusions
- interpret and undertake quantitative economic research
- identify and critically reflect on landmark events in Australia's economic history and in the rise of the global economy
- undertake specific economic research that critically evaluates theoretical and/or applied issues in the area of economics
- communicate the results of economic research to fellow economists as well as to a range of potential stakeholders, including other business professionals, policymakers in government and the public at large
- demonstrate an awareness of, and sensitivity to, the personal, social, ethnic and/or international backgrounds of other team members as well as stakeholders

#### **Prerequisites:**

- Mathematics Methods ATAR OR Mathematics
   Applications ATAR with a mathematics unit taken in
   the first year
- Students without ATAR Mathematics will take two first-year mathematics units

uwa.edu.au/study/professional-economics

In the Professional Economics (Extended Major), all students will complete a professional experience unit in their third year of study. There is a choice of two experiences:

- WILG3001 Professional Experience Practicum
- ECON3206 Economic Analysis Project

In these units you'll gain hands-on, practical experience. You can master new skills, make connections and network, get a taste of the opportunities in the workforce and add experience to your résumé, all before graduating.

#### COMBINED BACHELOR'S AND MASTER'S DEGREE

# Bachelor of Economics and Master of Economics

Minimum ATAR 90 or equivalent
STAT Not applicable
Intake months February and July
Completion 4 years full time or part-time equivalent

#### **CAREER OPPORTUNITIES**

Market research analyst, policy analyst, economist

Unique among Western Australian universities, this accelerated four-year Combined Bachelor's and Master's (CBM) degree provides you with high-level, discipline-specific knowledge in economics, with a heavy focus on developing your quantitative and analytical skills, and on exposing you to the breadth of disciplines that economics can cover. Employers value our graduates who not only have significant technical knowledge, but also the critical-thinking and problem-solving skills that are a feature of an economist's training here at UWA.

#### Why study this degree at UWA

- Gain advanced data analytic and critical thinking skills, which are highly valued skills in the workplace
- Develop a deep and broad knowledge of economics
- The chance to study with and learn from world-class researchers

#### You'll learn to

- identify and critically reflect on landmark events in Australia's economic history and the global economy
- analyse complex economic relationships using sophisticated data analytic techniques
- communicate the results of economic research to a wide range of potential stakeholders, including other business professionals, policymakers in government and the public at large

#### Major

• Professional Economics (Extended Major)

uwa.edu.au/study/cbm/economics



# Data and Computer Science

Through interpreting the data and computer science behind technological advances, you can help create and develop methods to improve everyday lives.

Gain the knowledge and expertise needed for an exciting career in the world of information and technology.

From mobile data and cloud computing, to artificial intelligence and advanced software development, study in this field to tackle technological challenges and devise innovative solutions to transform the way we live.

Industry 4.0, part of the world's fourth industrial revolution, is changing the way we work and interact with other people and the world around us. In almost every industry, you'll find a requirement for talented professionals in data and computer science.

Whether you explore cybersecurity, AI, computer science or data science, you'll be equipped with the relevant connections and practical skills to forge a career developing new technologies and advanced programming to overcome challenges facing society. With real industry experience through internships and work integrated learning, you'll kickstart opportunities in this rapidly expanding field.

# Top five reasons to study Data and Computer Science at UWA

- Industry-developed courses so you'll gain the skills needed to succeed.
- Gain transferable **skills demanded by employers**, along with technical skills to analyse large amounts of data.
- Learn from **globally renowned experts** who are engaged in world-leading research.
- High-demand graduates, with many working with Google and Facebook.

uwa.edu.au/study/areas/data-computer-science

#### SPECIALISED DEGREE

# Bachelor of **Advanced Computer Science** (Honours)

Minimum ATAR 92 or equivalent

STAT Not applicable
Intake months February and July

Completion 4 years full time or part-time equivalent

#### **CAREER OPPORTUNITIES**

Management consultant, Al or cybersecurity specialist, data scientist, data architect, software developer

UWA's Advanced Bachelor of Computer Science (Honours) gives you the tools and techniques to embrace technological challenges and devise innovative solutions to transform the way we live.

Whether you choose to specialise in AI, International Cybersecurity, or Computing and Data Science majors, you'll gain the relevant practical skills, knowledge and connections to forge an exciting career developing new technologies and advanced programming to overcome challenges in business, science and society.

With real-world industry experiences via your internships and Work Integrated Learning, this degree will help you kickstart your career in the exciting computer science fields of AI, cybersecurity and data.

#### Why study this degree at UWA

- Working alongside industry partners, inspiring researchers and fellow students will give you hands-on experience and connections with future employers working on real-world projects
- You'll develop key personal, communication, problemsolving, creative and project-based skills valued in the modern workplace
- Your in-demand skills in computer science will give you an edge in almost any industry and workplace setting, and your specialised knowledge in AI, cybersecurity or data science will set you apart as an expert in these growing fields

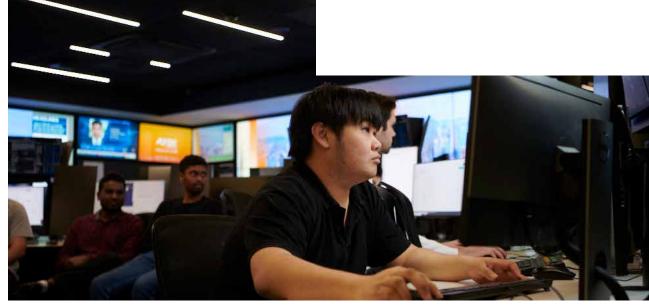
#### You'll learn to

- apply discipline-specific knowledge to identify and overcome business challenges and help organisations achieve their goals
- develop the cognitive, technical and research skills for lifelong learning
- develop effective communication and team-based skills

#### **Majors**

- Artificial Intelligence (Extended Major)
- Computing and Data Science (Extended Major)
- International Cybersecurity (Extended Major)

uwa.edu.au/study/bachelor-of-advanced-computerscience



#### COMPREHENSIVE DEGREE

# Bachelor of Science

Minimum ATAR 75 or equivalent

STAT Written English and Verbal or Quantitative
Intake months February and July

Completion 3 years full time or part-time equivalent

#### **CAREER OPPORTUNITIES**

Agricultural scientist, environmental consultant, marine conservationist, zoologist, biochemist, software developer, analyst, engineer\*, forensic scientist, psychologist\*, sports coach, astronomer

Our Bachelor of Science gives you the skills and knowledge to make a real contribution to the challenges facing humanity. Scientists study the universe, its properties, the life that exists within it and the laws that govern it. Discipline areas range from cuttingedge pure and applied science to new multidisciplinary fields. The importance of science in determining the wellbeing of our society is recognised by industry, business and government.

#### Why study this degree at UWA

- You'll be taught by the world's leading teachers and researchers
- You'll gain highly valued and sought-after skills that will ensure you are well-prepared for many diverse and exciting careers
- You'll have Work Integrated Learning (WIL) opportunities to gain practical industry experience and employability skills

#### You'll learn to

- explore and investigate the big issues confronting our planet
- develop skills in reasoning, logic, observation, analysis, creativity and more
- gain practical, hands-on, industry-relevant experience and skills
- bridge the gap between theory and practice through work experience opportunities
- think critically and push boundaries

#### uwa.edu.au/study/bachelor-of-science

\* Postgraduate studies required

#### Majors

- Agribusiness
- Agricultural Science
- Agricultural Technology
- Anatomy and Human Biology
- Biochemistry and Molecular Biology
- Botany
- · Chemistry
- Computer Science
- Conservation Biology
- Cybersecurity
- Data Science
- Environmental Management
- Environmental Science
- Exercise and Health
- Genetics
- Geographical Sciences
- Geology
- Marine and Coastal Processes
- Marine Biology
- Mathematics and Statistics
- Microbiology and Immunology
- Neuroscience
- Physics
- Physiology
- Psychological and Behavioural Sciences
- Sport Science
- Zoology

#### Combined Bachelor's and Master's

 Bachelor of Science and Master of Teaching (Secondary)

Minimum ATAR: 88 or equivalent

 Bachelor of Science Frontier Physics and Master of Physics

Minimum ATAR: 96 or equivalent

#### **MAJORS IN DATA AND COMPUTER SCIENCE**

# **Artificial Intelligence**

(Extended Major)

#### **CAREER OPPORTUNITIES**

Al engineer, business intelligence developer, Al interaction developer, artificial intelligence specialist

**Bachelor's degree:** Advanced Computer Science or Philosophy (Honours)

The Bachelor of Advanced Computer Science (Artificial Intelligence) provides the skills and knowledge to understand, evaluate, design and implement AI systems. You'll study the philosophical context for AI in real-world applications, and get hands-on practice in contemporary AI, from knowledge representation to deep learning, developing in-demand skills and leadership qualities.

#### Why study this course at UWA

- You'll be in high demand: Al Specialist was the number-one emerging job on LinkedIn in 2020
- Al and machine learning is valued at every level
  of business, from high-level decision making to
  operations, and you'll have a wide choice of careers.
  Al skills are in high demand in consulting companies,
  higher education, engineering design and consulting
  services, software publishing, computer system design,
  the resources sector and financial services
- You'll be able to transform organisations and industries by leading the integration of AI to improve processes, efficiencies and quality so we work smarter, not harder

#### You'll learn to

- understand, evaluate, design and implement artificial intelligence systems
- implement contemporary artificial intelligence techniques, from knowledge representation, to deep learning, developing in-demand skills and leadership qualities for an exciting career in AI
- apply the legal, ethical, social and philosophical context for AI technologies to real-world settings
- work effectively as a team member and a leader for practical Al projects
- extend knowledge in artificial intelligence through research, experimentation and analysis

**Prerequisite:** Mathematics Methods ATAR

uwa.edu.au/study/acsh-artificial-intelligence

# Computing and Data Science (Extended Major)

#### **CAREER OPPORTUNITIES**

Data scientist, data analyst, business intelligence analyst, data architect, data and analytics manager

**Bachelor's degree:** Advanced Computer Science or Philosophy (Honours)

The Bachelor of Advanced Computer Science (Computing and Data Science) will prepare you with the knowledge and practical skills in data science technologies for data collection, cleaning, conversion, analysis, visualisation, interpretation, storage, search, synthesis and cloud management, putting you in high demand in the growing data science job market.

#### Why study this course at UWA

- Working alongside industry partners, inspiring researchers and fellow students will give you hands-on experience and connections with future employers working on real-world projects. Your skills in data science will be in demand in almost any industry
- You'll be able to apply your business and technical knowledge to identify and overcome business challenges and help organisations achieve their goals
- You'll learn how to make evidence-based and datadriven decisions, becoming a valuable problem-solver in your workplace

#### You'll learn to

- apply data visualisation, interpretation, storage and synthesis skills in complex real-world settings
- use predictive modelling to forecast future trends, outcomes and scenarios
- understand the opportunities and constraints of contemporary data science practice as it applies in various industries
- work effectively as a team member and as a team leader on real-world data science projects
- communicate data science, modelling and analytics clearly in oral, graphical and written formats
- extend knowledge in data science through research, experimentation and analysis

Prerequisite: Mathematics Methods ATAR

uwa.edu.au/study/acsh-data-science

## International Cybersecurity

(Extended Major)

#### **CAREER OPPORTUNITIES**

Cybersecurity specialist, information technology specialist, software engineer, information specialist

**Bachelor's degree:** Advanced Computer Science or Philosophy (Honours)

This course prepares you for specialist cybersecurity roles with a global perspective. You'll gain the practical skills and knowledge to lead creation, implementation and management of secure computer systems across a range of exciting career paths. You'll be able to protect people and their data from cyber attacks as you draw on your studies across international relations, ethics and law.

#### Why study this course at UWA

- As a cybersecurity expert, you'll be in high demand.
   According to LinkedIn Professional Jobseeker data, cybersecurity specialists are in the top five emerging careers
- Studying contemporary international politics in the context of cybersecurity will give you the breadth of understanding and technical knowledge employers are looking for
- You can apply your skills to make a real difference by keeping nations, communities, organisations and individuals safe from cyber crime

#### You'll learn to

- create, operate, analyse and test secure systems
- detect, analyse and confront cybersecurity challenges
- use mathematical, technical and business tools to secure information systems across a range of industries
- work effectively as a team member and as a team leader
- extend knowledge in cybersecurity through research, experimentation and analysis

Prerequisite: Mathematics Methods ATAR

uwa.edu.au/study/acsh-international-cybersecurity

## Computer Science

#### **CAREER OPPORTUNITIES**

Software developer, systems administrator, web developer

Bachelor's degree: Science or Philosophy (Honours)

Computing software and systems are integral parts of our daily routine, revolutionising the world in which we live. This major provides you with the knowledge and skills required to participate in that revolution. Develop knowledge of theoretical, algorithmic, implementation and systems principles that underpin computer languages and networks, while learning how to develop new technologies and advanced programming techniques.

#### Why study this course at UWA

- This course has been developed in consultation with industry to equip you with the skills to succeed in your future career
- Learn from world-leading academics
- Computing and computer technology are part of just about everything in life, and computer science graduates are highly sought-after by employers

#### You'll learn to

- develop and implement systems-level software
- understand the technologies that allow humans and computers to interact through visual data, including graphics and animation that underpin the computer games and multimedia industries
- deconstruct problems with software engineering principles, while designing and implementing solutions in diverse, contemporary programming languages
- understand and implement algorithms and their operations in depth; the basis of searches, problem-solving learning and decision-making in complex and intelligent systems

**Trending second majors:** Data Science; Mathematics and Statistics; Enterprise and Innovation

#### Prerequisites:

- Mathematics Methods ATAR OR Mathematics
   Applications ATAR with an additional mathematics unit
   taken in the first year
- Students without ATAR Mathematics will take two first-year mathematics units

uwa.edu.au/study/computer-science

## Cybersecurity

#### **CAREER OPPORTUNITIES**

Cybersecurity specialist, information technology specialist, software engineer

Bachelor's degree: Science or Philosophy (Honours)

With a major in Cybersecurity from UWA, you'll be ready for a range of specialist cybersecurity roles.
With industry-integrated learning, you'll gain the knowledge, techniques, tools and practical skills to lead creation, implementation and management of secure computer systems, protecting people and their data from cyber attacks.

#### Why study this course at UWA

- As a cybersecurity expert, you'll be in high demand.
   According to LinkedIn Professional Jobseeker data, cybersecurity specialists are in the top five emerging careers
- The Cybersecurity major will provide you with the deep technical understanding employers are looking for
- You can apply your tech skills and passion for computer science to make a real difference, keeping organisations and individuals safe from cyber crime

#### You'll learn to

- create, operate, analyse and test secure computer systems
- detect, analyse and confront cybersecurity challenges
- use mathematical, technical and business tools to secure information systems across a range of industries and real-world settings
- work effectively as a team member and as a team leader for real-world cybersecurity projects
- communicate cybersecurity and encryption processes and results clearly in oral and written formats

**Trending second majors:** Data Science; Computer Science; Enterprise and Innovation

#### **Prerequisites:**

- Mathematics Methods ATAR OR Mathematics
   Applications ATAR with an additional mathematics unit
   taken in the first year
- Students without ATAR Mathematics will take two first-year mathematics units

uwa.edu.au/study/cybersecurity

#### **Data Science**

#### **CAREER OPPORTUNITIES**

Programmer/developer, analyst, network administrator

Bachelor's degree: Science or Philosophy (Honours)

In our data-driven world, information is now being collected at an unprecedented speed and scale. From predicting trends to protecting personal information, companies around the world need data scientists to process, explore and harness meaning from their data. This degree will equip you with the practical skills and knowledge to drive organisations forward by finding solutions to complex challenges and making compelling insights using data – abilities highly valued by employers across all industries.

#### Why study this course at UWA

- You'll be highly sought-after by employers. As organisations around the world implement data analytics, the demand for data scientists is rising
- You'll learn to make evidence-based, data-driven decisions, and be a valuable workplace problem-solver
- You'll enjoy lectures from inspiring, experienced experts in the field, as well as tutorials with your peers and practical laboratory classes where you'll put your theoretical knowledge into practice using the latest technologies
- You can enhance your employability while meeting like-minded friends and connections in our student clubs and societies, such as UWA Data Science Club, Coders for Causes and Ethical Hackers Group

#### You'll learn to

- apply computational and statistical techniques to analyse diverse real-world datasets
- construct data science analyses in incremental and integrated stages
- explain ethical and social aspects, and opportunities and constraints of contemporary data-science practice
- demonstrate the ability to work effectively as a team member and leader for real-world data science projects

**Trending second majors:** Computer Science; Finance; Enterprise and Innovation

#### **Prerequisites:**

- Mathematics Methods ATAR OR Mathematics
   Applications ATAR with an additional mathematics unit
   taken in the first year
- Students without ATAR Mathematics will take two additional first-year mathematics units

 $\textbf{Recommended subject:} \ \mathsf{Mathematics} \ \mathsf{Methods} \ \mathsf{ATAR}$ 



# Education

Ignite your passion to teach and inspire a love of learning in others. Qualify for a highly rewarding career as an educator or explore the options for experienced teachers, policymakers and leaders who seek to deepen their knowledge, contribute to the profession and advance their careers.

Education is a vital field in which you'll facilitate learning, transform lives and inspire futures. Develop your skills in best-practice teaching and choose to educate people at all stages of life. As a teacher, you'll inspire minds and empower the next generation of thinkers and doers. A career in teaching is a fulfilling one in which you can change lives and create a lasting positive impact on society.

#### Top five reasons to study teaching at UWA

- **Top university in WA for Education**, and top 10 in Australia (Times Higher Education World University Rankings by Subject 2021).
- 82.4 per cent of UWA teaching graduates are employed full time four months after completing their course (Good Universities Guide 2021).
- Benefit from our strong industry connections through scholarships, volunteering programs, professional development workshops and more.
- Study within a **close-knit cohort** and form lifelong personal and professional networks.
- Gain a competitive edge in your career with a master's degree in teaching in as little as 18 months.

uwa.edu.au/study/areas/education

#### COMBINED BACHELOR'S AND MASTER'S DEGREE

# Bachelor of Science and Master of Teaching (Secondary)

Minimum ATAR 88 or equivalent **STAT** Not applicable **Intake month** February Completion 4 years full time

#### **CAREER OPPORTUNITIES**

Secondary school teacher in STEM subjects: Chemistry, Physics, Mathematics, Physical Education and Human Biology.

Seek a career that combines your love of science with making a difference to the future of young people and become a secondary STEM teacher in just four years. This combined undergraduate and postgraduate degree, the only one of its kind in WA, provides you with in-depth knowledge of the theory and practical skills required for secondary teaching in STEM subjects.

#### You'll choose to specialise in:

- Anatomy and Human Biology
- Chemistry
- Mathematics and Statistics
- Physics
- Sport Science

This subject area expertise, coupled with a teaching qualification, will see you thrive in the global knowledge society.

#### Why study this degree at UWA

- UWA is the only university to offer this course in WA and is a world-leading science university.
- You'll gain two qualifications a Bachelor of Science and Master of Teaching (Secondary) - in just 4 years
- Enjoy strong employment opportunities (national shortage of STEM teachers means you'll be highly sought after, plus you'll qualify to teach two STEM ATAR subjects)
- UWA graduates are in high demand. In 2020, UWA's Graduate School of Education achieved the highest employer reputation score of all Western Australian Education Faculties in the QS World University Rankings by Subject

#### You'll learn to

- apply skills, understanding and professional competencies to practise as an inspiring, flexible and ethical educator who supports all students to reach their full potential
- build and sustain relationships with students and educational stakeholders
- meet the challenges of dynamic educational contexts
- engage in classroom research to continuously improve educational impact

#### **Prerequisites:**

- Mathematics Methods ATAR
- Depending on your chosen major/s there may be additional prerequisite subjects
- Personal statement





# Pathways to becoming a teacher

We offer teaching courses informed by comprehensive and contemporary understandings of childhood development and learning. There will be opportunities for you to practise your teaching skills in authentic settings throughout the course and in professional practice placements.

#### Our teaching courses

You can apply for a combined bachelor's and master's degree, a bachelor's degree and a Master of Teaching together via our Assured Pathways or complete a bachelor's degree first and apply for the Master of Teaching when you're ready. Studying teaching at UWA means that you'll graduate with two qualifications making you stand out to potential employers and expanding your career opportunities.

#### COMBINED BACHELOR'S AND MASTER'S DEGREE

# Bachelor of Science and Master of Teaching (Secondary)

This combined undergraduate and postgraduate degree provides you with in-depth knowledge of the theory and practical skills required for secondary school teaching in STEM subjects.

Minimum ATAR 88 or equivalent Intake month February Completion 4 years full time

#### **Prerequisites**

- Mathematic methods ATAR
- Depending on your chosen major/s there may be additional prerequisite subjects
- Personal statement

#### uwa.edu.au/study/cbm/science-teaching



#### ASSURED PATHWAYS

Choosing a Master of Teaching Assured Pathway means you can secure your place in one of our highly regarded postgraduate teaching courses. You'll complete your bachelor's and will then continue onto your master's degree. There is also a wide range of bachelor's degrees you can take as part of a Master of Teaching Assured Pathway.

#### Master of Teaching (Secondary)

Gain an in-depth knowledge of the theory and the practical skills required to teach Years 7 to 12. Your subjectarea expertise, coupled with this sought-after teaching qualification, will see you thrive in the global knowledge society.

Minimum ATAR via Assured Pathway 80\* or equivalent Intake month January

**Completion** 3 years\* (bachelor's) + 1.5 years (master's) full time or part-time equivalent

#### **Prerequisites**

- Refer to your chosen major/s for prerequisites subjects
- At least six units in relevant disciplines (including two at Level 2 and two at Level 3) for a major teaching area, which will enable you to teach Years 7 to 12
- You can also choose a minor teaching area (enabling you to teach Years 7 to 10) if you complete at least four units in relevant disciplines during your bachelor's degree, including two at Level 2
- Completion of a bachelor's degree with a Weighted Average Mark (WAM) of 60 per cent
- Personal statement
- Before commencing professional practice placements, you'll need to obtain a Working With Children Check

uwa.edu.au/study/m/teaching-secondary

#### Master of Teaching (Primary)

This course focuses on the education and preparation of primary-school educators. You'll be introduced to the breadth of learning required of primary children, including science, the humanities and social science, the arts, and health and physical education. You'll learn a range of evidence based teaching strategies appropriate to Primary aged children, with a special emphasis on the English and Mathematics learning areas.

Minimum ATAR via Assured Pathway 80\* or equivalent Intake month January

**Completion** 3 years\* (bachelor's) + 1.5 years (master's) full time or part-time equivalent

#### **Prerequisites**

- Refer to your chosen major/s for prerequisite subjects
- At least eight units relevant to one or more learning areas in the primary curriculum
- Completion of a bachelor's degree with a Weighted Average Mark (WAM) of 60 per cent
- Personal statement
- Before commencing professional practice placements, you'll need to obtain a Working With Children Check

#### uwa.edu.au/study/m/teaching

#### Master of Teaching (F-12)

This blended mode program ensures you develop the knowledge and professional skills required for teaching in primary and secondary school environment.

Minimum ATAR via Assured Pathway 80\* or equivalent Intake month January

**Completion** 3 years\* (bachelor's) + 2 years (master's) full time

#### **Prerequisites**

- Refer to your chosen major/s for prerequisites subjects
- At least six units in relevant disciplines (including two at Level 2 and two at Level 3) for a major teaching area, which will enable you to teach Years 7 to 12
- You can also choose a minor teaching area (enabling you to teach Years 7 to 10) if you complete at least four units in relevant disciplines during your bachelor's degree, including two at Level 2
- Completion of a bachelor's degree with a Weighted Average Mark (WAM) of 60 per cent
- Personal statement
- Before commencing professional practice placements, you'll need to obtain a Working With Children Check

#### **GRADUATE PATHWAYS**

Complete your bachelor's degree first and apply for your preferred Master of Teaching course when you're ready. This means you can start your journey to becoming a teacher with a minimum **ATAR of 75 or equivalent.** 

#### Next steps

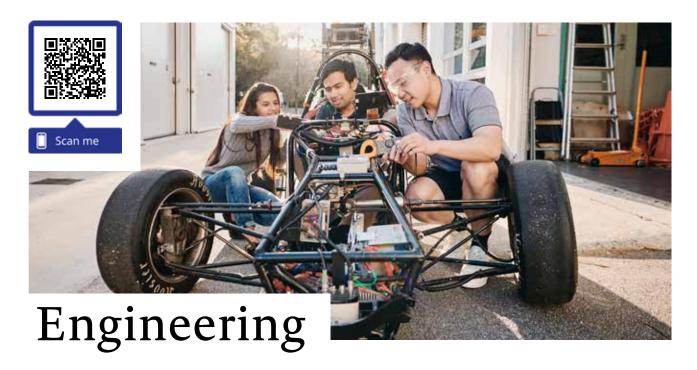
The Master of Teaching is accredited by the Teacher Registration Board of Western Australia (TRB). Graduates are eligible to register with TRB, and this entitles you to be legally employed as a teacher in a Western Australian school.

After gaining some experience, you may choose to advance your career by pursuing further postgraduate study with our courses in Education.

Please refer to the individual majors for prerequisites and recommended subjects.

\* This may vary depending on your chosen bachelor's degree.

Eligibility for the Master of Teaching courses will be assessed based on the specific units completed. Please seek advice from the Graduate School of Education during your bachelor's degree to ensure your unit selections meet the requirements for entry to your chosen Master of Teaching specialisation.



Engineering is a force with which you can create profound change and improvement in society. Through study in this area, you'll be empowered to tackle worldwide challenges and make an impact through engineering innovation.

Embark on an engineering pathway and gain the skills needed to meet future global needs – from creating some of the biggest buildings, to designing minuscule electronic devices.

Do you want to play a critical role to imagining and designing solutions to complex problems? Engineering allows you to do that, by exploring how things work and bringing creations to life, enabling a better society for all.

As new technology emerges, demand for engineering professionals rises. Employers are seeking graduates who are equipped with the technical skills and knowledge to adapt to and evolve with industry developments.

Engineering touches on many aspects of daily life, and there's an area for you to pursue whatever your passion, from automation and robotics, electrical and electronic, biomedical, civil and mechanical engineering, to environmental, chemical, mining and software engineering.

Develop your logical thinking and crucial analytical skills in preparation for a career in a number of highly paid engineering fields.

# Top five reasons to study Engineering at UWA

- UWA has strong links with industry, and during your degree you'll work closely with prospective employers to build connections, knowledge and the most up-to-date, relevant and in-demand skill set.
- You'll graduate as an industry-ready engineer
  who is connected, versatile, technically adept and
  an exceptional problem solver, setting you up for an
  exciting career.
- Enjoy hands-on intensives developing practical skills in 3D printing, welding, soldering and other tools relevant to your chosen career path.
- You can enhance your employability while meeting like-minded friends and connections in our student clubs and societies, such as Engineers Without Borders or Women in Engineering and Mathematical Sciences.
- Be inspired learning from and studying alongside engaging, innovative, experienced lecturers and researchers who are making a real ongoing impact to the industry.

uwa.edu.au/study/areas/engineering



#### **CAREER OPPORTUNITIES**

Careers in engineering across a broad range of specialisations, including automation and robotics, biomedical, chemical, civil, electrical, electronic, environmental, mechanical, mining and software

The Engineering program at UWA has been developed with industry to equip you with the skills to succeed in your future careers. The course is built on three core principles: Relevance, Integration and Excellence. Engineering at UWA is relevant to the contemporary world of engineering, and integrates knowledge, technical capability and practical skills to create exceptional graduates.

In this course, you'll complement your course content with Work Integrated Learning (450-hour practical), co-curricular activities (including engineering clubs such as UWA Makers and UWA Motorsport) and professional skills development to become part of the community of UWA engineering graduates preferred by industry for their technical skills, professional integrity and ability to solve complex open-ended problems.

In four years, you'll graduate as an industry-ready engineer specialising in your choice of Automation and Robotics, Biomedical, Chemical, Civil, Electrical and Electronic, Environmental, Mechanical, Mining or Software engineering.

#### Why study this degree at UWA

- UWA has strong links with industry, and throughout your degree you'll work closely with prospective employers to build connections, industry knowledge and the most up-to-date, relevant and in-demand skill set
- You'll graduate as an industry-ready engineer who is connected, versatile, technically adept and an exceptional problem solver, setting you up for an exciting career
- Enjoy hands-on intensives, developing practical skills in 3D printing, welding, soldering and other tools relevant to your chosen career path
- You can enhance your employability while meeting like-minded friends and connections in our student clubs and societies, such as Engineers Without Borders or Women in Engineering and Mathematical Sciences
- Be inspired while learning from and studying alongside engaging, innovative, experienced lecturers and researchers who are making a real ongoing impact to the industry



#### You'll learn to

- apply mathematical, numerical, statistical and computational sciences that underpin engineering disciplines to real-world challenges
- understand the ethical, social, environmental and financial accountabilities, opportunities and constraints of contemporary engineering practice
- be an effective team member and show leadership
- communicate effectively in professional and non-technical domains
- use your strong grounding in engineering sciences and design principles to solve real-world problems

#### Majors

- Automation and Robotics Engineering (Extended Major)
- Biomedical Engineering (Extended Major)
- Chemical Engineering (Extended Major)
- Civil Engineering (Extended Major)
- Electrical and Electronic Engineering (Extended Major)
- Environmental Engineering (Extended Major)
- Mechanical Engineering (Extended Major)
- Mining Engineering (Extended Major)
- Software Engineering (Extended Major)

#### Prerequisites:

- Mathematics Methods ATAR
- At least one of the following three subjects:
   Mathematics Specialist ATAR, Chemistry ATAR or Physics ATAR\*

\*Note that all four prerequisite subjects are recommended. If you do not have all four subjects you'll need to complete extra units in first year, which may mean taking additional units to meet the course requirements. If you don't meet these entry requirements, you can apply for admission to the Bachelor of Science and subsequently apply to transfer into this course, subject to meeting course transfer requirements set out in the course rules.

uwa.edu.au/study/bachelor-of-engineering

#### COMBINED BACHELOR'S DEGREE

# Bachelor of Engineering (Honours) and Bachelor of Science

Minimum ATAR 88 or equivalent
STAT Not applicable
Intake months February and July
Completion 5 years full time or part-time equivalent

#### **CAREER OPPORTUNITIES**

Engineer, computer scientist, data scientist or analyst, environmental consultant, conservationist, software developer

This combined degree option allows you to pair your engineering degree with your passion for data and technology, environmental science, maths or physics, broadening your career options and giving you an edge in a rapidly changing workforce. In just five years, you can graduate as an industry-ready engineer with your Bachelor of Engineering (Honours), along with a Bachelor of Science with a major in Computer Science, Cybersecurity, Data Science, Environmental Science, Mathematics and Statistics, or Physics. The combination of majors in engineering and science will open a world of possible career paths, while broadening your knowledge, networks and horizons.

# Why study this degree combination at UWA

- The possibilities are huge! You could pair Software
   Engineering with Cybersecurity, Automation and
   Robotics Engineering with Computer Science, Mining
   Engineering with Environmental Science, Biomedical
   Engineering with Mathematics and Statistics...
- You could open up a wider choice of careers if you're uncertain about what you'd like to be, or position yourself for your dream career by complementing your engineering degree with sought-after expertise in a complementary field such as data science
- Studying two degrees in five years, you'll meet more people, build wider industry networks, gain more diverse knowledge and graduate more qualified

#### You'll learn to

- apply mathematical, numerical, statistical and computational sciences that underpin engineering disciplines to real-world challenges
- understand the ethical, social, environmental and financial accountabilities, opportunities and constraints of contemporary engineering practice
- be an effective team member, show leadership and communicate effectively
- explore and investigate the big issues confronting our planet
- think critically, push boundaries and develop skills in reasoning, logic, observation, analysis, creativity and more
- bridge the gap between theory and practice through practical, hands-on, industry-relevant work experience

#### uwa.edu.au/study/bachelor-of-engineeringbachelor-of-science

 ${\tt NOTE:} Software \ Engineering\ major\ cannot\ be\ paired\ with\ Computer\ Science\ or\ Data\ Science\ majors$ 

#### COMBINED BACHELOR'S DEGREES

# Bachelor of Engineering (Honours) and Bachelor of Commerce

Minimum ATAR 88 or equivalent
STAT Not applicable
Intake months February and July
Completion 5 years full time, or
5.5 years for chemical engineering major,
or part-time equivalent

#### **CAREER OPPORTUNITIES**

Engineer, accountant, economic analyst, entrepreneur, managing director, business development manager, management consultant, market analyst, commercialisation specialist, investment banker, policy and planning manager

This combined degree option allows you to pair your engineering degree with your interest in business and commerce, broadening your career options and giving you an edge in a rapidly changing workforce. In just five years, you can graduate as an industry-ready engineer with your Bachelor of Engineering (Honours), in addition to a Bachelor of Commerce with a major in Accounting, Economics, Finance, Management or Business Law.

A Commerce degree will complement your Engineering qualification by further developing your analytical, communication and problem-solving skills, and enhancing your employability with additional Work Integrated Learning and real-world project experiences.

This combined degree will open a world of possible career paths, while broadening your knowledge, networks and horizons.

# Why study this degree combination at UWA

- Engineers with business nous and commerce qualifications are in high demand
- Expand your opportunities if you're not certain about your future career, or position yourself for your dream career by complementing your engineering degree with expertise in a complementary field such as management or economics
- Studying two degrees in five years, you'll meet more people, build wider industry networks, gain more diverse knowledge and graduate more qualified
- You'll have access to our award-winning real-time
   Trading Room simulation and Harvard Business School's
   online learning platform, HBX CORe, to further enrich
   your experience and business knowledge

#### You'll learn to

- apply the mathematical, numerical, statistical and computational sciences that link engineering disciplines to real-world challenges, and apply discipline-specific knowledge to applied business problems
- understand the ethical, social, environmental and financial accountabilities, opportunities and constraints of contemporary engineering practice
- be an effective team member, show leadership and communicate effectively
- think critically, push boundaries and develop skills in reasoning, logic, observation, analysis, creativity and more
- confidently apply your skills in real-world situations through industry placements, projects and Work Integrated Learning opportunities

uwa.edu.au/study/bb/engineering-and-commerce

#### COMBINED BACHELOR'S DEGREES

# Bachelor of Engineering (Honours) and Philosophy (Honours)

Minimum ATAR 98 or equivalent STAT Not applicable Intake months February Completion 5.5 - 6.5 years

#### **CAREER OPPORTUNITIES**

Engineer, accountant, economic analyst, entrepreneur, managing director, business development manager, management consultant, market analyst, commercialisation specialist, investment banker, policy and planning manager

This combined degree option for high-achieving students gives you the opportunity to combine your Bachelor of Engineering (Honours) with a Bachelor of Philosophy (Honours), allowing you to graduate as an industry-ready engineer with two Honours degrees in under six years, and set yourself up for an exciting and varied career pairing engineering with another passion – whatever that may be!

The Bachelor of Philosophy means you can choose to pair your Engineering degree with any degree-specific UWA major from our comprehensive degrees.

# Why study this degree combination

- Ideal for high-achievers with a passion for engineering, this combined degree gives you the opportunity to get hands-on undergraduate research experience
- Gain one-on-one mentoring from leading academics and overseas exchange and education opportunities

#### You'll learn to

- As well as gaining a broad, practical engineering foundation in your chosen engineering specialisation, you'll be able to explore your interests further through an additional degree-specific major of your choice and the research-focussed activities of the BPhil (Hons)
- Working with a mentor, you'll have the flexibility to design a program to stimulate and challenge your learning and to suit your personal career goals
- This combined degree offers exceptional career advantages, giving you an edge over your competitors.
   You'll also be ideally positioned to apply for PhD or research opportunities with the best universities around the world

uwa.edu.au/study/cb/engineering-and-philosophy

#### **MAJORS IN ENGINEERING**

# Automation and Robotics Engineering

(Extended Major)

#### **CAREER OPPORTUNITIES**

Automation lead, robotics system developer, robotics and automation engineer or consultant

**Bachelor's degree:** Engineering (Honours)

Combining relevant aspects from all engineering disciplines, software development, electronic hardware design and mechatronics, this major covers the principles, design and operation of industrial robot manipulators, as well as intelligent autonomous robots and self-driving vehicles. You'll graduate as an industry-ready engineer in four years, in an exciting and expanding field.

#### Why study this course at UWA

- Robotics, automation, artificial intelligence and Industry 4.0 are high-growth areas, with strong demand for skills and knowledge
- Along with the technical expertise, you'll develop the multidisciplinary professional skills and breadth of knowledge industry is seeking
- You'll become an engineer with sought-after automation and robotic expertise. Robotics are increasingly instrumental in engineering projects with remote operating systems, in offshore projects, mining, agriculture and healthcare – the driving forces of our economy

#### You'll learn to

- work in advanced manufacturing, mechatronics, digital systems, microprocessors and embedded systems, factory automation, manufacturing and automotive industries
- design digital and embedded systems
- develop code for automation and robotics applications
- integrate software, electronic hardware and mechanical systems to perform a specified function

uwa.edu.au/study/automation-and-roboticsengineering

# **Biomedical Engineering**

(Extended Major)

#### **CAREER OPPORTUNITIES**

Biomedical engineer, researcher or consultant

**Bachelor's degree:** Engineering (Honours)

Biomedical Engineering takes engineering design and principles together with computing, mathematics, life sciences and medicine to improve diagnosis, treatment and prevention of disease and disability. In this major, you'll discover the core theories, methods and practices to work at the forefront of this exciting, multi-disciplinary field in industries including biotechnology, biomedicine, pharmaceuticals, medical device and equipment industries, healthcare research and innovation. Learning to work on advances in biomedical technologies such as new surgical imaging, visualisation and simulation techniques, developing medical instruments and devices, you'll be making a real impact on people's lives.

#### Why study this course at UWA

- If you're interested in technology and engineering and would like to make a huge impact on people's lives, a career in biomedical engineering will see you using your STEM skills to make a real difference
- You'll become an industry-ready engineer with soughtafter health and biomedical expertise. With a growing demand for healthcare, and advances in technology, biomedical engineering is an emerging high-growth field, with strong demand for skills and knowledge
- The innovations and impacts in this field are limitless, from the next bionic eye, microscope in a needle or implants to control epilepsy, to tissue regeneration for cancer patients (all biomedical tech innovations)

#### You'll learn to

- synthesise, design and maintain biomedical devices that are fit for purpose
- design medical devices for diagnosis or treatment of disease or physical rehabilitation
- apply mathematical, numerical, statistical and computational sciences that underpin engineering disciplines to medical and healthcare applications

uwa.edu.au/study/biomedical-engineering

# **Chemical Engineering**

(Extended Major)

#### **CAREER OPPORTUNITIES**

Chemical engineer, researcher or consultant

**Bachelor's degree:** Engineering (Honours)

This major equips you with the skills and knowledge to design sustainable chemical processes, equipment and products to improve society and the environment. It will open world of opportunities: you could be working with major local employers in energy and mining, or applying your skills to the fine chemical industry, food industry, finance and consulting, renewable and alternative energy sector, or government agencies such as the CSIRO.

#### Why study this course at UWA

- You'll make valuable career connections with UWA's industry partners, including Chevron, Woodside, Lycopodium, South32 and more
- You'll become an industry-ready chemical engineer with broad knowledge of alternative energy sources and climate change-mitigation strategies
- Career options are extensive and some of the highestpaid in the industry, including work in petroleum, minerals processing, oil and gas, water and waste management, and renewable and sustainable energy

#### You'll learn to

- formulate, conduct and present research into new products, processes or chemical/physical phenomena
- apply detailed knowledge of chemical processing and underpinning thermodynamics
- apply mathematical, numerical, statistical and computational sciences that underpin engineering to design methods, equipment and products to improve the chemical processes within industries such as oil and gas, sustainable energy and mineral processing
- understand topics such as advanced oil and gas processing, combustion science and technologies, renewable energy and alternative fuels, mineral processing, reaction engineering and catalysis, and flow phenomena relevant to chemical processes

uwa.edu.au/study/chemical-engineering

# Civil Engineering

(Extended Major)

#### **CAREER OPPORTUNITIES**

Civil engineer, researcher or consultant

**Bachelor's degree:** Engineering (Honours)

This major focuses on the plan, design, construction and maintenance of projects ranging from commercial and residential buildings, to offshore structures. It will help you develop the essential skills and knowledge for sustainable professional practice of civil engineering projects and producing safe, economical and environmentally sound structures. You'll cover geotechnical engineering, structural engineering, hydrology and hydraulic engineering, surveying, coastal and offshore engineering, construction and transportation engineering.

#### Why study this course at UWA

- You'll be able to network with UWA's industry partners, including Pritchard Francis, BG&E, Georgiou, Arup, NGI, Atteris, Main Roads, Golder Associates, Water Corporation, GHD, Aurecon and CMW Geosciences
- You'll become an industry-ready civil engineer
- Partner your project management skills with technical and practical understanding by working with UWA's geotechnical, structural and water engineering facilities. These include earthquake simulation designed for industry, the world's largest O-tube water flume, the large-scale low-speed wind tunnel, geotechnical centrifuges, pressure chambers to model piles and penetrometers, and EZONE's structural lab

#### You'll learn to

- understand management and analysis of civil engineering projects and data
- analyse risk and safety
- apply core civil engineering disciplines such as structural mechanics, geomechanics, rock mechanics and hydraulics to real-world projects
- apply mathematical, numerical, statistical and computational sciences that underpin engineering to design methods, equipment and products, improving safety and built environments

uwa.edu.au/study/civil-engineering

# Electrical and Electronic Engineering (Extended Major)

#### **CAREER OPPORTUNITIES**

Electrical engineer, researcher or consultant, electronics engineer, researcher or consultant

Bachelor's degree: Engineering (Honours)

Electrical and Electronic Engineering ranges from the nanometres-thick scale of advanced electronic devices to the kilometres-long scale of power transmission, and everything in between. You'll learn to overcome challenges in the generation and transmission of information and electric power, and the design and testing of electrical and electronic devices, circuits and systems. You'll also consider the context of the broader system application, including economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability constraints.

#### Why study this course at UWA

- You'll make valuable connections with UWA's industry partners, including Clough, Lycopodium, Western Power, Atlas Copco, South32, Alcoa and other members of the electrical engineering industry advisory panel, giving your career a head-start
- Become an industry-ready electrical and electronic engineer, opening up a world of career opportunities in innovative fields such as developing sustainable energy solutions, designing technologies to improve healthcare, creating systems that support industry or communities, or designing electronics to transform lives
- As a UWA electrical and electronic engineering student you could spend your time working on the Renewable Energy Vehicle (REV) project or in the Robotics Lab, developing sustainable energy solutions, designing new technologies, solving detailed computer problems and working with some of the world's best minds

#### You'll learn to

- make tangible contributions, meet new technical challenges, contribute effectively as a team member, and be an innovator in the analysis, design and implementation of electrical and electronic devices and systems
- apply knowledge in the core sub-discipline areas of Power and Control, Electronics, Communications and Computing (which includes robotics and automation)

## **Environmental Engineering**

(Extended Major)

#### **CAREER OPPORTUNITIES**

Environmental engineer, researcher or consultant

Bachelor's degree: Engineering (Honours)

In this major, you'll gain a thorough understanding of the environmental challenges facing our world and how engineers can assess and manage the effects of human and other activity on the natural and built environment.

#### Why study this course at UWA

- You'll make be able to network with UWA's industry partners, including Water Corporation, Department of Water and Environmental Regulation and other members of the environmental engineering industry advisory panel
- Become an industry-ready environmental engineer, highly sought-after by employers in regulatory authorities, mining and construction companies, development organisations, consultancies and government agencies
- You'll be joining a community of leaders making a real impact - UWA is ranked 21st in the world and 1st in Australia for Environmental Science and Engineering (ARWU 2021)

#### You'll learn to

- research and develop new technologies and techniques to improve the environmental acceptability of engineering projects
- evaluate environmental and social impacts of engineering projects in association with the public, scientists and other engineers
- design and operate processes to treat wastes to a standard acceptable for discharge and/or recycling (such as wastewater treatment or waste solidification)
- work with occupational health experts to ensure a hazard-free working environment
- prepare reports and studies on the best approach to environmental management in new and existing engineering projects, taking into account environmentally sustainable economic activity and legal, environmental and industrial factors
- effectively communicate relevant issues to other technical staff, managers, regulatory authorities, public interest groups and the public

uwa.edu.au/study/electrical-and-electronic-engineering

uwa.edu.au/study/environmental-engineering

## Mechanical Engineering

(Extended Major)

#### **CAREER OPPORTUNITIES**

Mechanical engineer, researcher or consultant

Bachelor's degree: Engineering (Honours)

Mechanical Engineering is all about the development, installation, operation and maintenance of machinery, solving practical engineering problems and improving efficiency – putting mechanical engineers in high demand in many industries. Ideal for anyone with an interest in how things work and finding hands-on solutions and innovations, UWA's Mechanical Engineering major explores theories, methods and practices used in sound and vibration, control, thermodynamics, fluids and materials.

#### Why study this course at UWA

- You'll make valuable connections with UWA's industry partners, including Woodside, Chevron, Lycopodium, Royal Perth Hospital, Alcoa and other members of the mechanical engineering industry advisory panel, giving your career a head-start
- You'll become an industry-ready mechanical engineer
  with a broad skill set, which will place you in high
  demand across industries from offshore and petroleum
  engineering through to the building, mining, mineral
  processing, construction, power, automotive and
  aerospace manufacturing
- You'll be joining a community of like-minded inventors and innovators, who enjoy getting hands-on with thermodynamics, measurement and noise, machine components and more in the UWA Makers Lab

#### You'll learn to

- synthesise and design, select and size mechanical components and systems that satisfy specific design criteria
- apply the principles of project planning, project management, and risk and safety management
- work effectively and take responsibility for successful outcomes as an individual, team member or team leader while also demonstrating a good understanding of engineering practice, such as aligning a project with stakeholder interests, social and environmental responsibility, and occupational health and safety

uwa.edu.au/study/mechanical-engineering

## Mining Engineering

(Extended Major)

#### **CAREER OPPORTUNITIES**

Mining engineer, researcher or consultant

Bachelor's degree: Engineering (Honours)

Mining engineering involves extracting essential commodities from the earth safely and sustainably, to process into materials that can provide a better standard of living. This includes deposit evaluation, mine design, mine production, and environmental management, all underpinned by rapid technological advancement. UWA's major in Mining Engineering is defined by our industry integration and leadership in data science applications, AI, remote systems, automation and robotics. In this major you'll build the technical skills, mining science knowledge, industry connections and hands-on experience to excel in the global resources sector, and to lead the technological transformation and development of the industry.

#### Why study this course at UWA

- You'll make valuable connections with UWA's industry partners including BHP, Rio Tinto, Fortescue Metals Group and other members of the mining engineering industry, giving your career a head-start
- Become an industry-ready mining engineer with a broad skill set, in demand across industries where your knowledge of mine-site operations will place you in high regard
- You'll be studying alongside students from a range of different engineering specialisations, sharing ideas and gaining an understanding of how to work in successful cross-functional teams
- UWA is ranked 3rd in the world and 1st in Australia for Mining and Mineral Engineering (ARWU 2021), so you'll be learning and working alongside leaders making a real impact

#### You'll learn to

- select the most appropriate mining techniques for any operation, considering technical applicability, costs and safety
- assess internal and external risks and constraints in mine-site operation
- identify which mining equipment is appropriate for a specific location, and accurately design its operation, productivity, and operating costs

uwa.edu.au/study/mining-engineering

## Software Engineering

(Extended Major)

#### **CAREER OPPORTUNITIES**

Software engineer, researcher or consultant

Bachelor's degree: Engineering (Honours)

Software engineers require a diverse set of skills, including design, modelling, negotiation, team management, estimation and programming. The specific tasks they perform evolve quickly, reflecting new areas of specialisation and changes in technology. Studying a Software Engineering major at UWA will provide you with a solid foundation in software requirements, design, implementation, testing and professional engineering standards. You'll also learn about advanced topics in mobile computing, cloud computing and artificial intelligence.

#### Why study this course at UWA

- You'll make valuable connections with UWA's industry partners, including Woodside, Chevron, Lycopodium, Royal Perth Hospital, Alcoa and other members of the mechanical engineering industry advisory panel, giving your career a head-start
- You'll become an industry-ready software engineer with a broad skill set and career options including developing robotic software to be used in large mining equipment, creating mathematical modelling programs to track the spread of disease, using computer-aided techniques to review, test and validate financial data and calculations, or analysing the security of IT security frameworks in large corporations
- You'll graduate as a capable problem solver, able to design and deliver software solutions

#### You'll learn to

- apply knowledge of computing and software engineering through research, experimentation and analysis, identifying needs, developing hypotheses and applying methods to new settings
- design experiments or theories, critically evaluate and then effectively communicate the results
- apply the practical use of research techniques, building on the UWA's strengths in software engineering theory

uwa.edu.au/study/software-engineering

# New ways to learn in Engineering

Developed with our partners in technology, resources, energy, infrastructure, marine and offshore industries, the Bachelor of Engineering (Honours) will produce exceptional, career-ready engineers in four years. Our industry partners have identified key skills and qualities they need in new engineers to perform in their rapidly evolving sectors, including advanced technical knowledge, hands-on skills, and communication, teamwork and problem solving, to work alongside Al and automated systems.

So, what makes this cohort of engineers stand out? At UWA, you're joining a community of connected, experienced, passionate and engaging engineers and engineers-in-training, together leading the future of sustainable, efficient, innovative engineering.

In addition to internships and industry projects, you'll take part in three one-week skills programs. Each will equip you with the skills you need to succeed in your studies and career:

#### In your first year

A week of interactive activities to teach technical and enterprise skills, including teamwork, technical writing, report writing, using technical references, using the library and accessing study support.

#### In your second year

A week of hands-on workshops where you'll learn to use the specialisation-specific tools, instruments and devices you'll need on the job, such as welding, 3D printing and soldering.

#### In your third year

A week-long workplace simulation or project to help you secure and prepare for your practical industry placement. You'll gain problem-solving, creativity, communication, leadership and other enterprise skills. You'll also work on interview preparation and how to succeed in a modern workplace setting.

On top of these three weeks there's 450 hours of practical

Work Integrated Learning (internship) to complete, making our grads industry-ready. On completion you'll gain the must-have skills identified by our industry partners, who helped us design the course to train the engineers of tomorrow.



Discover the power of legal thinking and learn alongside others who share your passion for justice and upholding the law. Start your journey to becoming an expert and explore areas such as criminology, human rights, commercial law, mining and energy law, taxation law and more.

If you desire to perform a valuable role in your community, seek justice and make a difference in society, law could be for you. The importance of law is present in an array of industries, providing you with the opportunity to deliver real change in Australia and around the world. Build a global career and create positive, lasting change.

Our Law School provides a Clinical Legal Education program where you can participate in legal internships with law firms, courts, government agencies, non-governmental organisations and the UWA Mediation Clinic, preparing you for the workplace.

You'll also develop your practical skills and experience in a real-life setting through our Moot Court. Working with leading independent law firm Corrs Chambers Westgarth, you could take on Legal APPtitude, a unit where you'll team up with a lawyer to develop artificial intelligence solutions to some of the not-for-profit sector's most pressing problems.

#### Top five reasons to study Law at UWA

- Enjoy accreditation and international recognition

   the Juris Doctor is accredited by the Legal Practice
   Board of Western Australia and recognised in China,
   Malaysia and Singapore.
- Join our successful alumni including High Court judges, Queen's Counsel and Senior Counsel barristers, solicitors, academic lawyers, Rhodes and Fulbright Scholars, and former prime minister Bob Hawke.
- Our grads get jobs 83 per cent full-time employment rate four months post-completion of course (Postgraduate, GUG, 2021).
- Learn from award-winning, practising legal professionals – our highly respected educators are regularly nominated for and recipients of UWA and national teaching awards.
- World top 100 Law School (QS 2021, THE WUR 2021) with 90+ years leading law education.

uwa.edu.au/study/areas/law

#### SPECIALISED DEGREE

# Bachelor of Criminology and Criminal Justice\*

Minimum ATAR 80 or equivalent
STAT Not applicable
Intake months February and July
Completion 3 years full time or part-time equivalent

#### **CAREER OPPORTUNITIES**

Corrective services officer, crime prevention and community liaison, political adviser

Learn about the role Criminology plays in understanding crime and how we deal with it, as well as effective criminal justice interventions.

You'll be encouraged to question current practices in the field and find ways for improvement, while developing a broad range of employment-relevant skills, including the capacity to think critically, integrate theory and research into practice, and communicate effectively.

A degree in Criminology and Criminal Justice draws broadly upon knowledge and perspectives from a range of disciplines including Law, Psychology, History, and Geography. Through this, you'll be exposed to the breadth of contemporary Criminology and Criminal Justice issues.

#### Why study this degree at UWA

- Gain a solid understanding of contemporary issues in Criminology and Criminal Justice through this interdisciplinary degree
- Learn from academics with strong expertise and who are active researchers in the field
- You'll benefit from strong industry connections

#### You'll learn to

- effectively locate, analyse, and critique contemporary criminal justice resources
- develop independent, evidence-based positions on contemporary criminal justice resources
- build strong arguments and formulate policy related advice

#### **Majors**

• Criminology and Criminal Justice (Extended Major)

uwa.edu.au/study/b/criminology-and-criminal-justice

\*Subject to final approval. See website for the most up to date course information.

#### **MAJORS IN LAW**

#### **Business Law**

#### **CAREER OPPORTUNITIES**

Business adviser, investment banker, policy and planning manager

**Bachelor's degree:** Commerce or Philosophy (Honours)

This major focuses on the fundamental relationship between law and business, and is ideal for those planning careers in a range of business areas, including professional accounting, business management, online commerce, international trade and industrial relations. It will equip you with important skills in teamwork and communication, as well as high-level analytical, problem-solving and research skills.

#### Why study this course at UWA

- The legal knowledge behind business is highly sought-after by employers, as personal liability and contracts are vital parts of working in the corporate sector
- You'll gain the analytical skills to hold you in good stead for a career in business
- Business Law is an essential area of study for the incoming age of electronic commerce and digitalisation

#### You'll learn to

- understand the Australian legal system and legal aspects of business
- recognise and analyse potential legal problems that can arise from common business transactions
- intelligently request, understand and act on legal services and advice
- acquire practical skills such as simulation of contract management
- use transferable analytical, communication, teamwork, problem-solving and self-management skills

**Trending second majors:** Accounting; Economics; Finance; Management; Global Business

uwa.edu.au/study/business-law

#### Law and Society

#### **CAREER OPPORTUNITIES**

Human resources professional, teacher, lobbyist

Bachelor's degree: Arts or Philosophy (Honours)

From human rights, crime and justice, to Indigenous rights, freedom of expression and religion, social media and the law, this major explores the impact of legal and social policy on all areas of our lives. Through this major you'll understand, apply and adapt concepts in sociolegal studies while developing skills in research analysis, teamwork and communication.

#### Why study this course at UWA

- We offer a fascinating range of broad units as an excellent foundation of law
- You'll develop your empathy, reasoning skills and teamwork skills as you collaborate with others on projects
- You'll improve your analytical and research skills
- Learn about current and critical topics in law today, such as terrorism and using the internet for advocacy and activism

#### You'll learn to

- critique legal and social policy nationally and globally, in the context of various topics
- understand concepts in law and policy
- gain transferable interpersonal, analytical, teamwork, research and communication skills

**Trending second majors:** Business Law; Political Science and International Relations

uwa.edu.au/study/law-and-society

# Course Guide 2023 | Law

#### Criminology

#### **CAREER OPPORTUNITIES**

Corrective services officer, community development worker, youth worker

**Bachelor's degree:** Arts or Philosophy (Honours)

Criminology allows you to study crime and criminal justice while drawing on perspectives from a range of disciplines including law, psychology, history, anthropology, forensic science and geography. This major will challenge you to apply criminological theory to analyse contemporary challenges relating to crime, victimisation, crime prevention and the criminal justice system.

#### Why study this course at UWA

- Get a fascinating look into crime and the justice system
- You'll be taught by criminologists, historians, geographers, forensic scientists, anthropologists and psychologists
- This major pairs well with many other majors

#### You'll learn to

- understand the breadth of issues in contemporary criminology and the criminal justice system
- · critique crime and criminal law
- use transferable creative thinking, teamwork and problem-solving skills

**Trending second majors:** Business Law; Law and Society

uwa.edu.au/study/criminology



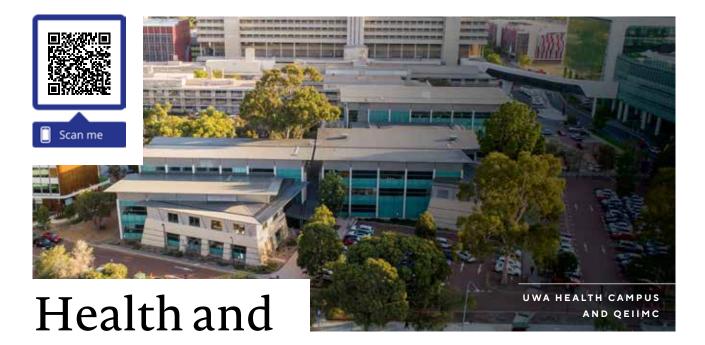
The Juris Doctor provides comprehensive training and a prestigious qualification for a successful career as a lawyer. The UWA Juris Doctor is Western Australia's only postgraduate qualifying degree with which graduates can apply for admission as a lawyer with the Legal Practice Board of Western Australia. The qualification is also recognised in China, Malaysia and Singapore.

#### **Prerequisites:**

- Prerequisite subjects of your chosen major
- Completion of a bachelor's degree, with a UWA Grade Point Average of at least 5.5

ATAR: 96, or 98 via BPhil (Hons)

uwa.edu.au/study/juris-doctor



### **Biomedical Sciences**

Are you passionate about advancing the health and wellbeing of communities? Studying Health and Biomedical Sciences at UWA will develop your analytical, technical and problem-solving skills, and provide you with the knowledge and practical experience for careers as diverse as clinical practice, medical research or public health.

The global demand for graduates with health and medical expertise is growing. You may choose to become a health practitioner, working directly with patients in hospital or community-based settings, but studies in this area also provide excellent preparation for careers in research, training, policy, planning and management.

We have WA's most comprehensive range of accredited pathways to a professional career in health, including medicine, dentistry, optometry, pharmacy, podiatric medicine, psychology, social work and clinical pathology.

You can also join the in-demand health industry through a postgraduate qualification in public health, infectious diseases, nutrition, exercise and health, clinical exercise physiology or sport science.

We are tightly integrated with the Western Australian health system, public and private health providers, consumer advocacy groups and community health organisations. This close interaction ensures you'll be equipped with the skills and knowledge to become a health leader of the future.

Our pioneering research continues to have an impact on the health of people worldwide, be it in preventing preterm birth, discovering the genetic basis of inherited and acquired disorders, or regenerative medicine.

Our researchers all share the desire to make a difference by translating their discoveries into clinical practice. Interdisciplinary collaboration is at the heart of our research success.

### Top five reasons to study Health and Biomedical Sciences at UWA

- Real-world experience with lab-based learning, industry placements and research projects.
- Classes at UWA Health Campus on the Queen Elizabeth II Medical Centre site, the largest medical centre in the Southern Hemisphere.
- Be **taught by leading experts** in their field, who have won national teaching awards.
- We are ranked 3rd in Australia and 30th in the world for Clinical Medicine (ARWU 2021).
- We are ranked **2nd in Australia** and 38th in the world **for Human Biological Sciences** (ARWU 2021).

uwa.edu.au/study/areas/health-biomedical-sciences

#### **COMPREHENSIVE DEGREE**

# Bachelor of **Biomedical Science**

Minimum ATAR 80 or equivalent

STAT Written English and Verbal or Quantitative
Intake months February and July

Completion 3 years full time or part-time equivalent

#### **CAREER OPPORTUNITIES**

Medical researcher, policy adviser, health promotion officer, exercise physiologist, biochemist, laboratory manager, pharmacist\*, medical practitioner\*, dentist\*, podiatrist\*

Our Bachelor of Biomedical Science encompasses the biological basis of human structure and function, and the application of this knowledge to disease, wellbeing and society. It's an exciting degree designed to meet growing global demand for health graduates. Some of your classes are held in cutting-edge labs at the UWA Health Campus, located on the QEIIMC site in Nedlands. As the largest medical centre in the southern hemisphere it's surrounded by major public hospitals and internationally renowned organisations, including the Harry Perkins Institute of Medical Research, PathWest and the Telethon Kids Institute.

#### Why study this degree at UWA

- You'll be taught by world-class researchers in cuttingedge laboratories and tutorial rooms
- You'll learn from and network with some of the world's brightest minds
- UWA is ranked 2nd in Australia for Human Biological Sciences (ARWU 2021)
- This degree may include laboratory-based learning, practical industry placements, or research projects, ensuring you are ready to enter the global workforce
- \* Postgraduate studies required
- 1 The Integrated Medical Sciences and Clinical Practice extended major is only available to students who are offered an Assured Pathway to the Doctor of Medicine
- 2 The Integrated Dental Sciences extended major is only available to students who are offered an Assured Pathway to the Doctor of Dental Medicine
- 3 The Podiatric Health and Medical Sciences extended Major is only available to students who are offered an Assured Pathway to the Doctor of Podiatric Medicine

#### You'll learn to

- bridge the gap between academic theory and real-world experience, ensuring you are ready to enter the global workforce
- develop the essential knowledge and skills to impact the health of people and populations
- gain a sound understanding of how the human body functions in healthy and diseased states, barriers to healthcare and methods for treatment

uwa.edu.au/study/b/biomedical-science

#### **Majors**

- Aboriginal Health and Wellbeing
- Anatomy and Human Biology
- Biochemistry and Molecular Biology
- Exercise and Health
- Genetics
- Humanities in Health and Medicine
- Integrated Medical Sciences and Clinical Practice (Extended Major)<sup>1</sup>
- Integrated Dental Sciences (Extended Major)<sup>2</sup>
- Microbiology and Immunology
- Neuroscience
- Pathology and Laboratory Medicine
- Pharmacology
- Physiology
- Podiatric Health and Medical Sciences (Extended Major)<sup>3</sup>
- Public Health

#### SPECIALISED DEGREE

Bachelor of **Human Sciences** 

Minimum ATAR 80 or equivalent
STAT Not applicable
Intake months February and July
Completion 3 years full time or part-time
equivalent



#### **CAREER OPPORTUNITIES**

Bioinformatician, biotechnologist, data analyst, data scientist, health policy planner

The Bachelor of Human Sciences will provide you with the opportunity to develop a fundamental interdisciplinary understanding of human function and behaviour and the manner in which it adapts to challenging and disruptive change. Graduates from this degree will develop and enhance skills in critical and analytical thinking, innovation and other transferable skills for effective communication and engagement with community, government and relevant industry groups, including social and public health policies. It will also prepare students for honours in a range of Science areas.

#### Why study this degree at UWA

- UWA is ranked 2nd in Australia for Human Biological Sciences (ARWU 2021)
- UWA is ranked 2nd in Australia for Anatomy and Physiology (QS 2021)
- The specific skills and knowledge developed and demonstrated by graduates are highly valued by employers and will make you highly competitive in the job market

#### You'll learn to

- demonstrate broad, deep and coherent theoretical knowledge within the human sciences
- apply well-developed cognitive, creative and communication skills in diverse contexts
- apply appropriate techniques to the collection, presentation, analysis and interpretation of data relevant to the disciplines of the human sciences
- exercise critical thinking and judgement in identifying and solving problems with intellectual independence
- demonstrate skills and knowledge necessary for employment in the various disciplines within the human sciences and further study

uwa.edu.au/study/bachelor-of-human-sciences

#### Majors

- Human Science and Neuroscience (Extended Major)
- Human Sciences and Data Analytics (Extended Major)

#### Combined Bachelor's and Master's

 Bachelor of Human Sciences and Master of Bioinformatics

Minimum ATAR: 90 or equivalent

#### SPECIALISED DEGREE

# Bachelor of **Molecular Sciences**

Minimum ATAR 80 or equivalent
STAT Not applicable
Intake months February and July
Completion 3 years full time or part-time
equivalent

#### **CAREER OPPORTUNITIES**

Biochemist/molecular biologist, biotechnologist, food scientist

In Molecular Sciences you'll learn about life at the molecular level. Starting with the building blocks of life (DNA, RNA, proteins, lipids and carbohydrates), you work towards understanding the complex function of cells, tissues and organisms. Training in cutting-edge technologies will equip you with the tools to answer the many challenges in the biological and/or health sciences. The degrees serve as an excellent stepping stone into careers in the biosciences.

#### Why study this degree at UWA

- Learn about the most recent advances in the molecular life sciences, how they affect our everyday lives and how we can use this knowledge to meet global challenges
- Learn through hands-on laboratories while also gaining skills in data analysis and interpretation, and critical thinking
- Develop a solid foundation in molecular life sciences with professional and transferable skills that open up many exciting possibilities for future career development and/or study

#### You'll learn to

- demonstrate broad and coherent theoretical and technical knowledge with depth in the discipline of Molecular Sciences
- apply well-developed cognitive, creative and communication skills in diverse contexts
- review critically, analyse, consolidate and synthesise knowledge
- exercise independent and critical thinking and judgement in identifying and solving problems
- demonstrate skills and knowledge necessary both for employment in the discipline of Molecular Sciences and further study

uwa.edu.au/study/bachelor-of-molecular-sciences

#### Majors

- Biochemistry of Nutrition (Extended Major)
- Molecular Life Sciences (Extended Major)

#### Combined Bachelor's and Master's

- Bachelor of Molecular Sciences and Master of Biotechnology
- Bachelor of Molecular Sciences and Master of Biomedical Science
- Bachelor of Molecular Sciences and Master of Bioinformatics

Minimum ATAR: 90 or equivalent

#### COMPREHENSIVE DEGREE

#### Bachelor of Science

Minimum ATAR 75 or equivalent

STAT Written English and Verbal or Quantitative
Intake months February and July

Completion 3 years full time or part-time
equivalent

#### **CAREER OPPORTUNITIES**

Agricultural scientist, environmental consultant, marine conservationist, zoologist, biochemist, software developer, analyst, engineer\*, forensic scientist, psychologist\*, sports coach, astronomer

Our Bachelor of Science gives you the skills and knowledge to make a real contribution to the challenges facing humanity. Scientists study the universe, its properties, the life that exists within it and the laws that govern it. Discipline areas range from cuttingedge pure and applied science to new multidisciplinary fields. The importance of science in determining the wellbeing of our society is recognised by industry, business and government.

#### Why study this degree at UWA

- You'll be taught by the world's leading teachers and researchers
- You'll gain highly valued and sought-after skills that will ensure you are well-prepared for many diverse and exciting careers
- You'll have Work Integrated Learning (WIL)
   opportunities to gain practical industry experience
   and employability skills

#### You'll learn to

- explore and investigate the big issues confronting our planet
- develop skills in reasoning, logic, observation, analysis, creativity and more
- gain practical, hands-on, industry-relevant experience and skills
- bridge the gap between theory and practice through work experience opportunities
- think critically and push boundaries

#### uwa.edu.au/study/bachelor-of-science

\* Postgraduate studies required

#### Majors

- Agribusiness
- Agricultural Science
- · Agricultural Technology
- Anatomy and Human Biology
- Biochemistry and Molecular Biology
- Botany
- Chemistry
- Computer Science
- Conservation Biology
- · Cybersecurity
- Data Science
- Environmental Management
- Environmental Science
- Exercise and Health
- Genetics
- Geographical Sciences
- Geology
- Marine and Coastal Processes
- Marine Biology
- Mathematics and Statistics
- Microbiology and Immunology
- Neuroscience
- Physics
- Physiology
- Psychological and Behavioural Sciences
- Sport Science
- Zoology

#### Combined Bachelor's and Master's

 Bachelor of Science and Master of Teaching (Secondary)

Minimum ATAR: 88 or equivalent

 Bachelor of Science Frontier Physics and Master of Physics

Minimum ATAR: 96 or equivalent



Minimum ATAR 80 or equivalent
STAT Not applicable
Intake months February and July
Completion 3 years full time or part-time equivalent

#### **CAREER OPPORTUNITIES**

Exercise scientist, sports coach, sports promoter

The Bachelor of Sport and Exercise Sciences will provide you with knowledge and skills required for a successful career in the sport, exercise and health industries. You'll learn to apply theoretical knowledge to develop and deliver exercise-based interventions for fitness, health and wellbeing, and performance. The award-winning Work Integrated Learning program will provide you with opportunities to combine theoretical knowledge in real-world professional settings, as well as to interact with professionals in the industry.

#### Why study this degree at UWA

- UWA is ranked 28th in the world for Sports-Related Subjects (QS 2021)
- This course is accredited by Exercise and Sports Science Australia (ESSA). Upon graduation, you'll be able to apply for credentialing as an Accredited Exercise Scientist (AES)
- You'll be eligible for direct entry into the Master of Clinical Exercise Physiology and Master of Public Health at UWA

#### You'll learn to

- demonstrate broad, deep and coherent theoretical and technical knowledge in the discipline of sport and exercise sciences
- apply well-developed cognitive, creative and communication skills in diverse contexts
- exercise critical thinking and judgement in identifying and solving problems with intellectual independence
- present a clear, coherent and independent exposition of knowledge and ideas
- demonstrate skills and knowledge necessary for both employment the discipline of sport and exercise sciences and further study

#### Major

• Sport Science, Exercise and Health (Extended Major)

#### Combined Bachelor's and Master's

- Bachelor of Sport and Exercise Sciences and Master of Clinical Exercise Physiology
- Bachelor of Sport and Exercise Sciences and Master of Public Health
- Bachelor of Sport and Exercise Sciences and Master of Applied Human Performance Science

Minimum ATAR: 90 or equivalent

uwa.edu.au/study/bachelor-of-sport-and-exercise-sciences

#### MAJORS IN HEALTH AND BIOMEDICAL SCIENCES

# Aboriginal Health and Wellbeing

#### **CAREER OPPORTUNITIES**

Health promotion officer, social worker\*, health and welfare services manager, health policy adviser

**Bachelor's degree:** Biomedical Science or

Philosophy (Honours)

This major provides you with a solid grounding in the many factors that influence the health and wellbeing of Aboriginal peoples, families and communities in Australia, and an understanding of particular health problems and their impacts within Aboriginal communities, as well as practical experience in Aboriginal health settings.

#### Why study this course at UWA

- Gain a greater understanding of the challenges and health and wellbeing of the Aboriginal community
- Undergo practical experience in community-based settings to prepare you for work in the industry
- Work towards the Government's Closing the Gap initiative, addressing Aboriginal and Torres Strait Islander disadvantages in health, education and employment

#### You'll learn to

- understand strategies, policies and practices to improve Aboriginal community-led health initiatives
- demonstrate strong knowledge of human biology, assisting in evaluating the biological evidence about disease mechanisms
- show practical experience in Aboriginal health settings
- develop the skill set required to work in a team environment, including oral and written communication, time and information management, professional behaviour and interpersonal skills, and project management

**Trending second majors:** Indigenous Knowledge, History and Heritage; Humanities in Health and Medicine; Public Health

#### Prerequisite:

 Mathematics Applications ATAR OR higher-level mathematics OR a mathematics unit taken in the first year

uwa.edu.au/study/aboriginal-health-and-wellbeing

\* Postgraduate study required



#### **CAREER OPPORTUNITIES**

Sleep scientist, science educator, assisted reproductive technician

**Bachelor's degree:** Science, Biomedical Science or Philosophy (Honours)

The Anatomy and Human Biology major explores the fascinating concept of what it means to be human, combining studies of the education, behaviour and biology of human beings with current social and ethical issues. Study topics as diverse as human functional anatomy, genetics, variation and evolution, reproduction, and embryology and growth.

#### Why study this course at UWA

- Discover how and why your body works, where people come from and how we are related
- Benefit from a practical, hands-on major
- 2nd in Australia for Anatomy and Physiology (QS 2021)

#### You'll learn to

- understand the structural, functional and genetic biology of humans
- demonstrate familiarity with human biology, including genetics, functional morphology, histology and cell biology, evolutionary ecology, and biological anthropology
- engage in holistic, interconnected thinking

**Trending second majors:** Biochemistry and Molecular Biology

#### **Prerequisites:**

- Mathematics Methods ATAR OR Mathematics
   Applications ATAR with a mathematics unit taken in
   the first year
- Students without ATAR mathematics will take two first-year mathematics units

uwa.edu.au/study/anatomy-and-human-biology

# Course Guide 2023 | Health and Biomedical Sciences

# Biochemistry and Molecular Biology

#### **CAREER OPPORTUNITIES**

Biochemist, geneticist, pharmacist

**Bachelor's degree:** Science, Biomedical Science or Philosophy (Honours)

What are genes? How do hormones work? What goes wrong in a cancer cell? If these questions are of interest, then the Biochemistry and Molecular Biology major may be for you. This major investigates how the natural world works. You'll gain an insight into the mechanisms of evolution, growth, development, reproduction and disease, plus tools to improve our quality of life.

#### Why study this course at UWA

- Molecular biologists are needed in a spectrum of career fields
- Work with advanced lab equipment like cloning kits, DNA synthesisers, electron guns and temperature cyclers
- Study the molecular functions of all living organisms

#### You'll learn to

- demonstrate understanding of the theoretical basis of biochemistry and molecular biology
- apply critical analysis and the application of scientific method to biochemical problems
- show technical competency in basic laboratory skills including solution preparation, qualitative and quantitative analytical methods, and operation of general laboratory equipment
- effectively communicate biochemical and molecular biological knowledge in both written and oral forms

**Trending second majors:** Genetics; Pharmacology; Pathology and Laboratory Medicine

#### Prerequisites:

- Chemistry ATAR OR a chemistry unit taken in the first year\*
- Mathematics Methods ATAR OR Mathematics Applications ATAR with a mathematics unit taken in the first year
- Students without ATAR mathematics will take two first-year mathematics units

Recommended subject: Biology ATAR\*

#### uwa.edu.au/study/biochemistry-and-molecular-biology

\* Mid-year applicants must have Chemistry ATAR and Biology or Human Biology ATAR to complete their degree in three years.

#### **Biochemistry of Nutrition**

(Extended Major)

#### **CAREER OPPORTUNITIES**

Nutritional biochemist, dietitian, health promotion officer

**Bachelor's degree:** Molecular Sciences or Philosophy (Honours)

Are you interested in the role of nutrition in reducing morbidity and improving health? The Biochemistry of Nutrition extended major is an integrative area of study that combines physiology, human biology, microbiology, chemistry, molecular biology, and biochemistry and applies these sciences specifically, to the study of health, diet, nutrition, disease, and the connections that exist among them.

#### Why study this course at UWA

- Develop an understanding of the evidence behind the association of nutrition, exercise and predominant lifestyle diseases (diabetes, obesity, cardiovascular diseases, hypertension, osteoporosis and cancer)
- Understand nutrition at a molecular level, and the molecular processes related to nutrition
- Academic studies and learning hands-on lab skills will prepare you for work in industry or research

#### You'll learn to

- develop biochemical and nutrition knowledge with particular reference to recent developments in nutritional sciences
- use techniques from modern research laboratories to develop technical laboratory and research skills
- understand the importance of exercise and the role of micronutrients and macronutrients in maintaining health and preventing lifestyle diseases

#### Prerequisites:

- Chemistry ATAR OR a chemistry unit taken in the first year\*
- Mathematics Methods ATAR OR Mathematics
   Applications ATAR with a mathematics unit taken in the first year
- Students without ATAR mathematics will take two first-year mathematics units

**Recommended subject:** Biology ATAR or Human Biology ATAR\*

#### uwa.edu.au/study/biochemistry-of-nutrition

 Mid-year applicants must have Chemistry ATAR and Biology or Human Biology ATAR to complete their degree in three years.

#### **Exercise and Health**

#### **CAREER OPPORTUNITIES**

Sports development officer, health and fitness coordinator

**Bachelor's degree:** Science, Biomedical Science or Philosophy (Honours)

A major in Exercise and Health science ensures you'll graduate with a broad knowledge and understanding of how behaviour influences health. In a rapidly evolving health sector where we are facing challenges of an ageing population and sedentary lifestyles, you'll be at the forefront of creating positive change in the behaviour of individuals and the broader community.

#### Why study this course at UWA

- Become a leader in a growing and dynamic industry where work opportunities are wide and varied
- Be taught by award-winning academics, former world-class athletes, and industry leaders
- If you are passionate about how sport and exercise play a vital part in a person's general health, this major will provide you with the key skills to fulfil your interest

#### You'll learn to

- understand the relationship between human structural, functional and behavioural characteristics, and how to develop, maintain and promote a fit and healthy lifestyle and lifespan
- give an accurate assessment of health indicators and the prescription of exercise for apparently healthy individuals
- demonstrate excellence, creativity and intellectual exploration

**Trending second majors:** Physiology; Anatomy and Human Biology; Management

#### Prerequisite:

 Mathematics Applications ATAR OR higher-level mathematics OR a mathematics unit taken in the first year

**Recommended subject:** Mathematics Methods ATAR

uwa.edu.au/study/exercise-and-health

#### Genetics

#### **CAREER OPPORTUNITIES**

Forensic scientist, geneticist, genetic counsellor

**Bachelor's degree:** Science, Biomedical Science or Philosophy (Honours)

Genetics is the study of biologically inherited traits as diverse as those that cause human disease, allow a rare plant to live in a single, isolated location, or result in a desirable characteristic found in a domestic animal used in agriculture. Your studies in genetics involve the analysis of DNA and the many ways in which it is expressed. This major delivers a broad overview of the universal principles, potentials and problems associated with DNA-based life, and provides you with the essential skills of a geneticist.

#### Why study this course at UWA

- Learn how traits are inherited, how genetic processes control development and diseases
- Benefit from hands-on laboratory sessions, teamwork, interactive tutorials and theoretical foundations
- Open up to various career opportunities in agriculture, biochemistry, botany, conservation biology and more

#### You'll learn to

- appreciate that genetics is a cornerstone of the biological sciences
- demonstrate knowledge of how traits are inherited, and the molecular nature of these patterns, and how genetic processes control development and disease and are affected by the environment and evolution
- demonstrate skills in critical thinking, experimental design, data analysis and interpretation, and teamwork

**Trending second majors:** Biochemistry and Molecular Biology; Neuroscience; Pathology and Laboratory Medicine; Conservation Biology

#### **Prerequisites:**

- Chemistry ATAR OR a chemistry unit taken in the first year\*
- Mathematics Methods ATAR OR Mathematics Applications ATAR with a mathematics unit taken in the first year
- Students without ATAR Mathematics will take two first-year mathematics units

**Recommended subject:** Biology ATAR or Human Biology ATAR\*

#### uwa.edu.au/study/genetics

 Mid-year applicants must have Chemistry ATAR and Biology or Human Biology ATAR to complete their degree in three years.

# Course Guide 2023 | Health and Biomedical Sciences

# Human Science and Neuroscience

(Extended Major)

#### **CAREER OPPORTUNITIES**

Neuroscientist, anatomists or physiologist, health promotion officer

Bachelor's degree: Human Sciences or

Philosophy (Honours)

The Human Science and Neuroscience extended major centres on the understanding of human behaviour, combining a strong core of Neuroscience and Physiology with the disciplines of Psychology and Anthropology. You'll gain a unique insight into how human behaviour is influenced by genetic, developmental, ecological and cultural factors.

#### Why study this course at UWA

- Interact with research groups and professionals in the field
- An extended laboratory experience supports your data collection and practical skills
- UWA is ranked first in Western Australia for Human Biological Sciences (ARWU 2021)

#### You'll learn to

- appreciate the value of human diversity for its own sake and how it informs the disciplines of neuroscience, anatomy and physiology
- apply your knowledge of basic cell and systems biology and biological chemistry to neural cells and systems
- understand the neuroscience underpinning common pathological conditions of the nervous system
- integrate key knowledge and concepts about the structure and function of the human brain and how this is expressed in behaviour

#### Prerequisites:

- Mathematics Methods ATAR OR Mathematics
   Applications ATAR with a mathematics unit taken in the first year
- Students without ATAR Mathematics will take two first-year mathematics and statistics units

uwa.edu.au/study/human-science-and-neuroscience

# Human Sciences and Data Analytics

(Extended Major)

#### **CAREER OPPORTUNITIES**

Analyst, health promotion officer, research officer

Bachelor's degree: Human Sciences or

Philosophy (Honours)

As the world becomes increasingly globalised, the importance of understanding and respecting cultural and physical differences between individuals becomes critical. You'll examine the biology of 'being human' in today's world with an emphasis on how biology and behaviour of humans are influenced by genetic, developmental, ecological and cultural factors.

#### Why study this course at UWA

- Gain the skills needed for the future such as analytical thinking and innovation, critical thinking, complex problem-solving and programming
- Enhance your employability with relevant transferable skills for effective communication and engagement with community, government and industry groups involved in social and public health policies
- UWA is ranked first in Western Australia for Human Biological Sciences (ARWU 2021)

#### You'll learn to

- demonstrate an understanding of the evolutionary processes that determine human differences within and between populations
- apply acquired knowledge to clearly define questions about human evolutionary and behavioural biology and ecology, particularly in relation to the processes by which humans adapt and acclimate to their natural environments
- acquire knowledge of, and demonstrate, techniques for seeking out information or designing experiments to answer questions related to issues in the fields of human evolutionary and behavioural biology and ecology

#### **Prerequisites:**

- Mathematics Methods ATAR OR Mathematics
   Applications ATAR with a mathematics unit taken in the first year
- Students without ATAR Mathematics will take two first-year mathematics and statistics units
- Chemistry ATAR **OR** a chemistry unit taken in the first year

uwa.edu.au/study/human-sciences-and-data-analytics

# Humanities in Health and Medicine

#### **CAREER OPPORTUNITIES**

Health educator, health researcher, community health practitioner, healthcare administrator

Bachelor's degree: Biomedical Science or

Philosophy (Honours)

The major in Humanities in Health and Medicine is an interdisciplinary, humanistic and cultural study of health, illness, healthcare, and the human body, mind and spirit. You'll be prepared to care for people by bringing the traditions of humanities, inquiry, compassion and judgement to bear on the management and promotion of health and the treatment of illness.

#### Why study this course at UWA

- UWA offers the first Australian undergraduate major in Humanities in Health and Medicine
- Humanities in Health and Medicine is a rapidly evolving field that looks at the meaning of health, illness and disease for people in the context of the social worlds in which they live and work
- It's ideal for those who are planning a career in healthcare and who are passionate about community health and health education

#### You'll learn to

- demonstrate perspectives derived from the humanities in analysing approaches and practices related to health and medicine
- explore and understand connections between health and medicine and the arts, including literature, music and visual arts
- demonstrate understanding of the historical, cultural, religious and political contexts of theories and practices related to health and medicine

**Trending second majors:** Physiology; Psychological Science; Science Communication

**Recommended subject:** Mathematics Applications ATAR **OR** higher-level mathematics unit taken in the first year

uwa.edu.au/study/health-humanities

### Integrated Dental Sciences (Extended Major)

#### **CAREER OPPORTUNITIES\***

Dentist

Bachelor's degree: Biomedical Science or

Philosophy (Honours)

This extended major is only available to students who are offered an Assured Pathway to the Doctor of Dental Medicine. It draws on all biomedical scientific disciplines to understand and manage human disease and illness. It contains foundational learning about the roles of a dentist and introduces you to pre-clinical dental training.

#### Why study this course at UWA

- Gain a strong foundation in the disciplines of biomedical science, clinical knowledge, clinical skills and professional behavior
- Prepare for continued study in the Doctor of Dental Medicine through an Assured Pathway
- Experience expert teachers delivering an innovative curriculum

#### You'll learn to

- demonstrate sound knowledge in anatomy, physiology, biochemistry, genetics, immunology, haematology, microbiology, anatomical pathology and pharmacology
- apply the principles of clinical reasoning to core dental and oral conditions
- apply medical and dental-history taking and oral examination, along with an understanding of the patient's perspective and quality patient-centred care
- undertake clinical dental procedures in a simulation environment

#### **Prerequisites:**

- Chemistry ATAR  $\mathbf{OR}$  a chemistry unit taken in the first year
- Mathematics Applications ATAR OR higher-level mathematics OR a mathematics unit taken in the first year

**Recommended subjects:** Mathematics Methods ATAR **NOTE:** This extended major is only available to students who are offered an Assured Pathway to the Doctor of Dental Medicine. February intake only.

#### uwa.edu.au/study/integrated-dental-sciences

<sup>\*</sup> Postgraduate study required

# Course Guide 2023 | Health and Biomedical Sciences

# Integrated Medical Sciences and Clinical Practice

(Extended Major)

#### **CAREER OPPORTUNITIES\***

Medical practitioner

Bachelor's degree: Biomedical Science or

Philosophy (Honours)

This extended major is only available to students who are offered an Assured Pathway to the Doctor of Medicine. It draws on all biomedical scientific disciplines to understand and manage human disease and illness, and commences foundational learning about the roles of a doctor.

#### Why study this course at UWA

- Gain a strong foundation in the disciplines of biomedical science, clinical knowledge, clinical skills and professional behaviour
- Prepare for continued study in the Doctor of Medicine through an Assured Pathway (if successful in completing the IMSCP extended major, students will be eligible for credit towards the Doctor of Medicine [and a shorter six-year pathway])
- 3rd in Australia for Clinical Medicine and 2nd in Australia for Human Biological Sciences (ARWU 2021)

#### You'll learn to

- demonstrate sound knowledge in anatomy, physiology, biochemistry, genetics, immunology, haematology, microbiology, anatomical pathology and pharmacology
- apply clinically relevant aspects of biomedical science and the principles of clinical reasoning to core medical conditions and presentations
- demonstrate medical-history taking and physical examination, along with an understanding of the patient's perspective and quality patient-centred care

#### Prerequisites:

- Mathematics Applications ATAR OR a mathematics unit taken in the first year
- Chemistry ATAR **OR** a chemistry unit taken in the first year

Recommended subject: Mathematics Methods ATAR

NOTE: Only available to students who are offered an

Assured Pathway to the Doctor of Medicine.

February intake only.

uwa.edu.au/study/integrated-medical-sciences

# Microbiology and Immunology

#### **CAREER OPPORTUNITIES**

Laboratory manager, environmental scientist, microbiologist

**Bachelor's degree:** Science, Biomedical Science or Philosophy (Honours)

Microbiology covers a range of fields, from immunology (which studies how the body's immune system protects it from infectious disease) to microbial genetics and genetic engineering. Your studies can be applied in areas as diverse as medicine, food spoilage, control of environmental pollution and space science.

#### Why study this course at UWA

- Enjoy richer student experiences through Student Exchange and Study Abroad
- Become eligible, upon graduating, for membership in the Australian Society of Microbiology (ASM), the profession's national scientific and employment body
- Study in state-of-the-art laboratories located on the QEII Medical Centre site, surrounded by working hospitals and internationally recognised organisations, allowing you to interactively experience real-life scenarios

#### You'll learn to

- understand a variety of diseases in human body systems, such as the cardiovascular system, central nervous system, liver and kidneys, and reproductive tracts
- understand the fundamental divisions of the microbial world, including bacteria, viruses, algae and parasites
- appreciate the steps involved in the initiation, perpetuation and resolution of infectious diseases

**Trending second majors:** Anatomy and Human Biology; Biochemistry and Molecular Biology; Genetics

#### Prerequisites:

- Chemistry ATAR OR a chemistry unit taken in the first year\*
- Human Biology ATAR or Biology ATAR OR a human biology or biology unit taken in the first year\*
- Mathematics Applications ATAR OR a mathematics unit taken in the first year

#### uwa.edu.au/study/microbiology-and-immunology

 Mid-year applicants must have Chemistry ATAR and Biology or Human Biology ATAR to complete their degree in three years.

<sup>\*</sup> Postgraduate study required.

#### Molecular Life Sciences (Extended Major)

#### **CAREER OPPORTUNITIES**

Agricultural scientist, animal scientist, biochemist

**Bachelor's degree:** Molecular Sciences or Philosophy (Honours)

The Molecular Life Sciences extended major will help you develop a scientific understanding of the biochemistry, molecular biology and genetics of all living organisms. By understanding how molecules are organised and interact in living cells, you'll also gain the tools to improve our quality of life. This may be through the development of new vaccines or advances in drought-resistant crops.

#### Why study this course at UWA

- Learn about the most recent advances in the molecular life sciences, how they affect our everyday lives and how we can use this knowledge to solve global challenges
- Learn through hands-on laboratories while also gaining skills in data analysis and interpretation and critical thinking
- Develop a solid foundation in molecular life sciences with professional and transferable skills that open up many exciting possibilities for future career development and/or study

#### You'll learn to

- demonstrate a profound understanding of the theoretical basis of biochemistry, molecular biology, genetics in animals, plants and microorganisms
- gain technical competency and practical skills to master state-of-the-art molecular techniques
- develop and demonstrate your skills in critical thinking, experimental design, data analysis and interpretation

#### **Prerequisites:**

- Mathematics Methods ATAR OR Mathematics Applications ATAR with a mathematics unit taken in the first year
- Students without ATAR Mathematics will take two first-year mathematics units
- Chemistry ATAR OR a chemistry unit taken in the first year\*

**Recommended subjects:** Chemistry ATAR and Biology or Human Biology ATAR

#### uwa.edu.au/study/molecular-life-sciences

 Mid-year applicants must have Chemistry ATAR and Biology or Human Biology ATAR to complete their degree in three years.

#### Neuroscience

#### **CAREER OPPORTUNITIES**

Science teacher, laboratory manager, researcher

**Bachelor's degree:** Science, Biomedical Science or Philosophy (Honours)

How do we process sensory stimuli? How does the nervous system grow, develop and learn? How do conditions such as Alzheimer's disease, deafness, dementia and depression afflict the brain and nervous system? Neuroscientists seek the answers to these questions and how nervous-system function can be restored after disease and injury to the brain.

#### Why study this course at UWA

- Open up a range of employment opportunities, including in research and clinical laboratories, government agencies and science communication
- You'll be taught by academics with established international reputations in neuroscience research
- Learn about the molecules that make up individual nerve cells and the transfer of information from one nerve cell to another, as well as the complexities of how behaviour, thought and emotions are produced

#### You'll learn to

- demonstrate a sound knowledge of basic cell and systems biology and biological chemistry, and apply this knowledge to neural cells and systems
- understand the structure and function of the nervous systems of humans and other animals
- conduct anatomical, cellular, physiological and behavioural investigations of nervous tissues and systems
- understand the neuroscience underpinning common pathological conditions of the nervous systems

#### Trending second majors: Physiology

#### **Prerequisites:**

- Mathematics Methods ATAR OR Mathematics Applications ATAR with a mathematics unit taken in the first year
- Students without ATAR mathematics will take two first-year mathematics units
- Chemistry ATAR **OR** a chemistry unit taken in the first year

Recommended subjects: Biology ATAR

uwa.edu.au/study/neuroscience

#### Pathology and Laboratory Medicine

#### **CAREER OPPORTUNITIES**

Research scientist, diagnostic scientist, science teacher

**Bachelor's degree:** Biomedical Science or Philosophy (Honours)

Pathology and laboratory medicine play a critical role in evidence-based medicine. This major provides you with a thorough understanding of the scientific basis of diagnosing, treating, managing and preventing human disease, as well as an appreciation of how medical research forms new insights into disease.

#### Why study this course at UWA

- Study in state-of-the-art laboratories located on the QEII Medical Centre site, surrounded by working hospitals and internationally recognised organisations
- Learn from expert pathologists, researchers, physicians and medical scientists from various pathology disciplines
- Theoretical knowledge is complemented with practical learning in laboratories using clinical material, case studies and relevant research topics

#### You'll learn to

- understand the processes of cell injury, inflammation and repair, and their role in the impact of human disease
- appreciate the influence of genetics, environment and infectious organisms on human disease processes
- recognise the application of pathology and laboratory medicine to a wide array of human diseases
- integrate and apply the principles of pathology and laboratory medicine to a wide array of human diseases

**Trending second majors:** Anatomy and Human Biology; Microbiology and Immunology; Biochemistry and Molecular Biology

#### Prerequisites:

- Chemistry ATAR OR a chemistry unit taken in the first year\*
- Mathematics Applications ATAR OR higher-level mathematics OR a mathematics unit taken in the first year
- Human Biology ATAR or Biology ATAR OR a human biology or biology unit taken in the first year\*

#### uwa.edu.au/study/pathology-and-laboratory-medicine

 Mid-year applicants must have Chemistry ATAR and Biology or Human Biology ATAR to complete their degree in three years.



#### **CAREER OPPORTUNITIES**

Pharmacist\*, medical doctor\*, research scientist

**Bachelor's degree:** Biomedical Science or Philosophy (Honours)

Pharmacology is the branch of science that seeks to provide a deep understanding of the effects of drugs on biological organisms, including humans. It provides a modern understanding of how medicines produce their effects on the body and how such knowledge is used to alleviate suffering caused by disease.

#### Why study this course at UWA

- Think, act and communicate like a pharmacologist
- Study in state-of-the-art laboratories located on the QEII Medical Centre site, surrounded by working hospitals and internationally recognised organisations
- Experience practical learning in laboratories, using biological material, case studies and relevant research topics

#### You'll learn to

- understand the fundamental principles of pharmacology at the molecular, cellular, tissue and whole-body levels
- obtain transferable laboratory skills
- achieve high-level oral, written and technical skills

**Trending second majors:** Pathology and Laboratory Medicine; Microbiology and Immunology; Physiology

#### **Prerequisites:**

- Chemistry ATAR **OR** a chemistry unit taken in the first year
- Mathematics Applications ATAR **OR** higher-level mathematics **OR** a mathematics unit taken in the first year
- Human Biology ATAR or Biology ATAR OR a human biology or biology unit taken in the first year

#### uwa.edu.au/study/pharmacology

\* Postgraduate study required

#### Physiology

#### **CAREER OPPORTUNITIES**

Anatomist, personal trainer, sport scientist

**Bachelor's degree:** Science, Biomedical Science, or Philosophy (Honours)

Learn how the human body works, from the molecular and cellular level to tissues and organs, and how these interact together with the environment. Examine diseases and the changes that occur at the molecular and cellular level, and how these impact on whole-body function.

#### Why study this course at UWA

- UWA is ranked 2nd in Australia for Anatomy and Physiology (QS 2021)
- Physiology contributes to all major aspects of biology, including comparative biology, neuroscience, and the allied disciplines of pharmacology, anatomy and pathology
- Understand how physiologists contribute to new diagnostic and therapeutic strategies to combat disease

#### You'll learn to

- recall and integrate key knowledge and concepts about the function of cells, tissues and organs and how their function is coordinated
- explain physiological phenomena with reference to underlying physicochemical processes
- explain and perform measurements of physiological phenomena from human subjects and animal tissue
- analyse and interpret physiological data derived from a range of measurement systems
- clearly communicate scientific facts and concepts
- explain the physiological basis of pathological conditions

Trending second majors: Sport Science;

Neuroscience; Genetics

#### Prerequisites:

- Mathematics Methods ATAR **OR** Mathematics Applications ATAR with a mathematics unit taken in the first year
- Students without ATAR mathematics will take two first-year mathematics units

**Recommended subjects:** Chemistry ATAR and Biology ATAR

uwa.edu.au/study/physiology

# Podiatric Health and Medical Sciences

(Extended Major)

#### **CAREER OPPORTUNITIES\***

Podiatrist

**Bachelor's degree:** Biomedical Science or Philosophy (Honours)

This extended major is only available to students who are offered an Assured Pathway to the Doctor of Podiatric Medicine. It covers pre-clinical biomedical and podiatric health sciences and foundations of podiatric clinical skills.

#### Why study this course at UWA

- Gain a strong foundation in the disciplines of biomedical science, podiatric clinical knowledge, skills and professional behaviour
- Prepare for continued study in the Doctor of Podiatric Medicine through an Assured Pathway. (NB. If successful in completing this extended major, students will be eligible for credit towards the Doctor of Podiatric Medicine [and a shorter five-year pathway]).
- Experienced and expert teachers delivering an innovative and unique curriculum in state of the art facilities.

#### You'll learn to

- Demonstrate sound knowledge in anatomy, physiology, biochemistry, genetics, immunology, haematology, microbiology, anatomical pathology and pharmacology
- Apply clinically relevant aspects of biomedical science and the principles of clinical reasoning to core podiatric medicine conditions
- Apply medical and podiatric history taking skills and physical lower limb assessment to undertake practical podiatric skills in a clinical environment

#### **Prerequisites:**

- Chemistry ATAR OR a chemistry unit taken in the first year
- Mathematics Applications ATAR OR higher-level mathematics OR a mathematics unit taken in the first year

Recommended subjects: Mathematics Methods ATAR

NOTE: This extended major is only available to students who are offered an Assured Pathway to the Doctor of Podiatric Medicine. February intake only.

uwa.edu.au/study/podiatric-health-and-medical-

<sup>\*</sup> Postgraduate study required

#### **Public Health**

#### **CAREER OPPORTUNITIES**

Health promotion officer, health research officer, policy and planning manager

Bachelor's degree: Biomedical Science or

Philosophy (Honours)

Public Health examines patterns of health and disease in society and the applications of medical research and evidence-based medicine to populations, considering what we can do to improve the health of the community. This major will give you a strong foundation in health science, with skills in scientific investigation, critical thinking and problem solving.

#### Why study this course at UWA

- Access rich student experiences, impactful and realworld graduate outcomes, voluntary work experience programs and field trips
- Be taught by a multi-disciplinary, passionate teaching team with sustained teaching excellence recognised at various levels, including nationally
- Study at a School supported by its world-class research programs and industry collaborations

#### You'll learn to

- develop skills in areas including epidemiology, biostatistics, health economics and health promotion
- critically evaluate and implement research-led, evidence-based approaches to health outcomes
- understand the prevention of disease and the promotion of good health through community programs and health services

**Trending second majors:** Economics; Anatomy and Human Biology; Law in Society

#### Prerequisite:

 Mathematics Applications ATAR OR higher level mathematics OR a mathematics unit taken in the first year

uwa.edu.au/study/public-health

# Sport Science, Exercise and Health (Extended Major)

#### **CAREER OPPORTUNITIES**

Exercise scientist, sports coach, sports promoter

**Bachelor's degree:** Sport and Exercise Sciences or Philosophy (Honours)

The effects of physical activity are multiple, for professional athletes and amateurs alike. This extended major provides a sound basis in sport and exercise science theory, combined with practical, technical and communication skills, to give you an understanding of the relationship between human structural, functional and behavioural characteristics.

#### Why study this course at UWA

- Understand how sport and exercise play a vital part in a human's general health and performance
- The course is accredited by the National University
  Course Accreditation Program (NUCAP), and
  graduates may apply to Exercise and Sports Science
  Australia (ESSA) within two years of completion to
  become an Accredited Exercise Scientist (AES)
- You'll be eligible to apply for the three-semester Master of Clinical Exercise Physiology course on graduation

#### You'll learn to

- understand the relationship between human structural, functional and behavioural characteristics and their application in the development of, and support for, athletes and coaches to achieve success
- understand the relationship between human structural, functional and behavioural characteristics and our ability to develop, maintain and promote a fit and healthy lifestyle throughout the lifespan
- assess physical, physiological and mechanical characteristics of sports performance and the prescription of appropriate interventions to maintain athletes' strengths and improve weaknesses
- apply this knowledge in the assessment of health indicators and the prescription of exercise

#### Prerequisite:

- Mathematics Applications ATAR OR a mathematics unit taken in the first year
- Students without ATAR mathematics will take two first-year mathematics units

Recommended subject: Mathematics Methods ATAR

uwa.edu.au/study/sport-science-exercise-and-health

#### **Sport Science**

#### **CAREER OPPORTUNITIES**

Sport scientist, teacher, marketer

Bachelor's degree: Science or Philosophy (Honours)

A Sport Science major can equip you, as a scientist, to further understand and analyse the human body, its movements and its functions. You'll gain knowledge and skills in sport management and delivery that have applications in today's elite sport arenas, as well as the rehabilitation, fitness, health and recreation sectors.

#### Why study this course at UWA

- The Sport Science practicum provides valuable workplace experience, enabling you to integrate theoretical concepts with professional practice and interact with other professionals
- Sport scientists evaluate, research, assess and advise on coaching, training, competition and recovery practices in all areas and levels of sport to achieve the best possible sporting performance
- UWA is ranked 28th in the world for Sports-Related Subjects (QS 2021)

#### You'll learn to

- apply theoretical knowledge to ensure optimal physical fitness and capacity required in sport, as well as to promote athletes' health and wellbeing
- apply this knowledge in the assessment of physical, physiological and mechanical characteristics of sports performance, and the prescription of appropriate interventions to maintain athletes' strengths and improve weaknesses

**Trending second majors:** Anatomy and Human Biology; Physiology; Management; Marketing

#### Prerequisite:

- Mathematics Applications ATAR OR a mathematics unit taken in the first year
- Students without ATAR mathematics will take two first-year mathematics units

**Recommended subject:** Mathematics Methods ATAR

uwa.edu.au/study/sport-science

#### ASSURED PATHWAY

#### **Doctor of Dental Medicine**

Home to WA's only tertiary Dental School, UWA has trained future dentists for more than 75 years. Taught by dedicated staff, you'll be based at the Oral Health Centre of Western Australia, a high-tech dental teaching hospital and learning facility on the QEII Medical Centre campus. After graduation, you'll be able to register with the Dental Board of Australia and enter the profession immediately.

**Undergraduate major:** Integrated Dental Sciences major (accelerated pathway), or any major of student's choice. Students who complete the Integrated Dental Sciences major may be eligible for one year of credit towards the Doctor of Dental Medicine.

#### **Prerequisites:**

- Prerequisite subjects of your chosen major, UCAT ANZ, interview, eyesight requirements<sup>1</sup>
- Completion of a bachelor's degree, with a Grade Point Average of at least 5.5<sup>2,3</sup>

ATAR: 99 (96 for Broadway/Rural applicants)

#### uwa.edu.au/study/d/dental-medicine

- 1 A competitive selection process will apply
- 2 A Grade Point Average of 5.5 is equivalent to an overall subject average of approximately 65-70 per cent
- 3 Undergraduate studies may be undertaken in any area. Some study of physics at Year 12 level and biology and chemistry at first-year university level is

#### **ASSURED PATHWAY**

#### **Doctor of Medicine**

UWA has taught medicine for more than 65 years and is ranked 29th in the world for Clinical Medicine and 33rd for Human Biological Sciences (ARWU 2020). The Doctor of Medicine aims to produce graduates committed to the wellbeing of the patient, community and society, as responsible, accountable, scholarly, capable and caring doctors. You'll learn alongside the brightest students, leading clinicians and committed researchers.

**Undergraduate major:** Integrated Medical Sciences and Clinical Practice major (accelerated pathway), or any major of student's choice. Students who complete the Integrated Medical Sciences and Clinical Practice major may be eligible for one year of credit towards the Doctor of Medicine.

#### **Prerequisites:**

- Prerequisite subjects of your chosen major, UCAT ANZ and interview<sup>1</sup>
- Completion of a bachelor's degree, with a Grade Point Average of at least 5.5<sup>2,3</sup>

ATAR: 99 (96 for Broadway/Rural applicants)

#### uwa.edu.au/study/d/medicine

- 1 A competitive selection process will apply
- 2 A Grade Point Average of 5.5 is equivalent to an overall subject average of approximately 65-70 per cent
- 3 Undergraduate studies may be undertaken in any area. Some study of physics at Year 12 level and biology and chemistry at first-year university level is recommended

#### ASSURED PATHWAY

#### **Doctor of Podiatric Medicine**

The Doctor of Podiatric Medicine produces healthcare practitioners highly trained in the diagnosis and treatment of conditions affecting the foot and ankle. Podiatrists have the right to perform minor foot surgery, refer patients for investigative tests, and administer drugs necessary for treatment. Many podiatrists develop expertise in a specific area, such as sporting injuries or children's foot and leg problems.

**Undergraduate major:** Podiatric Health and Medical Sciences major (accelerated pathway), or any major of student's choice.

Students who complete the Podiatric Health and Medical Sciences major may be eligible for one year of credit towards the Doctor of Podiatric Medicine.

#### **Prerequisites:**

- Prerequisite subjects of your chosen major, interview<sup>1</sup>
- Completion of a bachelor's degree, with a Grade Point Average of at least 5.0<sup>2</sup>
- Fulfil Podiatric Medicine prerequisite units through major or elective units as part of your degree<sup>3</sup>

ATAR: 94 or 98 via BPhil (Hons)

#### uwa.edu.au/study/d/podiatric-medicine

- 1 A competitive selection process will apply. ATAR or equivalent Chemistry and Mathematics Applications or higher recommended
- 2 A Grade Point Average of 5.0 is equivalent to an overall subject average of approximately 60-65 per cent
- 3 Undergraduate studies may be undertaken in any area

#### ASSURED PATHWAY

#### Master of Pharmacy

The Master of Pharmacy is your professional postgraduate qualification for registration as a pharmacist in Australia. This course provides advanced study in the areas of pharmacy practice, clinical pharmacy, pharmaceutics, medicinal chemistry, pharmacotherapy and health systems, and includes practical training in community and hospital pharmacies. Strong employment growth is predicted for pharmacists, partly due to the expanding role of pharmacists in healthcare delivery.

#### **Prerequisites:**

- Prerequisite subjects of your chosen major, and interview<sup>1</sup>
- Completion of a bachelor's degree, with a Grade Point Average of at least 5.0<sup>2</sup>
- Fulfil Pharmacy prerequisite units through major or elective units as part of your degree<sup>3</sup>

ATAR: 94, or 98 via BPhil (Hons)

#### uwa.edu.au/study/m/pharmacy

- 1 A competitive selection process will apply. ATAR or equivalent Chemistry and Mathematics Applications or higher recommended
- 2 A Grade Point Average of 5.0 is equivalent to an overall subject average of approximately 60-65 per cent
- 3 Undergraduate studies may be undertaken in any area

#### ASSURED PATHWAY

#### Master of Public Health

Now more than ever, the world needs health experts to generate solutions to key global challenges. Public health is the art and science of protecting and improving the health of communities, using an evidence-based approach through research, advocacy and health promotion. As a public health practitioner you can play an important role in health and wellbeing, and improving the social and environmental conditions that affect us.

ATAR: 92, or 98 via BPhil (Hons)

**Prerequisites:** • Prerequisite subjects of your chosen major • Completion of a bachelor's degree, with a UWA Weighted Average Mark of at least 60 per cent in the Level 3 units of a relevant major



"The best part about the course is the support the lecturers and staff provide. Because it's a relatively small cohort, you become quite close with the other students, which also provides a great support system through your studies. UWA is a great place to study - there is always something to get involved with, no matter what your interests are. I have enjoyed and benefitted from being involved with the Master of Pharmacy Society, as well as being a student ambassador to represent the University."

**JANESHA** MASTER OF PHARMACY



Humanities and social sciences equip you to ask and answer the big questions. Explore where we came from, who we are and where we're going.

By studying Humanities and Social Sciences, you'll gain a critical understanding of how society shapes, and is shaped by, culture, politics, economics, media, history, language, the environment and more. You'll develop the knowledge and skills to define complex problems, and identify and design solutions, while being supported in your passion to drive and implement change.

With our collaborations across industry, government and community, you'll apply knowledge and expertise to respond to major societal opportunities, challenges and injustices, such as achieving sustainable development, addressing climate change, eliminating poverty, strengthening global communications and improving the mental health of communities.

Within the humanities, through the study of culture, language, literature, history and philosophy, you'll examine the human experience and gain a deep understanding of the connections that tie us all together.

Within the social sciences, which bridge the social, physical and environmental sciences, you'll use a scientific approach to understanding the development and operations of societies and their influence on the world.

The challenges of the 21st century are complex and systemic, and employers recognise that our graduates are especially well-suited for work in this context.

### Top five reasons to study Humanities and Social Sciences at UWA

- Undergraduate Humanities and Social Sciences reports a 83.6 per cent satisfaction rate for skills development, and 87.9 per cent for teaching quality (Good Universities Guide 2021).
- Postgraduate Communications students report
   100 per cent satisfaction for skills development, and
   96.6 per cent for teaching quality (Good Universities Guide 2021).
- Ranked first in WA for Arts and Humanities, Social Sciences and Management, Archaeology, Politics and Geography (QS WUR by Subject 2020).
- Ranked in the top eight in Australia for Modern Languages (QS WUR by Subject 2020) and the largest language hub in WA.
- You'll get practical training through internships, hands-on learning with industry and business partners, and overseas study opportunities.

uwa.edu.au/study/areas/humanities-socialsciences

#### COMPREHENSIVE DEGREE

#### Bachelor of Arts

Minimum ATAR 75 or equivalent

STAT Written English and Verbal or Quantitative
Intake months February and July

Completion 3 years full time or part-time equivalent

#### **CAREER OPPORTUNITIES**

Politician, ambassador, author, journalist, anthropologist, historian, policy adviser, teacher, entrepreneur

Studying UWA's Bachelor of Arts lets you cultivate your passions while developing transferable skills that are essential in every industry and can never be automated – they'll set you apart from the competition and prepare you for a future-proof career.

#### Why study this degree at UWA

- Our Bachelor of Arts is one of the most diverse degrees in Western Australia
- You'll be taught by renowned scholars and researchers who are international leaders and experts in their fields
- You can get hands-on industry experience through our professional experience practicum
- We're the largest language hub in the state
- Our Arts graduates include the founder of Mecca Cosmetica, an Academy Award-winning artist, a film maker, the CEO of Greenpeace APAC and a former federal minister, to name a few

#### You'll learn to

- develop high levels of communication, research and technical expertise
- develop strong reasoning ability, problem-solving, and critical and creative-thinking skills
- employ skills in responsibility and leadership
- develop the communication skills you'll need to stand out in a global workforce

#### **Majors**

- Archaeology
- Asian Studies
- Chinese Studies
- Classics and Ancient History
- Communication and Media Studies
- Criminology
- English and Literary Studies
- Fine Arts
- · French Studies
- Gender Studies
- German Studies
- History
- · History of Art
- Human Geography and Planning
- Indigenous Knowledge, History and Heritage
- Indonesian Studies
- Italian Studies
- Japanese Studies
- Korean Studies
- · Law and Society
- Linguistics
- Music: Electronic Music and Sound Design
- Music: General Studies
- Music: Music Studies
- Philosophy
- Political Science and International Relations
- Psychological and Behavioural Sciences
- Spanish Studies
- Work and Employment Relations

uwa.edu.au/study/bachelor-of-arts

#### SPECIALISED DEGREE

### Bachelor of Human Rights\*

Minimum ATAR 85 or equivalent

STAT Not applicable

Intake months February and July

Completion 3 years full time or part-time equivalent

#### **CAREER OPPORTUNITIES**

Public policy/public service, consultancy, journalism, NGOs, activism

Human rights have become the dominant language in which contentious social and political questions are debated, worldwide. Activists appeal to human rights in defence of the oppressed. A complex set of global institutions has evolved, centred around human rights. And a flourishing field of academic inquiry is now devoted to debating human rights issues.

UWA's Bachelor of Human Rights is a unique, interdisciplinary programme of study that equips you with the knowledge and skills necessary to engage with real-world issues in human rights, and related areas such as social justice. You'll examine these ideas from a variety of perspectives; legal, historical, political, practical, and philosophical. You'll also gain invaluable analytical skills essential for success in the workplace.

#### Why study this degree at UWA

- Human rights are the dominant language in which contentious social and political questions are debated, globally. UWA is the only university in Western Australia that affords undergraduate students the opportunity to undertake a full programme of study in human rights
- The Bachelor of Human Rights is a unique, interdisciplinary programme, affording students the opportunity to study human rights, and associated ideas (e.g. social justice) from a wide variety of perspectives – legal, political, philosophical, practical, and historical. Your teachers will be leading experts in their respective fields
- Gain vital experience and connections with opportunities for internships and contact with people working on human rights issues

#### You'll learn to

- understand the central issues in the study of human rights and learn about real-world human rights challenges from a wide range of disciplinary perspectives. This will give students the capacity to approach complex social and political problems from a range of perspectives
- gain vital, transferable skills in critical thinking, writing, and analysis – skills in constant demand from employers
- learn how to apply human rights (and associated ideas

   e.g. social justice) to contentious social and political
   questions, and to understand rights-based issues
   with respect to matters of public policy, and corporate
   practices

#### Major

• Human Rights (Extended Major)

#### uwa.edu.au/study/b/human-rights

 $\hbox{``Subject to final approval. See website for most up to date course information.}$ 

#### SPECIALISED DEGREE

# Bachelor of **Philosophy, Politics and Economics**

Minimum ATAR 90 or equivalent
STAT Not applicable
Intake months February and July
Completion 3 years full time or part-time equivalent

#### **CAREER OPPORTUNITIES**

Management consultants, diplomat, economic/political journalist, policy adviser

All important social issues — climate change, healthcare, inequality, political participation, criminal justice, and much more besides — have philosophical, political, and economic dimensions. UWA's Bachelor of Philosophy, Politics and Economics is a challenging and rigorous course of study that equips students to engage with these issues from a uniquely interdisciplinary perspective.

#### Why study this degree at UWA

- UWA is the only university in Western Australia to offer a Bachelor of Philosophy, Politics, and Economics
- Students study all three disciplines with leading experts in their respective fields, in particular academics whose research straddles the three disciplines
- The program includes specially designed interdisciplinary units of study, where students will bring the tools of all three disciplines to bear upon pressing social, political and economic questions

#### You'll learn to

- apply the tools of each discipline to problems with political, philosophical, and economic dimensions (e.g. inequality, criminal justice, climate change) and so learn to think about complex social issues in a genuinely interdisciplinary manner
- study how insights from each of the three disciplines bear upon issues in the others
- apply invaluable critical-thinking and analytical skills, and see how they can be deployed in a wide variety of contexts

uwa.edu.au/study/bachelor-of-philosophy-politics-and-economics

#### Sample study plan

**Key:** Degree-specific major Minor Electives

Bachelor of Philosophy, Politics and Economics with a degree-specific major in Philosophy, Politics and Economics (Extended Major) and a minor in Active Citizenship.

YR1	SEM 1	Introduction to Critical Thinking	Understanding Politics and Policy	Making a Difference: Civic Participation and Social Change	McCusker Centre for Citizenship Internship
•	SEM 2	Microeconomics: Prices and Markets	Macroeconomics: Money and Finance	Environmental History	God, Mind and Knowledge
5	SEM1	Microeconomics: Policy and Applications	Bioethics	Foundations of Public Policy	History of Political Ideas
YR2	SEM 2	Rise of the Global Economy	Knowledge and the Justification of Belief	Integrating Philosophy, Politics, and Economics: The Philosophy of Economics and Political Science	Changing the World: Social Innovation, Finance and Enterprise
	SEM 1	Contemporary Political Theory	History of Economic Ideas	What to Do? How to Make Rational Decisions under Uncertainty	Politics of the Mass Media
- YB3	SEM 2	Integrating Philosophy, Politics and Economics: Rational Choice	Moral Theory	Global Environmental Politics	Approaches to Wicked Problems

#### **MAJORS IN HUMANITIES AND SOCIAL SCIENCES**

# Aboriginal Health and Wellbeing

#### **CAREER OPPORTUNITIES**

Health promotion officer, social worker\*, health and welfare services manager, health policy adviser

**Bachelor's degree:** Biomedical Science or Philosophy (Honours)

This major provides you with a solid grounding in the many factors that influence the health and wellbeing of Aboriginal peoples, families and communities in Australia, and an understanding of particular health problems and their impacts within Aboriginal communities, as well as practical experience in Aboriginal health settings.

#### Why study this course at UWA

- Gain a greater understanding of the challenges and health and wellbeing of the Aboriginal community
- Undergo practical experience in community-based settings to prepare you for work in the industry
- Work towards the Government's Closing the Gap initiative, addressing Aboriginal and Torres Strait Islander disadvantages in health, education and employment

#### You'll learn to

- understand strategies, policies and practices to improve Aboriginal community-led health initiatives
- demonstrate strong knowledge of human biology, assisting in evaluating the biological evidence about disease mechanisms
- show practical experience in Aboriginal health settings
- develop the skill set required to work in a team environment, including oral and written communication, time and information management, professional behaviour and interpersonal skills, and project management

**Trending second majors:** Indigenous Knowledge, History and Heritage; Humanities in Health and Medicine; public Health

#### Prerequisite:

 Mathematics Applications ATAR OR higher-level mathematics OR a mathematics unit taken in the first year

uwa.edu.au/study/aboriginal-health-and-wellbeing

#### Archaeology

#### **CAREER OPPORTUNITIES**

Conservator, archaeologist, museum researcher

Bachelor's degree: Arts or Philosophy (Honours)

Study more than three million years of human history in all its facets. This major brings together specialist units of study such as archaeobotany, archaeozoology, dating methods, DNA analysis, fieldwork, heritage, human origins and symbolism, Indigenous archaeology, and rock art. You'll develop practical skills through laboratory classes and fieldwork units, with three field schools held each year.

#### Why study this course at UWA

- Gain a comprehensive range of transferable skills that give you a competitive advantage in the job market
- Work with industry, government, Indigenous groups and the broader community to better understand the past and create sustainable heritage futures
- Participate in internationally recognised, research-led, hands-on training in global and Australian archaeology, with access to the Centre for Rock Art Research and Management and Centre for Forensic Anthropology, both of which are acknowledged globally
- Gain practical skills through labs, field schools and field trips

#### You'll learn to

- demonstrate essential cognitive and social skills such as critical thinking, problem solving, ethical conduct and working in groups
- display essential practical skills such as OHS practices, understanding legislation, fieldwork and lab-work skills, and working with diverse stakeholders

**Trending second majors:** Human Geography and Planning; Indigenous Knowledge, History and Heritage; Classics and Ancient History

uwa.edu.au/study/archaeology

<sup>\*</sup> Postgraduate study required

#### **Asian Studies**

#### **CAREER OPPORTUNITIES**

Foreign affairs and trade officer, cultural interpreter, workplace relations adviser

**Bachelor's degree:** Arts or Philosophy (Honours)

Asian Studies provides knowledge and a solid basis for critically understanding the great diversity of cultures, societies and political systems of Asia, including China, Indonesia, Japan and Korea. It explores the impact of the great religions such as Buddhism, Hinduism and Islam, and investigates the dramatic changes that colonialism and revolutions have brought to the people of the region, and how these changes relate to Australia. You'll develop critical knowledge of the social, cultural, political and economic structures of contemporary Asian countries. You'll also have the opportunity to learn the languages and cultures of China, Japan, Indonesia and Korea, either as a complete beginner or as a more advanced student.

#### Why study this course at UWA

- Gain cross-cultural skills and exciting opportunities to work and travel in the region
- UWA's Asian Studies lecturers hold strong institutional, interdisciplinary and international research and teaching links

#### You'll learn to

- demonstrate critical knowledge of debates and discourses surrounding contemporary issues in Asia
- understand the complexities of sociocultural, political, economic and environmental transformations and interactions in postcolonial Asia
- demonstrate ethical sensitivity towards our diverse and globalised world

**Trending second majors:** Human Geography and Planning; Chinese Studies

uwa.edu.au/study/asian-studies

#### **Classics and Ancient History**

#### **CAREER OPPORTUNITIES**

Teacher, academic, writer, journalist, public sector officer

Bachelor's degree: Arts or Philosophy (Honours)

Classics and Ancient History is the study of the civilisations of Ancient Greece and Rome. This major combines the study of the history, culture, religions and languages of these two civilisations to give you a holistic picture of this vibrant and eternally relevant era of world history.

#### Why study this course at UWA

- You'll gain an in-depth understanding of the history and cultures of Greece and Rome and, in so doing, challenge and enhance your understanding of the modern world
- By studying Ancient Greek and Latin, you'll gain access to some of the great works of world literature that continue to influence modern and political social debates as well as popular culture. In addition, Greek and Latin provide a linguistic grounding for the study of modern European languages (including English)
- You'll enjoy unique opportunities to pursue engagement with the ancient world first-hand, with generous bursaries available for travel to Greco-Roman sites

#### You'll learn to

- synthesise complex, diverse and often fragmentary material, and develop research, critical thinking and communication skills
- describe the chief eras, achievements and enduring legacies of the classical world, and demonstrate, in several areas of specialised study, a sophisticated appreciation of specific eras and classical authors
- read at least one of the classical languages (Ancient Greek and Latin)

**Trending second majors:** Archaeology; History; Philosophy

uwa.edu.au/study/classics-and-ancient-history



#### **CAREER OPPORTUNITIES**

Editor, media planner, social media manager, content developer, journalist, advertising professional

Bachelor's degree: Arts or Philosophy (Honours)

Explore your interest in the ever-changing worlds of digital media, social media, journalism, video-making, interactive media and games, while perfecting your ability to express, persuade and argue. This major provides you with practical training in communication and digital-media skills, alongside essential theoretical knowledge, to teach you how to be an effective and powerful communicator.

#### Why study this course at UWA

- Gain sought-after skills in creativity, problem solving, teamwork, project management and persuasion
- Learn to use the latest digital and multimedia tools
- Become a versatile and responsible communicator

#### You'll learn to

- engage in creative, critical and reflective thinking, and be able to express yourself eloquently and effectively
- use a range of industry relevant production tools
- work collaboratively to manage complicated tasks and produce media content to professional standards
- develop a critical understanding of cultural and ethical implications associated with media and communication

**Trending second majors:** English and Literary Studies; Marketing; Political Science and International Relations

uwa.edu.au/study/media-studies

#### Criminology

#### **CAREER OPPORTUNITIES**

Corrective services officer, community development worker, youth worker

Bachelor's degree: Arts or Philosophy (Honours)

Criminology allows you to study crime and criminal justice while drawing on knowledge and perspectives from a range of disciplines including law, psychology, history, anthropology, forensic science and geography. This major will challenge you to apply criminological theory to analyse contemporary challenges relating to crime, victimisation, crime prevention and the criminal justice system.

#### Why study this course at UWA

- Get a fascinating look into crime and the criminal justice system
- You'll be taught by criminologists, historians, geographers, forensic scientists, anthropologists and psychologists
- This major pairs well with many other majors

#### You'll learn to

- understand the breadth of issues in contemporary criminology and the criminal justice system
- critique crime and criminal law
- use transferable creative thinking, teamwork and problem-solving skills

**Trending second majors:** Business Law; Law and Society

uwa.edu.au/study/criminology

#### **English and Literary Studies**

#### **CAREER OPPORTUNITIES**

Publisher, public service officer, educator

Bachelor's degree: Arts or Philosophy (Honours)

In English and Literary Studies, we take the imagination seriously. We address the creative texts societies produce and ask what they mean. From Shakespeare to Netflix, and from critical theory to creative writing, English and Literary Studies offers units that look at the exciting ways in which literature works in a newly globalised world.

#### Why study this course at UWA

- English and Literary Studies develops the valuable skills employers look for, such as analytical thinking, creativity, problem solving and the advanced ability to communicate
- Expand your understanding of life, ethics, different cultures and our changing society
- Challenge yourself and open your mind to new ideas

#### You'll learn to

- be innovative and creative
- exercise critical reasoning and analysis
- communicate clearly in written and oral forms
- work effectively, both independently and in groups
- research, synthesise and present information
- interpret a wide range of texts in a variety of historical and cultural contexts

**Trending second majors:** Communication and Media Studies; History; Philosophy

uwa.edu.au/study/english-and-literary-studies

#### **Gender Studies**

#### **CAREER OPPORTUNITIES**

Social worker, policy adviser, parliamentarian

Bachelor's degree: Arts or Philosophy (Honours)

We are in the midst of a new wave of interest in gender, as evidenced through popular cultural phenomena such as #metoo, and public debates and policy challenges about social issues such as political representation, sexual and family violence, transgender rights, or radicalisation.

Gender Studies equips you with highly relevant skills and knowledge that can be applied across multiple domains.

#### Why study this course at UWA

- Develop unique skills in social-systems thinking, interdisciplinary collaboration and complex problem solving
- Cultivate enhanced relational competence
- Grow improved self-awareness

#### You'll learn to

- demonstrate a comprehensive knowledge of feminist thought, its key shifts, major theorists and philosophical movements
- articulate the complexities of gender as a socially constructed practice situated in time and place, and mediated by other subject positions like race, class, religion, and sexuality
- contextualise the history of women's liberation as a social movement, its links to feminist activism as a form of social justice, and the continuing relevance of linking theory to practice
- draw on feminist methods of research, writing, and thinking about gender
- use a discursive vocabulary to clearly articulate arguments around gender, sexuality, ideology, subjectivity, corporeality, and agency

**Trending major combinations:** Communication and Media Studies; Law and Society; Political Science and International Relations

uwa.edu.au/study/gender-studies

# Course Guide 2023 | Humanities and Social Sciences

#### History

#### **CAREER OPPORTUNITIES**

Archivist, teacher, conservation officer

**Bachelor's degree:** Arts or Philosophy (Honours)

Historians use evidence from the past to ask fundamental questions about humanity. Through learning about the past, we illuminate the present. Studying history will immerse you in discovery, debate, discussion, understanding, surprise and awe, and it will require of you rigour, reason, questioning, imagination and passion. You'll be part of the process by which humanity's memory itself comes to be made.

#### Why study this course at UWA

- Learn about humanity's past
- Discover, debate, discuss and understand the world's history
- Gain skills in research, critical analysis and communication applicable to a wide range of careers

#### You'll learn to

- understand other times, societies and cultures
- demonstrate an awareness of the world we live in, through reference to humanity's past experience
- demonstrate a knowledge of major historical developments in a range of times and places
- identify main issues in complex historical material
- critically evaluate differences and issues in others' interpretations of historical events
- describe and interpret evidence of past human experience, proposing explanations with reference to concepts such as power, myth, representation, culture, gender, race, colonialism and social structure
- formulate logical arguments
- conduct independent research, making use of historical resources
- demonstrate a knowledge of the causes of historical change in a range of times and places

**Trending second majors:** Classics and Ancient History; English and Literary Studies; Political Science and International Relations; Economics

uwa.edu.au/study/history

#### History of Art

#### **CAREER OPPORTUNITIES**

Art conservator, curator, gallery director

**Bachelor's degree:** Arts or Philosophy (Honours)

This major provides you with the knowledge and skills to gain employment in art galleries and museums, community and public art programs, and with auction houses and major collections. You'll graduate with a comprehensive understanding of art and the specific communication skills required to engage in artistic dialogue, plus you'll possess a qualification valued by arts professionals worldwide.

#### Why study this course at UWA

- Explore the ongoing significance of art as a platform for shaping and interpreting the world in which we live
- Some units are taught overseas, and recent destinations include Paris, Rome and China
- You're taught by internationally recognised art historians

#### You'll learn to

- gather historical knowledge about a wide range of periods and visual media
- critically communicate about visual form
- recognise how art has shaped the history of ideas and how artists have imaged and imagined politics, religion, identity and culture

**Trending second majors:** English and Literary Studies; Fine Arts; History

uwa.edu.au/study/history-of-art

# Human Geography and Planning

#### **CAREER OPPORTUNITIES**

Urban planner, economic development adviser, international aid worker

**Bachelor's degree:** Arts or Philosophy (Honours)

Creating sustainable, liveable communities and vibrant economies are key challenges facing society. Human societies must increasingly grapple with growing population and economic pressures, increasing cultural diversity and the challenge of ecological sustainability under a changing climate. You'll develop critical, technical and communicative skills to address major policy and planning challenges. With an emphasis on domestic and international fieldwork, this major will guide you through the complex interplay of environmental, economic, social and political processes that influence the spatial organisation of human activities at a range of scales.

#### Why study this course at UWA

- Acquire knowledge and skills to help resolve major urban and regional problems
- Contribute to the creation of liveable communities, vibrant economies and sustainable places
- Human Geography at UWA achieved the highest possible ranking of 'well above world standard' in the national assessment of research (Australian Research Council 2019)

#### You'll learn to

- demonstrate an understanding of geography as an academic discipline
- identify the role of planning systems in shaping the characteristics of cities and regions
- conduct quantitative and qualitative research into urban and regional challenges
- communicate geographical perspectives and knowledge effectively
- understand the geographic and planning methods, policies and approaches used to address urban and regional challenges

**Trending second majors:** Landscape Architecture; Political Science and International Relations; Geographical Sciences, Environmental Management

uwa.edu.au/study/human-geography-and-planning

## Humanities in Health and Medicine

#### **CAREER OPPORTUNITIES**

Health educator, health researcher, community health practitioner, healthcare administrator

**Bachelor's degree:** Biomedical Science or Philosophy (Honours)

The major in Humanities in Health and Medicine is an interdisciplinary, humanistic and cultural study of health, illness, healthcare and the human body, mind and spirit. You'll be prepared to care for people by bringing the traditions of humanities, inquiry, compassion and judgement to bear on the management and promotion of health and the treatment of illness.

#### Why study this course at UWA

- UWA offers the first Australian undergraduate major in Humanities in Health and Medicine
- Humanities in Health and Medicine is a rapidly evolving field that looks at the meaning of health, illness and disease for people in the context of the social worlds in which they live and work
- Ideal for those who are planning a career in healthcare and who are passionate about community health and health education

#### You'll learn to

- demonstrate perspectives derived from the humanities in analysing approaches and practices related to health and medicine
- explore and understand connections between health and medicine and the arts, including literature, music and visual arts
- demonstrate understanding of the historical, cultural, religious and political contexts of theories and practices related to health and medicine

**Trending second majors:** Physiology; Psychological Science; Science Communication

#### Prerequisite:

 Mathematics Applications ATAR OR higher-level mathematics OR a mathematics unit taken in the first year

uwa.edu.au/study/health-humanities

# Course Guide 2023 | Humanities and Social Sciences

#### Indigenous Knowledge, History and Heritage

#### **CAREER OPPORTUNITIES**

Curator, environmental consultant, parliamentarian

**Bachelor's degree:** Arts or Philosophy (Honours)

Explore the world view and historical experiences of Indigenous peoples in Australia, and critically analyse disciplinary interpretations of Indigenous knowledges and peoples, locally, nationally and globally. Taught in an interactive manner, including field trips and excursions, this major will engage you with the perspectives of Indigenous people, Elders in the community and prominent guest speakers.

#### Why study this course at UWA

- Learn about Indigenous peoples and systems of knowledge from multiple perspectives
- The major is taught in a highly interactive manner
- The knowledge, understanding and skills gained complement many other majors

#### You'll learn to

- understand the experience, history and culture of Aboriginal peoples (particularly in Western Australia)
- study Indigenous systems of knowledge and the relevance of these systems across a broad range of disciplines
- critically evaluate representations of Aboriginal peoples in historical and academic discourse
- understand the major historical and cultural issues that inform present-day Aboriginal disadvantage
- gather knowledge of ethical paradigms in Aboriginal research and how to conduct independent research
- clearly express ideas in discussion and writing

**Trending second majors:** Aboriginal Health and Wellbeing; Fine Arts; Landscape Architecture; Law and Society

uwa.edu.au/study/indigenous-knowledge

#### Law and Society

#### **CAREER OPPORTUNITIES**

Human resources professional, teacher, lobbyist, researcher

Bachelor's degree: Arts or Philosophy (Honours)

From human rights, crime and justice to Indigenous rights, freedom of expression and religion, and social media and the law, the Law and Society major explores the impact of legal and social policy on all areas of our lives. Through this major you'll understand, apply and adapt concepts in socio-legal studies while developing skills in research analysis, teamwork and communication.

#### Why study this course at UWA

- We offer a fascinating range of broad units as an excellent foundation of law
- You'll develop your empathy, reasoning skills and teamwork skills as you collaborate with others on projects
- You'll improve your analytical and research skills
- Learn about current and critical topics in law today, such as terrorism and using the internet for advocacy and activism

#### You'll learn to

- critique legal and social policy nationally and globally, in the context of various topics
- understand concepts in law and policy
- gain transferable interpersonal, analytical, teamwork and communication skills

**Trending second majors:** Business Law; Political Science and International Relations; Criminology

uwa.edu.au/study/law-and-society

#### Linguistics

#### **CAREER OPPORTUNITIES**

Teacher, speech therapist, translator

**Bachelor's degree:** Arts or Philosophy (Honours)

From sounds and words to how language is used in different societies and cultures, linguistics is the study of language and communication. This major aims to provide the broadest grounding in contemporary linguistics and enables you to specialise in your areas of interest. You'll have the opportunity to work on a variety of linguistic topics including grammatical descriptions, language variation, change and history, semantics, anthropological linguistics, or the study of Australian Aboriginal languages.

#### Why study this course at UWA

- Linguistics is a robust educational foundation that equips you with the core skills an employer looks for, in particular good communication and thorough analysis
- Linguistics is the study of language, and language is key to most human interactions. As such, studying linguistics opens many doors.

#### You'll learn to

- understand key focuses of, and key concepts in, core sub-areas of linguistics – phonetics, phonology, morphology, syntax, discourse analysis, semantics, pragmatics, sociolinguistics, and historical linguistics
- describe key features of major approaches to language structure, use and variation
- demonstrate knowledge of the diversity of structures across languages
- critically interpret and synthesise the content of scholarly publications in linguistics

**Trending second majors:** Computer Science; English and Literary Studies

uwa.edu.au/study/linguistics

#### Philosophy

#### **CAREER OPPORTUNITIES**

Policy and planning manager, academic, journalist

Bachelor's degree: Arts or Philosophy (Honours)

The study of philosophy involves thinking about some of the big questions we ask during our lifetime. You'll explore a vast range of influential ideas, from the ancient philosophers, whose works are preserved in manuscripts from India, China and Greece, right down to cutting-edge contemporary work on pressing ethical issues, the nature of mind and artificial intelligence.

#### Why study this course at UWA

- You'll develop advanced reasoning and communication skills, depth and breadth of view, and the ability to think critically and creatively
- Improve your employment prospects while doing something that truly broadens your mind
- UWA is the only university in Western Australia that teaches units in formal logic

#### You'll learn to

- analyse and evaluate arguments
- distinguish between good arguments and bad arguments, irrespective of their subject matter, and thus make informed decisions and recommendations on contentious issues
- demonstrate clarity of thought
- separate distinct issues, consider them independently and think out the consequences of positions on them
- demonstrate the general skills for thinking about problems and tasks, and framing and evaluating solutions
- frame, express and convey ideas your own and other people's – in a clear and convincing way
- appreciate the value of different perspectives on life, society and knowledge

**Trending second majors:** English and Literary Studies; Law and Society; Political Science and International Relations

uwa.edu.au/study/philosophy

# Course Guide 2023 | Humanities and Social Sciences

# Political Science and International Relations

### **CAREER OPPORTUNITIES**

Parliamentarian, journalist, chief executive officer

Bachelor's degree: Arts or Philosophy (Honours)

Develop core knowledge and professional skills to understand and critically engage with the politics of our complex, dynamic and globalised world. This major will give you an understanding of governments and political systems in Australia and internationally, and the values and ideologies that have motivated political action in modern society.

### Why study this course at UWA

- Political Science and International Relations graduates are trained in critical thinking, problem solving, the ability to identify connections between global, national and local phenomena, research and analysis, cross-cultural awareness, and oral and written communication. These skills prepare students for a wide range of occupations
- Through internships and study-abroad options, Political Science and International Relations links students directly with government and other organisations, increasing career prospects
- UWA collaborates with a range of important international think-tanks, including those established at the University, all contributing to the teaching and learning of this major

### You'll learn to

- demonstrate advanced knowledge about the nature of politics and the functions of diverse political ideas, theories, actors, institutions and systems
- critically explain and evaluate key political and policy dynamics at local, national, transnational, regional and international levels
- creatively apply critical-thinking and problem-solving skills to independently and collaboratively address challenges, crises and change in the political world
- competently apply basic Political Science and International Relations methods and skills to design and execute social research
- effectively communicate political knowledge, ideas, analyses and arguments in different formats

Trending second majors: Economics; History;

Law and Society

uwa.edu.au/study/political-science-and-international-relations

# Work and Employment Relations

### **CAREER OPPORTUNITIES**

Human resource professional, management consultant, workplace relations adviser

Bachelor's degree: Arts or Philosophy (Honours)

This multi-disciplinary course blends politics, law, sociology, economics, history and more to investigate and challenge the policies and institutions designed to help both employers and employees get the most out of their relationship.

### Why study this course at UWA

- Explore the relationship between work and society
- Study in a multi-disciplined learning environment
- Apply theory to real-life problems
- Interact with a diverse range of academics and industry personnel

### You'll learn to

- understand key concepts, theories and practices in employment relations
- gain perspectives on the transformation of work and society, drawn from relevant social and legal studies
- apply theories to practical contexts and issues
- understand the interests of workers, unions, managers, employers and the state within the workplace and the broader social context of work
- formulate appropriate responses to relevant policy and managerial issues
- understand the principles of ethical behaviour and social responsibility in organisations
- · work with and manage teams

**Trending second majors:** Human Resources Management; Management; Political Science and International Relations

uwa. edu. au/study/work- and- employment-relations



Become a bilingual citizen of the world at the largest language hub in WA.

At UWA, we offer a wide range of language majors and minors.

Combine a language with your other interests to create your perfect study plan.

Languages are an in-demand skill for many employers.

Find out more at uwa.edu.au/study/uwa-language-hub

### SPECIALISED DEGREE

# Bachelor of **Modern Languages**\*

Minimum ATAR 80 or equivalent

**STAT** Not applicable

**Intake months** February

Completion 3 years full time or part-time equivalent

### **CAREER OPPORTUNITIES**

Cultural interpreter, diplomat, foreign affairs and trade officer, journalist, linguist, teacher

The Bachelor of Modern Languages enables students with a particular interest in world languages and cultures to study two languages in depth to achieve a high competency in the four macro skills of reading, listening, speaking and writing.

### Why study this degree at UWA

- Gain a competitive advantage in almost any field (both internationally and in Australia) through knowledge of a language other than English
- Have the opportunity to participate in an exchange program at leading universities
- Get to know students from a wide range of disciplines and work closely with supportive tutors in interactive, engaging language classes

### You'll learn to

- understand how culturally specific social structures affect interpersonal communication, and determine how to apply this knowledge to your own
- demonstrate knowledge of the basic structures and patterns of words, sentences and conversations in the target language(s) and in your first
- demonstrate knowledge of key aspects of the history, society and culture of countries where the language(s) studied is/are spoken
- demonstrate competence in a set of transferable skills, including (but not limited to) digital literacy, information management, research skills, critical thinking, and oral and written communication

### **Majors**

- Chinese Studies
- French Studies
- German Studies
- Indonesian Studies
- Italian Studies
- Japanese Studies
- Korean Studies
- Spanish Studies

### uwa.edu.au/study/b/modern-languages

 $\hbox{``Subject to final approval. See website for the most up to date course information.}$ 

### **Chinese Studies**

### **CAREER OPPORTUNITIES**

Financial dealer, foreign affairs and trade officer, cultural interpreter

**Bachelor's degree:** Modern Languages, Arts or Philosophy (Honours)

More than one billion people speak Chinese (Mandarin), making it the world's most spoken language. Study Chinese and open doors to an exciting international career. This major caters to language levels from beginner to native speaker, and develops language skills, cultural literacy and knowledge of modern China. Classes focus on reading, writing, speaking and listening.

### Why study this course at UWA

- It caters to all language levels from complete beginner to native speaker
- Develop language skills, cultural literacy and knowledge of modern China, with classes enabling you to engage with real-life situations and authentic texts
- Study in China via UWA's student exchange program

### You'll learn to

- demonstrate a good written and spoken linguistic competence in the Chinese language
- understand how culturally specific social structures affect interpersonal communication, and determine how to apply this knowledge to your own interactions in a culturally sensitive manner
- identify key ethical, philosophical and social characteristics of Chinese culture, society and history
- engage effectively and in a professional manner in the key debates on Chinese history, society and culture, and produce coherent and well-argued written work
- demonstrate transferable skills, such as digital literacy, information management, group working, research skills and critical thinking

**Trending second majors:** Asian Studies; Finance; Political Science and International Relations

uwa.edu.au/study/chinese-studies

### **French Studies**

### **CAREER OPPORTUNITIES**

Cultural interpreter, international journalist, teacher

**Bachelor's degree:** Modern Languages, Arts or Philosophy (Honours)

Studying French is more than simply learning a language; it's an experience that will open your mind to different cultures, enrich you with knowledge of history, and enable you to engage in real-world issues. Study past and present French and francophone literature, films, contemporary society and popular culture, and gain a holistic and stimulating cultural and educational experience.

### Why study this course at UWA

- Achieve high levels of competency in listening, speaking, writing and reading the French language
- Experience the rich cultural diversity of one of the world's major international languages – French is spoken by more than 300 million people worldwide on five continents
- Gain a skill that will add value to any career, as well as open up exciting new travel opportunities
- Have the opportunity to participate in an exchange program at leading universities and elite schools throughout France, Canada or the Pacific islands

### You'll learn to

- communicate effectively and proficiently in the French language
- interact confidently and successfully in situations involving French cultural conventions
- interpret French language texts written, audio, visual in the light of French culture and society
- understand French and francophone cultures throughout the world and reflect on your own culture
- move with accuracy and skill between the English and French languages and cultures

**Trending second majors:** German Studies; Economics; Political Science and International Relations

uwa.edu.au/study/french-studies

# Course Guide 2023 | Humanities and Social Sciences

### **German Studies**

### **CAREER OPPORTUNITIES**

Foreign affairs and trade officer, journalist, cultural interpreter

**Bachelor's degree:** Modern Languages, Arts or Philosophy (Honours)

This major caters for students at all levels, from absolute beginners to intermediate and native speakers. While becoming fluent in the German language, you'll also explore centuries of German history, culture, contemporary film and media, as well as Germany's profound impact on the sciences, music and philosophy, both in Europe and around the world.

### Why study this course at UWA

- Gain a competitive advantage in almost any field (both internationally and in Australia) through knowledge of a language other than English
- Germany is a world leader in research, development and innovation, as well as in information and communication technologies, all of which will become increasingly important in the future
- Get to know students from a wide range of disciplines and work closely with supportive tutors in interactive, engaging language classes

### You'll learn to

- read, write, listen and speak in German
- interact confidently and successfully in situations involving German cultural conventions
- interpret German language texts written, audio, visual
   in the light of German culture and society
- move with accuracy and skill between the English and German languages and cultures

**Trending second majors:** Music; Political Science and International Relations

uwa.edu.au/study/german-studies

Latin and Ancient Greek language offerings are available in our Classics and Ancient History major.

### **Indonesian Studies**

### **CAREER OPPORTUNITIES**

Foreign affairs and trade officer, cultural interpreter, intelligence analyst

**Bachelor's degree:** Modern Languages, Arts or Philosophy (Honours)

This major enables you to achieve a high level of fluency in the language of Australia's closest neighbour and the world's fourth-largest country. As well as learning how to speak, read and write Indonesian, you'll study Indonesia's vibrant culture, ethnically diverse society and never-dull politics, graduating with skills and attributes in demand by employers in both the public and private sectors.

### Why study this course at UWA

- You'll graduate with a portfolio of skills and attributes that are much in demand by employers in both the public and private sectors
- Short-term and semester-long opportunities are available to spend time studying at an Indonesian university – a life-changing experience

### You'll learn to

- demonstrate a good written and spoken competence in the Indonesian language
- understand how culturally specific social structures affect interpersonal communication, and determine how to apply this knowledge to your own interactions in a culturally sensitive manner
- engage effectively in the key debates on Indonesian history, society and culture in a professional manner, and produce coherent and well-argued written work
- demonstrate competence in a set of transferable skills, including (but not limited to) digital literacy, information management, research skills and critical thinking, as well as an ability to manage and take responsibility for your own learning processes with minimum guidance

**Trending second majors:** Anatomy and Human Biology; Asian Studies; Political Science and International Relations

uwa.edu.au/study/indonesian-studies

### **Italian Studies**

### **CAREER OPPORTUNITIES**

Cultural interpreter, teacher, journalist

**Bachelor's degree:** Modern Languages, Arts or Philosophy (Honours)

This major will allow you to communicate effectively in Italian, in speaking, writing, listening and reading. It also offers a wide perspective on Italian culture, in Italy itself and in Italian-speaking communities around the world, including Australia. You may start Italian as a beginner, or commence a major following school study or as a near-native speaker.

### Why study this course at UWA

- Learn to communicate in Italian and learn high-level communication skills that you can transfer to all other areas of study and work
- Gain a richer understanding of the arts, music, design, architecture, opera and food by learning a language considered by many to be the most beautiful in the world
- Enhance your educational experience with exchange programs in Italy

### You'll learn to

- communicate effectively in the Italian language in the four macroskills of language acquisition – reading, writing, listening and speaking – rated according to the Common European Framework for Languages
- interact confidently and successfully in situations involving Italian cultural conventions
- interpret Italian texts written, audio, visual in the light of Italian culture and society
- move with accuracy and skill between the English and Italian languages and cultures

**Trending second majors:** French Studies; Linguistics; Management

uwa.edu.au/study/italian-studies

### Japanese Studies

### **CAREER OPPORTUNITIES**

Foreign affairs and trade officer, journalist, cultural interpreter

**Bachelor's degree:** Modern Languages, Arts or Philosophy (Honours)

This major offers you an insight into one of Asia's foremost economic and cultural powerhouses. You'll learn and develop reading, writing, speaking and listening skills, while exploring contemporary Japanese society and culture. Studying Japanese language, culture and society means taking a significant step towards being Asialiterate – an important attribute for future global citizens, particularly in Australia.

### Why study this course at UWA

- Study with experts in Japanese studies and language education
- Attend conversation practice and functions in UWA's traditional Japanese tatami room
- Join the Japanese Students' Association for language practice, cultural exchange and networking

### You'll learn to

- show competence in the Japanese language in the four skills of language acquisition – reading, writing, listening and speaking
- operate effectively in daily conversations or complex discussions in social and academic work situations
- understand and engage with Japanese-language texts and Japan-relevant English-language material

   written, audio or visual – of an intellectual nature in particular areas of interest and expertise
- understand how culturally specific social structures affect interpersonal communication, and determine how to apply this knowledge to your own interactions in a culturally sensitive manner
- engage effectively in the key debates on Japanese history, society and culture in a professional manner
- demonstrate transferable skills such as digital literacy, information management, group working, research skills and critical thinking

**Trending second majors:** Asian Studies; Linguistics; Marketing; Enterprise and Innovation

uwa.edu.au/study/japanese-studies

# Course Guide 2023 | Humanities and Social Sciences

### **Korean Studies**

### **CAREER OPPORTUNITIES**

Linguist, cultural interpreter, university lecturer

**Bachelor's degree:** Modern Languages, Arts or Philosophy (Honours)

Learn to speak and write Korean while exploring Korean societies, politics and culture, and developing an understanding of the two Koreas' place in the world.

### Why study this course at UWA

- South Korea is one of Australia's most important trading partners, a cultural juggernaut of popular culture, and a world leader in innovation and research in engineering, technology and medical sciences, so graduates with good Korean linguistic and sociocultural skills are highly sought-after in the local and global job market
- Gain the linguistic skills to succeed in Korea-related careers after graduation, and a solid understanding of Korean society, culture, history and politics
- Have the option of studying at one of UWA's partner institutions in South Korea

### You'll learn to

- demonstrate a good written and spoken linguistic competence in the Korean language
- understand how culturally specific social structures affect interpersonal communication, and determine how to apply this knowledge to your own interactions in a culturally sensitive manner
- identify key ethical, philosophical and social characteristics of Korean culture, society and history
- engage effectively in a professional manner in the key debates on Korean history, society and culture, and produce coherent and well-argued written work
- demonstrate transferable skills such as digital literacy, information management, group working, research skills and critical thinking

**Trending second majors:** Communication and Media Studies; Economics; Linguistics

uwa.edu.au/study/korean-studies

### **Spanish Studies**

### **CAREER OPPORTUNITIES**

Diplomat, teacher, cultural interpreter

**Bachelor's degree:** Modern Languages, Arts or Philosophy (Honours)

Spanish is the second most-spoken native language in the world, and UWA is the only university in WA to offer Spanish Studies. Achieve competency in listening, speaking, writing and reading the language. Experience the culture and learn about the lifestyle and achievements of Spaniards both in Spain and in the 20 Spanish-speaking countries around the world.

### Why study this course at UWA

- More than 580 million people around the world speak
   Spanish as a native or second language
- Acquire a skill highly regarded by employers as a complement to skills such as engineering and business
- Network and enhance your skills through the Conversation Club, student exchange opportunities, and links with cultural organisations such as the Cervantes Institute, the Cine Latino and Spanish Film Festival, and the Embassy

### You'll learn to

- show competence in the Spanish language in the four macroskills of language acquisition – reading, writing, listening and speaking – rated according to the Common European Framework of Reference for Languages (CEFR)
- interact confidently and successfully in situations involving Spanish cultural conventions
- interpret Spanish language texts written, audio, visual
   in the light of Spanish cultures and societies
- shift with accuracy and skill between the English and Spanish languages and cultures

**Trending second majors:** German Studies; History; Linguistics

uwa.edu.au/study/spanish-studies



### **Master of Translation Studies**

Gain world-class translation training at the largest language hub in Western Australia. Learn how to translate between English and one of eight Asian and European languages with our professionally endorsed postgraduate degree. Designed for graduates pursuing bilingual and multilingual careers, this course is taught by translation researchers and practitioners to help you develop a competitive edge in an increasingly globalised job market.

As part of your studies, you can choose to complete a six-week work placement, either in Australia or overseas. You can apply for your own internship, or via one of our hosts, including:

- UWA International Centre
- The Confucius Institute
- Chamber of Commerce and Industry WA (CCIWA)
- The Oriental Journal
- Scoop online magazine
- WA Museum
- Government bodies
- Immigration and education agencies

These internships ensure a high level of practical training and provide the opportunity for professional contacts for future employment. On occasion, graduates gain ongoing employment with their hosts on completion of their studies. The Master of Translation Studies is endorsed by the National Accreditation Authority of Translators and Interpreters (NAATI) making students eligible to sit the NAATI test for Advanced Certified Translator or Certified Translator, upon completion of the master's, and with no other prerequisites demanded by the accreditation body.

### Prerequisites:

- At least one major from our eight Asian and European languages available
- Prerequisite subjects of your chosen major
- Completion of a bachelor's degree, with a UWA
   Weighted Average Mark of 65 per cent in the Level 3
   units of a relevant major

ATAR: 90, or 98 via BPhil (Hons)

uwa.edu.au/study/m/translation-studies

"The six-week internship in Italy was an extremely valuable aspect of the course, enriching my translating skills and giving me an insight into the life of a translator."

### ALLIRA

MASTER OF TRANSLATION STUDIES



Realise your full creative potential with studies in Music and Fine Arts.

Graduates of the UWA Conservatorium of Music perform in every major orchestra in Australia, and as chamber musicians and soloists around the world. They are award-winning composers, creators, artists, producers and sound designers, influencing the landscape of music in Australia and globally.

At the UWA School of Design, you can work alongside award-winning, practising artists to gain an advanced qualification in fine arts or curatorial studies, setting yourself up for success in the art industry.

UWA's global research collaborations and strong connections with industry leaders will provide you with a critical edge. Our established network of connections spans the creative sectors, including Perth Festival, Perth Institute of Contemporary Art, the West Australian Symphony Orchestra, WA Opera and many more. Our corporate supporters influence our courses and teaching practices to stay at the forefront of industry trends and developments. They also provide guest lectures, case studies, mentoring and placement opportunities to support you as you achieve at the highest level.

# Top five reasons to study Music and Fine Arts at UWA

Strong practical and creative course components.

AUDITORIUM

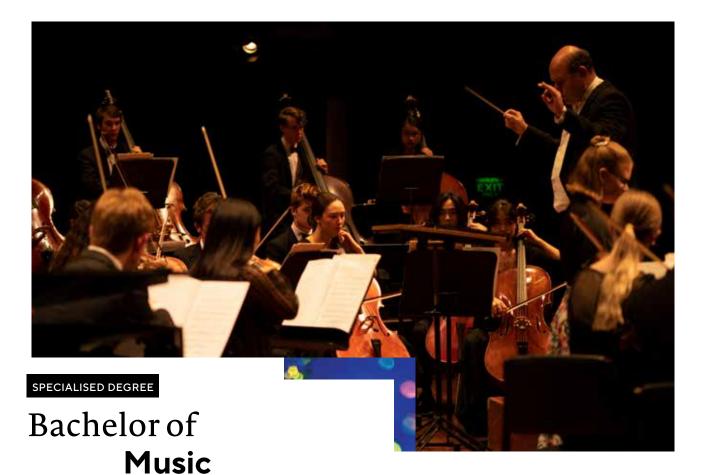
- Renowned artists and musicians with extensive industry experience.
- Exhibit at the Cullity Gallery or perform on stage.
- Undertake an immersive international experience.
- Outstanding facilities: Callaway Auditorium and Eileen Joyce Studio.

uwa.edu.au/study/areas/music-fine-arts

"UWA truly has a great team of contemporary artists, writers and historians who are passionate and driven to tirelessly support and mentor the next generation of artists. They are always eager to pass on their knowledge and experience within the arts industry, and often go above and beyond for their students' projects."

### SAMUEL

BACHELOR OF ARTS (HONOURS) - FINE ARTS



Minimum ATAR 75 or equivalent

STAT Written English and Verbal or Quantitative
Intake months February and July

Completion 3 or 4 years full time or part-time
equivalent

### **CAREER OPPORTUNITIES**

Performer, composer, DJ, creative artist, arts management academic, music teacher, music psychologist

The Bachelor of Music provides specialisations for composers, performers and musicologists, as well as those focused on creative music technology. It provides students with professional and performance experience as a creator of music. The degree incorporates significant industry experience and other experiential learning opportunities.

### Why study this degree at UWA

- UWA has a long history in developing world-class performers, composers and musicologists
- Make industry connections with the leading players in Western Australia and internationally, including WASO, WA Opera, the music industry and leading performers in the classical and music technology fields
- You'll learn from world-class teachers in your instrument and/or field
- This highly practical degree means you'll learn performance by performing

### You'll learn to

- perform, create and write about music
- understand the history of your genre
- think creatively
- express your passion through music

### Major

• Music (Extended major)

uwa.edu.au/study/bachelor-of-music

### **COMPREHENSIVE DEGREE**

### Bachelor of Arts

**Minimum ATAR** 75 or equivalent **STAT** Not Applicable

Intake months February and July

Completion 3 years full time or part-time equivalent

### **CAREER OPPORTUNITIES**

Politician, ambassador, author, journalist, anthropologist, historian, policy adviser, teacher, entrepreneur

Studying UWA's Bachelor of Arts lets you cultivate your passions while developing transferable skills that are essential in every industry and can never be automated – they'll set you apart from the competition and prepare you for a future-proof career.

### Why study this degree at UWA

- Our Bachelor of Arts is one of the most diverse degrees in Western Australia
- You'll be taught by renowned scholars and researchers who are international leaders and experts in their fields
- You can get hands-on industry experience through our professional experience practicum
- We're the largest language hub in the state
- Our Arts graduates include the founder of Mecca Cosmetica, an Academy Award-winning artist, a film maker, the CEO of Greenpeace APAC and a former federal minister, to name a few

### You'll learn to

- develop high levels of communication, research and technical expertise
- develop strong reasoning ability, problem-solving, and critical and creative-thinking skills
- employ skills in responsibility and leadership
- develop the communication skills you'll need to stand out in a global workforce

### **Majors**

- Archaeology
- Asian Studies
- Chinese Studies
- · Classics and Ancient History
- Communication and Media Studies
- Criminology
- English and Literary Studies
- Fine Arts
- French Studies
- Gender Studies
- German Studies
- History
- History of Art
- Human Geography and Planning
- Indigenous Knowledge, History and Heritage
- Indonesian Studies
- Italian Studies
- Japanese Studies
- Korean Studies
- Law and Society
- Linguistics
- Music: Electronic Music and Sound Design
- Music: General Studies
- Music: Music Studies
- Philosophy
- Political Science and International Relations
- Psychological and Behavioural Sciences
- Spanish Studies
- Work and Employment Relations

### **MAJORS IN MUSIC AND FINE ARTS**

### Fine Arts

### **CAREER OPPORTUNITIES**

Arts professional, film director, media producer

Bachelor's degree: Arts or Philosophy (Honours)

This intensive, studio-based course will prepare you for a successful career as a contemporary artist. Work closely with practising artists and experts from areas such as curatorial practice, art theory and history of art, and explore artistic processes, techniques and technologies that will help establish you in the fields of contemporary art and culture.

### Why study this course at UWA

- It's the only studio-based program in Australia that develops your artistic skills while allowing you to focus on one of three areas of creative practice: Film; Art and Biotechnologies; or Art and Environment
- You'll be taught by world-class, internationally recognised artists

### You'll learn to

- research and create artistic concepts
- develop ideas into art in a hands-on studio environment
- develop artistic skills in a variety of methods
- turn your ideas into developmental concepts unique to the framework of creative art

**Trending second majors:** History of Art; Communication and Media Studies

uwa.edu.au/study/fine-arts

### History of Art

### **CAREER OPPORTUNITIES**

Art conservator, curator, gallery director

Bachelor's degree: Arts or Philosophy (Honours)

This major provides you with the knowledge and skills to gain employment in art galleries and museums, community and public art programs, and with auction houses and major collections. You'll graduate with a comprehensive understanding of art and the specific communication skills required to engage in artistic dialogue, plus you'll possess a qualification valued by arts professionals worldwide.

### Why study this course at UWA

- Explore the ongoing significance of art as a platform for shaping and interpreting the world in which we live
- Some units are taught overseas, and recent destinations include Paris, Rome and China
- You are taught by internationally recognised art historians

### You'll learn to

- gather historical knowledge about a wide range of periods and visual media
- critically communicate about visual form
- recognise how art has shaped the history of ideas and how artists have imaged and imagined politics, religion, identity and culture

**Trending second majors:** English and Literary Studies; Fine Arts; History

uwa.edu.au/study/history-of-art

### Music (Extended Major)

### **CAREER OPPORTUNITIES**

Performer, composer, conductor, DJ or creative artist (sound artist/designer), music administrator/arts management, music journalist, music teacher, sound or audio engineers

### **Bachelor's degree:** Music or Philosophy (Honours)

Studying this extended major will provide you with a rigorous, high-quality tertiary music education. Whether your passion is performing, composing, musicology, teaching or creative music technology, this course will equip you with the skills for a career in the music profession.

### Why study this course at UWA

- Performance and practical experience is at the heart of all study, which means you'll participate in regular industrystandard performances in the state's best venues
- Gain industry connections with the leading players in Western Australia and internationally, including WASO, WA Opera, the music industry and leading performers in the classical and music technology fields
- You'll learn from world-class teachers in your instrument and/or field who are actively engaged in music making at the highest level

### You'll learn to

- perform, create and write about music
- become a well-rounded 21st century musician, equipped for a career in the creative arts
- understand the history of your genre and explore music's interaction with real-world issues such as politics, gender, race etc.
- think creatively and develop skills in critical thinking, research methods, written and oral communication and teamwork
- express your passion through music

### **Prerequisites:**

### Performance/Musicology/Studio Teaching Streams

- A practical requirement equivalent to AMEB Grade 7, demonstrated by an audition
- A strong background in music theory

### **Composition Stream**

- A practical requirement equivalent to AMEB Grade 5, demonstrated by an audition
- A strong background in music theory
- A portfolio is also required

### Creative Music Technology Stream

- A practical requirement equivalent to AMEB Grade 4, demonstrated by an audition
- A background in music theory
- A portfolio is also required

uwa.edu.au/study/music-extended-major

### Sample study plan

Bachelor of Music with a degree-specific major in Music (Extended Major) – Composition, Performance, Musicology and Studio Teaching Streams

	SEM 1	Music Language 1	Principal Studies 1	Musical Revolutions	Asian Societies and Cultures
ΥR	SEM 2	Music Language 2	Principal Studies 2	Popular Music in Global Perspective	Aboriginal Art and Society
YR3 YR	SEM 1	Music Language 3	Principal Studies 3	Music and Practices of Listening	Sex, Gender and Social Life
	SEM 2	Music Language 4	Principal Studies 4	Music in Action	Media Influence
	SEM 1	Music Education in Research & Practice	Principal Studies 5	Music in the Community	Industrial and Organisational Psychology
	SEM 2	Music, Society & Ideas	Principal Studies 6	Advanced Ensemble	Poetry and Poetics



# Music: Electronic Music and Sound Design

### **CAREER OPPORTUNITIES**

Sound designer, audio engineer, performing artist, music producer, game designer

**Bachelor's degree:** Arts or Philosophy (Honours)

Combine your love of music and technology in this creative-focused major, which allows you to explore industry-relevant techniques and technologies.

### Why study this course at UWA

- Learn to use the latest technology to write and produce music for film, video games, audio installations and electronic music, taught by industry specialists
- Combine your music and creativity with other subjects

### You'll learn to

- demonstrate compositional technique and identify relevant historical and stylistic conventions
- articulate broad historical perspectives on the nature and contexts of electronic music and sound art

- critically engage with key works from the early twentieth century to the present day
- understand the physical properties of sound
- create original electronic music and sound artworks
- develop specialised sound-design techniques applicable in key industries of film/TV, documentary, commercials and video gaming
- use specialised computer-programming techniques for the development of custom interactive software and hardware instruments
- develop transferable skills in creative and critical thinking, research, project planning and presentation

**Trending second majors:** Computer Science; Music Studies; Music General Studies

uwa.edu.au/study/music-electronic-music-andsound-design

### Sample study plan

Bachelor of Arts with a degree-specific major in Music: Electronic Music and Sound Design and a second major in Computer Science

YR1	SEM1	Music Theory for Electronic Musicians	Musical Revolutions	German Beginners 1	Software Engineering with Java
	SEM 2	Electronic Music: Methods and Means	German Beginners 2	Popular Music in a Global Perspective	Relational Database Management Systems
YR3 YR2	SEM1	Electronic Music: Generative Processes	Electronic Music: Experimental Investigations	Creative Writing; Theory and Practice	Data Structures and Algorithms
	SEM 2	Electronic Music: Interactive Systems	Sound, Image and Space	Cultures, New Media and Communications	Systems Programming
	SEM1	Sound Art: Advanced Studio	Digital Media	Computer Networks	Graphics and Animation
	SEM 2	Sound Art: Major Project		Algorithms, Agents and Artificial Intelligence	Professional Computing



### **Music: General Studies**

### **CAREER OPPORTUNITIES**

Musician, teacher, artistic director

Bachelor's degree: Arts or Philosophy (Honours)

Combine your passion for performance or composition with other fields of study. In Music: General Studies, you can develop your skills in musicology and participate in practical music-making, receiving expert one-on-one performance or composition tuition.

### Why study this course at UWA

- UWA is ranked in the top nine in Australia for Performing Arts (QS 2020)
- You'll have more performance opportunities than any other West Australian tertiary institution. Performance is at the heart of all studies
- Continue your musical journey alongside other areas of interest

### You'll learn to

- demonstrate a developing instrumental, vocal or composition technique
- identify, describe and apply intermediate concepts and devices in music language (harmony, rhythm, melody, timbre, texture, dynamic)
- understand music psychology, musical memory, practice strategies and composition technique
- learn and use stylistic conventions

**Trending second majors:** Law and Society; English and Literary Studies

### Prerequisites:

- A practical requirement equivalent of AMEB Grade 5, demonstrated by an audition
- A portfolio is also required for applicants for composition

### uwa.edu.au/study/music-general-studies

### **Music: Music Studies**

### **CAREER OPPORTUNITIES**

Musician, composer, music journalist

Bachelor's degree: Arts or Philosophy (Honours)

Innovate, create, and expand your knowledge through performance, composition or musicology. Develop your artistic and creative skills while gaining a broad grounding in music, with the opportunity to choose a specialist area of music study, in addition to studying common core units.

### Why study this course at UWA

- UWA is ranked in the top nine in Australia for Performing Arts (QS 2020)
- You'll take part in more performances than with any other Western Australian classical tertiary program
- You'll benefit from staff who are actively engaged in music-making at the highest level

### You'll learn to

- demonstrate an established instrumental or vocal technique and a high level of musicianship in solo, small and/or large ensemble settings
- identify, describe and apply basic concepts and devices in music language (harmony, rhythm, melody, timbre, texture, dynamic)
- interpret key texts from a range of music sub-disciplines (e.g. historical musicology, ethnomusicology, psychology of music, music sociology)
- articulate broad historical perspectives on the nature and contexts of art music in Western culture
- understand various forms of world and popular music and gain basic performance skills in one non-Western musical tradition
- develop transferable skills in research, critical thinking and communication

### Prerequisites:

- A practical requirement equivalent of AMEB Grade 5, demonstrated by an audition
- A background in music theory
- No audition required if taken as a second major
- A portfolio is also required for applicants for composition

### uwa.edu.au/study/music-studies



Studies in Physical Sciences aim to uncover the underlying laws of nature – often written in the language of mathematics. Delve into areas like chemistry, geology, physics, statistics and more to understand the world we live in and help advance humanity.

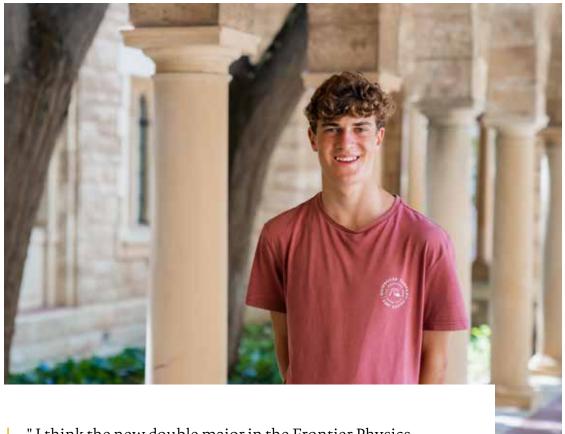
Studies in this field will develop your data analysis, visualisation, interpretation and technological skills, all of which are essential in growth industries such as science, technology, engineering and finance.

You'll gain hands-on experience with high-precision instrumentation and control, and enhance your abilities in forecasting, decision making and detailed problem solving. Start your journey to a fulfilling career in developing, creating and improving everyday life with scientific and mathematical tools and techniques.

## Top five reasons to study Physical Sciences and Mathematics at UWA

- Join an exceptional community our grads get jobs at leading organisations around the world, including Google, NASA, IBM and Microsoft
- Learn from inspirational leaders in the field like Emeritus Professor Cheryl Praeger, a multiple awardwinning and internationally renowned mathematician.
- Get career-ready by forming close ties with local industry, hospitals, observatories, schools and government research organisations during your degree.
- Be recognised our courses are accredited by the likes of the Australian Institute of Physics, the Australasian College of Physical Scientists & Engineers in Medicine, and the Royal Australian Chemical Institute.
- Create connections with some of our 160+ clubs and societies, including the Mathematics Union, Women in Engineering and Mathematical Sciences, University Physics Society, Science Communication Society and more.

uwa.edu.au/study/areas/physical-sciencesmathematics



"I think the new double major in the Frontier Physics at UWA, where you learn about the most intricate and challenging experiments known will be fascinating.

I probably want my future career to be in something in research and physics. UWA offers a lot of research programs and is very involved in dark matter, the science of gravitational waves, and research that is really interesting and I think that's where I will find myself"

### JOSH GREEN

BACHELOR OF PHILOSOPHY (HONOURS)



SPECIALISED DEGREE

Bachelor of **Earth Sciences** 

Minimum ATAR 80 or equivalent

STAT Not applicable

Intake months February and July

Completion 3 years full time or part-time equivalent

### **CAREER OPPORTUNITIES**

Geologist, environmental scientist, geophysicist

The Bachelor of Earth Sciences is ideal for students who are curious about the complex system that comprises the solid Earth, its oceans and atmosphere, and the place of Earth in the solar system and beyond. Earth scientists focus on deciphering the processes that have shaped our planet from its origin, to its changes through time recorded by rocks and fossils, through to modernday processes. This diversity creates many exciting opportunities for scientific discovery and professional careers. Knowledge of modern-day terrestrial and marine environments helps earth scientists interpret ancient data to build 3D syntheses of past Earth environments for a range of applications, e.g. exploring for new mineral resources, understanding groundwater flow, and predicting natural hazards and changes in Earth's climate. Increasingly sophisticated technology is used to gain insights into Earth materials and processes, using principles and techniques from chemistry, physics, biology and maths. Earth scientists have a key role to play in understanding environmental challenges in a changing world and sustainability of resources, e.g. critical metals for renewable technologies, marine and coastal management for habitation, industry and tourism, and energy and water resource management for healthy societies.

### Why study this degree at UWA

- An Earth Sciences degree from UWA will provide you with knowledge and skills that are highly valued by employers of geoscientists
- Emphasis is placed on practical skills gained in the laboratory and through fieldwork, and can be applied to a diverse range of employment opportunities in industry, consultancies and government
- Frequent use of real-world datasets and problemsolving techniques throughout the degree will strengthen your employability, as will the development of generic skills in analysing and synthesising data, communication and teamwork

### You'll learn to

- demonstrate coherent conceptual knowledge with depth and breadth in the Earth Sciences, drawing on core scientific knowledge and techniques
- demonstrate technical skills in the collection, analysis, interpretation and synthesis of data to construct models and graphical summaries
- apply knowledge, critical thinking and technical skills in the integration of geoscientific datasets to solve fundamental and applied earth science problems

### **Majors**

- Geochemistry (Extended Major)
- Integrated Earth and Marine Sciences (Extended Major)

### Combined Bachelor's and Master's

- Bachelor of Earth Sciences and Master of Geoscience
- Bachelor of Earth Sciences and Master of Oceanography

Minimum ATAR: 90 or equivalent

### **COMPREHENSIVE DEGREE**

# Bachelor of **Science**

Minimum ATAR 75 or equivalent

STAT Written English and Verbal or Quantitative

Intake months February and July

Completion 3 years full time or part-time equivalent

### **CAREER OPPORTUNITIES**

Agricultural scientist, environmental consultant, marine conservationist, zoologist, biochemist, software developer, analyst, forensic scientist, psychologist, sports coach, astronomer

Our Bachelor of Science gives you the skills and knowledge to make a real contribution to the challenges facing humanity. Scientists study the universe, its properties, the life that exists within it and the laws that govern it. Discipline areas range from cuttingedge pure and applied science to new multidisciplinary fields. The importance of science in determining the wellbeing of our society is recognised by industry, business and government.

### Why study this degree at UWA

- You'll be taught by the world's leading teachers and researchers
- You'll gain highly valued and sought-after skills that will ensure you are well-prepared for many diverse and exciting careers
- You'll have Work Integrated Learning (WIL) opportunities to gain practical industry experience and employability skills

### You'll learn to

- explore and investigate the big issues confronting our planet
- develop skills in reasoning, logic, observation, analysis, creativity and more
- gain practical, hands-on, industry-relevant experience
- bridge the gap between theory and practice through work experience opportunities
- think critically and push boundaries

### uwa.edu.au/study/bachelor-of-science

### Majors

- Agribusiness
- Agricultural Science
- Agricultural Technology
- Anatomy and Human Biology
- Biochemistry and Molecular Biology
- Botany
- Chemistry
- Computer Science
- Conservation Biology
- Cybersecurity
- Data Science
- Environmental Management
- Environmental Science
- Exercise and Health
- Genetics
- Geographical Sciences
- Geology
- Marine and Coastal Processes
- Marine Biology
- Mathematics and Statistics
- Microbiology and Immunology
- Neuroscience
- Physics
- Physiology
- Psychological and Behavioural Sciences
- Sport Science
- Zoology

### Combined Bachelor's and Master's

 Bachelor of Science and Master of Teaching (Secondary)

### Minimum ATAR: 88 or equivalent

 Bachelor of Science Frontier Physics and Master of Physics

Minimum ATAR: 96 or equivalent

### MAJORS IN PHYSICAL SCIENCES AND MATHEMATICS

### Chemistry

### **CAREER OPPORTUNITIES**

Pharmaceuticals specialist, polymer production specialist, nanotechnology specialist

Bachelor's degree: Science or Philosophy (Honours)

Chemistry describes the structure and properties of matter and its transformations, and it is central to virtually all areas of modern science and technology. The Chemistry major includes synthetic chemistry and physical analytical chemistry. Students will gain the specialist and general skills they need to build secure, satisfying and productive careers.

### Why study this course at UWA

- It's taught by experts and award-winning academic staff, covering all the fields of synthetic, physical and analytical chemistry, including inorganic and organic chemistry, organometallic chemistry, catalysis, medicinal chemistry, biological chemistry, materials science, theoretical and computational chemistry, spectroscopy, materials and nanotechnology, surfactant and polymer chemistry, environmental chemistry, materials science, nanotechnology and education
- Wide and comprehensive laboratory experience is offered throughout all levels of this extended major, covering all fields of chemistry
- There is a high demand for chemistry graduates in a variety of industries

### You'll learn to

- understand the properties of atoms and molecules, and their reactivity
- develop experimental skills for working safely with chemicals
- solve chemical problems including the calculation of yields, dilutions and stoichiometry in chemical reactions, and understand the theory and practical methods for creating new molecular structures.
- realise the historical role chemistry has played in the developing world and identify the unfolding picture in the future of chemistry as a central science
- demonstrate knowledge in chemical kinetics, thermodynamics, spectroscopy, equilibria and the properties of many classes of compounds and a vast range of materials reaction

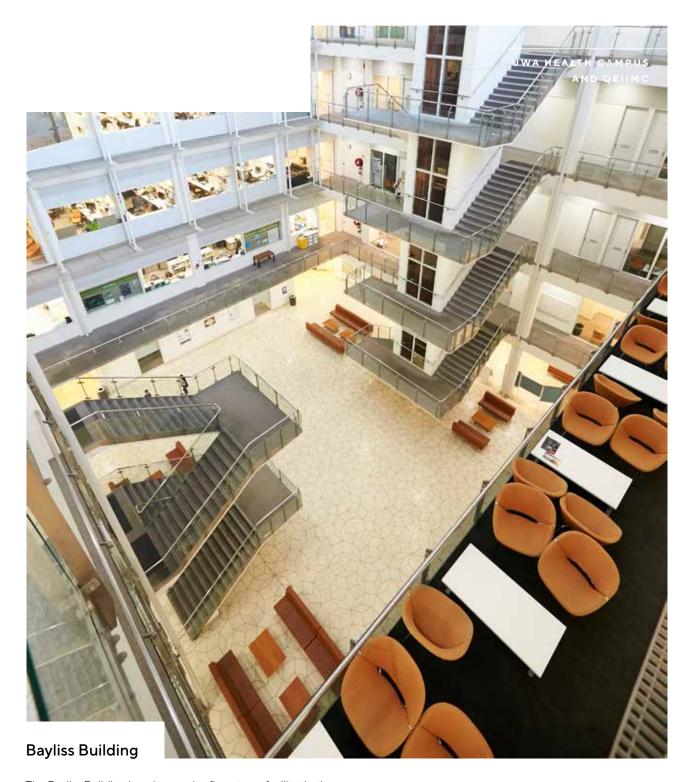
### **Prerequisites:**

- Chemistry ATAR **OR** a chemistry unit in the first year\*
- Mathematics Methods ATAR OR Mathematics Applications ATAR with a mathematics unit taken in the first year
- Students without ATAR mathematics will take two first-year mathematics units

**Recommended subject:** Mathematics Specialist ATAR

### uwa.edu.au/study/chemistry

 Subject to final approval. Mid-year applicants must have Chemistry ATAR to complete their degree in three years.



The Bayliss Building is an impressive five-storey facility that's the largest and most technically complex building on our campus. Home to the School of Molecular Sciences, the building was named after Emeritus Professor Sir Noel Stanley Bayliss (1906-1996), an eminent Australian chemist whose name was given to the mineral 'baylissite'.

It houses a range of facilities to support world-class research and teaching, with labs built on every level to suit various curriculum requirements as you progress through your studies.

### **Geochemistry** (Extended Major)

### **CAREER OPPORTUNITIES**

Mineral chemist, research geochemist, exploration geochemist

Bachelor's degree: Earth Sciences or Philosophy (Honours)

Geochemistry is the application of chemistry to understanding Earth's systems and processes. It is used to help understand a broad scope of areas such as how petroleum and mineral systems operate, and in the study of groundwater, marine and coastal habitats, the discovery of alternative forms of energy, and the exploration of other planets.

### Why study this course at UWA

- Gain fundamental skills to use geochemistry for generating environmental and mineral exploration solutions, all of which are strategically important in Western Australia and globally
- Be connected with world-class research teams across the country, as well as their industry collaborators
- This major addresses the growing skills demand in Western Australia and globally, with a real focus on employability of graduates

### You'll learn to

- understand important concepts and knowledge of materials, as well as properties and processes relevant to geology and chemistry
- gather, analyse and interpret geological and chemical data
- synthesise and integrate datasets to solve fundamental and applied earth-science problems

### **Prerequisites:**

- Chemistry ATAR OR a chemistry unit taken in the first year\*
- Mathematics Methods ATAR OR Mathematics Applications ATAR with a mathematics unit taken in the first year
- Students without ATAR mathematics will take two first-year mathematics units

**Recommended subject:** Mathematics Specialist ATAR

### uwa.edu.au/study/geochemistry

 $^{\star}$  Mid-year applicants must have Chemistry ATAR to complete their degree in three years.

### Geology

### **CAREER OPPORTUNITIES**

Geologist, environmental scientist, geophysicist

Bachelor's degree: Science or Philosophy (Honours)

Study how the Earth formed and evolved during the past 4.4 billion years, including the origin of continents, oceans, atmosphere and life, and how natural processes deep within Earth's interior shape the surface on which we live. Interpret geological processes and Earth history, and discover the formation of important resources and how climate and environments change through time.

### Why study this course at UWA

- With WA's vast ancient landscape and dynamic coastline, plus major mineral, energy and groundwater resources, UWA is the ideal place to study geology
- The major features laboratory and field-based experiential learning and offers opportunities to gain strong technical and professional skills for employment
- UWA students are taught by world-class researchers
  who undertake fundamental and applied geoscience
  research in collaboration with many of the exploration
  companies based in Perth, which provides students
  significant opportunities to gain important
  employability skills, networking and work experience

### You'll learn to

- demonstrate knowledge of key geological concepts and major geological processes on local to global scales
- demonstrate relevant practical skills to solve geological problems, with emphasis on fundamental fieldwork skills
- demonstrate developed skills in interpretation and integration of geoscience data to solve geoscience problems
- demonstrate developed skills in communicating knowledge and interpretations

**Trending second majors:** Environmental Management; Environmental Science

### **Prerequisites:**

- Mathematics Methods ATAR OR Mathematics Applications ATAR with a mathematics unit taken in the first year
- Students without ATAR mathematics will take two first-year mathematics units

uwa.edu.au/study/geology

# Course Guide 2023 | Physical Sciences and Mathematics

### Integrated Earth and Marine Sciences (Extended Major)

### **CAREER OPPORTUNITIES**

Minerals explorer, petroleum explorer, energy geoscientist

**Bachelor's degree:** Earth Sciences or Philosophy (Honours)

This extended major offers a research-led experience in studying the Earth, from the planet's early history to its foreseeable future, and from the ocean floors to its highest mountains. You'll learn high-level skills in the collection and interpretation of geoscientific data, in both terrestrial and marine settings, as well as advanced data analysis and synthesis techniques.

### Why study this course at UWA

- Within Australia, this is the only major that integrates Earth and Marine Sciences, providing a unique set of skills nationally
- UWA is ranked in the top 40 of global universities (QS 2021) in this discipline, and students are connected with world-class research teams.
- This major will provide a high level of interdisciplinary skills for the nation's future leaders in research and sustainable industry

### You'll learn to

- collect geoscientific data, whether on land, at sea or in the laboratory
- · analyse and interpret data in both spatial and spatialtemporal contexts
- synthesise and integrate data across multiple scales of observation and over discipline boundaries
- understand the past and present processes of Earth and its planetary neighbours, from the deep interior to the atmosphere

### **Prerequisites:**

- Mathematics Methods ATAR **OR** Mathematics
- Applications ATAR with a mathematics unit taken in the first year
- Students without ATAR Mathematics will take two first-year mathematics units

uwa.edu.au/study/integrated-earth-and-marinesciences

### **Mathematics and Statistics**

### **CAREER OPPORTUNITIES**

Statistical consultant, teacher, financial analyst

Bachelor's degree: Science or Philosophy (Honours)

Mathematics is humanity's most powerful tool for comprehending the universe, and is essential for many fields such as science, technology, engineering and finance. This major will equip you with the mathematical tools and techniques of key disciplines of pure mathematics, applied mathematics and mathematical statistics.

### Why study this course at UWA

- Mathematics underpins the data analysis, forecasting, modelling, decision-making and problem-solving principles on which modern society depends
- The UWA Department of Mathematics and Statistics was awarded 5 out of 5 in Excellence of Research Australia in Mathematical Sciences (Pure and Applied Mathematics), and one graduate has been awarded a Fields Medal (the mathematics equivalent of a Nobel Prize)
- You'll focus on practical applications of mathematics and statistics, including industrial mathematics, and applications to mining, engineering, nuclear fusion, data science, disease control and epidemiology

### You'll learn to

- demonstrate exposure to axiomatic systems and the fundamentals of mathematics (pure mathematics)
- · establish the truth of a statement, and write correct and convincing proofs (pure mathematics)
- demonstrate exposure to continuous and discrete mathematics models (applied mathematics)
- reduce a problem to mathematically tractable elements and understand its applicability (applied mathematics)
- understand the mathematical and practical consequences of chance variation (mathematical statistics)
- use modern statistical computing packages for analysis and simulation (mathematical statistics)

Trending second majors: Physics; Computer Science

### Prerequisite:

• Mathematics Specialist ATAR **OR** Mathematics Methods ATAR with an additional mathematics unit in the first year

Recommended subjects: Mathematics Specialist ATAR

uwa.edu.au/study/mathematics-and-statistics

### **Physics**

### **CAREER OPPORTUNITIES**

Astronomer, physicist, research scientist

Bachelor's degree: Science or Philosophy (Honours)

Knowledge of physics drives most new technologies, from radars to lasers, transistors to quantum computers. Contemporary Physics is built on deep theoretical ideas verified with astonishing precision by the most intricate and challenging experiments known to mankind. At its heart are the Standard Model of Particle Physics, Quantum Mechanics and Quantum Field Theory, and the law of General Relativity on curved space-time. This major gives you access to the frontiers of modern physics via a focus on mathematical, experimental and computational skills.

### Why study this course at UWA

- Understand the most advanced technologies and explore fundamental questions, from the tiniest particles to the great cosmos and everything in between
- It is an incredibly exciting time for physics on the horizon is a global race to make the first universal quantum computer, while ultra-sensitive experiments are in search of dark matter and dark energy
- Benefit from our strong foundation for research; the most recent ERA (Excellence in Research for Australia) ranking, gave us 5 out of 5 in all areas assessed

### You'll learn to

- develop conceptual understanding of the physical principles underpinning a wide range of applications
- develop and apply problem identification, exploration and solution skills in simple and complex physical situations
- apply increasing levels of mathematics in the expression and communication of physical concepts
- develop in-depth understanding of physics measurement, experimental technique, quantitative analysis and data analysis

**Trending second majors:** Mathematics and Statistics; Computer Science

### Prerequisites:

- Mathematics Specialist ATAR OR Mathematics
   Methods ATAR with an additional mathematics unit
   taken in the first year
- Physics ATAR or an additional physics bridging unit taken in the first year

**Recommended subjects:** Mathematics Specialist ATAR, Mathematics Methods ATAR and Physics ATAR.

uwa.edu.au/study/physics

### COMBINED BACHELOR'S AND MASTER'S DEGREE

### Bachelor of Science – Frontier Physics and Master of Physics

Minimum ATAR 96 or equivalent
STAT Not applicable
Intake months February
Completion 4 years full time or part-time equivalent

### **CAREER OPPORTUNITIES**

Physicist, astronomer, researcher, defence scientist, technical specialist, physics teacher, lab technician

This accelerated four-year master's degree provides a solid grounding in the fundamental theories, conceptual framework, computational techniques and experimental skills in frontier physics. Understand the universe at its smallest and largest scales, ready for a career in research, teaching, or tech development, where you'll contribute to exciting new discoveries and create new technologies.

### Why study this degree at UWA

- Study at the frontiers of discovery, including advanced theories of General Relativity and Quantum Field Theory
- Work with world-leading researchers and award-winning lecturers in dark matter discovery, gravitational wave detection, and quantum information and computing
- Fast-track your journey to postgraduate research or a professional career in physics

### You'll learn to

- apply the fundamental theories and conceptual framework of contemporary and frontier physics
- identify problems and research at the frontiers of physics
- test concepts in advanced and frontier physics using state-of-the-art techniques and instrumentation
- use appropriate mathematical expression and communication of physical concepts
- investigate physical and theoretical problems using computational techniques, undertake a research project in physics, and communicate the outcome

### Prerequisites:

- Mathematics Specialist ATAR
- Mathematics Methods ATAR
- Physics ATAR

uwa.edu.au/study/courses/bachelor-of-science-frontier-physics-and-master-of-physics



Psychology is a fascinating and diverse area of study that explores the human experience and touches upon many aspects of daily life. It seeks to answer questions about how and why we behave the way we do. Completing a degree in Psychology will develop your scientific understanding of human thoughts and behaviours, the processes underlying these, and the relationship of these processes to the brain.

Psychology aims to understand our thoughts, feelings, and behaviour. By studying these elements, how they relate to the operation of the brain, and how we relate to others, psychology lets us understand why we do what we do. Psychology also helps us understand how we can work better and design work around people; why individuals and groups end up in conflict, and how that conflict can potentially be avoided; and how we can support mental wellbeing.

You'll learn about theory and practice in areas such as clinical psychology, neuropsychology, biological psychology, cognitive science, neuroscience, developmental psychology, perception, and industrial and organisational psychology.

You'll explore the measurement of psychological abilities, how these develop through the lifespan, and the processes that govern relationships between people and groups in society. You'll also develop an understanding of how psychological processes are affected by ageing, brain damage and disease.

The universal nature of psychology means it complements any kind of study.

# Top five reasons to study Psychology at UWA

- Ranked 1st in Western Australia for Psychology (ARWU 2021).
- One of two psychology schools in Australia to have its research rated as 'well above world standard' consistently since 2010 (ERA).
- Learn with research leaders who are doing the research that informs our understanding of psychology
- Options to take psychology as part of a comprehensive degree and pair with another major, or focus more on psychology in the Bachelor of Psychology
- Continuing postgraduate pathways at UWA in both professional, accredited programs (e.g. clinical, industrial and organisational psychology) and non-accredited options to upskill (e.g. Business Psychology).

uwa.edu.au/study/areas/psychology

### SPECIALISED DEGREE

# Bachelor of **Psychology**

Minimum ATAR 80 or equivalent

STAT Not Applicable
Intake months February and July

Completion 3 years full time or part-time equivalent

### **CAREER OPPORTUNITIES**

Psychologist\*, clinical psychologist\*, industrial and organisational psychologist\*

Psychology is a fascinating and diverse area of study that touches upon many aspects of daily life, seeking to answer questions about how and why people behave the way they do. At the undergraduate level, studies are structured along four streams of Psychology.

- Normal and Abnormal Development how do psychological abilities develop through the lifespan and how are psychological processes affected by ageing, brain damage and disease?
- **Groups and Organisations** how do our psychological abilities impact on processes that govern our relationships between people and groups in society? How do you optimise human performance in a work setting?
- Cognition and Perception how do our brains interpret input from the world? How do we perceive, think, remember and decide?
- Research Methods how do you measure psychological constructs such as intelligence, personality traits and social skills?

The Psychology sequence in the Bachelor of Psychology is accredited by the Australian Psychology Accreditation Council (APAC). Students hoping to pursue further study at postgraduate level, leading to professional accreditation as a psychologist, will need to complete an accredited program.

### Why study this degree at UWA

- UWA is ranked first in Western Australia for psychology (ARWU 2021)
- We are one of two psychology schools in Australia to have its research rated 'well above world standard' consistently since 2010 (ERA)
- A psychology degree is one that is increasingly valued by employers for the analytical and reasoning skills it gives you

### You'll learn to

- apply psychological principles to personal, social and group issues
- plan, implement and evaluate research
- think critically and creatively, and use scientific methods to solve problems
- communicate effectively in a variety of formats and settings
- · act professionally within an ethical framework

### Major

• Psychology (Extended Major)

### uwa.edu.au/study/bachelor-of-psychology

 $^{\star}$  Postgraduate study and/or further training is required to register as a psychologist in Australia.

### COMBINED BACHELOR'S DEGREE

# Bachelor of Psychology and Bachelor of Arts

Minimum ATAR 85 or equivalent

**STAT** Not applicable

**Intake months** February and July

**Completion** 4 years full time or part-time equivalent

uwa.edu.au/study/bb/psychology-and-arts

# Bachelor of Psychology and Bachelor of Commerce

Minimum ATAR 88 or equivalent

**STAT** Not applicable

Intake months February and July

Completion 4 years full time or part-time equivalent

uwa.edu.au/study/bb/psychology-and-commerce

### **MAJORS IN PSYCHOLOGY**

### Psychology (Extended Major)

### **CAREER OPPORTUNITIES**

Psychologist\*, counsellor, health and welfare advisor

Bachelor's degree: Psychology or Philosophy (Honours)

The Psychology extended major will help you develop a scientific understanding of human thoughts and behaviours, the psychological processes underlying these and the relationship of these processes to brain function. There is an emphasis on the measurement of psychological abilities, how these develop through the lifespan, and the processes that govern the relationships between people and groups in society. You'll also develop an understanding of how psychological processes are affected by ageing, brain damage and disease.

### Why study this course at UWA

- UWA is ranked in the top 50 in the world for psychology (QS 2021)
- This extended major is a three-year undergraduate sequence in psychology, awarded accreditation by the Australian Psychology Accreditation Council (APAC).\* Completion of this major will allow students to apply for further study in Psychology leading to professional accreditation as a psychologist
- This extended major contains extensive psychology units and key units from allied disciplines

### You'll learn to

- understand psychological processes, their development, and the relations between them
- demonstrate critical thinking in psychology, including an appreciation of the use of the scientific method to study psychological processes
- · analyse and present quantitative data

### uwa.edu.au/study/psychology

 $^{\star}$  Postgraduate study and/or further training is required to register as a psychologist in Australia.

# Psychological and Behavioural Sciences

### **CAREER OPPORTUNITIES**

Psychologist\*, counsellor, human resource professional

**Bachelor's degree:** Science, Arts or Philosophy (Honours)

This major provides a core understanding of the scientific discipline of psychology. You'll develop an understanding of the cognitive and neural processes underlying behaviour, research methods in psychology, the measurement of psychological behaviour and abilities, the development of knowledge and abilities across the lifespan, and the processes that govern the relationships between people and groups in a multicultural society.

### Why study this course at UWA

- Learn from experts who operate at the cutting edge of the discipline. We don't just teach the textbooks, we conduct the work in the textbooks
- Our clinical programs are recognised as among the very best in the country, and we have extensive networks with clinical service providers
- The Psychological and Behavioural Sciences Major is Accredited without conditions in the Bachelor of Science and Bachelor of Arts by the Australian Psychology Accreditation Council (APAC)

### You'll learn to

- demonstrate knowledge and understanding of selected psychological processes, their development, and the relations between them
- demonstrate knowledge and understanding of the scientific method in psychology
- demonstrate critical thinking in psychology, including an appreciation of the use of the scientific method to study psychological processes
- demonstrate skills in the analysis and presentation of quantitative data

### uwa.edu.au/study/psychological-and-behaviouralsciences

<sup>\*</sup> Postgraduate study and/or further training is required to register as a psychologist in Australia.



"It's great knowing that my degree is hugely practical and that the skills I have learned are highly sought after in a number of fields and workplaces."

### SEPIDEH RAHMANI

BACHELOR OF SCIENCE (HONOURS) PSYCHOLOGY

# Combined Bachelor's and Master's

Minimum ATAR Refer to relevant CBM Intake month February Completion 4 years full time

The Combined Bachelor's and Master's (CBM) is a four-year accelerated program for high-performing students that will let you save on fees and enter the workforce sooner. In your first three years, you'll complete an extended major in your chosen discipline, including a semester of more advanced study leading into a final full year at postgraduate level. On completion, you'll be awarded both a full bachelor's and a full master's degree on an accelerated four-year pathway. If you decide not to continue in the CBM, you can exit after three years with a bachelor's degree or for select courses an advanced bachelor's degree, in the study area of your extended major. Note that the advanced bachelor's degree is available only as a CBM exit award; it is not offered for direct enrolment and is not awarded on completion of the CBM.

Course	Course structure
Bachelor of Agribusiness and Master of Agricultural Economics	<ul> <li>ATAR - 90 or equivalent</li> <li>UG - Agricultural Science and Agribusiness (Extended Major) +</li> <li>PG - Master of Agricultural Economics</li> </ul>
Bachelor of Agricultural Science and Master of Agricultural Science	<ul> <li>ATAR - 90 or equivalent</li> <li>UG - Agricultural Science and Technology (Extended Major) +</li> <li>PG - Master of Agricultural Science</li> </ul>
Bachelor of Biological Science and Master of Biological Science	<ul> <li>ATAR - 90 or equivalent</li> <li>UG - Wildlife Conservation (Extended Major) or Biodiversity and Evolution (Extended Major) +</li> <li>PG - Master of Biological Science</li> </ul>
Bachelor of Biological Science and Master of Biotechnology	<ul> <li>ATAR - 90 or equivalent</li> <li>UG - Plant Biology (Extended Major) +</li> <li>PG - Master of Biotechnology</li> </ul>
Bachelor of Earth Sciences and Master of Geoscience	<ul> <li>ATAR - 90 or equivalent</li> <li>UG - Integrated Earth and Marine Sciences (Extended Major) +</li> <li>PG - Master of Geoscience</li> </ul>
Bachelor of Earth Sciences and Master of Oceanography	<ul> <li>ATAR - 90 or equivalent</li> <li>UG - Integrated Earth and Marine Sciences (Extended Major) +</li> <li>PG - Master of Oceanography</li> </ul>

## Bachelor of Economics and Master of Economics

### **ATAR -** 90 or equivalent

- UG Professional Economics (Extended Major) +
- PG Master of Economics

# Bachelor of Environmental Science and Master of Environmental Science

### ATAR - 90 or equivalent

- UG Environmental Science and Management (Extended Major) or Environmental Science and Ecology (Extended Major) +
- PG Master of Environmental Science

## Bachelor of Human Sciences and Master of Bioinformatics

### ATAR - 90 or equivalent

- UG Human Sciences and Data Analytics (Extended Major) +
- PG Master of Bioinformatics

# Bachelor of Marine Science and Master of Environmental Science

### ATAR - 90 or equivalent

- UG Marine Science (Extended Major) +
- PG Master of Environmental Science

# Bachelor of Marine Science and Master of Marine Biology

### ATAR - 90 or equivalent

- UG Marine Science (Extended Major) +
- PG Master of Marine Biology

# Bachelor of Molecular Sciences and Master of Biomedical Science

### ATAR - 90 or equivalent

- UG Biochemistry of Nutrition (Extended Major) +
- PG Master of Biomedical Science

# Bachelor of Molecular Sciences and Master of Biotechnology

### ATAR - 90 or equivalent

- UG Molecular Life Sciences (Extended Major) +
- PG Master of Biotechnology

## Bachelor of Molecular Sciences and Master of Bioinformatics

### ATAR - 90 or equivalent

- UG Human Sciences and Data Analytics (Extended Major) +
- PG Master of Bioinformatics

# Bachelor of Science and Master of Teaching - Secondary

### ATAR - 88 or equivalent

- UG Select from the following majors: Physics, Mathematics and Statistics, Sport Science, Chemistry, Biology, Anatomy and Human Biology +
- PG Master of Teaching Secondary

# Bachelor of Science Frontier Physics and Master of Physics

### ATAR - 96 or equivalent

- UG Frontier Physics (Extended Major) +
- PG Master of Physics

### Bachelor of Sport and Exercise Sciences and Master of Clinical Exercise Physiology

### ATAR - 90 or equivalent

- UG Sport Science, Exercise and Health (Extended Major) +
- PG Master of Clinical Exercise Physiology

### Bachelor of Sport and Exercise Sciences and Master of Public Health

### ATAR - 90 or equivalent

- UG Sport Science, Exercise and Health (Extended Major) +
- PG Master of Public Health

### Bachelor of Sport and Exercise Sciences and Master of Applied Human Performance Science

### ATAR - 90 or equivalent

- UG Sport Science, Exercise and Health (Extended Major) +
- PG Master of Applied Human Performance Science

# A vibrant campus

UWA's main campus is located on the picturesque banks of the Swan River (Derbarl Yerrigan), just minutes from Perth City.

Featuring expansive green spaces, cafés and shops, as well as a multitude of modern teaching and research facilities, our campus provides you with a world-class learning environment.

See the campus for yourself on our online virtual tour **uwa.edu.au/360-campus-tour** 







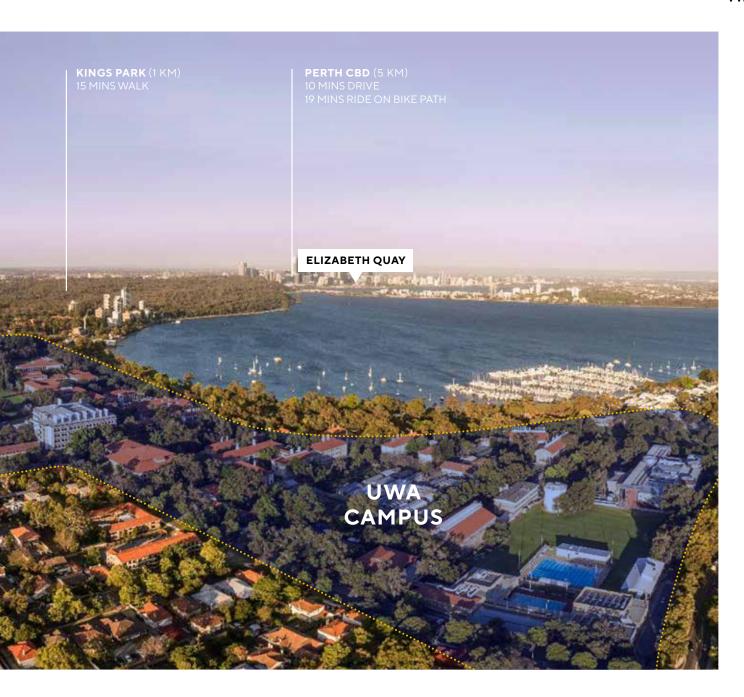
### **UWA's Albany Centre**

Located five hours' drive from Perth, the Albany Centre offers students a high-tech learning environment. Here you can experience all that regional Western Australia has to offer while studying at university.

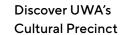
uwa.edu.au/albany

















UWA is more than a university – it's your community. There are many great places to eat, drink and shop, get fit, discover incredible art, relax, study and more.

### Accommodation

Living at UWA means you can easily walk to uni, cafés and shops; you're also only a short bus ride to the city and Perth's best beaches.

### Arts and culture

Our on-campus art gallery features rotating exhibitions. Explore museums and enjoy regular music concerts.



### **Events**

Enjoy fun social events, opportunities for industry networking, workshops and more.

### Extracurricular courses and programs

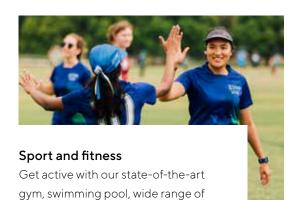
Through collaborations with industry partners, we offer a range of free leadership, entrepreneurial and other courses to expand your skill set and advance your career.

### Food and drink

Enjoy a variety of cuisines (catering for all dietary requirements) from cafés and a range of food outlets on campus and in the neighbourhood.







### Student clubs and societies

sports and more.

With more than 160 clubs and societies you're sure to find a perfect fit.

recreational and fitness courses, social

### Libraries

UWA has several dedicated libraries across campus with high-tech study facilities, resources and learning spaces. There is also a range of virtual assistance options available.

### Spirituality and faith

UWA is a multi-faith university that supports and welcomes students with diverse cultural and spiritual backgrounds.



### Volunteering

There are opportunities to get involved on or off campus to support a cause, organisation, charity or group.

uwa.edu.au/study/student-life



You'll have plenty of support and help when you get to UWA. Here are just a few of the services we offer.

### Academic support

One-on-one support, study skills workshops (STUDYSmarter), extensive online resources and more.

### Career support

Personalised career advice, industry mentoring, online resources, networking events, workshops and more.

### Childcare services

Available for children aged six weeks to five years, plus afterschool and vacation care for primary school-aged children.

### Course advice

Advice on study plans, enrolment, scholarships, studying abroad, extracurricular activities and more.

### Disability support

Perform at your academic best with support for any disability, whether a physical or mental health condition. UWA can help, no matter if your condition is ongoing, temporary or episodic.

### Getting started

Take part in orientation activities, receive mentoring from an experienced student (UniMentor) and support from the UWA team to help you settle into uni life.

### Health and wellbeing

Confidential medical, welfare and mental-health support with a variety of specialist services and a pharmacy on campus. If you're looking for a doctor or GP, there's a Medical Centre on campus, as well as counsellors, mental health nurses, psychologists, physiotherapists and more.

### International student support

Our dedicated support services will help you settle into Australia and UWA life.

### Safety

A security team is on campus 24/7 and is available to walk you to your car, bus stop or UWA accommodation after hours.

### **UWA Student Guild**

Run by students, for students, to make sure you have the best university experience possible.

uwa.edu.au/students



There are five colleges to choose from:



ST GEORGE'S COLLEGE STGC.UWA.EDU.AU



UNIVERSITY HALL



TRINITY RESIDENTIAL COLLEGE



ST CATHERINE'S COLLEGE
STCATHERINES.UWA.EDU.AU



ST THOMAS MORE COLLEGE STMC.UWA.EDU.AU

Our five residential colleges are located directly opposite UWA, so you can sleep in late and still get to class on time!

#### What you'll get

• Your own secure, fully furnished room

fully inclusive lifestyle.

- Meals, cleaning, utilities, internet and more, included in your fees
- An action-packed calendar of events, activities and programs
- Plenty of spaces to study, relax or be active
- An extensive range of personal and career-development opportunities
- 24/7 support, whether you need help with study, or just someone to talk to
- Best of all, you'll make lifelong friends from all over the world!

Find out more **uwa.edu.au/colleges**Apply now **livingoncampus.uwa.edu.au**Contact us **residentialcolleges@uwa.edu.au** 

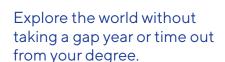
#### PREFER TO LIVE OFF-CAMPUS?

UWA owns and manages a range of apartments, units and houses adjacent to campus that are perfect if you're seeking a more independent lifestyle.

Email crawleyvillage@uwa.edu.au or visit uwa.edu.au/study/off-campus

# Student Exchange and

Study Abroad program



**150+ STUDENT-EXCHANGE**PARTNER UNIVERSITIES

**30 COUNTRIES** TO EXPLORE ACROSS FIVE CONTINENTS

FINANCIAL ASSISTANCE AVAILABLE

TRAVEL THE WORLD WHILE YOU STUDY

ENHANCE YOUR EMPLOYABILITY

MAKE LIFELONG FRIENDS

INCREASE YOUR
INDEPENDENCE AND
CONFIDENCE

IMMERSE YOURSELF IN A **NEW CULTURE** 

CHOOSE YOUR OWN **EXPERIENCE**, FROM TWO WEEKS TO A YEAR

uwa.edu.au/study/global



"Words can't explain how amazing exchange was. It was a once-in-a-lifetime opportunity and extremely rewarding to meet so many new people who will be friends for life."

#### ELLEN

UNIVERSITY OF VERMONT BURLINGTON, UNITED STATES

# Our partner universities



#### **AUSTRIA**

University of Vienna Vienna University of Economics and Business Administration

#### BELGIUM

Catholic University of Leuven

#### BRAZIL

Pontifícia Universidade Católica do Paraná - PUCPR

#### CANADA

Dalhousie University HEC Montréal

McGill University

McMaster University

Queen's University

Simon Fraser University

University of Alberta

University of British Columbia

University of Calgary

Université of Montréal

University of Ottawa

University of Toronto

University of Waterloo

Western University

#### CHILE

Pontificia Universidad Católica de Chile

#### CHINA, PEOPLE'S REPUBLIC OF

Beijing Language and Culture University

Fudan University

Nanjing University

Peking University

Renmin University

Shanghai Jiao Tong University

Tsinghua University

University of Science and

Technology China

Xi'an Jiaotong University

Zhejiang University

#### DENMARK

Åarhus University
Copenhagen Business School
Technical University of Denmark
University of Copenhagen

#### FINLAND

Aalto University
University of Helsinki

#### FRANCE

Burgundy School of Business

**ESSEC Business School** 

Grenoble Alpes University Jean Moulin University Lyon 3

Sciences Po Lille

Sciences Po Paris

New Sorbonne University

National School of Architecture of Montpellier

University Sorbonne

University of Strasbourg

#### GERMANY

Albert-Ludwigs University of Freiburg

Eberhard-Karls University of Tübingen

Free University of Berlin

Heinrich Heine University Düsseldorf

Humbolt University of Berlin

Ludwig Maximilian University of Munich

University of Stuttgart

WHU Otto Beisheim School of Management

#### HONG KONG

The Chinese University of Hong Kong

University of Hong Kong

#### IRELAND

Trinity College Dublin University College Dublin

#### ISRAEL

 $Hebrew\ University\ of\ Jerusalem$ 

#### ITALY

Bocconi University
Catholic University of the

Sacred Heart

Polytechnic University of Milan

#### JAPAI

Akita International University Chuo University

Kansai Gaidai University

Kobe University

Kwansei Gakuin University

Nagoya University

Okayama University

Ritsumeikan University Kyoto

Sophia University

Waseda University

#### MEXICO

Ibero-American University

#### **NETHERLANDS**

Leiden University

Maastricht University

University College Maastricht

Utrecht University

University of Groningen

Vrije University

#### **NEW ZEALAND**

University of Otago

#### NORWAY

Norwegian School of Economics and Business

Norwegian University of Life Sciences

Norwegian University of Science and Technology

University of Bergen

University of Oslo

University of Stavanger

#### RÉUNION

National School of Architecture of Montpellier

#### SINGAPORE

University

Nanyang Technological University

National University of Singapore Singapore Management

#### SOUTH KOREA

Korea University

Seoul National University

Sogang University

Sungkyunkwan University

Yonsei University

#### SPAIN

Autonomous University of Barcelona

Comillas Pontifical University

#### SWEDEN

Lund University

Stockholm University

Swedish University of Agricultural Sciences

Uppsala University

#### **SWITZERLAND**

University of St Gallen University of Zurich

#### THAILAND

Chulalongkorn University

#### UNITED KINGDOM

Bader International Study Centre (Queen's University)

Cardiff University

**Durham University** 

Manchester Business School

Queen Mary University of London

Royal Holloway University of London

University College London

University of Aberdeen

University of Bath

University of Bristol

University of Essex

University of Exeter

University of Glasgow

University of Leeds
University of Liverpool

University of Manchester

University of Nottingham

University of Sheffield

University of Southampton

University of Sussex University of York

#### URUGUAY

URUGUAY Universidad de Montevideo

#### UNITED STATES

Boston College

Indiana University

Iowa State University

Kansas State University Montana State University

North Carolina State University

Pacific University

Purdue University

State University of New York

at Brockport
University of Alabama

at Birmingham

University of Denver

University of Illinois at Urbana-Champaign

University of Maryland

University of Massachusetts

University of New Mexico

University of Notre Dame du Lac

University of Rochester

University of South Dakota University of Texas at Austin

University of Vermont

University of West Alabama

# Entry pathways

#### Pathways to help you gain admission to UWA

We're here to help you achieve your potential and reduce barriers to higher education for all students. Whether that means supporting you in your final years of high school, helping you gain admission with ATAR adjustments or alternative entry pathways if you don't have an ATAR.



#### First in your family to go to uni?

If your ATAR is under the minimum requirement for your degree but you're the first in your family to go to uni, you can still gain entry to UWA with an ATAR of 70 or above. So if neither parent has a university level degree, this is one of the ways studying your dream course can still be an option.

uwa.edu.au/study/first-in-family

#### Studying at a Broadway UWA high school?

Broadway UWA is one of many ways we're reducing barriers to university. Not everyone has the same opportunity to achieve their academic potential, which is why we partner with schools across WA to ensure access to our courses for students with the potential to succeed. If your high school is a Broadway UWA school and your ATAR is between 70 and 80, we'll automatically adjust your ATAR to 80 so you can access most UWA courses. And if you achieve between 80 and 98, we'll increase your ATAR by between 2 and 5 points.

uwa.edu.au/study/broadway

# Are you facing challenges? Fairway UWA

Some students face real challenges that can impact on their ability to succeed in high school and in their final exams. If you're challenged by location, economic or other factors, apply for Fairway support when you're in year 11 to access academic, financial and personal support throughout your final year of high school. You'll join a community of peers, receive a 5-point ATAR adjustment to gain entry to uni and further support during your university studies.

uwa.edu.au/study/fairway

#### **Educational Access Scheme (EAS)**

The Educational Access Scheme (EAS) can help you gain access to uni if you've experienced exceptional circumstances during senior secondary schooling, which adversely affected your Year 11/12 level study. Download the application form and submit it to your school principal in August, or check out further information about the application process and closing dates. tisc.edu.au/static/guide/eas.tisc

#### ATAR isn't the only way to access UWA

With Access UWA, you can enrol in units at UWA just as if you were studying a degree – attending lectures, tutorials, seminars and laboratory sessions, with full access to UWA libraries and all online resources. You can also undertake assessments throughout the semester and participate in final examinations – all without an ATAR (or if your ATAR is below the minimum required). Those units can then be used to make up your degree. Once you've successfully completed one semester of units, you'll be eligible to enrol in the full degree.

uwa.edu.au/study/accessuwa





# Do you have university, college or TAFE experience?

#### **Higher Education study**

If you have previously studied at a bachelor's degree level and have successfully completed one full-time (or equivalent) semester, you can apply for entry to UWA. Applications for credit transfer/advanced standing are assessed individually.

#### Australian Qualifications Framework (AQF)

If you have qualifications at diploma level or above (AQF5 or AQF6) from a registered training organisation (RTO), you'll be eligible to gain entry to our comprehensive bachelor's degrees. You may also be eligible for credit transfer/advanced standing. If the Diploma and/or Advanced Diploma is one year in duration and completed within the last two years then English requirements will be satisfied.

For more information on transferring to UWA, go to **uwa.edu.au/study/how-to-apply/entry-standards** 

#### **Previous study**

If you completed Year 12 at WACE/TEE level (or equivalent), you may be able to use these results to apply directly to UWA.

No matter how long ago you completed Year 12, if you're unsure if your results qualify you for entry, contact our Future Students Centre to discuss your options.

#### **Special Tertiary Admissions Test (STAT)**

You can use your results in the STAT to gain entry to a bachelor's degree in Arts, Biomedical Science, Business Commerce, Environmental Design, Music or Science. If you decide to sit the Special Tertiary Admissions Test for a degree that requires an ATAR of 80, you'll need to achieve a minimum of 140 in the Verbal or Quantitative section and a minimum of 160 in the Written English section. If you take the STAT for a course with an ATAR of 75, the required score for the Verbal or Quantitative section is still 140, but drops to 150 for the Written test. If these minimum scores are met, you'll also meet UWA's English Language Competence (ELC) requirement.

# Are you 20 years old or above (mature-age student)?

You're considered a mature-age student if you're at least 20 years of age at 1 March in the year you intend to commence university study for Semester 1, or at 1 August for Semester 2.

#### Mature-age Access Program

Through the UWA Mature-age Access Program (MAP), students without any previous academic qualifications may be offered the opportunity to study at UWA on a provisional basis. **uwa.edu.au/study/map** 

#### We're here to help

If you have any questions give us a call on **131 UWA (892)** or visit **ask.uwa.edu.au** 

# Entry pathways for Indigenous students

UWA's School of Indigenous Studies (SIS) has extensive experience in offering pathways into all undergraduate courses for Aboriginal and Torres Strait Islander people.

As well as Assured Pathways to postgraduate degrees for Indigenous students, SIS offers the Provisional Entry Scheme, Aboriginal Orientation Course and the UWA Smart Start Course.

# Assured Pathways to postgraduate degrees

Indigenous students who have applied through TISC for the Assured Pathway to one of the postgraduate courses (Medicine, Dentistry, Podiatric Medicine, Law and other postgraduate courses) can also contact the School of Indigenous Studies regarding Assured Pathways.

sis.uwa.edu.au

#### Other pathways

Indigenous students who have an ATAR of 70 or above, and matureage students with substantial work experience, are eligible to apply for entry to an undergraduate degree through the School's Provisional Entry Scheme.

- WACE applicants must have completed WACE, achieved secondary graduation and obtained an ATAR of 70 or above for entry to most of our undergraduate degree courses.
- Non-WACE applicants are required to have a strong education background, which may include TAFE, previous higher education studies or a bridging course and/or extensive relevant work experience.

#### How to apply

Complete an online application, provide supporting documentation to the School of Indigenous Studies, and attend a Uni Entry Workshop in December or January. Mid-year entry through this scheme is also available.

sis.uwa.edu.au/courses/provisional

## Enabling or bridging courses

Indigenous students with an ATAR below 70, mature-age students and students who have not completed Year 12 studies or equivalent are encouraged to apply for ONE of the School's enabling (or bridging) courses.

#### **Aboriginal Orientation Course**

The Aboriginal Orientation Course is a one-year course that prepares students for entry into most UWA undergraduate degrees. Students enrol in a minimum of four units each semester, the choice of units depending on the student's intended undergraduate degree.

#### How to apply

Aboriginal Orientation Course applications are completed online. As part of the selection process, all applicants will be required to attend a Uni Entry Workshop in December or January. Mid-year entry is also available.

sis.uwa.edu.au/courses/orientation

#### **UWA Smart Start**

This course is offered at UWA's Albany Centre and includes most units within the Aboriginal Orientation Course. It is open to Indigenous and non-Indigenous students, and prepares students for first-year study in an undergraduate course. Mid-year entry is also available.

#### How to apply

Currently, students seeking entry to UWA Smart Start complete an application form available from UWA's Albany Centre. As part of the selection process, all applicants will be required to attend a Uni Entry Workshop in December or January uwa.edu.au/albany

For more information, call **1800 819 292**, or email **sis@uwa.edu.au** 



# Calculating your ATAR

ATAR is the Australian Tertiary Admission Rank. It is important to remember that it is a ranking, and not a percentage.

An ATAR (Australian Tertiary Admission Rank) ranges from zero to 99.95, and reports your rank position relative to all other students. It takes into account the number of students who sit the WACE examinations in any year and also the number of people of Year 12 school-leaving age in the total population.

For example, if you have an ATAR of 80, this indicates you've achieved as well as, or better than, 80 per cent of the Year 12 school-leaving population.

Your ATAR is calculated from your Tertiary Entrance Aggregate (TEA). Your TEA is the sum of your best four scaled scores in WACE ATAR subjects, plus any applicable bonuses.

More information on calculating your ATAR can be found at **tisc.edu.au** 

#### ATAR bonuses for LOTE and higher-level mathematics

UWA offers an ATAR bonus to students who study a recognised Language Other Than English (LOTE) and/or higher-level mathematics (Mathematics Methods, Mathematics Specialist) in Year 12.

The bonus is added to your TEA by calculating 10 per cent of your final scaled scores in your LOTE and higher-level mathematics subjects. The bonus will increase your ATAR for entry into UWA.

It is important to note that you can only receive the LOTE bonus on one LOTE subject. You'll still be eligible to receive the LOTE and higher-level mathematics bonuses even if these subjects were not in your best four.

For further information, call the Future Students Centre on 131 UWA (131 892) or visit ask.uwa.edu.au

# How an ATAR score is calculated (example)

CHEMISTRY ATAR

61 + LOTE
INDONESIAN bonus 6.1
ATAR

60 ENGLISH ATAR

Top four subjects = TEA of 248 | ATAR 82 (pre-bonus)

57
HISTORY
ATAR

51 MATHS METHODS ATAR

+ maths bonus 5.1

After bonus TEA = 248 + 6.1 + 5.1 = 259.2 After bonus ATAR = 85.6

Based on 2020 TEA to ATAR ranking.

ATAR calculation may vary from year to year.

# How to apply



#### 1. Choose your degree

Choosing what to study is a personal choice and we'd encourage you to select what interests you. You can find out more about our courses at **uwa.edu.au/study**If you're unsure, talk to our Future Students team to discuss your options.

#### 2. Check entry requirements

Entry to most courses is assessed on your ATAR score or equivalent, as well as English language requirements. For some courses there are additional entry requirements and/or prerequisites. Check your chosen course entry requirements at <a href="https://www.edu.au/study/how-to-apply/entry-standards">www.edu.au/study/how-to-apply/entry-standards</a> for more information.

#### 3. Choose your entry pathway

There are many ways to join UWA - choose the UWA entry pathway that suits you best.

#### 4. Apply online

Once you've selected your pathway, you can apply directly to UWA or go through TISC. Find out more at **uwa.edu.au/how-to-apply** 

#### 5. Accept your offer

You'll receive the outcome of your application via email. If your application is successful, details on how to accept your offer will be provided in your offer email. You can also find out more at **uwa.edu.au/unistart** 

#### We're here to help

If you're unsure if your results qualify you for entry, or you would like more details on how to apply, contact our Future Students Centre to discuss your options.

Call us on 131 UWA (131 892), or visit ask.uwa.edu.au

# Scholarships and **prizes**

UWA offers scholarships in a range of categories.

#### Academic excellence

Academic Excellence scholarships provide financial support to students who have been recognised for their outstanding academic results. These scholarships are available to both domestic and international students across all study areas.

### Diversity, equity and inclusion

Our Equity scholarships provide opportunities to students, new or current, who experience educational disadvantage due to a variety of circumstances. These scholarships provide outcomes that help realise students' academic success.

#### Global Experience

Our Global Experience scholarships provide an enriched educational experience for both domestic and international students, creating new and exciting opportunities and collaborations across geographic borders.

# Leadership, talent and social impact

Our Leadership and Social Impact scholarships have been created to support talented students with the potential to drive change and become the next generation of influential leaders across society, industry, sports and academia.

Each category will include a range of scholarships in areas such as Sports Excellence, Indigenous, Residential, Financial Hardship, Educational Disadvantage and Travel, among others.

#### SOME OF OUR HIGH-ACHIEVEMENT SCHOLARSHIPS INCLUDE:

# UWA Fogarty Foundation and Winthrop Scholarships

Twenty scholarships in total are available for students who show significant academic potential, together with leadership responsibility and other outstanding achievements throughout Year 11 and 12.

#### Lawrence Scholarships

Lawrence Scholarships are automatically awarded to any student who achieves an ATAR score of 99.95 or over. There are twenty scholarships available.



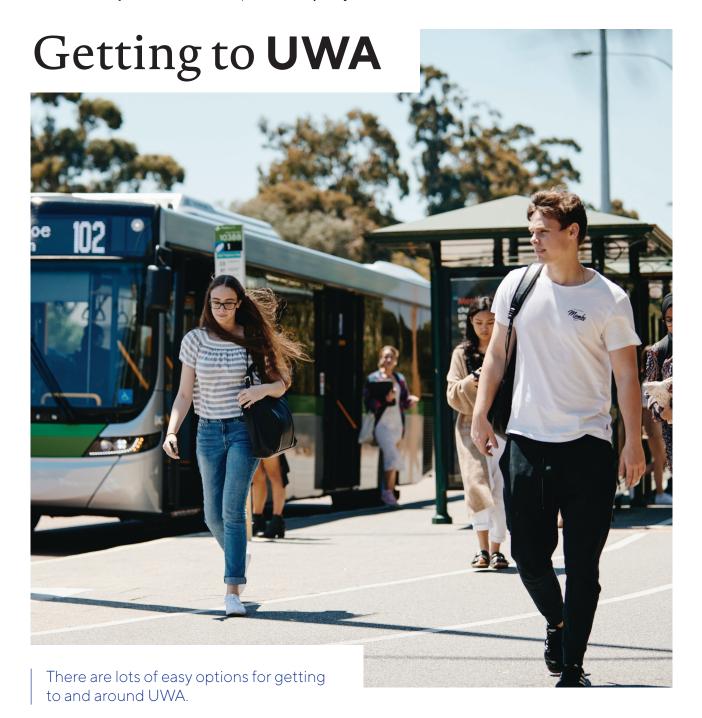
#### \$400,000 IN PRIZES AWARDED TO STUDENTS FACH YEAR

We like to recognise our students' outstanding academic achievements. There is a range of prizes awarded to students in their relevant schools, based on the results achieved in the previous academic year. Best of all, you don't need to apply for the prizes unless specified in the prize conditions.

Find out more uwa.edu.au/study/prizes

UWA Scholarships and Prizes are proudly funded by UWA, government, corporate and private donors.

Find out more about our scholarships and how to apply at **uwa.edu.au/study/scholarships/explore** or get in touch through **ask.uwa.edu.au** 



Transperth's 950 'Superbus' - Perth's highest frequency service - services UWA. Running every one to four minutes during peak hour, the 950 runs between Morley Busport and QEII via UWA and Perth.

Hop on the new Purple CAT bus which will travel from Elizabeth Quay Bus Station to Perth Children's Hospital, Sir Charles Gairdner Hospital and UWA. This service will provide free travel from the CBD to UWA. Catch a train to Subiaco Station or the Perth CBD and take a UWA bus service straight to campus.

We're a cyclist-friendly campus. Our end-of-trip facilities, which include showers, toilets, lockers, benches, change rooms and clothes-drying spaces, are available at multiple campus locations and are open to all students.

transport.uwa.edu.au

Parents and guardians



# How UWA sets students up for success

Our distinctive, experience-rich curriculum prepares students for the ever-changing world outside their degree. Students can kick-start a successful career and join our accomplished graduates in becoming global professionals, driving change and shaping the future.

#### Steps you can take to prepare

- Attend our University open days and information sessions together
- Book a one-on-one advisory session with our Future Students Centre
- Check out our events page for upcoming events.
   uwa.edu.au/study/events

#### We're here to help

Our Future Students Advisers are more than happy to answer your queries. For help on choosing what to study and designing a degree, contact 131 UWA (131 892) or visit ask.uwa.edu.au Find out more information and to stay up to date on all things UWA.

uwa.edu.au/study/forparents





# Fees

If you are an Australian or New Zealand citizen or holder of an Australian permanent resident visa or humanitarian visa, you'll enrol in a Commonwealth Supported Place (CSP) in your undergraduate course at UWA.

#### How much do you pay?

As a Commonwealth-supported student you'll pay a student contribution amount towards the cost of your course. The amount that you pay is determined by the Australian Government, based on the number of units you enrol in and the discipline of the units.

A standard full-time enrolment is normally four units per semester (eight units per year). A standard unit is worth six credit points.

For an estimate of your fees, visit **fees.uwa.edu.au/ calculator** and select the combination of units you are interested in studying.

#### How do you pay?

You can pay your student contribution amount upfront or defer all or part via the HECS-HELP loan scheme, if you are an Australian citizen, humanitarian visa holder or New Zealand Special Category Visa (NZ SCV) holder who meets the long-term residency requirements. HECS-HELP, an Australian Government Higher Education Loan Program (HELP), allows you to defer all or part of your student contribution until you commence employment and are earning over a certain amount.

If you are not eligible for HECS-HELP, your student contribution must be paid in full to the University.

Further information on HECS-HELP, including eligibility criteria and loan limits, is available at **studyassist.gov.au** 

#### Student Services and Amenities Fee

The Student Services and Amenities Fee (SSAF) is a compulsory fee that directly benefits all UWA students. The fee is used to provide a range of recreational, sporting, social and educational facilities and services, including student representation. For more information, visit <a href="https://www.edu.au/students/ssaf">www.edu.au/students/ssaf</a>

#### Other costs

For further information and advice on the other costs associated with your study, refer to **uwa.edu.au/study/student-life/cost-of-living** 

#### **COMMONWEALTH-SUPPORTED STUDENT CONTRIBUTION RATES - 2022**

Unit discipline	Annual contribution for standard full-time load (48 credit points)	Approximate student contribution per unit (6 credit points)
Law, Accounting, Commerce, Economics, Administration, Communications, Society and Culture	\$14,630	\$1,828
Agriculture Education, Postgraduate Clinical Psychology, English, Mathematics and Statistics, Nursing, Indigenous and Foreign Languages	\$3,985	\$498
Allied Health, Other health, Built Environment, Computing, Visual and Performing Arts, Professional Pathway Psychologyand Professional Pathway Social Work, Engineering, Science, Surveying, Environmental Studies, Pathology	\$8,021	\$1,002
Medicine, Dentistry, Veterinary Science	\$11,401	\$1,425

<sup>\*</sup> Rates are current at the time of printing and published on the government website dese.gov.au/higher-education-loan-program/approved-hep-information/funding-clusters-and-indexed-rates

For important information, particularly in relation to psychology pathways, visit fees.uwa.edu.au/Help

# Course Guide 2023 | **uwa.edu.au/stuc**

# Glossary

#### A list of some common terms you'll come across when studying at university.

**Accreditation** | Accreditation is the process by which a course or training program is officially recognised and approved. Different institutions in Australia are accredited by different bodies, depending on the level of study and the type of institution.

Bachelor's degree | A qualification awarded for successful completion of an undergraduate course, usually comprising at least three years of study.

**Bridging units** | If you don't have the required subject at ATAR (or equivalent) for your chosen major, you can take these additional units in your first year as part of the major.

#### Commonwealth Supported Place (CSP)

A type of enrolment where the total cost of your study is split into two parts: (1) paid by the Australian Government – this is a subsidy; and (2) paid by you – this is called your student contribution amount.

Domestic student | You're considered a domestic student if you are an Australian citizen, an Australian permanent resident (holders of all categories of permanent residency visas, including humanitarian visas) or New Zealand citizen.

**Elective units** | These let you explore a range of interests and new disciplines within your undergraduate degree.

**Extended major** | These let you dive deeper into a particular area of study and normally require 13 to 18 units studied over the course of your degree.

**Full-time study** | At least a 75 per cent study load (that is, three or four units) per semester.

**Foundational units** | Up to four units that give you broad grounding and key skills in your chosen degree area, irrespective of your choice of major(s).

HECS-HELP | HECS-HELP is a government loan scheme that allows eligible
Commonwealth-supported students to defer payment of their student contribution fees.
For more information, including eligibility criteria, visit studyassist.gov.au.

Honours | An additional year of full-time (or equivalent part-time) study undertaken on completion of a bachelor's degree, and including coursework and a research dissertation. The aim of honours study is to develop your knowledge and skills as an independent researcher, supervised by a member of staff who has expertise in your chosen area.

**Lab** | A class that takes place in a laboratory. Labs are practical classes involving experiments, investigation, construction, observation or testing.

Lecture | A class that involves
the presentation of a particular
topic, idea or subject to a large group
of students. The duration of a typical
lecture is 45 minutes. Most lectures at
UWA are recorded and made available
to students online via the Learning
Management System (LMS).

Major | An area of specialisation comprising an approved sequence of eight to 12 units over the course of your undergraduate bachelor's degree.

**Minor** | An area of specialisation comprising an approved sequence of four units within an undergraduate bachelor's degree.

Part-time study | Enrolling in less than a 75 per cent study load (that is, one or two units) per semester.

Postgraduate degree | A degree that is taken after the completion of your bachelor's degree; a master's degree or a doctorate (PhD), for example. **Recommended subjects** | These are not prerequisites, but are suggested to help prepare you for your chosen area of study.

**Prerequisites** | Units or subjects that must be successfully undertaken before you'll be able to complete particular majors.

STAT | The Special Tertiary Admissions Test (STAT) is an aptitude test that evaluates verbal and quantitative reasoning. Specific curriculum knowledge is not required. There are two different tests: STAT Multiple Choice and STAT Written English.

**Tutorial** | A small class involving discussion facilitated by a tutor on a particular topic or idea (usually one that has previously been presented in a lecture).

**Undergraduate degree** | Often the first degree you take at university – normally this is a bachelor's degree.

**Unit** | An academic subject that forms part of your course or study. Units typically involve different classes such as lectures, tutorials, seminars and labs.

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with UWA

Get the lowdown on UWA events, our career-enhancing curriculum, student opportunities, study tips and everything you need to know about applying.



#### **Get in touch**

CALL US 131 UWA (131 892)

**CHAT ONLINE** uwa.edu.au/study Mon-Fri 12.00–4.00pm (AWST) **ASK US A QUESTION** ask.uwa.edu.au

**VIRTUAL CONSULT** uwa.edu.au/appointments **VISITUS** Student Central, The University of Western Australia 35 Stirling Hwy, Perth

#### Stay connected











