Vision Science

3181

Vision Science is the study of the sensory processes that underlie vision, and the development and use of vision-related technologies. This is a broad discipline degree that provides comprehensive knowledge and direct training in areas relevant to a career in Vision Science such as: Optics, anatomy and functioning of the eye, eye disorders, clinical optometry, ocular therapy, sensation and perception, psychophysics, and research design, methods and experimentation.

This degree is designed to develop scientists who can work with ophthalmic industries in the development of new technologies, diagnostic instruments, and patient care options, as well as develop persons who can liaise with ophthalmic practitioners dealing with the patient directly.

Students who complete this degree may be eligible to transfer to the Master of Clinical Optometry degree, see Additional Information below.
<table>
<thead>
<tr>
<th><strong>Faculty</strong></th>
<th>Faculty of Science</th>
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<tbody>
<tr>
<td><strong>Campus</strong></td>
<td>Kensington</td>
</tr>
<tr>
<td><strong>Study Level</strong></td>
<td>Undergraduate</td>
</tr>
<tr>
<td><strong>Typical duration</strong></td>
<td>3 Years</td>
</tr>
<tr>
<td><strong>Delivery Mode</strong></td>
<td>Face-to-face</td>
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<tr>
<td><strong>Intake Period</strong></td>
<td>Term 1</td>
</tr>
<tr>
<td><strong>Academic Calendar</strong></td>
<td>3+ Calendar</td>
</tr>
<tr>
<td><strong>Minimum Units of Credit</strong></td>
<td>144</td>
</tr>
<tr>
<td><strong>Award type</strong></td>
<td>Bachelors Pass</td>
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<tr>
<td><strong>Award(s)</strong></td>
<td>Bachelor of Vision Science - BVisSc</td>
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<tr>
<td><strong>UAC Code</strong></td>
<td>429740</td>
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<tr>
<td><strong>CRICOS Code</strong></td>
<td>092962K</td>
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</tbody>
</table>
**Learning Outcomes**

1. Effectively communicate information in both oral and written formats.
   - Professionals
   - Leaders
   - Global Citizens

2. Work effectively with others.
   - Leaders
   - Global Citizens
   - Professionals

3. Apply knowledge and principles in Vision Science and Optometry to work in Ophthalmic Industry.
   - Professionals
   - Global Citizens
   - Scholars
   - Leaders

4. Apply enquiry-based learning and analytical skills to adapt knowledge and skills in Vision Science and Optometry.
   - Scholars
   - Professionals
   - Leaders

5. Articulate broad and coherent disciplinary theoretical and technical knowledge in Vision Science and Optometry and their areas of practice.
   - Professionals
   - Scholars
   - Leaders

6. Demonstrate an awareness of national and international issues relevant to Vision Science and the Optometry profession.
   - Global Citizens

7. Use enquiry-based learning and demonstrate analytical skills in the review, consolidation and synthesis of knowledge in Vision Science and Optometry.
   - Scholars

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**Graduate Capabilities:**

For more information on Graduate Capabilities, please click on this [link](#).
Program Structure

Students must complete 144 UOC as a standalone program.

1. 132 UOC Core courses in Stages 1 to 3
2. 12 UOC General Education courses

Level 1 Core Courses

Students must take 48 UOC of the following courses.

BABS1201  |  6 UOC
Molecules, Cells and Genes

CHEM1011  |  6 UOC
Chemistry 1A: Atoms, Molecules and Energy

CHEM1829  |  6 UOC
Biological Chemistry for Optometry Students

VISN1101  |  6 UOC
Seeing the World: Perspectives from Vision Science

VISN1111  |  6 UOC
Geometrical and Physical Optics

VISN1221  |  6 UOC
Visual Optics

One of the following:
MATH1031  |  6 UOC
Mathematics for Life Sciences

MATH1131  |  6 UOC
Mathematics 1A

MATH1141  |  6 UOC
Higher Mathematics 1A

One of the following:

**PHYS1111 | 6 UOC**
Fundamentals of Physics

**PHYS1121 | 6 UOC**
Physics 1A

**PHYS1131 | 6 UOC**
Higher Physics 1A

**Level 2 Core Courses**

Students must take 42 UOC of the following courses.

**ANAT2111 | 6 UOC**
Introductory Anatomy

**OPTM2133 | 6 UOC**
The Clinical Environment

**OPTM2233 | 6 UOC**
Optical Dispensing

**PHSL2101 | 6 UOC**
Physiology 1A

**PHSL2201 | 6 UOC**
Physiology 1B

**VISN2111 | 6 UOC**
Ocular Anatomy and Physiology

**VISN2211 | 6 UOC**
Organisation and Function of the Visual System
Level 3 Core Courses

Students must take 42 UOC of the following courses.

OPTM3105 | 6 UOC
Disease Processes of the Eye 1

OPTM3133 | 6 UOC
Vision Science in the Consulting Room

OPTM3201 | 6 UOC
Ocular Imaging & Applied Vision Science

OPTM3205 | 6 UOC
Disease Processes of the Eye 2

OPTM3233 | 6 UOC
Working in the Clinical Environment

PHAR3306 | 6 UOC
Pharmacology for Optometry

VISN3111 | 6 UOC
Development and Aging of the Visual System

General Education

Students must take 12 UOC of the following courses.

Any course defined as a Science course cannot be taken as General Education (GE). All other courses can be used to fulfil the GE requirement of this program, including GEN# coded courses. Any exceptions to these rules must be approved by the Associate Dean (Academic Programs) or nominee.

any General Education course

Excluded General Education Courses

Students may not undertake any of the following excluded courses.
any Computer Science course

any Food Technology course

any course offered by School of Medical Sciences

any course offered by Faculty of Science

any General Education - Faculty of Science course

**Level 2 Maturity Rule**

Students may commence Level 2 courses upon successful completion of 48 UOC of Level 1 courses.

any level 2 course

ANAT2111  |  6 UOC
Introductory Anatomy

OPTM2133  |  6 UOC
The Clinical Environment

OPTM2233  |  6 UOC
Optical Dispensing

PHSL2101  |  6 UOC
Physiology 1A

PHSL2201  |  6 UOC
Physiology 1B

VISN2111  |  6 UOC
Ocular Anatomy and Physiology

VISN2211  |  6 UOC
**Level 3 Maturity Rule**

Students may commence level 3 courses upon successful completion of 48 UOC of Level 2 courses.

- **any level 3 course**
  - **OPTM3105** | 6 UOC
    Disease Processes of the Eye 1
  - **OPTM3133** | 6 UOC
    Vision Science in the Consulting Room
  - **OPTM3201** | 6 UOC
    Ocular Imaging & Applied Vision Science
  - **OPTM3205** | 6 UOC
    Disease Processes of the Eye 2
  - **OPTM3233** | 6 UOC
    Working in the Clinical Environment
  - **PHAR3306** | 6 UOC
    Pharmacology for Optometry
  - **VISN3111** | 6 UOC
    Development and Aging of the Visual System

**Enrolment Disclaimer**

You are responsible for ensuring you enrol in courses according to your program requirements. myUNSW enrolment checks that you have met enrolment requirements such as pre-requisites for individual courses but not that a course will count towards your program requirements. Do not assume that because you have enrolled in a course that the course will be credited towards your program.
Related Programs

Bachelor of Vision Science - **BVisSc**
Master of Clinical Optometry - **MClinOptom**

**3182 Vision Science / Clinical Optometry**

Faculty: Faculty of Science  
Campus: Kensington  
Units of Credit: 240  
Typical Duration: 5 Years

Read More

Bachelor of Science - **BSc**

**3970 Science**

Faculty: Faculty of Science  
Campus: Kensington  
Units of Credit: 144  
Typical Duration: 3 Years

Read More
Program Requirements

Progression Requirements

Progression rules are in accordance with university policy.

For more information on university policy on progression requirements please visit Academic Progression.
**Pathways**

**Honours Programs**

**Bachelor of Science (Honours) - BSc(Hons)**

*4500 Science (Honours)*

Faculty: Faculty of Science  
Campus: Kensington  
Units of Credit: 48  
Typical Duration: 1 Years

[Read More]

**Post Graduate**

**Doctor of Philosophy - PhD**

*1487 Vision Science*

Faculty: Faculty of Science  
Campus: Kensington  
Units of Credit: 144  
Typical Duration: 3 to 4 Years

[Read More]

**Master of Clinical Optometry - MClinOptom**

*8095 Clinical Optometry*

Faculty: Faculty of Science  
Campus: Kensington  
Units of Credit: 96  
Typical Duration: 2 Years

[Read More]
Professional Outcomes

Career Opportunities

Ophthalmic assistant, ophthalmic industries, eye and vision research.
Recognition of Achievement

University Medal

The University Medal is awarded to recognise outstanding academic performance by a bachelor degree student in line with the University Medal Policy and University Medal Procedure.

Award of Pass with Distinction

The Award of Pass with Distinction is awarded when a weighted average mark (WAM) of at least 75% has been achieved and at least 50% of the requirements of the award completed at UNSW. All eligible programs will award Pass with Distinction except in special circumstances where approval of Academic Board has been given for a program to opt out.

For more information, please visit:

Current Students Pass With Distinction
Additional Information

Definition of 'Science' courses

Table 1

Translational arrangements

Students who are either currently enrolled or have completed a Bachelor of Science with a Major in Vision Science may be eligible to transfer into the Bachelor of Vision Science program if their WAM is 70 or above or have completed a minimum of 36 UoC and are of good academic standing. The following courses are not required, but are recommended as good complementary courses for this major.

- MATH1131 Mathematics 1A (6 UOC) or MATH1141 Higher Mathematics 1A (6 UOC)
- PHYS1111 Fundamentals of Physics (6 UOC) or PHYS1121 Physics 1A (6 UOC) or PHYS1131 Higher Physics 1A (6 UOC)
- CHEM1011 Chemistry A: Atoms, Molecules and Energy (6 UOC)

To comply with the Bachelor of Vision Science program structure, students will be required to complete the following additional core courses in the program:

Stage 2

- OPTM2133 The Clinical Environment (6 UOC)
- OPTM2233 Optical Dispensing (6 UOC)

Stage 3

- OPTM3233 Working in the Clinical Environment (6 UOC)
- OPTM3201 Applied Vision Science (6 UOC)
- OPTM3105 Disease Processes of the Eye 1 (6UOC)
- OPTM3205 Disease Processes of the Eye 2 (6UOC)

Transfer into the Master of Clinical Optometry program: Students who transfer and complete the Bachelor of Vision Science may be eligible for admission into the Master of Clinical Optometry Program subject to a number of conditions. To be considered for entry into the Master of Clinical Optometry, students must maintain at least an overall CREDIT average (65.00% WAM) in the Bachelor of Vision Science program. However, completion of a Bachelor of Vision Science degree does not guarantee a place in the Master of Clinical Optometry as only a limited number of places will be available.
Progression

Bachelor of Vision Science (3 years, 144 UOC) ----> Master of Clinical Optometry (2 years, 96UOC)

Students who complete the Bachelor of Vision Science may be eligible for admission into the Master of Clinical Optometry via the following pathway.

Bachelor of Vision Science students may apply for entry into the Master of Clinical Optometry at the end of their degree subject to a number of conditions. Progression into the Master of Clinical Optometry will be a competitive process that is based on academic performance. To be considered for entry into the Master of Clinical Optometry, students must maintain at least an overall CREDIT average (65.00% WAM) in the Bachelor of Vision Science. However, completion of a Bachelor of Vision Science does not guarantee a place in the Master of Clinical Optometry as only a limited number of places will be available. Students who are unsuccessful in obtaining a place in the Master of Clinical Optometry are expected to graduate with a Bachelor of Vision Science or may wish to apply for Science honours program (see below).

Bachelor of Vision Science (3 years, 144 UOC) ----> Science Honours (4500, Vision Science stream) 1 year, 48UOC

Students who complete the Bachelor of Vision Science may be eligible for admission into the Science Honours program (4500, Vision Science stream). To be considered for entry into Science Honours students must have at least an overall CREDIT average (65.00% WAM) in the Bachelor of Vision Science.
Program Fees

At UNSW fees are generally charged at course level and therefore dependent upon individual enrolment and other factors such as student's residency status. For generic information on fees and additional expenses of UNSW programs, click on one of the following:

Domestic Students
Commonwealth Supported Students
International Students

Additional Expenses

None
Pre-2019 Handbook Editions

Access past handbook editions (2018 and prior)

Pre-2019 Handbook Editions
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Authorised by Deputy Vice-Chancellor (Academic)
CRICOS Provider Code 00098G
ABN: 57 195 873 179