School of Optometry and Vision Science

Our School of Optometry and Vision Science offers the only degree for optometrists in New South Wales, and is the largest optometry school in Australia that links its academic learning with clinical practice. We are housed in a modern building with a state-of-the-art clinical facility that provides a full range of optometry services to students, staff and the community.

Our Undergraduate degree

We offer a Bachelor of Optometry/Bachelor of Science and the Vision Science major within the Bachelor of Science, Bachelor of Science (Advanced), Bachelor of Science (International) and Bachelor of Science and Business.

Optometry offers a challenging and rewarding career. The diversity of the optometry profession ensures a constant source of interest, both in the undergraduate degree and in the practising profession.

Vision Science is the science of how we see and includes the applied technology used to help us see better. Vision Scientists work in ophthalmic industries to create better instruments and technologies for vision and on vision based aspects of other industries.

What is Optometry?

Optometry is a health care profession dedicated to improving and preserving people’s eyesight. Optometrists must have an understanding of all aspects of the eye and of the visual processes. The main career path is clinical optometry, which includes prescription of spectacle and contact lens correction and the detection and management of ocular disease. The Bachelor of Optometry/Bachelor of Science degree includes training in the foundation sciences of anatomy, physiology, chemistry and physics, as well as elements of psychology, pathology and medicine.
Bachelor of Optometry Bachelor of Science

The Bachelor of Optometry/Bachelor of Science (BOptom BSc) degree trains future optometric practitioners, vision researchers and teachers and is taken over five years of full-time study. The degree cannot be undertaken part-time or externally.

- First year covers the foundation sciences of chemistry, physics, mathematics, anatomy and geometrical, physical and visual optics.
- Second and third year explore the applied sciences of physiology, vision science and ocular disease. You are introduced to visual instruments and clinical optometry skills from the beginning of Stage 2.
- Fourth year develops problem solving, clinical skills, ocular therapeutics and patient management strategies.

Recent legislative changes have allowed optometrists to use ocular therapeutic drugs for the treatment of some eye diseases.

- Fifth year integrates knowledge and skills using clinical placements and external rotations and develops research skills through a research project for the BOptom BSc.

Career Opportunities

Optometrists’ advice is sought by people with vision and eye-care problems and by public and industrial organisations seeking to improve the community’s ocular health and visual welfare. There are excellent employment opportunities in regional and country areas of NSW and interstate. The UNSW degree is recognised throughout Australia, New Zealand, and most parts of Asia.

Academic Teaching and Research – this option is available particularly to those with higher degrees in Optometry and/or Vision Science.

Private Practice - Graduates with a BSc BOptom degree can establish a private practice and work as a sole trader, in partnership or as an employee in an established practice. Our graduates have excellent starting salaries.

With each patient, optometrists carry out a full eye examination using a variety of tests and procedures. They:

- prescribe and provide spectacles, contact lenses, visual training, and other optical aids necessary for the patient’s well-being
- detect, diagnose and manage eye disease and conditions related to general health
- advise on the conditions under which patients use their vision for their occupation and recreation.

Specialities of clinical optometry include paediatrics, contact lenses, Occupational optometry, public health optometry, co-management (shared care), low vision, sports vision, behavioural optometry and binocular vision.

Industry and Government - In industry, optometrists advice on the protection of eyes and vision; they also analyse the visual demands of a task and advise on vision standards and lighting levels in various work environments. Optometrists participate in industrial safety programs, and work closely with road safety organisations, applying vision science to problems such as vision standards for motorists, vehicle design and highway lighting.
Undergraduate Medicine and Health Sciences Admission Test

Applicants for the Bachelor of Optometry/Bachelor of Science degree must submit an application to sit the Undergraduate Medicine and Health Sciences Admissions Test (UMAT) with the Australian Council for Education Research (ACER). For registration deadline and test date please visit http://umat.acer.edu.au/

Alternative entry

Alternative entry to Optometry/Science is possible for applicants who have not undertaken prior post-secondary studies via the Bachelor of Science or the Bachelor of Science (Advanced) degree 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.

Postgraduate Research

The School offers an MSc and PhD program in Optometry and also in Vision Science. Students with a background in optometry can study for a higher degree alongside graduates from a variety of disciplines including ophthalmology, microbiology, psychology, education, bio-engineering and pharmacology. The School also houses a number of outstanding research units, including the Centre for Eye Health, the Research in Orthokeratology group (ROK), the Brien Holden Vision Institute, the Vision CRC, the International Centre for Eyecare Education (ICEE), International Association for Contact Lenses Educators (IACLE), Optometric Vision Research Foundation (OVRF), and The Optics and Radiometry Laboratory (ORLab).

Some of current areas of research include:

- Colour vision
- Optics and the Eye
- Ocular disease: Keratoconus, Glaucoma, Diabetic retinopathy, Ocular tumours
- Corneal biomechanics
- Binocular vision and amblyopia
- Assessment of vision in infants and children

All postgraduate enquiries may be directed to the Postgraduate Research Co-ordinator:
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Major in Vision Science
Bachelor of Science and
Bachelor of Science (Advanced),
Bachelor of Science
(International) and Bachelor of Science and Business

What is Vision Science?
Vision Science is the science of how we see and includes the application of technology to help us see better. This major is designed to develop scientists who can work in ophthalmic industries to create better instruments and technologies for vision and vision based aspects of other industries. You can select minors from a wide range of topic areas to help you build innovative and marketable skills.

About the Vision Science Major
The Vision Science major provides students with a strong ability to understand how the visual system works and how technology can be used to maintain or improve its function. This major, when combined with selected electives from other schools, allows you to build a unique and marketable skills portfolio.

Career Opportunities
Vision Science is a new field with a wide variety of career options. Career opportunities are available in commercial businesses that focus on vision research and the application of vision science to industry. Graduates with a Vision Science major will be able to pursue careers that focus on:

- The development and application of vision correction devices – such as those that correct refractive errors (eg. contact lenses and spectacles), drug development, medical devices (e.g. ocular implants) and imaging. For example, optical lens and contact lens manufacturers will require employees with a Vision Science graduate’s particular mix of skills and abilities when designing and developing new products.
- The entertainment industry – developing visual simulators, visual design and graphics, and video games. This area is currently undergoing rapid growth given the demand from the entertainment industry for more visually realistic and immersive graphics.
- Government sectors – teaching, defence technology (e.g. lasers and optical equipment), and contributing to the development of health and occupational policies regarding the importance of vision to quality-of-life and in the workplace.

Alternative Entry into Optometry
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A Student’s Perspective

Maddie Rourke
Optometrist
Completed Bachelor of Optometry
Bachelor of Science 2012

I came to UNSW as it is one of the few universities in Australia to offer Optometry. My decision was greatly helped by the prestige of the university, which reassured me that I would be receiving a high quality of staff and facilities. I chose to study optometry as it has a strong practical aspect. I like this because it allows me to learn and practice the techniques I will be using on a daily basis when I graduate. I enjoy learning why we do the things that we do, and I find that the theoretical aspect to optometry satisfies me by explaining vision all the way down to the underlying neurology.

The biggest challenge I found coming to university was moving from Port Macquarie to Sydney. Living in on-campus accommodation I realised that there were

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The information contained in this publication applies to Australian Citizens, Australian Permanent Residents and New Zealand Citizens only. All International Students should contact the UNSW International Officer for further information at international.unsw.edu.au

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