Optometry and Vision Science

Undergraduate Studies in Optometry and Vision Science

The Bachelor of Optometry/Science degree is taken over five years, and upon successful completion, graduates become an accredited optometrist in Australia, New Zealand and most parts of Asia, offering great career opportunities.

In your first year you will cover foundation sciences including physics, chemistry, mathematics and biology, as well as two vision science courses. Over your second and third years you will become more focused on vision science course such as physiology, pathophysiology, ocular disease, advanced vision science and clinical examination of the eye. Years four and five begin your development as a practicing optometrist establishing your clinical skills in problem-solving and patient management, while introducing you to research. Specialised on campus clinics provide you with unique teaching support, ensuring our students can make a difference.

The School of Optometry & Vision Science is committed to translational research which will lead to practical application and significant improvements in ocular health.

The School of Optometry & Vision Science provides training for students. The School runs a Vision Education Centre offering eye screening to primary school children. Since 1990, the Centre has treated more than 18,000 children.

Vision science major in the Bachelor of Science or Bachelor of Advanced Science

Vision science in the science of how we see and includes the applied technology used to help us see better. Vision science covers topics such as optics of lenses and instruments, the physiology of the eye, the psychophysics of vision and the neuroscience of the brain.

Vision Science will help you develop scientific skills that enable you to create new instruments and vision technologies. At the undergraduate and coursework level, as well as exploring the sciences that underpin vision and light, you can select from a wide range of electives, enabling you to develop unique skills and carve your niche in the marketplace. Careers in the ophthalmic industries are growing strongly.

Alternative Entry into The Bachelor of Optometry/Science degree

Alternative entry is possible via the Bachelor of Science or the Bachelor of Advanced Science with a Vision Science major. You can apply after your first year of study for one of a limited number of transfer places to Optometry/Science, commencing in second year. Assessment will be based on ATAR, performance in first year courses, and UMAT results. However, this option is available only to those who have not done any post-secondary studies other than their first year of the Bachelor of Science and Bachelor of Advanced Science at UNSW.

Admissions Details

<table>
<thead>
<tr>
<th>Program</th>
<th>UAC code</th>
<th>UNSW program code</th>
<th>Length of study</th>
<th>Cut-off</th>
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</thead>
<tbody>
<tr>
<td>Bachelor of Optometry/Science</td>
<td>429750</td>
<td>3952</td>
<td>5 years full-time</td>
<td>ATAR please see below *  IB 37  Or equivalent recommended PLUS: UMAT score (mid to high range)</td>
</tr>
<tr>
<td>Bachelor of Science</td>
<td>429000</td>
<td>3971</td>
<td>3 years full-time</td>
<td>ATAR 84.00 IB 31  Or equivalent</td>
</tr>
<tr>
<td>Bachelor of Science (Advanced)</td>
<td>429155</td>
<td>3972</td>
<td>4 years full-time</td>
<td>ATAR 95.00 IB 37  Or equivalent</td>
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*As a guide an ATAR or equivalent of at least 95.00 is required.

Higher Degree Research (PhD, MSc)

For those interested in furthering their career by obtaining a research degree, honours graduates in optometry and vision science may apply for a Master of Science (MSc) or a Doctor of Philosophy (PhD) degree by research. Students can choose from a wide range of diverse research areas including: clinical optometry, pure and applied research, public health and basic research in optometry and vision science.

On graduation, optometrists may enter private practice on their own behalf, in partnership with a colleague, or as an employee in an established practice. Specialities of clinical optometry include paediatrics, contact lenses, occupational optometry, public health optometry, ocular disease management (shared care), low vision, sports vision, behavioural optometry and binocular vision.

Careers in the ophthalmic industries are growing strongly.

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Career Opportunities

On graduation, optometrists may enter private practice on their own behalf, in partnership with a colleague, or as an employee in an established practice. Specialities of optometry include paediatrics, contact lenses, occupational optometry, public health optometry, ocular disease management (shared care), low vision, sports vision, behavioural optometry and binocular vision.

In industry, optometrists are called upon to advise on the protection of vision. They also analyse the visual demands of a task and advise on vision standards in order that the comfort and efficiency of employees can be improved. Optometrists participate in industrial safety programs, and advise on the visual capabilities needed for particular tasks. In addition, optometrists work closely with road safety organisations, applying visual science to problems such as visual standards for motorists, vehicle design and highway lighting.

Career opportunities for vision science graduates are available in a wide range of public and private sector areas that specialise in primary eye care, optical devices and technologies, teaching, and scientific research in vision and ophthalmology. For example, career opportunities are available in industries and commercial businesses that focus on the development and application of therapeutic devices that correct refractive errors such as contact lenses, spectacles, drug development, medical devices (e.g. ocular implants) and imaging.

The University of New South Wales - developing visual simulators, visual design and graphics, and video games. Government sectors - particularly the entertainment industry – developing visual simulators, visual design and graphics, and video games. Government sectors – particularly the entertainment industry – developing visual simulators, visual design and graphics, and video games.

Student Testimonial

"After finishing school in 2009, I enrolled myself into Optometry at UNSW not knowing what to expect. In the earlier years I quickly learnt that Optometry was more than optics and lenses and the coined phrase 'one or two'. It opened up into a vast network of sciences such as anatomy, pharmacology, pathology and psychology all of which are equally important in the real world of practising as an optometrist.

The program was at times demanding and difficult with complex theoretical optics and grueling hours, however the close knitted cohort provided the much needed mental and emotional support one could ask for.

The program also allowed me to travel and help provide eye care for those in far more dire need in rural locations such as backwater Western Australia and New South Wales in their mentoring programs and rural placements both developing experience and supporting communities.

I would definitely choose Optometry at UNSW again if I had the opportunity."  

Abdul Hamidi  BOptom BSc, Graduated 2015
“This is my third degree awarded by UNSW. I was awarded a Bachelor of Optometry in 1988, and after developing an interest in ergonomics and occupational optometry, completed a Master of Safety Science in 2000. In each case I selected UNSW as it offered the most appropriate study program for my needs. Completing a PhD gave me the opportunity to explore one of my research interests in depth, under the guidance of some of the world’s most recognised optometrists and ergonomists. What is exciting is that I know that my research into work-related discomfort in Australian optometrists is going to have an enormous impact on the future health and wellbeing of optometrists everywhere.”

Jennifer Long
Optometrist and Certified Professional Ergonomist
Completed PhD 2012