

## Faculty of Medical and Health Sciences Optometry and Vision Science Handbook



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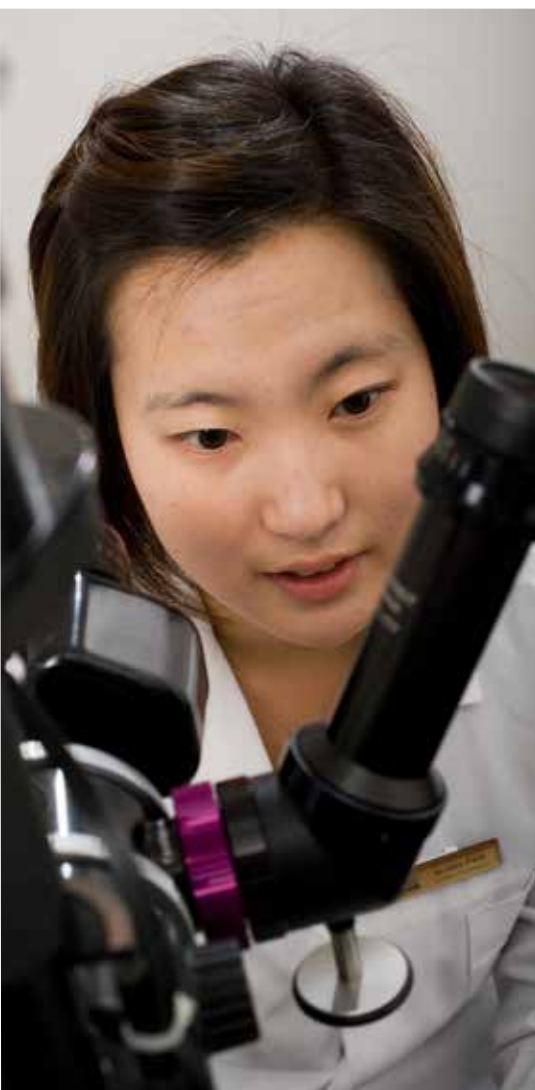
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### Disclaimer

*Although every reasonable effort is made to ensure accuracy, the information in this document is provided as a general guide only for students and is subject to alteration. All students enrolling at The University of Auckland must consult its official document, the Calendar of The University of Auckland, to ensure that they are aware of and comply with all regulations, requirements and policies.*

# Optometry and Vision Science 2013



The profession of optometry is evolving constantly with ocular therapeutics now within the scope of practice in New Zealand (Optometrists can prescribe a range of drugs to manage eye disease). Your studies in the Department will equip you for the challenges you will face and the lifelong learning needed for a satisfying career. While the study of Optometry and Vision Science has a professional focus, a key strand of science is maintained throughout the programme. By graduating with a BOptom you will be well prepared with the knowledge, experience and skills required to enter practice or to continue with graduate or other studies.

The Department had its beginning in 1965 within the Department of Psychology, and is now a separate Department. We are the only Optometry School in New Zealand, and one of four schools in the region accredited by The Optometry Council of Australia and New Zealand. Our accreditation enables graduates to practice optometry in New Zealand and in Australia without the need to undertake additional examinations.

The Department uses a variety of teaching methods and has a variety of teaching venues to support the BOptom programme. In addition to work within the clinical facilities located on the Grafton campus, students work at other clinics and locations in the Auckland region. We also have an active postgraduate programme, with students pursuing research topics in a variety of areas of Optometry and Vision Science.

Final year students are encouraged to spend an externship period in private practice, at other Optometry Schools, or at other approved venues. The Department also has a strong commitment to research and offers study towards the Postgraduate Diploma in Science, and the Master of Science and Doctor of Philosophy degrees.

Whether you are a student participating in the undergraduate BOptom program or a graduate student continuing your education I wish you every success in your endeavours. I and my staff assure you that you have our support in reaching your goals.

#### **Robert Jacobs**

Acting Head, Optometry and Vision Science

## **Purpose**

This Handbook will provide information for students considering study in the Bachelor of Optometry (BOptom) programme and is intended as a guide for students who are already part of the Department of Optometry and Vision Science. Other helpful publications include the 2013 Faculty of Medical and Health Sciences Prospectus and The University of Auckland Calendar 2013. These are available from the ClockTower Student Information Centre.

## **More information**

Department Administrator  
Department of Optometry and Vision Science  
The University of Auckland  
Private Bag 92019  
Auckland 1142

**Phone:** +64 9 373 7599 ext 86483

**email:** [ugadvice-optometry@auckland.ac.nz](mailto:ugadvice-optometry@auckland.ac.nz)

# **Important dates 2013**

## **Closing dates for applications for admission in 2011**

<b>1 December 2012</b>	<p>Deadline for new students to submit Application for Admission if 2012 programme includes Summer School courses.</p> <p>Application for Admission also closes 1 December for all students applying to Optometry and to Sport and Exercise Science.</p>
<b>8 December 2012</b>	<p>Deadline for new students to submit Application for Admission if 2012 programme includes Semester One and Semester Two courses only.</p> <p>If you are a new student, only one Application for Admission is required. This form is due on either 1 December or 8 December, depending on whether you want to take Summer School courses as well.</p> <p>Applications received after these dates may be accepted if there are places available.</p>

# Optometry as a Career

As a primary health care professional, an optometrist is specifically educated and clinically trained to examine the eyes and integrity of the visual pathways, to diagnose vision problems or impairments, and to prescribe and provide treatment. After thorough examination, if necessary with advanced instruments, the optometrist must make appropriate diagnoses and decide how various defects should be remedied, managed and treated. Optometrists work with other health professionals including general medical practitioners and ophthalmologists to ensure the best eye and vision health outcomes for the population.

With the current emphasis on good health and disease prevention, and the increased demands for vision care as a result of the ageing population, there is a continuing need for highly qualified optometrists. Optometrists must be able to communicate easily and effectively, particularly when providing special services to children, the elderly and the partially sighted, and should possess a genuine desire to help people.

Optometry offers the opportunity to join a profession that is both personally challenging and financially rewarding. The majority of optometrists enter private practice. This offers favourable working conditions, regular hours without excessive emergency calls, the freedom to choose where to live and practise, with the added attraction of being a well-rewarded professional. Optometrists may also practise in hospitals and clinics, or pursue careers in research and in industry. Opportunities also exist for those wishing to undertake postgraduate education, research and teaching, not only in New Zealand but also at overseas universities.



*"This is a great environment to study and socialise – there are great lecturers and tutors and good teaching facilities. I want to work in the health sector and see patients as well as have flexible working hours. I've really enjoyed the practical side of my degree – seeing patients and working in the labs."*

**In-Hae Park** recently completed a Bachelor of Optometry

# The Department of Optometry and Vision Science

In January 1 2012 The Department of Optometry and Vision Science became part of the Faculty of Medical and Health Sciences. The Department of Optometry and Vision Science is responsible for conducting the five-year Bachelor of Optometry (BOptom) programme and postgraduate programmes leading to the degrees of Master of Science (MSc Optom), Doctor of Philosophy (PhD), Postgraduate Diploma in Science (Optometry) and Continuing Education Programmes.

The Department is located in Building 503, Medical and Health Science Campus, corner Park Road and Park Avenue, Grafton, Auckland.

## Facilities

In addition to excellent teaching and laboratory facilities, the Department operates an Optometry Clinic at the Grafton Campus, and an additional clinic in the Clinics facility located in the Population Health building at the Tāmaki campus in East Auckland. These provide an ideal environment for training students in the final two years of the Bachelor of Optometry degree. Students are given the opportunity of not only using the latest optometric equipment, but also gaining hands-on experience in the use of digital photo documentation that is increasingly becoming a standard part of patient examinations and report preparation.



## The University Optometry Clinics

The major role of the Optometry Clinic is to provide a wide range of patient experience as part of the teaching of senior undergraduate students. Students work under the supervision of registered optometrists and carry out a wide range of vision and eye care examinations. It is important for students to examine as wide a range of patients as possible to enable them to develop their clinical judgment and management skills. This may mean prescribing spectacles, contact lenses or low vision aids; managing eye diseases with topical medicines, treating eye disorders with exercises or giving advice on lighting and visual display units. Where necessary, patients are referred to medical practitioners.

The Optometry Clinics are “teaching laboratories”, and in addition to observing the ethical guidelines for clinical teaching, students must maintain a high standard of dress and behaviour.

Reflecting the importance of clinical training for Optometry students, The University of Auckland provides 24 examination and specialist consulting rooms. Patients include not only staff and students of the University but also members of the general public. Additional valuable experience is gained by attending the Eye Department at the Greenlane Clinical Centre of the Auckland District Health board and other ophthalmology practices. During their final year, students are encouraged to spend time in approved externship locations. These might include optometric practices, optometry schools, hospitals or other institutions in New Zealand and overseas.

## Professional Qualifications

Registration in New Zealand will enable a student to practice as an optometrist in New Zealand, Australia and Malaysia. In the United Kingdom, additional examinations must be completed before full registration can be gained. For all other countries including Canada, USA etc, you must enquire as to the qualifications accepted for registration, with the appropriate Optometry Registration Board for the country in which you wish to practice.

### New Zealand Graduates

The qualification required for registration in New Zealand as an Optometrist is the Bachelor of Optometry (BOptom) degree. From the time that students pass the final examinations in the BOptom programme until they have their degree conferred, students must hold a Provisional Registration certificate before they may engage in optometric practice. The NZ Optometrists and Dispensing Opticians Registration Board requires an official academic transcript and this must be applied for through Student Records in the ClockTower.

### Overseas Graduates

Students that have completed their Optometry degree overseas should contact the New Zealand Optometrists and Dispensing Opticians Registration Board first, to enquire about eligibility of their qualification as being suitable for registration in New Zealand.

Should your qualification not be suitable, it is possible for optometrists with certain degrees in optometry to sit a competency examination conducted by the Optometry Council of Australia and New Zealand, (contact website: [www.ocan.z.org](http://www.ocan.z.org)). Alternatively, overseas students may complete the five-year BOptom degree, for which credit may be given for previous study. Postgraduate qualifications in Optometry or in Vision Science are not accepted for registration as an Optometrist in New Zealand.





# Enrolment information



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# Admission and enrolment procedures

## New Students

For ALL students not enrolled at The University of Auckland in 2012, apply online at [www.auckland.ac.nz/apply\\_now](http://www.auckland.ac.nz/apply_now). If you are unable to access our website, please call 0800 61 62 63 or visit the Student Information Centre at 22 Princes Street, Auckland. This is open Monday to Friday from 8am – 6pm and Saturday 9am – 12noon during peak times.

Student Information Centre  
Room 112  
Level 1 (Ground Floor)  
The ClockTower Building  
22 Princes Street  
Auckland City Campus

**Phone:** +64 9 373 7599 ext 88199  
or 0800 61 62 63  
**Fax:** +64 9 367 7104  
**Email:** [studentinfo@auckland.ac.nz](mailto:studentinfo@auckland.ac.nz)

The closing date for most undergraduate Science applications is 8 December 2012.

If you want to take courses at Summer School, or wish to apply to Sport and Exercise Science or the Bachelor of Optometry, applications close 1 December 2012.

Only one application is required.

### After submitting your application:

Your application will be acknowledged by email. Your application will be assessed and, if successful, an “Offer of a place in a programme” letter will be mailed to you. You may receive a conditional offer, but final approval will be dependent on fulfilment of the conditions of admission to the University and the programme.

During the application process, you will be given a Net ID and password, which will allow you to access Student Services Online. Here you will be able to monitor the progress of your application and check if further documentation is required.

Once you have accepted an offer of place, you will gain access to the Enrolment module on Student Services Online. You can then proceed to enrol in courses online. Postgraduate students may need to contact their department for enrolment to be completed.

## Returning Students

If you are currently enrolled at The University of Auckland in 2012 and are applying for a new programme (for example MSc after completion of BSc(Hons)), you should apply using Student Services Online. Visit [www.auckland.ac.nz/apply\\_now](http://www.auckland.ac.nz/apply_now).

You will be able to enrol through Student Services Online, but if you would like help, please call 0800 61 62 63 or visit the Student Information Centre or the Faculty of Science Student Centre (Ground Floor, Building 301, 23 Symonds Street). Postgraduate students may need to contact their department for enrolment to be completed.

The University of Auckland will be open for enrolment from November 2012 to the end of February 2013. You are welcome to attend at any time during normal office hours to seek academic or enrolment advice or assistance in completing your enrolment.



## Changing courses

Choose carefully at the beginning. It is however, possible to add and delete courses within the first two weeks of each semester, without penalty (ie, tuition fees are refunded for deletions). After this time, you may not enrol in new courses for that semester, and if you are unable to continue a course a 'withdrawal' appears on your academic record. Withdrawing from courses can be done with consultation of the Associate Dean (Academic Programmes) until the third week before the end of lectures. However, tuition fees are not refundable in these cases. The regulations for changing courses are outlined in the latest version of The University of Auckland Calendar.

Enrolment instructions received by students will indicate how to go about adding and deleting courses once semesters have begun.

## Admission Criteria for the BOptom

### New Zealand and Australian Citizens and Permanent Residents

Entry to Part II of the programme is limited to 60 places each year. Of these, five have been set aside for applicants of Māori and Pacific Island descent. As selection criteria may change from year to year, you should consult the Department for the latest information.

In the Year 2013 there are two categories for entry:

### 1) Undergraduate Category

Applicants who are New Zealand Citizens, or have permanent resident status, and have completed the following Science year at The University of Auckland, usually within the BSc - Biomedical Science programme;

### BIOSCI 101 S1

Essential Biology: From Genomes to Organisms

### **BIOSCI 107 S1**

Biology for Biomedical Science:  
Cellular Processes and Development

### **BIOSCI 106 S2**

Foundations of Biochemistry

### **CHEM 110 S1/S2**

Chemistry of the Living World

### **PHYSICS 160 S1/S2**

Physics for the Life Sciences  
(or PHYSICS 120 Physics of Energy)

### **MEDSCI 142 S2**

Biology for Biomedical Science: Organ Systems

S1 - First Semester S2 - Second Semester

It may be possible to study equivalent courses at some of New Zealand's other universities. Please contact the Department of Optometry and Vision Science to have your proposed programme of study assessed/approved by the Head of Department, as suitable for entry into BOptom, subject to selection before you begin. Some New Zealand universities do not offer equivalent courses.

Applicants must also complete 30 points from courses listed in the Bachelor of Science Schedule. POPLHLTH 111 may be included, along with General Education courses.

## **2) Graduate Category**

Bachelor Degree Graduates who are New Zealand Citizens, or have permanent resident status. Please consult the Department for details.

In both entry categories above, the selection process will involve initial ranking of students by grade point average. Top ranked candidates are offered a place in the programme and others will be subject to an individual interview in January. Several factors are taken into consideration in the interview and selection process including evidence of experience, aptitude or any other facts considered relevant.



## **International Students**

The Bachelor of Optometry degree and Postgraduate study in Optometry and Vision Science are available to selected overseas students who meet the criteria set by The University of Auckland. For more information students should contact:

### **Auckland International**

The University of Auckland  
Private Bag 92019  
Auckland 1142, New Zealand.

**Phone:** 64 9 373 7513

**Fax** 64 9 373 7405

**Email:** [int-questions@auckland.ac.nz](mailto:int-questions@auckland.ac.nz)



## Credit and Concessions for BOptom

Credit for previous work may be given as follows.

### 1. Transferring from another NZ university.

- a) Students that have successfully completed study equivalent to University of Auckland courses at another university may be granted credit as appropriate, on payment of the prescribed fee.

(Refer Admission regulations)

### 2. Previous study at Auckland

- a) Completed qualification:  
Students may apply for cross credits for courses, which are common to both BOptom and another degree, on payment of the prescribed fee.

Programme approval by the HOD will include courses for which any cross credits may subsequently be given (refer Credit Regulations).

### b) Incomplete qualification:

Students may apply to reassign appropriate courses, which have been satisfactorily completed for one Programme of study, to BOptom, on payment of the prescribed fee. Students will be advised by the HOD of courses, which may be reassigned at the time of acceptance (refer Credit Regulations). Any student admitted with credit who is required to be a full time student, must enrol for a minimum of 90 points over two semesters in one year or 45 points in one semester.

**A student must pass a total of 600 points (including 30 points in General Education Courses) over the entire BOptom Programme to graduate with a BOptom degree.**

### 3. International Students

Credit will be assessed and granted at time of application.

Please refer also to the General Regulations in The University of Auckland Calendar 2013 for full details.

# Undergraduate Enrolment - where to from here?

## Choose your programme

Visit [www.science.auckland.ac.nz/programmes](http://www.science.auckland.ac.nz/programmes).



## Check the application closing dates and entry requirements

Visit [www.auckland.ac.nz/admission](http://www.auckland.ac.nz/admission).



## Apply for a place in a programme

- Go to [www.apply.auckland.ac.nz](http://www.apply.auckland.ac.nz).
- Sign up for a new account.
- Complete the *Application for Admission*.

You will receive an acknowledgement email asking you to provide specific certified documents (and in some cases to complete other requirements\*) before your application can be assessed.

We'll also send you a Student ID number. You can use this to sign into your *Application for Admission*, check your application status and see the documentation you need to provide. If you don't have internet access, call us on 0800 61 62 63 so we can send you the *Application for Admission form*.

**Please note you can apply for more than one programme.**



## Submit your supporting documents

We'll then assess your application.

Please be aware that documents can take three to four weeks to process during peak admission periods. If you have sent in all your admission documents at one time, some will take longer to process and be updated in the system than others.



## Offer of place

If your application is successful, we'll email you an *offer of place*. This normally happens from mid January.\*\*

You can check the status of your *Application for Admission* at any time by signing in using your Student ID and password. Go to [www.apply.auckland.ac.nz](http://www.apply.auckland.ac.nz).

You may receive a conditional offer but final approval will be dependent on fulfilment of the conditions of admission to BOTH the University and the programme.



## Accept your offer of place

Sign into your *Application for Admission* ([www.apply.auckland.ac.nz](http://www.apply.auckland.ac.nz)) and accept or decline your offer of place.



## Enrol in your courses

- You can enrol in courses on *Student Services Online* ([www.studentservices.auckland.ac.nz](http://www.studentservices.auckland.ac.nz)).
- Once you've signed in, you can view your programme requirements.
- For tutorials on how to enrol, visit [www.auckland.ac.nz/enrolment](http://www.auckland.ac.nz/enrolment).

### Not sure which courses to take or how to plan your first year?

- Visit the Science Student Centre.
- Come to *Courses and Careers Day* on 25 August 2012 and *Course Advice Day* in late January/early February 2013.



## Pay your fees

You can pay your fees online by internet banking, credit card, direct credit, EFTPOS, personal cheque, bank cheque, student loan or scholarship. Visit [www.auckland.ac.nz/fees](http://www.auckland.ac.nz/fees).



## Need help?

*AskAuckland* has answers to questions 24 hours a day, 7 days a week. Visit [www.askauckland.ac.nz](http://www.askauckland.ac.nz).

*\*For some programmes, you may be required to submit supplementary information (eg, a portfolio of work, referee reports, an online form) or to attend an interview/audition.*

*\*\*If you are not offered a place in the programme(s) of your choice, you will receive an email outlining alternative options. Your final offer of a place depends on two things: your admission to the University (which for school leavers may depend on your final school results) and your assessment by the relevant faculty.*

## Postgraduate Enrolment - where to from here?

### Enquire

Visit [www.auckland.ac.nz](http://www.auckland.ac.nz) or contact our student advisers for any information you need.

**Phone:** 0800 61 62 63 | **Email:** [studentinfo@auckland.ac.nz](mailto:studentinfo@auckland.ac.nz)

**Student Information Centre:** Room 112, ClockTower, 22 Princes St, Auckland



### Apply for a place in a programme(s)

Do you have internet access, or can you come on to campus to our help labs?



#### Yes

- Log on to [www.auckland.ac.nz](http://www.auckland.ac.nz)
- Click on Apply Now
- Complete the online Application for a place in your programme(s) of choice.
- New students will receive an acknowledgement email including Net ID and password details for accessing Student Services Online (the online enrolment system)
- Applications will require details of the courses you intend to study towards your postgraduate qualification. If these details are required by the programme you are applying for, you will be asked to complete those details.



#### No

**Phone:** 0800 61 62 63

(or +64 9 308 2386 if overseas)

**Email:** [studentinfo@auckland.ac.nz](mailto:studentinfo@auckland.ac.nz)

The ClockTower Call Centre will forward required information to you.



### Offer

Your programme(s) will be assessed by the relevant department and the Faculty of Science and if accepted, an offer email will be sent to you.

To see the status of your application(s), log on to [www.auckland.ac.nz](http://www.auckland.ac.nz) and click on Apply Now. Select "Apply for admission to the University", and log in to Student Services Online.



### Accept

- Accept or decline your offer of a place in a programme online. Remember – you still need to enrol in your courses!



### Enrol in your choice of courses

Enrol in courses via Student Services Online using your login and password.

For help with choosing courses you can:

- refer to [www.science.auckland.ac.nz](http://www.science.auckland.ac.nz) or to publications relating to your programme, or to The University of Auckland Calendar. For programme publications call 0800 61 62 63. The Calendar is for sale in bookshops or can be accessed from [www.auckland.ac.nz](http://www.auckland.ac.nz) Click on "Current Students" then "University Calendar" in the Quick Links box
- go online to check the timetable for your chosen courses



Pay your tuition fees.



**You are now a University of Auckland student. Congratulations!**

## Academic year 2013

### Summer School - 2013

Lectures begin	Friday 4 January
Auckland Anniversary Day	Monday 28 January
Waitangi Day	Wednesday 6 February
Lectures end	Monday 15 February
Study break	Saturday 16 February
Exams	Monday 18 - Wednesday 20 February
Summer School ends	Wednesday 20 February

### Semester One - 2013

Semester One begins	Monday 4 March
Mid-semester/Easter Break	Friday 29 March - 27 April
ANZAC Day	Thursday 25 April
Graduation	Monday 6, Wednesday 8, Friday 10 May
Queen's Birthday	Monday 3 June
Lectures end	Friday 7 June
Study break	Saturday 8 - Wednesday 12 June
Exams	Thursday 13 June - Monday 1 July
Semester One ends	Monday 1 July
Inter-semester break	Tuesday 2 - Saturday 20 July

### Semester Two - 2013

Semester Two begins	Monday 22 July
Mid-semester break	Monday 2 - Saturday 14 September
Graduation	Tuesday 24, Thursday 26 September
Lectures end	Friday 25 October
Study break	Saturday 26 - Wednesday 30 October
Exams	Thursday 31 October - Monday 18 November
Labour Day	Monday 28 October
Semester Two ends	Monday 18 November

### Semester One - 2014

Summer School begins	Monday 6 January 2014
Semester One begins	Monday 3 March 2014

\* Aegrotat and Compassionate Applications must be submitted within 1 week of the date that the examination affected took place.

Deadline for withdrawal from double semester courses is three weeks before the end of lectures in the second semester.





# Academic information

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# Academic Programme Structure

## Points Structure

The Bachelor of Optometry is a five year degree (600 points). The courses completed under BSc (Biomedical Science) prior to selection for Part II of Optometry are transferred to BOptom if you are selected, and form Part I.

From 2006, all courses were changed to a different points value. Students enrolled in a normal full time course of study now complete 120 points per year. The courses in most undergraduate degrees carry a value of 15 points and a normal full time enrolment is eight courses per year. A total of 600 points passed is required to complete the BOptom degree.

## General Education

Most students are required to take one or two courses (15 or 30 points) from the General Education schedule. The subject(s) you take for general Education will be from outside your main fields of study. General Education courses are designed to give you a greater understanding of New Zealand and its place in the world, the chance to mix with other students from diverse disciplines, and expose you to cross-disciplinary research. Employers look for a broad range of skills that complement specialist knowledge, and these courses help to give you that broader knowledge. For more information visit [www.auckland.ac.nz/generaleducation](http://www.auckland.ac.nz/generaleducation).

## Postgraduate Programmes

From 2006, most Masters programmes became one year degrees preceded by either a one year Bachelors Honours degree or a Postgraduate Diploma.

## Doctoral Students

Doctoral degrees remain essentially the same in structure and duration. The structure of the PhD is now recorded on the academic transcript in new points in accordance with the 120 points system.

For named doctorates which include courses with points, the courses have been re-weighted as part of the 120 point structure.

# Awards of marks and grades



## Applications for Aegrotat and Compassionate Consideration

An application may be made for aegrotat or compassionate consideration, by candidates who may have been prevented from being present at an examination, or who consider that their preparation for or performance in an examination has been seriously impaired by temporary illness or injury or exceptional circumstances beyond their control. This also applies to tests, but not assignments.

Application forms are available online, or from the relevant campus Student Health and Counselling Services and Examinations Office.

The application form must be submitted to the University Health and Counselling Service within one week of the date that the examination affected took place, or if more than one examination has been affected, then within one week of the last of those examinations.

Following the decision of Senate on an application for Aegrotat or Compassionate Consideration, a student may apply for reconsideration of that decision no later than four weeks after the student is notified of Senate's decision.

Please refer to The University of Auckland Calendar for the official regulations.

## Missed examinations

Students who discover that they have missed an examination through their own mistake cannot sit the examination at another time unless it is for a Masters or Bachelors Honours degree. The student must contact the Examinations Office immediately and complete an application for Special Pass Consideration. Please refer to the Examination Regulations in the Calendar.

# Academic honesty, cheating and plagiarism

Cheating is viewed as a serious academic offence by The University of Auckland. The University will not tolerate cheating, or assisting others to cheat. Penalties are set by the Discipline Committee of the Senate and may include suspension or expulsion from the University.

## What is cheating?

Cheating, in the context of University coursework and examinations, is the act of attempting to gain an unfair advantage by violating the principle that lies behind all University work – that of intellectual and scholarly integrity.

Work students submit for grading – in coursework and examinations – must ultimately be their own work, reflecting each student's learning and performance. To cheat is to be intellectually dishonest by passing off as your own, work that has been done by someone else. It is also unjust in that it devalues the grades and qualifications gained legitimately by other students.

All staff and students have a responsibility to prevent, discourage and report cheating.

## Examples of forms of cheating

- Copying from another student during a test or examination, whether or not there is collusion between the students involved;
- Using the work of other scholars or students when preparing coursework and pretending it is your own by not acknowledging where it came from. This is called plagiarism. Course coordinators, lecturers or tutors are the appropriate people with whom you should discuss how to use and acknowledge the work of others appropriately;
- Making up or fabricating data in research assignments, or the writing up of laboratory reports;
- Impersonating someone else in a test or examination, or arranging such impersonation;
- Submitting the same, or a substantially similar, assignment that you have done, for assessment in more than one course;
- Misrepresenting disability, temporary illness/injury or exceptional circumstances beyond one's control, then claiming special conditions;
- Using Material obtained from commercial essay or assignment services, including web-based sources.





## Group work

On the whole, the University requires assessment of the work of individual students. On those rare occasions where the work of a group of students is assessed, group members need to make sure that the workload is shared equally. Course coordinators will determine their own procedures for dealing with cases where the final piece of work reflects unequal participation and effort.

## Student support

Typically students cheat because they are having difficulty managing workloads, feel that the course content is too difficult or experience difficulties with the language of the course. None of these reasons are justification for cheating. There are many people and services at the University to assist students. Options of people to approach include:

- the course convenor/coordinator, lecturer, tutorial head, lab demonstrator

- Head of Department
- faculty-level official
- Student Learning Centre or Library staff
- AUSA or other students' association representatives
- health and counselling services staff.

Students should also consult the University's major academic referencing resource: [www.cite.auckland.ac.nz](http://www.cite.auckland.ac.nz)

The following website provides further information about the key principles and practices underlying academic honesty, and related resources:

[www.auckland.ac.nz/honesty](http://www.auckland.ac.nz/honesty)

# Programme information

## Undergraduate Programme

### Bachelor of Optometry

The Bachelor of Optometry programme consists of five years of undergraduate study at The University of Auckland. The first year Part I comprises prerequisite courses from the BSc Biomedical Science first year or equivalent from another New Zealand university. Details about the BSc Biomedical Science first year can be found at [www.science.auckland.ac.nz/uoa/of-biomedical-common-year-or-overlapping-year](http://www.science.auckland.ac.nz/uoa/of-biomedical-common-year-or-overlapping-year). The BOptom is a set programme of study. Parts II and III of the programme contain a mixture of courses in applicable life sciences and vision science and the basic optometric sciences (the courses are listed later in this handbook). Parts IV and V of the programme are largely devoted to clinical practice, including specialist clinics in eye disease, contact lens fitting, problems of the partially sighted, colour vision assessment and binocular vision problems, in addition to the comprehensive eye examination clinics. This degree may be awarded with Honours where a student's grades for Parts IV and V are sufficiently high. There are two classes of honours: First Class Honours and Second Class Honours. Second Class Honours are awarded in either First Division or Second Division.

#### For further information contact:

Janine Perkinson, Departmental Manager

**Phone:** +64 9 373 7599 ext 86180

**email:** [ugadvice-optometry@auckland.ac.nz](mailto:ugadvice-optometry@auckland.ac.nz)

Vivina Momoka, Department Administrator

**Phone:** +64 9 373 7599 ext 86483

**email:** [ugadvice-optometry@auckland.ac.nz](mailto:ugadvice-optometry@auckland.ac.nz)

### Bachelor of Optometry (BOptom) Schedule

#### Requirement:

##### Part I

- 90 points: BIOSCI 101, 106, 107, CHEM 110, PHYSICS 160, MEDSCI 142
- 15 points from courses listed in the Bachelor of Science Schedule, or POPLTH 111

##### Part II

- 105 points: OPTOM 215, 220, 262, 265, 272, MEDSCI 203
- 15 points from the General Education Science Schedule

##### Part III

- 120 points: OPTOM 313, 345, 353, 365, 375 MEDSCI 202

##### Part IV

- 120 points: OPTOM 415, 430, 440, 450, 472

##### Part V

- 120 points: OPTOM 510,520,560,570
- As required under regulations 7c, and with permission of the Head of Department, OPTOM 392,492,592.

## General Education Requirement:

### Part I

- 15 points from courses listed in the General Education Schedule approved for this degree

### Part II

- 15 points from courses listed in the General Education Schedule approved for this degree

## Postgraduate Programmes

On completion of your BOptom degree it is possible to apply to proceed with Postgraduate qualifications and gain research experience. These qualifications include Postgraduate Diploma in Science (PGDipSci), Master of Science (MSc) and Degree of Doctor of Philosophy (PhD). Postgraduate Programme information is detailed later in this Handbook.

### For further information email:

[tpa.optometry@auckland.ac.nz](mailto:tpa.optometry@auckland.ac.nz)

### Postgraduate Diploma in Science (PGDipSci)

This is a one-year postgraduate programme of study comprising a coherent set of courses. BSc graduates, or those who have attained an equivalent qualification approved by Senate are able to apply. The Postgraduate Diploma in Science provides the opportunity to acquire a postgraduate qualification in a specific subject.

The Postgraduate Diploma in Science requires the student to pass at least 120 points. The personal programme of study of each student must have the approval of the Head of Department.

A student who successfully completes the requirements for this diploma may apply for the Degree of Master of Science - Optometry, providing the student meets the regulations current at that time. One further thesis year will then be required to complete the Degree of Master of Science - Optometry.

## Degree of Master of Science (MSc)

The MSc degree provides students with an opportunity to explore an area or problem in detail. Masters degrees are to be completed by thesis in one year of full time study. Students receive training in research design, quantitative methods and computing by performing original research and preparation of a thesis under the supervision of academic staff. The thesis should demonstrate a capacity for independent thinking and also make a contribution to existing scholarship.

PGDipSci or BSc(Hons) graduates from this University and applicants with equivalent qualifications are eligible to apply for the MSc. Students who propose to undertake the MSc degree must consult the postgraduate advisor towards the end of the year prior to enrolment.

**NB: Only the BOptom degree is recognised by the Optometrists Registration Board as a qualification suitable for registration as an Optometrist in New Zealand. Higher degrees such as PGDipSci or MSc do not meet Board requirements.**

## Degree of Doctor of Philosophy (PhD)

The PhD degree is generally accepted as the appropriate qualification for a career in scientific research or in academia. It consists of advanced study and supervised research leading to the presentation of a thesis. This thesis must be an original contribution to knowledge and meet recognised international standards of scientific research. This course of study is usually undertaken early in one's research career, following the attainment of a degree with Honours, a Masters degree, or an equivalent preliminary qualification.





## Tuition Fees

### Undergraduate Fees

All costs listed are approximate. You should consult The University of Auckland website for the latest information or email [fees@auckland.ac.nz](mailto:fees@auckland.ac.nz).

### New Zealand and Australian Citizens and Permanent Residents

In 2011, domestic BOptom Tuition Fees per Part were approx \$7,000.00 including GST. In addition to these fees, Student Service fees were \$245.00, Building Levy was \$56.00, and Material and Resource fees were \$280.00. Please refer to the Tuition Fees website for information on 2010 fees.

### International Students

Overseas students are charged full tuition fees, which are payable in full when an offer of a place is accepted. The receipt for tuition fees will be required when applying to the New Zealand Immigration authorities for a Study Permit.

For 2011 the tuition fees for Optometry students taking a full-time Programme for a full academic year were approximately:

#### BSc(Biomedical Science)

Stage 1: the 6 prerequisite courses for BOptom NZ\$20,000 (plus non tuition fees NZ\$485 plus health insurance).

#### Bachelor of Optometry

Parts II, III, IV and V approximately NZ\$39,000 each Part (plus non tuition fees NZ\$485 plus health insurance)

In addition to these charges are Student Service fees, Building Levy and Material and Resource fees.

For information about International Scholarships, please contact the Auckland International Office.

These costs are approximate, please consult the 2013 Calendar ([www.calendar.auckland.ac.nz](http://www.calendar.auckland.ac.nz)).

## Cost of Equipment, Instruments and Books

The total cost of pursuing the under-graduate programme in Optometry, will be more than the tuition and student service fees. Additional costs include the purchase of essential equipment, instruments and prescribed texts. Particulars of the equipment and instruments required will be given from time to time during the programme. Estimates of these additional costs, subject to currency fluctuations, are as follows:

**Optometry Part II \$1000**

**Optometry Part III \$3500**

**Optometry Part IV \$5000**

**Optometry Part V \$1000**

For Parts IV and V, there is also Professional Indemnity (PI) insurance at a per annum cost of approximately \$70 and Professional Association Fees of approximately \$10.

In addition, students should budget for personal photocopying, stationery and other books. These costs can be from around \$500 per year.

## Living Expenses

The Student Accommodation office offers five different options for accommodation, ranging from places in one of the Halls of Residence to furnished self-catering residences and university owned flats. Information packs containing a common application form are available each year in early August from this office. As a guide, the accommodation cost at the University Halls of Residence ranges from \$200 to \$260 per week (inclusive of three meals per day).

Accommodation in the furnished self-catering residences may cost from \$145 for a single per week, plus a share of the food, telephone and electricity costs for the household. In addition, students should allow a minimum of \$60 per week for general living costs.

For more detailed information, please contact:  
The Accommodation and Conference Centre  
The University of Auckland  
Private Bag 92019  
Auckland 1142, New Zealand,

**Phone:** 64 9 373 7599 ext 87691

**Fax:** 64 9 373 7552

**Email:** [accom@auckland.ac.nz](mailto:accom@auckland.ac.nz)

**or visit the web page:**

[www.auckland.ac.nz/accommodation](http://www.auckland.ac.nz/accommodation).

## Postgraduate Fees

The fees for Postgraduate Diploma in Science, Masters and Doctoral programmes of study are dependent on whether the student is studying on a full or part-time basis. Please refer to the Tuition Fees Office for further information.

## Postgraduate Scholarships

For New Zealand citizens and permanent residents, it is anticipated that a number of The University of Auckland Scholarships for graduate students will be available. Information on some of these scholarships is listed below; more information may be obtained from the Scholarships Office, The University of Auckland, Private Bag 92019, Auckland.

**Phone:** 64 9 373 7599 ext 87242 or

**email:** [scholarships@auckland.ac.nz](mailto:scholarships@auckland.ac.nz).

### The University of Auckland Doctoral Scholarships

These scholarships are offered annually to New Zealand citizens and permanent resident students, enrolled full-time for the Degree of Doctor of Philosophy and are based on academic merit. They have a monetary value of \$25,000 per annum for a maximum of thirty-six months, with University tuition fees also being paid out of the scholarship fund.

### The University of Auckland Commonwealth Scholarships

These scholarships are available for students with a high academic record who are from

Commonwealth countries and intend undertaking postgraduate studies and research. The scholarships provide an emolument plus economy class air travel, allowances for books and field trips as well as the payment of all University fees.

### HC Russell Memorial Postgraduate Scholarship

This scholarship has a value of \$4,500 for a Masters student and \$7,500 for a Doctoral candidate who is pursuing full-time postgraduate studies in Optometry or Visual Science.

### The New Zealand Society of Contact Lens Practitioners Scholarship

This scholarship has an annual value of \$1,000, and any graduate in the fields of Optometry, Medicine or related disciplines is eligible. Applications should be forward to the Secretary of the Society, PO Box 2376, Auckland, before 30 November in the year prior to the award.

### The New Zealand Optometric Vision Research Foundation

The Foundation is a charitable trust with the objective of supporting research, and thereby graduate students, in Optometry and Visual Science. Applications should be addressed to the Secretary of the Foundation, PO Box 5163, Auckland.

# Courses and Regulations



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## Undergraduate Schedule of Courses

The BOptom programme has a fixed schedule of courses. When you enrol for any Part of the Programme, you should enrol for all the courses listed under that Part, as shown below. Each Part must normally be completed before the next Part may be taken. However a student who has failed to pass one of those Parts in its entirety may be allowed, at the discretion of Senate or its representative, to enrol for the course or courses needed to complete that Part together with a course(s) towards the next Part.

The BOptom degree must be pursued in consecutive semesters. Interrupted study may be resumed only with the approval of, and on conditions set by, Senate or its representative.

Course outlines listing all lecture and laboratory timetables, assessments, required equipment, plus prescribed and recommended textbooks, are issued to all students at the start of the semester.

## The degree structure is as follows:

**Please note:** The University of Auckland academic year consists of two semesters. Course codes are suffixed with two letters. The first letter describes the semester in which the course is run (ie, "S1" for first semester and "S2" for second semester). The second letter describes the campus where the course is located (ie, "H" for Medicine and Health Science Campus, or "C" for City Campus). Some courses are run over both semesters and are labelled A & B accordingly. To complete these double semester courses, students must enrol in both A & B courses.

### BOptom Part I

Courses will be transferred from your prior first year studies on acceptance into the programme.



## **BOptom Part II**

**A student must take all of the following courses:**

### **OPTOM 215 S2 H**

Optics of the Eye

### **OPTOM 220 S2 H**

Clinical Imaging and Evaluation Techniques

### **OPTOM 262 S1 H**

Optics of Lenses and Lens Systems

### **OPTOM 265 S2 C**

Physical Optics

### **MEDSCI 203 S1 H**

Mechanisms of Diseases

### **OPTOM 272A S1 H & OPTOM 272B S2 H**

Visual Science 1: Structure and Function of the Visual System

**Plus two general Education Course approved for this degree.**

**Please Note:** Students who have passed any of the above courses prior to the entry into BOptom, must cross credit, reassign or credit the course to BOptom. Students may be required to take an alternative course - please consult the Department for details.

## **BOptom Part III**

**A student must take all of the following courses:**

### **OPTOM 313A S1 H & OPTOM 313B S2 H**

Optometry

### **MEDSCI 202 S1 H**

Microbiology and Immunology

### **OPTOM 345A S1 H & OPTOM 345B S2 H**

Principles of Ocular Pharmacology

### **OPTOM 353A S1 H & OPTOM 353B S2 H**

Ocular Pathology

### **OPTOM 365 S2 H**

Applied Optics and Dispensing

### **OPTOM 375 S1 H**

Visual Science 2

## **BOptom Part IV**

**A student must take all of the following courses:**

### **OPTOM 415 A S1 H & OPTOM 415 B S2 H**

Clinic Optometry

### **OPTOM 430 A S1 H & OPTOM 430 B S2 H**

Contact Lens Practice

### **OPTOM 440 A S1 H & OPTOM 440 B S2 H**

Paediatric Optometry and Binocular Vision

### **OPTOM 450 A S1 H & OPTOM 450 B S2 H**

Diseases of the Eye and Visual System: Diagnosis and Management

### **OPTOM 472 A S1 H & OPTOM 472B S2 H**

Visual Science 3

## **BOptom Part V**

**A student must take all of the following courses:**

### **OPTOM 510 A S1 H & OPTOM 510 B S2 H**

Advanced Clinical Optometry 1

### **OPTOM 520 A S1 H & OPTOM 520 B S2 H**

Advanced Clinical Optometry 2

### **OPTOM 560 A S1 H & OPTOM 560 B S2 H**

Optometry in Practice

### **OPTOM 570 A S1 H & OPTOM 570 B S2 H**

Research in Advanced Optometric Science

# Undergraduate Course Prescriptions

## Bachelor of Optometry Part II:

### OPTOM 215 S2 H (15 points)

#### Optics of the Eye

Evolution and optics of the vertebrate and invertebrate eye. Schematic eyes. Ocular ametropia, mechanisms of accommodation. Light transmission in the eye. Aspherical and gradient index structures in the eye. Ocular aberrations. Measurement of ocular dimensions. Refractive errors of the human eye. Optical correction of refractive errors.

**Course Coordinator:** Dr Misha Vorobyev

### OPTOM 220 S2 H (15 points)

#### Clinical Imaging and Evaluation Techniques

The theory and practice of specific clinical assessment techniques and instrumentation for imaging, measuring and evaluating the function of living optical systems will be the core of this course. The assessment of visual function and optical performance of the eye from the clinical perspective utilising advanced equipment is emphasised in this paper. An introduction to image processing, the production of clinically relevant outcomes and diagnosis-supportive hypotheses is included in this course.

**Course Coordinator:** Dr.Ehsan Vaghefi

### OPTOM 262 S1 H (15 points)

#### Optics of Lenses and Lens Systems

Optics relevant to optometry, but of interest to other science students seeking a background in geometrical optics. Includes a study of the principles of image formation by lenses and lens systems, mirrors and prisms. In addition to an introduction to ophthalmic lenses, includes basic instruments such as telescopes, microscopes and projection systems.

**Course Coordinator:** Dr Jason Turuwhenua

### OPTOM 265 S2 C (15 points)

#### Physical Optics

Includes physical optics relevant to optometry but is also directed towards students taking other science courses. Gives an understanding of the basic principles of physical optics and will involve a study of phenomena including interference, diffraction and polarization.

**Restriction:** OPTOM 160

**Course Coordinator:** Dr Rainer Leonhardt

### OPTOM 272 A S1 H & OPTOM 272 B S2 H (30 Points)

#### Visual Sciences 1: Structure and Function of the Visual Science

Anatomy and physiology of the eye and visual pathway covering topics ranging from the composition and structure of the tear film through to neural processing in the visual cortex. Aspects of visual function including spatial and temporal vision, motion perception and colour vision. Investigation of visual perception using psychophysical and electrophysiological techniques.

To complete this course students must enrol in OPTOM 272 A and B.

**Restriction:** OPTOM 151, 170, 171

**Course Coordinator:** Dr Benjamin Thompson



### **OPTOM 292A (7.5 points)**

### **OPTOM 292B (7.5 points)**

#### **Issues in Optometry**

Topics of special interest to students entering Optometry from overseas and from the graduate entry quota. This is not a compulsory course.

**Prerequisite:** Permission of Head of Department

To complete this course students must enrol in OPTOM 292 A and B.

### **MEDSCI 203 S1 H (15 points)**

#### **Mechanisms of Disease**

Pathogenesis of various types of disease at the molecular, cellular and tissue levels. Provides an introduction to: cell injury, inflammation, healing, neoplasia and circulatory disturbances, and includes the pathogenesis of selected specific diseases which are common in New Zealand or are the focus of current biomedical research.

### **Part III:**

### **OPTOM 313A (22.5 points)**

### **OPTOM 313B (22.5 points)**

#### **Optometry**

The history and development of optometry as a health care profession, scope of optometric practice. Introduction to the optometric examination: vision and visual acuity, contrast sensitivity, visual fields, colour vision, slit lamp biomicroscopy, ophthalmoscopy, objective and subjective examination, near visual examination, routine binocular vision examination, history taking, communication skills, clinical problem-solving.

**Restriction:** 450.210, 450.220, OPTOM 211  
To complete this course student must enrol in OPTOM 313A and B.

**Course Coordinator:** Dr Nicola Anstice



*"I've always been interested in science, physics and biology, which is why I chose to do a Bachelor of Optometry. It's a really interesting subject and involves a lot of people contact. We gain practical experience treating patients in the optometry clinic and I enjoy seeing them walk out with improved vision. I feel like I'm doing something good for the public."*

*"There are so many options available to us after completing this degree. I'm contemplating postgraduate study, or I could work in a public hospital, in private practice, or even run my own clinic in the future."*

**Sandy Yu** completed a Bachelor of Optometry, now enrolled in a PhD.

**OPTOM 345A (7.5 points)****OPTOM 345B (7.5 points)****Principles of Ocular Pharmacology**

General principles of pharmacology.

Pharmacodynamics. Drug absorption, distribution and metabolism. Mechanism of drug action at receptors. Drugs and their application on ophthalmic practice. The autonomic nervous system: anatomy and physiology. Mechanisms of action of ocular pharmaceutical agents.

Principles of pharmacological treatment of ocular disease. Drug interactions. Legislation on use of ocular pharmaceutical agents by optometrists in New Zealand and internationally. Introduction to therapeutic agents in optometric practice. Scope of treatment. Shared care.

**Prerequisite:** OPTOM 272

**Restriction:** OPTOM 241, 361, 245

To complete this course students must enrol in OPTOM 345 A and B.

**Course Coordinator:** Dr John Phillips

**OPTOM 353A (7.5 points)****OPTOM 353B (7.5 points)****Ocular Pathology**

Pathophysiology of the eye. Histopathology of eye disease. Pathology of orbit, lacrimal system, conjunctiva, cornea, uvea, lens and retina. Developmental anomalies of the eye.

To complete this course student must enrol in OPTOM 353A and B.

**Course Coordinator:** Dr John Phillips

**OPTOM 365 (15 points)****Applied Optics and Dispensing**

Optics of ophthalmic lenses, ophthalmic lens materials, strength of materials, ophthalmic prisms, tinted lenses, coatings, multifocal and progressive addition lenses, special lens designs, diffractive ophthalmic lenses, magnification, isogonal and iseikonic lens design. Finite ray tracing, optical design, chromatic and monochromatic aberrations of ophthalmic lenses.

Ophthalmic dispensing, fabrication of ophthalmic aids. Principles of optical instruments.

**Course Coordinator:** Mr Andrew Collins

**OPTOM 375 (15 points)****Visual Science 2**

Models of spatial vision. Velocity perception. Signal detection theory. Theories of colour vision, defective colour vision. Visually evoked potentials. Binocular space perception. The development of vision. Recent advances in visual science. Aetiology of refractive errors - hereditary factors, environmental factors. Prevalence of ametropia and changes with age.

**Course Coordinator:** Dr Ben Thompson

**OPTOM 392 A (7.5 points)****OPTOM 392 B (7.5 points)****Issues in Optometry 2**

Topics of special interest to students entering Optometry from overseas and from the graduate entry quota. This is not a compulsory course.

**Prerequisite:** Permission of Head of Department

**Restriction:** OPTOM 291

To complete this course student must enrol in OPTOM 392A and B.

**MEDSCI 202 (15 points)****Microbiology and Immunology**

An introduction to the nature and roles of bacteria, viruses, fungi and parasites as the causative agents of human disease. The defence mechanisms of the body, the immune system including autoimmunity and allergy. Control of disease by antimicrobials. Sterilisation, disinfection, and sterile manufacturing practice.

## Part IV

### **OPTOM 415A (22.5 points)**

### **OPTOM 415B (22.5 points)**

#### **Clinical Optometry**

The routine optometric examination, diagnosis and management of disorders of the visual system, case analysis, myopia control, visual ergonomics, elements of illumination engineering, vision screening, visual standards. Principles of industrial safety. Ocular and vision problems in the elderly. Low vision, electronic, optical and non optical low vision appliances. Examination and treatment of patients in the Optometry Clinic under supervision.

To complete this course students must enrol in OPTOM 415 A and B.

**Restriction:** OPTOM 430

**Course Coordinator:**

Associate Professor Rob Jacobs

### **OPTOM 430A (7.5 points)**

### **OPTOM 430B (7.5 points)**

#### **Contact Lens Practice**

Examination procedures for contact lens practice. Principles of contact lens fitting. Optics of contact lenses. Complications of contact lenses. Materials used in contact lens manufacture. Designs of contact lenses. Scleral lens impressions. Recent advances in contact lenses. Practical sessions in contact lens fitting, verification techniques and patient care.

**Restriction:** To complete this course students must enrol in OPTOM 430 A and B.

**Course Coordinator:** Dr Wanda Lam

### **OPTOM 440A (7.5 points)**

### **OPTOM 440B (7.5 points)**

#### **Paediatric Optometry and Binocular Vision**

Anatomy and physiology/modeling of normal and abnormal eye-movement systems. Developmental aspects of infant and children's vision and eye coordination. Visual examination of infant and child patients. Investigation of idiopathic and acquired vergence eye-movement disorders:

Strabismus and Heterophoria. Treatment of Strabismus and Heterophoria by refractive correction, visual training and surgery. Sports Optometry, visual aspects of learning disabilities.

To complete this course students must enrol in OPTOM 440 A and B.

**Course Coordinator:** Dr Ken Robertson

### **OPTOM 450A & OPTOM 450B (30 points)**

#### **Diseases of the Eye and Visual System: Diagnosis and Management**

Signs, symptoms and diagnosis of diseases of the eye, ocular adnexa and visual system, including neurological dysfunction and signs of systemic disease. Management of diseases of eye, ocular adnexa and visual system, including the use of therapeutic agents. Indications, contraindications and side effects of therapeutic agents for the treatment of ocular disease.

To complete this course students must enrol in OPTOM 450A and B.

**Restriction:** OPTOM 351, 355, 352

**Course Coordinator:** Mr Andrew Collins

### **OPTOM 472A (7.5 points)**

### **OPTOM 472B (7.5 points)**

#### **Visual Sciences 3**

To provide an understanding of visual information processing by the visual pathways (retino-geniculate-striate system) and the physiology of other ocular components. A problem-oriented approach, which develops students' skills in reading, analyzing and debated scientific papers in the vision sciences, will be used to achieve a high level of critical thinking and problem solving skills. It is expected that students will acquire the ability to seek, evaluate and retrieve scientific information on which to base their clinical practice. Clear and concise communication of scientific information both in written and oral form will be required.

To complete this course students must enrol in OPTOM 472 A and B.

**Course Coordinator:** Dr Misha Vorobyev

**OPTOM 492A (7.5 points)****OPTOM 492B (7.5 points)****Issues in Optometry 3**

Topics of special interest to students entering Optometry from overseas and from the graduate entry quota. This is not a compulsory course.

Prerequisite: Permission of Head of Department To complete this course students must enrol in OPTOM 492A and B.

**Part V****OPTOM 510A (15 points)****OPTOM 510B (15 points)****Advanced Clinical Optometry 1**

Clinical work with responsibility, under supervision, for patients.

To complete this course students must enrol in OPTOM 510A and B.

**Course Coordinator:** Dr Geraint Phillips

**OPTOM 520A (15 points)****OPTOM 520B (15 points)****Advanced Clinical Optometry 2**

Clinical work with greater emphasis on particular areas in optometry including: contact lenses, low vision, binocular vision, paediatric optometry and practice management.

To complete this course students must enrol in OPTOM 520A and B.

**Course Coordinator:** Dr Geraint Phillips

**OPTOM 560A (15 points)****OPTOM 560B (15 points)****Optometry in Practice**

Supervised clinical work in locations external to the Medicine and Health Science Campus Optometry Clinic. These locations may include University satellite clinics, private optometry practice, hospital eye departments, overseas institutions, or experience in other approved locations. Lecture address; legislation relevant to health care including registration and competency, occupational safety and health,

ethics, practice management, small business management.

To complete this course students must enrol in OPTOM 560 A and B.

**Course Coordinator:** Dr Geraint Phillips

**OPTOM 570A (15 points)****OPTOM 570B (15 points)****Research in Advanced Optometric Science**

Study modules on a range of topics in optometry and vision science, with the focus being on developing an evidence-based approach on selected topics. Study will include supervised investigations into an approved topic relating to optometry and vision science, including clinical and applied research.

To complete this course students must enrol in OPTOM 570A and B.

**Prerequisite:** Enrolment in part IV of the Optometry Programme.

**Restriction:** OPTOM 470, 475, 480

**Course Coordinator:** Dr Monica Acosta

**OPTOM 592A (7.5 points)****OPTOM 592B (7.5 points)****Issues in Optometry 4**

Topics of special interest to students entering Optometry from overseas and from the graduate entry quota. This is not a compulsory course.

**Prerequisite:** Permission of Head of Department

To complete this course students must enrol in OPTOM 592A and B.

# Postgraduate course prescriptions

## Postgraduate Schedule of Courses

### Postgraduate Diploma in Science (PGDipSci)

The Postgraduate Diploma in Science requires the student to pass at least 120 points and the course of study must be approved by the Head of Department.

### Degree of Master of Science (MSc)

Students are required to pass 120 points: OPTOM 796A MSc Thesis in Optometry.

### Degree of Doctor of Philosophy (PhD)

The PhD degree is generally accepted as the appropriate qualification for a career in scientific research. It consists of advanced study and supervised research leading to the presentation of a thesis. This thesis must be an original contribution to knowledge and meet recognised international standards of scientific research.

OPTOM 898A S1 H & B S2 H Optometry PhD Thesis (120 points).

## Diploma Courses

### OPTOM 781 (30 points)

#### Principles of Ocular Disease

The basic anatomy, physiology, pharmacology, pathology, immunology and microbiology necessary for an understanding of ocular disease and its treatment. The course is presented as a number of lectures combined with a significant self-directed learning component. Assessment is by written examination and completion of written assignments based on specified ocular disease conditions with the overall theme being an evidence-based approach to learning.

**Prerequisite:** Permission from the Head of Department.

### OPTOM 784 (30 points)

#### Ocular disorders and their management

The clinical presentation and differential diagnosis of eye diseases with emphasis on those likely to be diagnosed and managed by a therapeutically-qualified optometrist and the principles and actions of therapeutic agents as a basis for their safe use in the management of ocular disease. The overall theme of the course is an evidence-based approach to the use of therapeutic agents.

**Prerequisite:** Permission from the Head of Department.

### OPTOM 787A (15 points)

### OPTOM 787B (15 points)

#### Clinical Ocular Therapeutics

The clinical application of the therapeutic and management practices covered in OPTOM781 and OPTOM784. Students attend a series of ophthalmological clinical rotations in which they examine patients under direct supervision and



observe treatment of ocular conditions by an ophthalmologist. The emphasis is on developing practical therapeutic management plans for different disease conditions.

To complete this course students must enrol in OPTOM 787 A & B.

**Prerequisite:** OPTOM 781 & OPTOM 784 & registration to practice optometry in New Zealand or Australia.

## Honours, Master's and PhD Courses

### **OPTOM 756 (15 points)**

#### **Special Topic in Vision Science**

The study of selected fields in vision science at an advanced level with detailed study of one particular field. The topic will be prescribed by the Head of Department.

To complete this course students must enrol in OPTOM 756 A and B.

### **OPTOM 757A (15 points)**

### **OPTOM 757B (15 points)**

#### **Special Topic in Optometry 1**

The study of selected fields of clinical optometry

at an advanced level with detailed study of the particular field. The topic will be prescribed by the Head of Department.

To complete this course students must enrol in OPTOM 757 A and B.

### **OPTOM 791 (90 points)**

#### **Advanced Clinical Optometric Specialisation**

Advanced clinical optometry study in a chosen sub-specialist area of optometric practice. The area of special interest may include contact lenses, low vision, paediatric optometry, binocular vision, ocular disease management, or any other area approved by the Head of Department.

### **OPTOM 796A (60 points)**

### **OPTOM 796B (60 points)**

#### **MSc Thesis in Optometry**

To complete this course students must enrol in OPTOM 796 A and B.

### **OPTOM 898A & OPTOM 898B**

#### **PhD Thesis in Optometry**

To complete this course students must enrol in OPTOM 898 A and B.

## Clinical Practice Requirements

Students entering Parts III and IV of BOptom will be issued with: Clinic Procedures Manual, Visual Clinic Manual and the Guide to Clinical Assessment Manual. All students must agree to read these manuals before commencing duties in any optometry clinic.

Application should also be made for Student membership of the New Zealand Association of Optometrists Inc. (NZAO) and Professional Indemnity Insurance.

Professional Indemnity (PI) insurance is viewed as part of the responsibility of students about to enter the profession. Continuity of PI insurance is essential for responsible professionals. Accordingly, the Department has made arrangements to enable you to become insured members of the NZAO. PI insurance is compulsory before students enter the clinic.

The forms for Student membership of NZAO and Professional Indemnity (Malpractice) Insurance will be made available to you prior to your entering clinic.

## Police Clearance Checks

Prior to entering your final year of the BOptom programme you will be required to obtain a Police Clearance Check. This is a compulsory requirement. Also a signed confidentiality agreement is required to be submitted covering patient information.

It is the responsibility of each student to obtain the police clearance check and give a copy to the Department Administrator by 1 December in the year preceding your final year.

Details about how to obtain the clearance can be found at

[www.justice.govt.nz/services/get-a-copy-of-your-criminal-record/documents/request-by-individual.pdf](http://www.justice.govt.nz/services/get-a-copy-of-your-criminal-record/documents/request-by-individual.pdf)

## Immunisation and Transmission of Infectious Diseases

As an optometry student, and later as an optometrist, you will be exposed to infection, especially when you have close contact with patients. An immunisation programme is carried out in Semester 1 of Part II prior to you entering the clinic and we require you to take part.

As you will be undertaking hospital placements the agreement between The University of Auckland and the various District Health Boards regarding the health of students applies to you. The Faculty of Medical and Health Sciences requires that all students are adequately immunised against measles, mumps, rubella and hepatitis B. Students are advised to make their own decision about immunisation for varicella. Students who anticipate travel to other countries should consider immunisation against diphtheria, tetanus and poliomyelitis and other infectious diseases. You are required to know your tuberculosis status, and the department recommends that you have an annual influenza vaccine.

It is your own responsibility to make sure you are protected against other diseases. We will assist you by providing advice and some services. In particular, you are encouraged to make use of the University Health and Counselling Service on all campuses.

You will be provided with a record of all immunisation tests from the University Health and Counselling Service on the Grafton Campus. The first letter ('certificate') will be provided free, but there will be \$20.00 charge to replace this if you misplace or lose it.

### Any queries direct to:

Reception, University Health Centre, Grafton Campus, ext 86962

Please ascertain from your parents or doctor which immunisations you have had. This will help to determine which immunisations you will require now or in the future.





## Examinations and Tests

### Academic Progress

Before or at the commencement of the class concerned, students must be informed of the coursework allocations and other decisions on coursework requirements. This should include dates of:

- Tests
- Submission of assignments

Such advice will be included in your lecture schedules. Any changes to this will be posted on Departmental noticeboards and advised by your lecturer in class. A record of these notices is available through CECIL, the computer supported learning environment of the University.

All work should be in handwritten form other than where the lecturer or your regulations require a typed presentation e.g. thesis. A staff member may, in the interests of marking, and ease of reading, indicate that a typed or word processed presentation is desirable but there is no compulsion upon a student to present work in this format.

### Assessment

It is accepted that assessment is an integral part of any education or training programme. It assures the lecturers, students and the public that having gone through a programme of study and subsequently the examinations, the student has achieved the minimum standard of knowledge and skill set by the institution concerned. In the Department of Optometry and Vision Science, assessment takes various forms including: final written examinations, term tests, practical tests, oral examinations, oral presentations, written assignments, laboratory reports, etc.

The assessment methods attempt to reflect the variety of skills required of the student and to measure the level of skills attained.

The different assessment methods for courses in the Department of Optometry and Vision Science can be generally categorised into those used in basic sciences, clinical sciences and clinical optometry. Whereas basic sciences and to a lesser degree, clinical sciences require minimal people contact, clinical optometry is almost

entirely people directed. The skills required in these different areas are not the same. Consequently, the assessment methods reflect this difference.

Excellent communication skills are vital to the successful completion of the BOptom degree. The grades assigned to written assignments, tests and examinations in all parts of the programme include an evaluation of the student's abilities in written English. The grades assigned in oral and clinical assessments and examinations include evaluation of the student's abilities to communicate with patients and an evaluation of how well communication skills are displayed.

## Weighting

In some courses, several educational goals are desired. It is therefore likely that assessment may take several forms and appropriate weights will be assigned to each assessment method. If it is felt that practical skills are the most desired outcome for that course, then the practical tests or examinations will be weighted substantially higher than the written tests or examinations.

## Feedback

Formative feedback is usually available for work completed during semester, while end of semester or final examinations are usually summative only and no detailed feedback is provided. Please refer to the Examinations Office or The University of Auckland Calendar for regulations.

## The Final Grade

The final grade in each course will reflect the degree to which the student has achieved the most desired outcome of the course. If the most desired outcome of the course is the ability to do a refraction, then a student who is able to write about doing refraction, but is unable to do one, is likely to have a final grade below the passing mark. Where there are several components in an assessment, which are considered essential outcomes of the course, then failure in any of the

components will generate a failure grade for that course. In some courses these essential components are labelled "red-flags" but this is not universal. Excellent performance in other components will not offset a failed essential component.

In summary, crucial outcomes will be weighted more. Information provided at the beginning of the year in the course documents will indicate which outcomes cannot be failed. Failure in any of these desired outcomes will automatically generate a failing (D) grade. Marks from the various components of the assessment are not added together unless the essential components are passed.

## Attendance at laboratories

Attendance at practical classes is compulsory. Students' laboratory marks will be based on their report and attendance at the laboratory.

## Examinations

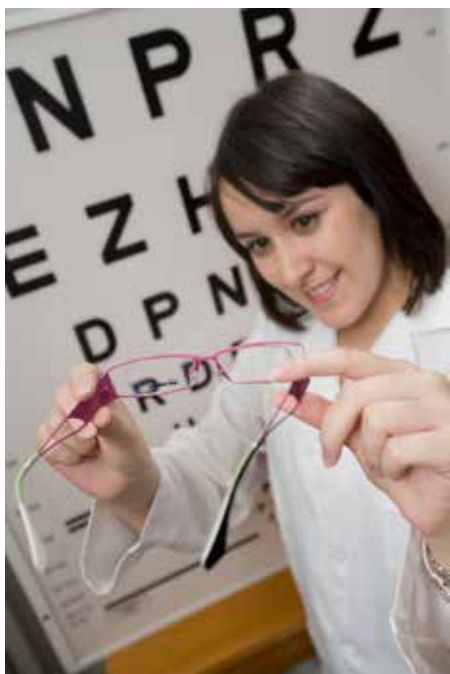
All coursework marks will be made available via CECIL before the final examinations.

First semester final examinations will be held in the exam period at the end of semester one. Where a course is run over two semesters (a double semester course), final results will not generally be available until the end of the Second Semester. In double semester courses, results from semester one may be available as provisional exam results

## Availability of examination scripts

By making application to the Examinations Office, during the three-month period from the date of the exam a student may apply for a photocopy of his or her final examination script(s) provided all the assessment processes have been completed and the fees paid.

Students are not permitted to seek a remarking of the script. If it has been fully marked, the examiner's judgement must stand. If a student seeks advice in respect of the script, that advice



must not cover detailed discussion with the examiners of particular answers. Broad guidance may, however, be given on the general thrust of the script or on examination technique by the Head of Department or by an examiner specified by the Head of Department.

### Recount of marks

By making an application within four weeks from the date of the mailing of a student's official result of the examinations, any student sitting an examination for a degree, diploma or certificate of proficiency, may have the marks awarded to his/her scripts recounted in any course in which he/she has failed.

The fee for a recount is listed in the Calendar under Fees Regulations.

A recount of marks covers a careful recheck of the marks recorded by the examiner and ensures that no answer or any portion of an answer submitted by a student has been overlooked. No

information pertaining to the application will be placed before the examiner.

### Referencing Material

The Department of Optometry and Vision Science uses the bibliography style as shown in the journal, *Clinical & Experimental Optometry*, which conforms to the Vancouver style. E.g. In the Reference list: Pesudovs K. Corneal topography outcomes of cataract surgery. *Clin Exp Optom* 1996; 34: 45-56.

### Calculators in Examinations

The Department of Optometry and Vision Science has adopted the following policy on the use of calculators in tests and examinations. Students may use only CASIO FX 82 in tests and examinations. It is the students' responsibility to supply and maintain the operation and operating power of their own calculators.

A staff member may inspect all calculators at the start of each test and final examination. For final examinations, students may use their own calculators (CASIO FX 82 ONLY). Any other models will be confiscated for the duration of the test or final examination.

### Books in Examinations

Unless the examination is an Open Book, or Restricted Book examination, a candidate must not bring to an examination any written or printed matter or any blank paper except by direction of the examiner. The Department of Optometry and Vision Science will inform candidates of specific books or materials allowed for particular examinations.

### Special need in examinations

If you have special needs for your examination, please see the Department Administrator in the first instance. The administrator will advise on the current University requirements for granting of Special Examination Conditions.

# Awards of marks and grades

## Requirements for Honours

There are ten pass and fail grades as set out below:

Grade Point Scale			Honours
A+	9	80 or higher	First Class Honours
A	8	76 - 79	First Class Honours
A-	7	72 - 75	Second Class Honours (First Division)
B+	6	68 - 71	Second Class Honours (Second Division)
B	5	64 - 67	
B-	4	61 - 63	
C+	3	57 - 60	
C	2	53 - 56	
C-	1	50 - 52	
D+	0	45 - 49	
D	0	<45	

**NB:** Pass grades may have different numerical equivalents in the Optometry Clinical Year and in different Departments.

Calculation of the Honours score is a Department decision, however, Faculty strongly recommends the following weighting:

a) Part V: 60%

b) Part IV: 40%

Students usually will not do well in Part IV if they do not work hard in the previous years.

Honours may normally be awarded only if the requirements for this degree are completed within eight semesters of initial enrolment for the degree.

In exceptional circumstances however, Senate or its representative may approve an extension of this period for not more than two further semesters.

## Deferred Results

Where a weakness occurs in the clinical practice component in any of the following Part IV and V courses:

- OPTOM 415A & B Clinical Optometry
- OPTOM 430A & B Paediatric Optometry and Binocular Vision

and

- OPTOM 510A & B Advanced Clinical Optometry 1
- OPTOM 520A & B Advanced Clinical Optometry 2
- OPTOM 560A & B Optometry in Practise

the result of the course or courses will be deferred. In these circumstances, the candidate will be required to complete additional work to the satisfaction of the examiners. The work will be examined the following February.

## Applications for Aegrotat and Compassionate Consideration

An application may be made for aegrotat or compassionate consideration, by candidates who may have been prevented from being present at an examination, or who consider that their preparation for or performance in an examination has been seriously impaired by temporary illness or injury or exceptional circumstances beyond their control. This also applies to tests, but not assignments.



Application forms are available online, or from the relevant campus Student Health and Counselling Services and Examinations Office.

The application form must be submitted to the University Health and Counselling Service within one week of the date that the examination affected took place, or if more than one examination has been affected, then within one week of the last of those examinations.

Following the decision of Senate on an application for Aegrotat or Compassionate Consideration, a student may apply for reconsideration of that decision no later than four weeks after the student is notified of Senate's decision.

Please refer to The University of Auckland Calendar for the official regulations.

## **Missed examinations**

Students who discover that they have missed an examination through their own mistake cannot sit the examination at another time unless it is for a Masters or Bachelors Honours degree. The student must contact the Examinations Office immediately and complete an application for Special Pass Consideration. Please refer to the Examination Regulations in the Calendar.



# Undergraduate Scholarships and Prizes in Optometry

The University Council on the recommendation of the Department of Optometry and Vision Science awards the following Scholarships and Prizes:

## Senior Scholarship

To the value of \$100.00 awarded by Council to a student, based on the results of the candidates work in Part V, being not less than Grade A-quality.

## Senior Prize

To the value of \$50.00 awarded by Council to a student, based on the results of the candidates work in Part V, being not less than Grade A-quality.

NB: No candidate may receive both a Senior Scholarship and a Senior Prize in the same year.

## Annual Prize

To the value of \$50.00 awarded by Council to the student, who in the opinion of the Head of Department, has done the best year's work, being not less than Grade A-quality.

NB: For full details of the above awards, please refer to the Awards Handbook.

## New Zealand Association of Optometrists Undergraduate Scholarships

From 1992 undergraduate scholarships known as the New Zealand Association of Optometrists Undergraduate Awards will be awarded annually to students enrolled for the Bachelor of Optometry Programme and ordinarily resident in New Zealand.

- a) One award of \$1000 to be presented to the top student entering BOptom Part III with the highest aggregate mark in the previous year, and who is NOT repeating the previous year,
- b) two awards of \$1000 each to be presented to students entering BOptom Part IV and awarded to the student gaining the highest aggregate mark in the previous year and the student showing the most improvement in the previous year, and who are NOT repeating the previous year,
- c) three awards of \$1000 each to be presented to three students entering BOptom Part V and awarded to the two students gaining the highest aggregate mark in the previous year and the student showing the most improvement in the previous year, and who are NOT repeating the previous year,
- d) one award of \$1000 to be presented to a Māori or Pacific Island student entering BOptom Part II. In the event of more than one eligible Māori/Pacific Island student entering BOptom Part II, the award will go to the student gaining the highest GPA in the previous year. In the absence of an eligible Māori/Pacific Island student entering BOptom Part II, no award will be made.

No applications for the above awards are necessary.

## Alcon

The Alcon Prize is awarded for the Best Performance based on exam marks in Course OPTOM 353 to the value of \$1,000.00.

## OPSM PRIZE

The Prize will be of the value of \$4,000. The Prize will be awarded annually to the candidate who is a full-time student achieving the best grade in the course OPTOM 313 Optometry. The Prize will not be awarded in a particular year if there is no candidate of sufficient merit. In the event of a tie, the Head of the Department of Optometry and Vision Science shall determine, in consultation with the management executives of OPSM NZ if the Prize may be shared.

## Raymond Harry Hawkins Prize

For best project in Course OPTOM 570 to the value of \$500.00

## NZCO Prize

The Prizes will be known as the New Zealand College of Optometrists Prizes. The Prizes will be of the value of \$100 and \$50. First Prize of \$100.00 for each member of the winning group. Second Prize of \$50.00 for each member of the second group. The Prizes will be awarded annually to the full-time students achieving the highest marks for their presentations in OPTOM 570. In the event of a tie, the Head of the Department of Optometry and Vision Science shall determine if the Prizes may be shared.

## The Peg Wood Award

Awarded to the student who obtains the highest combined grade in the course OPTOM 415.

Clinical Optometry, of the Bachelor of Optometry Programme. The value of the award is \$100.

## Step Up Scholarships

Secondary school students are encouraged to explore the opportunity of Scholarships such as the Step Up Scholarships for Science and Technology-based qualifications. Such Scholarships are notified from time to time by the government. For information about Scholarships that might be available, please contact Studylink, [www.studylink.govt.nz](http://www.studylink.govt.nz)



# Optometry Staff List 2012

## Academic Staff

### Associate Professor

#### Acting Head of Department

##### Robert J Jacobs

MSc PhD Melb, LOsc, FAAO, Grad Dip Bus,  
CertOcPharm, TPA qualified

**Email:** r.jacobs@auckland.ac.nz

**Phone:** +64 9 373 7599 ext 86019

Associate Professor Jacobs is involved in the clinical vision sciences and in specialist clinical areas including colour vision and low vision. He is a previous Head of Department and is an honorary member of the New Zealand Association of Optometrists.

His research interests are in the clinical vision sciences relating fundamental measures of visual performance such as visual acuity and sensitivity to defocus, to measures which are relevant in clinical and practical situations. Visual defects such as defocus, colour vision anomalies, and age related visual changes are the subject of research projects. Assoc Prof Jacobs has acted as an advisor in the area of visual ergonomics including visual problems within the aviation industry and vision standards.

### Senior Lecturer

#### John R Phillips

BSc, (M.Eng), BSc (Optom), MSc, PhD Melb,  
MCOptom, FAAO, TPA qualified

**Email:** j.phillips@auckland.ac.nz

**Phone:** +64 9 373 7599 ext 86073

Dr Phillips' research interests are in the areas of childhood myopia development and progression and also the physiological processes which control eye size and which normally ensure that as the eye grows it remains emmetropic (ie, without a refractive error). Dr Phillips teaches ocular anatomy/physiology, pathology and optometry in the undergraduate Optometry programme.

### Senior Lecturer, Clinic Director

#### Geraint Phillips

BSc (Hons), MCOptom, DCLP, OD, CertOcPharm,  
TPA qualified

**Email:** g.phillips@auckland.ac.nz

**Phone:** +64 9 373 7599 ext 86503

Dr Phillips is actively involved in the Clinic and within the role of Clinic Director, he is responsible for its smooth running and overall viability.

Dr Phillips teaches Clinical Optometry and Diseases of the Eye within Part IV of the Bachelor of Optometry. As well as lecturing, Dr Phillips is involved extensively in the teaching of Clinical Optometry throughout the Year. Dr Phillips is also Course Controller of three Part V courses involving Advanced Clinical Optometry and Specialist Optometry.

### Senior Lecturer

#### Misha Vorobyev

PhD

**Email:** m.vorobyev@auckland.ac.nz

**Phone:** +64 9 373 7599 ext 86591

Plants often use brightly coloured flowers to advertise a reward of nectar and pollen to insects and birds that pollinate them. Birds use colourful plumage to attract mates. Similarly, colourful patterns of fish skin are used to communicate with other fish. Animals also use coloured patterns to protect themselves—a coloured pattern may help conceal or disguise an animal, or advertise that it is toxic. The main theme of our research is the relationship between colour vision systems and colourful patterns of plant and animals. We use psychophysical methods to study colour vision of man and animals. To understand the ecological significance of diversity of colour vision systems we combine mathematical modelling with measuring spectra of biologically important objects - flowers, fruits, birds' plumage and fish skin.

Dr. Vorobyev's studies, published since 1996 in 53 papers, have attracted over 1300 citations (245 citations in 2008; ISI h-index: 20; average citations per paper: 25).

#### **Senior Lecturer**

##### **Benjamin Thompson**

DPhil, BSc(Hons)

**Email:** b.thompson@auckland.ac.nz

**Phone:** +64 9 373 7599 ext 86020

Dr. Thompson teaches in the areas of vision science and anatomy and physiology of vision. His research interests include perceptual learning, motion perception, visual perception in amblyopia and accurate assessment and treatment of amblyopia. He uses a range of research techniques including functional magnetic resonance imaging (fMRI), transcranial magnetic stimulation (TMS), transcranial direct current stimulation (tDCS) and psychophysics.

#### **Senior Lecturer**

##### **Monica Acosta**

BSc, MSc, PhD

**Email:** m.acosta@auckland.ac.nz

**Phone:** +64 9 373 7599 ext 86069

The work conducted in the Retinal Cell and Molecular Biology laboratory aims at understanding the mechanisms that participate in the survival and/or death of retinal cells, which delicate balance is altered in patients with vision loss. Particularly, we want to explore strategies for prevention and intervention through identification of the cellular events that cause cell death. The laboratory is exploring a model of vision loss in animals induced by chemical and environmental factors with the aim of simulating blinding conditions encountered in humans.

#### **Lecturer**

##### **Nicola Anstice**

BOptom (Hons), PhD

**Email:** n.anstice@auckland.ac.nz

**Phone:** +64 9 373 7599 ext 82956

Nicola obtained her BOptom (Hons) degree from The University of Auckland in 1998 and then

worked in private optometry practice for six years. She returned to the department in 2005 to undertake her PhD looking at a new contact lens to slow myopia progression in children. She submitted her PhD in 2009 and spent a year working as a paediatric optometrist in the Department of Ophthalmology, Manukau Super Clinic before returning to take up a lecturer's position in the Department of Optometry and Vision Science.

#### **Lecturer**

##### **Jason Turuwhenua**

PhD, Waikato

**Email:** e.j.turuwhenua@auckland.ac.nz

**Phone:** +64 9 373 7599 ext 85807

Jason is a Research Fellow who works between the Auckland Bioengineering Institute and the Department of Optometry and Vision Science. Jason is interested in how engineering methods might be applied to problems of interest in vision. To date this has involved work on corneal topography (videokeratography), simulating retinal images, as well as image processing. At present Jason is working on developing 'the virtual eye', which is a physics based system for investigating eye disease.

#### **Senior Tutor**

##### **Andrew Collins**

MSc, BOptom, CertOcPharm, TPA qualified

**Email:** a.collins@auckland.ac.nz

**Phone:** +64 9 373 7599 ext 86484

Mr Collins teaches in the areas of applied optics, vision science, ocular disease and therapeutics. He is also the BOptom Part III coordinator and is a member of the Faculty of Science IT Committee as well as a number of committees of the Standards Associations of New Zealand and Australia.

Mr Collins' research interests are in the areas of environmental and genetic factors affecting myopia development, vision in animals and vision in transportation.

## **Lecturer**

### **Ehsan Vagheti**

PhD, Auckland

**Email:** e.vagheti@auckland.ac.nz

**Phone:** +64 9 373 7599 ext 83174

Dr Vaghefi completed his PhD at Auckland Bioengineering Institute (ABI) and in close collaboration with the Department of Optometry and Vision Sciences (DOVS) on modelling and imaging the fluid dynamics of the ocular lens using high-resolution MRI. He was granted a doctoral scholarship for this work from the Marsden Fund of New Zealand. Through this research he has become an expert in non-invasive dynamic imaging and imaging-guided computational modelling of ocular tissues. His PhD work led to a number of publications in high ranked peer reviewed international journals, through which a sophisticated model for the fluid dynamics of the ocular lens is presented. At his current position, Ehsan is further enhancing our knowledge of fluid circulation in the ocular lens using multi-modal non-invasive real-time imaging techniques. Ehsan has been continuing his research at the Molecular Vision Lab (MVL), DOVS, under the supervision of Prof Paul Donaldson. Here, by securing capability funds (Faculty Research Development Fund & NZ Optometry and Vision Research Fund) he has been developing novel methodology to visualize various components of the lens. His efforts to expand the field of physiological optics have been realized by the DOVS management and have led to his strategic appointment which also involves some lecturing duties. This role has granted him with an excellent opportunity to access a pool of highly talented students whom he supervises to conduct diverse projects of his interest.

Because of his dual bioengineering and optics background, Ehsan has been able to demonstrate a strong link between the optical properties and physiologically driven fluid dynamics of the ocular lens. Hence, his goal is to comprehensively investigate this correlation and to create a universal model of the ocular lens that

encapsulates the cellular properties of the lens that are responsible for both its transparent and optical properties. To be able to do this, Ehsan has retained his joint affiliations to the ABI and DOVS. The former association provides the leverage from the computational modelling resources of this centre; while the latter position guarantees the relevance and accuracy of the developed models by accessing the experimental capacities of this centre. He is also an active member of New Zealand National Eye Centre (NZ-NEC) which is a collaboration of Optometry, Ophthalmology and Bioengineering departments to boost the vision related research in New Zealand. Although a research fellow Dr Vaghefi also contributes to the teaching of Optics in the BOptom program.

## Postdoctoral Research Fellows

**Joanna Black, PhD**

**Simon Blackhouse, PhD**

**Gus Grey, PhD**

## Senior Research Fellow

Julie Lim, PhD

## Clinical Tutors

**Bhavini Solanki**

BSc (Hons), MSc

**Jorge Perez Velasco**

OD

**Jonathan Payne**

BOptom(Hons), TPA Endorsement

**Kate Vanweerd**

BOptom(Hons), TPA Endorsement

**Kathryn Sands**

BOptom, CertOcPharm

**Melinda Calderwood**

BOptom, GDipSci

**Richard Johnson**

BOptom

**Tom Cossick**

OD

**Wanda Lam**

OD ,BSc

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**THE UNIVERSITY  
OF AUCKLAND**

**FACULTY OF MEDICAL  
AND HEALTH SCIENCES**

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