Welcome to Optometry and Vision Science

Optometry, as a primary health care profession has a wide role and responsibilities in the New Zealand system. From corporate to individual practice and from community to hospital locations, optometrists have a front line role in looking after the vision and eye health of New Zealanders. Your studies in Optometry and Vision Science 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, key strands of science and health science are maintained throughout the programme. By graduating with a Bachelor of Optometry (BOptom) you will be well prepared with the knowledge, experience and skills required to enter practice or to continue with graduate or other studies.

Optometry at Auckland had its beginning in 1965 within the Department of Psychology, Faculty of Science. We are now part of the Faculty of Medical and Health Sciences and enjoy resources provided at both the Grafton and Tamaki campuses. We are the only Optometry school in New Zealand, and one of six schools in the region with accreditation from 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.

We use a variety of teaching methods and have 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 programme 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

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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 particularly away from major population centres. Optometrists must be able to communicate easily and effectively, particularly when providing special services to children, the elderly and the partially sighted. Students considering optometry as a career 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 practice and the opportunity to concentrate on clinical areas of special interest. 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.

Optometry practice in New Zealand

Completion of the University of Auckland BOptom programme will enable a graduate to apply for registration 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. If you wish to practice in other countries, including Canada and the USA, you need to enquire with each country’s Optometry Registration Board about their specific registration requirements.

New Zealand Graduates

The qualification required for registration in New Zealand as an Optometrist is the Bachelor of Optometry (BOptom) degree from Auckland. 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. To apply for provisional registration, the NZ Optometrists and Dispensing Opticians Registration Board requires an official academic transcript from the University. This must be applied for through Student Records in the ClockTower.

Overseas Graduates

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

Currently it is possible for optometrists with certain overseas degrees in optometry to sit the competency examinations conducted by the Optometry Council of Australia and New Zealand. Those completing this examination are eligible to apply for registration to practice in New Zealand. Alternatively, overseas optometrists may complete the five-year BOptom degree at Auckland. If entry into the Auckland BOptom programme is granted, credit may be given for previous study.

Website: www.ocanz.org

New Zealand Masters or PhD qualifications in Optometry or in Vision Science are not accepted for registration as an Optometrist in New Zealand.
The Department of Optometry and Vision Science

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). Staff in the department also offer Continuing Education Programmes.

Physical address
The Department of Optometry and Vision Science is located in Building 503, Level 3
The University of Auckland, Grafton Campus
85 Park Road
Grafton
Auckland

Postal Address
Department of Optometry and Vision Science
Faculty of Medical and Health Sciences
The University of Auckland
Private Bag 92019
Auckland 1142, New Zealand
Phone: +64 9 923 9925
Email: manager-optometry@auckland.ac.nz
Website: www.optometry.auckland.ac.nz

Facilities
In addition to excellent teaching and laboratory facilities, clinical teaching facilities are located on the Grafton Campus, and on 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 has become a standard part of patient examinations and report preparation.

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 screen based equipment. 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 twenty-four examination and four specialist consulting rooms. Patients include staff and students of the University as well as 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.

Admission criteria for the BOptom

New Zealand and Australian Citizens and Permanent Residents
Entry to Part II of the programme is limited. Applicants are considered through one of two entry pathways: the undergraduate entry pathway, the graduate entry pathway.

Five places are available for applicants of Māori and Pacific Island descent if they meet the required academic criteria. To be considered for these places Māori and Pacific Island applicants would apply through the Māori and Pacific Admission Selection (MAPAS) scheme which will involve an initial interview by MAPAS staff.

Following confirmation of their MAPAS eligibility, applicants’ academic records will be subject to consideration by the Optometry Admissions Committee.

Māori and Pacific Admission Scheme (MAPAS)

Applicants wishing to study Optometry must complete the first year of the Bachelor of Science (Biomedical Science) degree at The University of Auckland or equivalent from The University of Otago, or have completed a bachelor degree and apply as a graduate.

An optometry programme interview may be required for graduate applicants in January. Applicants who are invited to an interview will be assessed on personal attributes considered by the Faculty to be important for those wishing to pursue a career in optometry including maturity, communication skills, awareness and knowledge, career choice and well-roundedness.

- Stage 1 BSc (Biomedical Science) and Alternative Admission applicants applying to Optometry under MAPAS will be required to attend a MAPAS Optometry Interview in December.
- The MAPAS Optometry Interview will assess each candidate using six domains – academic, whānau/family, culture, problem solving, awareness and knowledge of MAPAS. This interview will be with a MAPAS academic representative.
Undergraduate entry pathway

This pathway is open to applicants who are New Zealand Citizens, or have permanent resident status, and who have completed the following six pre-requisite courses at the University of Auckland. These courses are usually taken within the BSc - Biomedical Science programme:

- BIOSCI 101 Essential Biology: From Genomes to Organisms Semester One
- BIOSCI 107 Biology for Biomedical Science: Cellular Processes and Development Semester One
- BIOSCI 106 Foundations of Biochemistry Semester Two
- CHEM 110 Chemistry of the Living World Semester One and Semester Two
- PHYSICS 160 Physics for the Life Sciences Semester One and Semester Two
- or PHYSICS 120 Physics of Energy
- MEDSCI 142 Biology for Biomedical Science: Organ Systems Semester Two

The additional 30 points of courses required for full time enrolment can be completed from any other courses listed in the Bachelor of Science schedule.

It is recommended that a 15 point General Education course be part of these 30 points.

POPLHLTH 111 may be included as part of these 30 points.

It is currently possible to undertake an equivalent first year at Otago University by completing their Health Sciences First Year Programme.

The required Otago papers are: BIOC 192, CELS 191, CHEM 191, HEAL 192, HUBS 191, HUBS 192 and PHSI 191.

Other New Zealand universities do not currently offer equivalent courses at first year level.

Selection process

Applicants through this entry pathway will be ranked on their GPA/GFE equivalents across the six prerequisite courses. Interviews are not normally required.

It is usual for the University to receive application numbers considerably in excess of the number of places so selection is very competitive. The current Grade Point Average for successful applicants is at least 6.5. Therefore, students enrolling in the first year Biomedical Science programme will need to achieve high grades to be considered for entry to the BOptom.

Graduate entry pathway

This pathway is available for graduates with Bachelor Degrees. Please consult the Department for details of preferred degrees (usually science-based) and for advice if your degree is not recent.

Selection process

The selection process for applications in this pathway will involve initial ranking of students by grade point average. Top ranked candidates are offered an individual interview in December or 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 is available to overseas students who meet the criteria set by the University of Auckland. Applications are considered throughout the year and offers of places can be through either the undergraduate or graduate entry pathways. Study towards the Post-graduate Diploma, Masters and PhD degrees is 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

“...When I finished high school, I knew I was looking for a career that would draw on a scientific background, but also would require successful communication and people skills to deliver these ideas. The Bachelor of Optometry, epitomised by the amalgamation of both communication/arts and science, presented me with a dynamic opportunity to do both.

“You not only have to understand the science behind the principles involved, you also require the skills to clearly and effectively communicate this information across to the patient. Most people regard vision as one of their most important senses—so it’s great to be able to directly influence and protect the health of something people value so highly.”

John Boyle is studying for a Bachelor of Optometry.

Credit and concessions for students entering the BOptom

Please refer to the Credit regulations in the University of Auckland Calendar:

- if you are transferring from another NZ university.
- if you have undertaken previous study at Auckland and apply for credit at the time of enrolment.

If you are an International Student credit will be assessed and granted at time of application.
Programme information

Undergraduate

Overview of Bachelor of Optometry degree

The Bachelor of Optometry programme is a set programme that consists of five years of undergraduate study at the University of Auckland.

The first year, Part I, comprises the six prerequisite courses from the BSc Biomedical Science first year and the 30 points of other courses detailed below.

Details about the BSc Biomedical Science first year can be found at www.science.auckland.ac.nz/uoa/biomedical-science-ug

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 below).

Parts IV and V of the programme are largely devoted to clinical practice, including comprehensive eye examinations, specialist clinics in eye disease, contact lens fitting, problems of the partially sighted, colour vision assessment and binocular vision problems.

The BOptom 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.

Important BOptom regulations (from the University Calendar)

*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.*

Points structure

The Bachelor of Optometry is a five year degree (600 points). The courses completed under BScs (Biomedical Science) prior to selection for Part II of the degree are transferred to the BOptom if you are selected. These form all of Part I if you have completed 120 points.

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

Structure of the Bachelor of Optometry degree

The University of Auckland academic year consists of two semesters. 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

On entering Part II of the degree, a student must have taken or have been credited 120 points of courses as follows:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOSCI 101</td>
<td>Essential Biology: From Genomes to Organisms</td>
<td>15</td>
</tr>
<tr>
<td>BIODCI 106</td>
<td>Foundations of Biochemistry</td>
<td>15</td>
</tr>
<tr>
<td>BIOSCI 107</td>
<td>Biology for Biomedical Science: Cellular Processes and Development</td>
<td>15</td>
</tr>
<tr>
<td>CHEM 110</td>
<td>Chemistry of the Living World</td>
<td>15</td>
</tr>
<tr>
<td>PHYSICS 160</td>
<td>Physics for Life Science, or PHYSICS 120 Physics of Energy</td>
<td>15</td>
</tr>
<tr>
<td>MEDSCI 142</td>
<td>Biology for Biomedical Science: Organ Systems</td>
<td>15</td>
</tr>
</tbody>
</table>

Plus
- 15 points from General Education courses listed in the Open or EMHSS Schedule.
- 15 points from the BSc schedule compatible with the Biomedical Science programme or POPLHHTH 111.

General education

Most students are required to take two courses (30 points) from the General Education schedules, Open (O) and Engineering, Medical and Health Sciences, Science (EMHSS) during Parts I and II of their optometry studies. The courses 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 give you that broader knowledge. For more information visit: www.auckland.ac.nz/generaleducation
BOptom Part II

A student must take all of the following courses:

- **OPTOM 215**  
  OPTICS OF THE EYE  
  Semester Two  
  15 points

- **OPTOM 220**  
  CLINICAL IMAGING AND EVALUATION TECHNIQUES  
  Semester Two  
  15 points

- **OPTOM 262**  
  OPTICS OF LENSES AND LENS SYSTEMS  
  Semester One  
  15 points

- **OPTOM 265**  
  PHYSICAL OPTICS  
  Semester Two  
  15 points

- **OPTOM 272 A & B**  
  VISUAL SCIENCE 1: STRUCTURE AND FUNCTION OF THE VISUAL SYSTEM  
  Semester One and Semester Two  
  30 points

- **MEDSCI 203**  
  MECHANISMS OF DISEASES  
  Semester One  
  15 points

Plus one 15 point General Education Course (see note under Part I)

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 314 A & B**  
  OPTOMETRY  
  Semester One and Semester Two  
  30 points

- **OPTOM 345 A & B**  
  PRINCIPLES OF OCULAR PHARMACOLOGY  
  Semester One and Semester Two  
  15 points

- **OPTOM 353 A & B**  
  OCULAR PATHOLOGY  
  Semester One and Semester Two  
  15 points

- **OPTOM 366 A&B**  
  APPLIED OPTICS AND DISPENSING  
  Semester One and Semester Two  
  30 points

- **OPTOM 375 A & B**  
  VISUAL SCIENCE 2  
  Semester One and Semester Two  
  15 points

- **MEDSCI 202**  
  MICROBIOLOGY AND IMMUNOLOGY  
  Semester One  
  15 points

BOptom Part IV

A student must take all of the following courses:

- **OPTOM 416 A & B**  
  CLINIC OPTOMETRY  
  Semester One and Semester Two  
  30 points

- **OPTOM 430 A & B**  
  CONTACT LENS PRACTICE  
  Semester One and Semester Two  
  15 points

- **OPTOM 441 A & B**  
  OPTOMETRY FOR SPECIAL POPULATIONS  
  Semester One and Semester Two  
  30 points

- **OPTOM 450 A & B**  
  DISEASES OF THE EYE AND VISUAL SYSTEM: DIAGNOSIS AND MANAGEMENT  
  Semester One and Semester Two  
  30 points

- **OPTOM 472 A & B**  
  VISUAL SCIENCE 3  
  Semester One and Semester Two  
  15 points

BOptom Part V

A student must take all of the following courses:

- **OPTOM 510 A & B**  
  ADVANCED CLINICAL OPTOMETRY 1  
  Semester One and Semester Two  
  30 points

- **OPTOM 520 A & B**  
  ADVANCED CLINICAL OPTOMETRY 2  
  Semester One and Semester Two  
  30 points

- **OPTOM 560 A & B**  
  OPTOMETRY IN PRACTICE  
  Semester One and Semester Two  
  30 points

- **OPTOM 570 A & B**  
  RESEARCH IN ADVANCED OPTOMETRIC SCIENCE  
  Semester One and Semester Two  
  30 points
Undergraduate course prescriptions

The University of Auckland academic year consists of two semesters. 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.

Bachelor of Optometry Part II

OPTOM 215  Optics of the Eye  15 points
Semester Two
Course Coordinator: Dr Misha Vorobyev

OPTOM 220  Clinical Imaging and Evaluation Techniques  15 points
Semester Two
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  Optics of Lenses and Lens Systems  15 points
Semester One
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  Physical Optics  15 points
Semester Two
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

Semester One and Semester Two
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 & B.
Restriction: OPTOM 151, 170, 171
Course Coordinator: Dr Benjamin Thompson

OPTOM 292 A & B Issues in Optometry  15 points
Semester One and Semester Two
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 & B

MEDSCI 203  Mechanisms of Disease  15 points
Semester One
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.

Bachelor of Optometry Part III

OPTOM 314 A & B  Optometry  30 points
Semester One and Semester Two
A clinically-focused course introducing students to the wide-ranging scope of optometric practice. Both the theoretical basis and clinical practice of the optometric examination will be addressed in lectures and skills-based practical sessions. Topics covered include: introduction to the optometric examination: vision and visual acuity, visual fields, colour vision, slit lamp biomicroscopy, ophthalmoscopy, the refractive examination using both objective and subjective methods, near visual examination, routine binocular examination, history taking, communication skills and clinical problem solving.
Restriction: 450.210, 450.220, OPTOM 211
To complete this course student must enrol in OPTOM 314 A & B.

Enrolment in laboratory streams on Student Services Online is for administrative purposes only and places in a particular laboratory stream cannot be guaranteed prior to the commencement of a course as we need to ensure all students have access to equipment and teaching staff during laboratory times. Tutorials, labs and clinic streams will be finalized by the Course Controller and confirmed on CECIL early each semester.
Course Coordinator: Dr Nicola Anstice
OPTOM 345 A & B  Principles of Ocular Pharmacology: General Principles of Pharmacology
15 points
Semester One and Semester Two
Prerequisite: OPTOM 272
Restriction: OPTOM 241, 361, 245
To complete this course students must enrol in OPTOM 345 A & B.
Course Coordinator: Dr John Phillips

OPTOM 353 A & B  Ocular Pathology
15 points
Restriction: OPTOM 251
To complete this course students must enrol in OPTOM 353 A & B.
Course Coordinator: Dr John Phillips

OPTOM 366 A & B  Clinical Optics and Dispensing
30 points
Semester One and Semester Two
An integrative approach to optical theory and its clinical application, particularly in the areas of correction of refractive error and dispensing of optical appliances. Topics addressed include, optical measurement of refractive error by objective and subjective techniques, optical correction of refractive error, ophthalmic lens materials, coatings and treatments. Optics of ophthalmic lenses, including advanced multifocal lens design. Magnification, aberrations, and lens design. Optical instrumentation and clinical application.
To complete this course students must enrol in OPTOM 366 A & B.
Course Coordinator: Mr Andrew Collins

OPTOM 375 A & B  Visual Science 2
15 points
Semester One and Semester Two
To complete this course students must enrol in OPTOM 375 A & B.
Course Coordinator: Dr Ben Thompson

OPTOM 392 A & B  Issues in Optometry 2
15 points
Semester One and Semester Two
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 & B.

MEDSCI 202  Microbiology and Immunology
15 points
Semester One
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.

Bachelor of Optometry Part IV

OPTOM 416 A & B  Clinical Optometry
30 points
Semester One and Semester Two
This course facilitates the transition from student to professional optometrist. Topics addressed include, structuring the routine optometric examination in a clinical setting, diagnosis and management of disorders of the visual system, case analysis, myopia control, visual ergonomics, vision screening, and visual standards. This course culminates in students examining and managing clients in the public University Clinics under supervision.
To complete this course students must enrol in OPTOM 416 A & B.
Restriction: OPTOM 430
Course Coordinator: Associate Professor Rob Jacobs

OPTOM 430 A & B  Contact Lens Practice
15 points
Semester One and Semester Two
To complete this course students must enrol in OPTOM 430 A & B.
Restriction: OPTOM 330
Course Coordinator: Wanda Lam

OPTOM 441 A & B  Optometry for Special Population
30 points
Semester One and Semester Two
An advanced consideration of the anatomy, physiology and modelling of normal and abnormal eye-movement systems. Topics include, developmental aspects of infant and children’s vision and eye coordination, visual examination of infant and child patients, investigation and management of idiosyncratic and acquired binocular eye-movement disorders. This course also explores the diagnosis and management of ocular and vision problems in the elderly including electronic, optical and non-optical low vision appliances.
To complete this course students must enrol in OPTOM 441 A & B.
Course Coordinator: Dr Joanna Black
OPTOM 450 A & B  Diseases of the Eye and Visual System: Diagnosis and Management  30 points
Semester One and Semester Two
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 & B.
Course Coordinator: Mr Andrew Collins

OPTOM 472 A & B  Visual Science 3  15 points
Semester One and Semester Two
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, analysing 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 & B.
Course Coordinator: Dr Misha Vorobyev

OPTOM 492 A & B  Issues in Optometry 3  15 points
Semester One and Semester Two
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 492 A & B.

Bachelor of Optometry Part V

OPTOM 510 A & B  Advanced Clinical Optometry 1  15 points
Semester One and Semester Two
Clinical work with responsibility, under supervision, for patients.
To complete this course students must enrol in OPTOM 510A & B.
Course Coordinator: Dr Geraint Phillips

OPTOM 520 A & B  Advanced Clinical Optometry 2  30 points
Semester One and Semester Two
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 520 A & B.
Course Coordinator: Dr Geraint Phillips

OPTOM 560 A & B  Optometry in Practice  30 points
Semester One and Semester Two
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 & B.
Course Coordinator: Dr Geraint Phillips

OPTOM 570A & B  Research in Advanced Optometric Science  30 points
Semester One and Semester Two
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 & B.
Prerequisite: Enrolment in part IV of the Optometry Programme.
Restriction: OPTOM 470, 475, 480
Course Coordinator: Dr Monica Acosta

OPTOM 592 A & B  Issues in Optometry 4  15 points
Semester One and Semester Two
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 & B.

Important information for undergraduates

Additional costs (equipment, instruments, insurance and books)
The total cost of pursuing the undergraduate 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. Current estimates of these additional costs 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.

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 Check
Prior to entering Part IV of the BOptom programme it is necessary to obtain a Police Clearance Check. This is a compulsory requirement. Also a signed confidentiality agreement is required to be submitted covering patient information.

Consent forms will need to be completed by students and returned to the department. Faculty staff will obtain the police clearance check for students.

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 One of Part III 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, VZV (chickenpox) 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 which are provided free for students in Part III or higher.

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
Phone: 923 6962

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.

Assessment information

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.
Forms of 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 information about examinations scripts (p.13).

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.

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. For example, in the reference list:


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 and assessment

If you believe you have special needs for your assessment, please see the Student Centre in the first instance for advice on the current University requirements for granting of Special Examination Conditions.

Deferred results

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

• OPTOM 416A & B Contact Lens Practice and
• OPTOM 441A/B Optometry for Special Populations and
• OPTOM 510A & B Advanced Clinical Optometry 1
• OPTOM 520A & B Advanced Clinical Optometry 2
• OPTOM 560A & B Optometry in Practice

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.
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. In the fourth month the original script can be requested.

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.

Awards of marks and grades

Requirements for Honours

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

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

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%

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.

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 (FMHS Student Centre).

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.

“I have always had an interest in the health profession and optometry will give me the chance to make a difference in the community, while having the flexibility to work independently.”

“I chose the University of Auckland because I knew experts within the optometry department regularly conduct research and continually make improvements to the field of optometry. The great thing about studying at Grafton Campus is we have direct access to one of the biggest optometry clinics in Auckland when we come to start our clinic work.”

Alexandra Koutsokeras is studying for a Bachelor of Optometry.
Undergraduate scholarships and prizes in optometry

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 $1,000 to be presented to the top student entering BOptom Part III with the highest aggregate mark in Part II whilst not repeating Part II.

b. Two Awards of $1,000 – each one to be presented to a student entering BOptom Part IV. One Award will be made to the student gaining the highest aggregate mark in Part III whilst not repeating Part III, and one award will be made to the student showing most improvement during study for Part III whilst not repeating Part III.

c. Three Awards of $1,000 – each one to be presented to a student entering BOptom Part V. Two Awards will be made to the students gaining the top two aggregate marks in Part IV whilst not repeating Part IV, and one award will be made to the student showing most improvement during study for Part IV whilst not repeating Part IV.

d. One Award of $1,000 to be presented to a Māori/Pacific Island student entering BOptom Part II. In the event of more than one Māori/Pacific Island student entering BOptom Part II, the award will go to the eligible student gaining the highest GPE in the previous year.

No applications for the above awards are necessary.

CIBA Vision Prize
The Scholarship was established in 2011 and is funded by Ciba Vision. The main purpose of the Scholarship is to recognise a high-achieving student entering their final year of the Bachelor of Optometry degree who is also an all-round achiever.

a. One Scholarship will be awarded annually, for a period of one year, and will be of the value of AUD 3,000.

b. The Scholarship will be awarded to the BOptom candidate who has paid the fees, or arranged to pay the fees, for full-time enrolment in Part V of the Bachelor of Optometry degree.

c. The Scholarship is tenable by domestic and international students.

d. The basis of selection will be academic merit and evidence of excellence or all round achievement in fields outside Optometry. This may include, but is not restricted to: volunteer work, sporting achievements and artistic excellence.

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 $500.

Senior Scholarship
The University Council on the recommendation of the Department of Optometry and Vision Science awards a Scholarship to the value of $100.00 to a student, based on the results of the candidates work in Part V, being not less than Grade A-quality.

Senior Prize
The University Council on the recommendation of the Department of Optometry and Vision Science awards a prize to the value of $50.00 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
The University Council on the recommendation of the Department of Optometry and Vision Science awards a $50.00 prize 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.

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

Raymond Harry Hawkins Prize
Awarded for the best project in Course OPTOM 570 to the value of $500.00

New Zealand College of Optometrists (NZCO) Prize
Prizes will be awarded annually to full-time students achieving the highest marks for their presentations in OPTOM 570. 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 in the event of a tie, the Head of the Department of Optometry and Vision Science shall determine if the prizes may be shared.
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).

For further information
Email: tpa.optometry@auckland.ac.nz

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.

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.

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)

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.

Note: 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.

By research

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

Taught Masters

Students are required to pass 120 points:
OPTOM 791 (90 points) and OPTOM 757 (30 points)

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.

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.

Students are required to enrol in and pass 120 points:

Postgraduate Diploma in Science (PGDipSci) student Lisa Hamm is currently working on harnessing neuroplasticity for visual rehabilitation in deprivation amblyopia. Lisa completed a Masters in Neuroscience at the University of British Columbia, and then worked at the Canadian National Institute for the Blind as a Low Vision Specialist. She read Dr Ben Thompson's research on amblyopia, and it seemed to be an excellent fit for her interests.

In addition to the research being fascinating, the department was supportive of the interdisciplinary nature of her academic interests.

“My supervisors, lab mates and the other staff I work with on a daily basis came from a wealth of different backgrounds, and are knowledgeable, approachable, and a pleasure to interact with. It’s a real privilege to get to do the research I’m passionate about in such a supportive environment.”

Optometry and Vision Science PhD student Lisa Hamm is currently working on harnessing neuroplasticity for visual rehabilitation in deprivation amblyopia. Lisa completed a Masters in Neuroscience at the University of British Columbia, and then worked at the Canadian National Institute for the Blind as a Low Vision Specialist. She read Dr Ben Thompson’s research on amblyopia, and it seemed to be an excellent fit for her interests.

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Postgraduate course prescriptions

OPTOM 756 Special Topic in Vision Science  15 points
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.

OPTOM 757A & B Special Topic in Optometry  30 points
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& B.

OPTOM 781 Principles of Ocular Disease  30 points
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 Ocular Disorders and their Management  30 points
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 787 A & B Clinical Ocular Therapeutics  30 points
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.

OPTOM 791  90 points

OPTOM 791 A  45 points

OPTOM 791 B  45 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.

To complete this course students must enrol in OPTOM 791 A and B, or OPTOM 791.

OPTOM 796  120 points

OPTOM 796 A  60 points

OPTOM 796 B  60 points

MSc Thesis in Optometry
To complete this course students must enrol in OPTOM 796 A & B.

Scope of Practice for Optometrists (TPA Endorsement)
Optometrists with New Zealand BOptom qualifications obtained prior to 2006 are able to undertake three postgraduate courses: OPTOM 781, OPTOM 784 and OPTOM 787 (90 points) to gain the requirements for registration with the Optometrists and Dispensing Opticians Board as an optometrist with TPA Endorsement.

The completion of an additional 30 points (optional) would fulfil the 120 requirements for a Postgraduate Diploma of Science qualification.
Postgraduate scholarships in optometry

**HC Russell Memorial Postgraduate Scholarship**
The New Zealand Association of Optometrists (previously the New Zealand Optometrical Association) established this Scholarship in memory of Mr Harry C. Russell in recognition of his services to the advancement of optometric education in New Zealand.

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.
Senior Lecturer Misha Vorobyev PhD
Email: m.vorobyev@auckland.ac.nz
Phone: +64 9 923 6591

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 9 923 6020

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 9 923 6069

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.

Senior 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 Joanna Black PhD, Auckland  
Email: j.black@auckland.ac.nz  
Phone: +64 9 923 2405

Dr Black teaches in the areas of clinical optometry and binocular vision. She is involved in teaching the undergraduate binocular vision and ocular pathology courses as well as supervision within the optometry clinic. Her research interests include visual development and rehabilitation, including the diagnosis and treatment of amblyopia.

Senior Tutor Andrew Collins MSc, BOptom, CertOcPharm, TPA qualified  
Email: a.collins@auckland.ac.nz  
Phone: +64 9 923 6484

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 Jason Turuwhenua PhD, Waikato  
Email: e.j.turuwhenua@auckland.ac.nz  
Phone: +64 9 923 5807

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.

Lecturer Ehsan Vaghefi PhD, Auckland  
Email: e.vagheti@auckland.ac.nz  
Phone: +64 9 923 3174

Dr Vaghefi obtained his PhD from Auckland Bioengineering Institute, researching the nutritional supply system and the optical homeostasis of the ocular lens, with a long term goal of understanding the molecular and physiological basis of the onset and progression of cataracts. He currently holds a joint appointment as a lecturer in Physiological Optics (Department of Optometry and Vision Sciences) and a research fellow (Molecular Vision Lab and Auckland Bioengineering Institute). His appointment is a strategic initiative to develop a joint research led teaching programme in Physiological Optics. He is utilizing his set of expertise in quantitative ocular imaging and computational modelling to create a digital tool to aid in the development of effective preventive therapies to combat cataracts, the leading cause of blindness worldwide.

Professional Teaching Fellows – Clinic 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  
Ken Robertson OD MSc PhD  
Melinda Calderwood BOptom, GDipSci  
Richard Johnson BOptom  
Tom Cossick OD  
Wanda Lam OD ,BSc

Senior Research Fellow  
Julie Lim, PhD

Postdoctoral Research Fellows  
Irene Vorontsova, PhD  
Simon Backhouse, PhD  
Cindy Xiaopeng, MBS

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Important dates

<table>
<thead>
<tr>
<th>Closing date for applications for admission 2014 and 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application for Admission closes for all students applying to Optometry and Vision Science.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Academic Year dates</th>
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<tbody>
<tr>
<td><strong>Semester One - 2014</strong></td>
</tr>
<tr>
<td>Semester One begins</td>
</tr>
<tr>
<td>Mid-semester break/Easter</td>
</tr>
<tr>
<td>ANZAC Day</td>
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<tr>
<td>Graduation</td>
</tr>
<tr>
<td>Queen's Birthday</td>
</tr>
<tr>
<td>Lectures end</td>
</tr>
<tr>
<td>Study break</td>
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<tr>
<td>Examinations</td>
</tr>
<tr>
<td>Semester One ends</td>
</tr>
<tr>
<td>Inter-semester break</td>
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<table>
<thead>
<tr>
<th><strong>Semester Two - 2014</strong></th>
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</thead>
<tbody>
<tr>
<td>Semester Two begins</td>
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<tr>
<td>Mid-semester break</td>
</tr>
<tr>
<td>Graduation</td>
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<tr>
<td>Lectures end</td>
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<tr>
<td>Labour Day</td>
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<tr>
<td>Study break</td>
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<tr>
<td>Examinations</td>
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<table>
<thead>
<tr>
<th><strong>Semester One - 2015</strong></th>
</tr>
</thead>
<tbody>
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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 University of Auckland Calendar 2014, to ensure that they are aware of and comply with all regulations, requirements and policies.

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