

OPTM3105

DISEASE PROCESSES OF THE EYE 1

Course Outline
Term 1, 2023

School of Optometry and Vision Science
Faculty of Medicine & Health

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1. Staff

Position	Name	Email	Consultation times and locations	Contact Details
Course Convenor	Scientia A/Prof Nicole Carnt	n.carnt@unsw.edu.au	Monday online drop in; Via email	Via email
Additional Teaching Staff	Dr Parthu Kalaiselvan	p.kalaiselvan@unsw.edu.au	Via email	Via email

2. Course information

Units of credit: 6 UOC

Pre-requisite(s): VISN2111

Teaching times and locations: BB Collaborate Online Live Lunch Drop in Monday 12noon-1pm, Face to Face webinars Old Main Building 149 Wednesdays 9am-11am; Tutorials Weeks 3, 7, 10 Friday: 9am-11am, 11am-1pm Mathews 103.

2.1 Course summary

This course provides an introduction to the underlying processes that lead to the development of disease in the ocular system. The role of microorganisms in the development of infection, of the immune system in the development of inflammation and autoimmunity, and of genetic predispositions leading to inherited diseases will be discussed to provide a foundation in disease pathophysiology. This course will also present diseases which affect the eye and associated structures with regards to their underlying pathophysiology leading to the clinical presentation. Students will become versed with appropriate medical terminology to accurately describe the signs and symptoms of diseases and develop their ability to conduct differential diagnosis by integrating case presentations with epidemiological knowledge.

2.2 Course aims

This course aims to introduce the disease processes of ocular disease including infection, inflammation, congenital, iatrogenic and developmental disorders. The clinical description of signs and symptoms and epidemiology of ocular disease encountered by optometrists will be discussed. Students will be taught to utilize clinical descriptors to perform differential diagnosis. This course will ensure that students are ready for the clinical courses.

2.3 Course learning outcomes (CLO)

At the successful completion of this course you (the student) should be able to (Refer to Entry level Competencies (ELC) in Kiely PM, Slater J. Optometry Australia Entry-level Competency Standards for Optometry 2014. Clin Exp Optom 2015;98:65-89):

1. Knowledge of the pathophysiology of disease processes (ELC 1.1, 1.2, 1.5, 1.8, 1.10, 1.11, 2.1, 3.2, 3.3, 3.4, 3.7, 3.8, 4.1, 4.2, 4.3, 4.4)
2. Differentiate and describe normal from abnormal eye and adnexa appearance (ELC 1.10, 3.8, 4.1)
3. Differentially diagnose eye and adnexa disease on the basis of the symptoms and signs of the condition (ELC 3.8,4.1, 4.2, 4.4)
4. Describe the epidemiology (incidence, prevalence, risk factors) of eye and adnexa diseases (1.1, 1.2, 1.12)
5. Describe diagnostic tools commonly used in eye examination including indications for use and interpretation of results (ELC 1.1, 2.4, 4.9)
6. Locate and critically evaluate high quality current information on eye and adnexa disease and its management (ELC 1.3, 1.4, 1.6, 3.3, 4.4, 4.11)
7. Communicate orally and in a written fashion to patients and allied health professionals in a precise and informative way (ELC 1.3, 1.4, 1.5, 1.6, 4.11)
8. Integrate knowledge gained in other optometry courses and the current course

2.4 Relationship between course and program learning outcomes and assessments

Program Learning Outcomes (PLO) (3181 – Vision Science

<http://www.handbook.unsw.edu.au/undergraduate/programs/2018/3181.html> and 3182 - Vision Science/Clinical Optometry

<http://www.handbook.unsw.edu.au/undergraduate/programs/2018/3182.html>) can be found on the UNSW Handbook

Course Learning Outcome (CLO)	LO Statement	Program Learning Outcome (PLO)	Related Tasks & Assessment
CLO 1	Knowledge of the pathophysiology of disease processes (ELC 1.1, 1.2, 1.5, 1.8, 1.10, 1.11, 2.1, 3.2, 3.3, 3.4, 3.7, 3.8, 4.1, 4.2, 4.3, 4.4)	PLO 3181: 1, 2, 3, 7 PLO 3182: 1, 2, 3, 4, 5, 6, 8	MCQ Tests, Fact Sheets, PBL Sessions, Final Exam
CLO 2	Differentiate and describe normal from abnormal eye and adnexa appearance (ELC 1.10, 3.8, 4.1)	PLO 3181: 1-7 PLO 3182: 1-8	MCQ Tests, Fact Sheets,

			PBL Sessions, Final Exam
CLO 3	Differentially diagnose eye and adnexa disease on the basis of the symptoms and signs of the condition (ELC 3.8,4.1, 4.2, 4.4)	PLO 3181: 1-7 PLO 3182: 1-8	MCQ Tests, Fact Sheets, PBL Sessions, Final Exam
CLO 4	Describe the epidemiology (incidence, prevalence, risk factors) of eye and adnexa diseases (1.1, 1.2, 1.12)	PLO 3181: 1, 2, 3, 6, 7 PLO 3182: 1, 2, 3, 4, 5, 6, 8	MCQ Tests, Fact Sheets, PBL Sessions, Final Exam
CLO 5	Describe diagnostic tools commonly used in eye examination including indications for use and interpretation of results (ELC 1.1, 2.4, 4.9)	PLO 3181: 1-7 PLO 3182: 1-8	MCQ Tests, Fact Sheets, PBL Sessions, Final Exam
CLO 6	Locate and critically evaluate high quality current information on eye and adnexa disease and its management (ELC 1.3, 1.4, 1.6, 3.3, 4.4, 4.11)	PLO 3181: 1-7 PLO 3182: 1-8	MCQ Tests, Fact Sheets, PBL Sessions, Final Exam
CLO 7	Communicate orally and in a written fashion to patients and allied health professionals in a precise and informative way (ELC 1.3, 1.4, 1.5, 1.6, 4.11)	PLO 3181: 1, 2, 3, 4, 6, 7 PLO 3182: 1, 2, 3, 6, 7, 8	Fact Sheets, PBL Sessions
CLO 8	Integrate knowledge gained in other optometry courses and the current course	PLO 3181: 1-8 PLO 3182: 1-8	MCQ Tests, Fact Sheets, PBL Sessions, Final Exam

3. Strategies and approaches to learning

3.1 Learning and teaching activities

To maximise learning effectiveness, a number of strategies are used in this course to encourage critical thinking and deep learning of the topics and issues. This course consists of a combination of didactic, group tutorials and self-directed home study. Throughout this course we will use:

- The course content to develop clinical diagnostic strategies
- Practical classes and case examples to develop your ability to source and select relevant, recent, evidence-based literature
- Class discussions to develop your ability to critically review the literature and your knowledge of seminal Ocular Diseases papers
- Formal evaluations to continuously evaluate your differential diagnosis skills
- Invited lecturers to develop multi-disciplinary management strategies and discuss broader issues relating to disability, public health, and co-management

The Moodle component of this course provides access to course notes, compulsory and optional readings, useful on-line resources, additional case reports and a venue for optional student on-line discussions.

3.2 Expectations of students

Students are reminded that UNSW recommends that a 6 units-of-credit course should involve about 150 hours of study and learning activities. The formal learning activities total approximately 50 hours throughout the term and students are expected (and strongly recommended) to do at least the same number of hours of additional study.

Attendance

Some components of this course are compulsory, and you are expected to attend. Attendance at compulsory course components will be monitored by taking a roll / asking attendees to sign an attendance register. You may lose marks from your final course mark for non-attendance unless you submit an application for special consideration and provide appropriate documentation.

The compulsory course components, and the justification for their compulsory nature, are as follows:

- All examinations must be attended to be given a grade and to evaluate progression through this course.

Attendance registers:

In courses where signature on an attendance register is used to monitor attendance, all enrolled students must provide a specimen signature on a central School register by the end of the first week of semester. The central register will be overseen by Dr Dale Larden/Paul Zytznik. Please bring your student card with you when providing your specimen signature. Only one variant of your signature may be used on the central register and on all attendance registers.

Attempts to falsify the central register or attendance registers will be managed under UNSW Student Misconduct Procedures:

<https://www.gs.unsw.edu.au/policy/documents/studentmisconductprocedures.pdf>

The University uses email as an official form of communication for students. All UNSW students have their own email account. The School of Optometry and Vision Science will also make use of this form of communication.

It is extremely important that you know how to use your Zmail and ensure that you check it regularly. You are advised to link your official UNSW email address to your habitual email address (e.g. hotmail). You will miss out on vital information from the School and University if you do not check your Zmail.

For more information or if you are having connection or access problems, see:

IT Service Centre

<https://www.myit.unsw.edu.au/>

Telephone: 02 9385 1333

Contact Us: <https://www.myit.unsw.edu.au/contact-us>

4. Course schedule and structure

Some of this information is available on the [Online Handbook](#)¹ and the [UNSW Timetable](#)².

BB Collaborate Online Live Lunch Drop in Monday 12noon-1pm

Week	Face to Face (F2F) Interactive Lecture (IL) Wednesday 9am-11am (Old Main Building 149)	Pre-recorded lectures (Moodle)/Evaluations	Practical/Tutorial (Mathews 103)
Week 1	F2F IL 1 Microbiology, Immunology and Differential Diagnosis Dr Rajesh Kuppasamy/Dr Simin Masoudi/A/Prof Nicole Carnt	Microbiology Lectures 1-5 Basics of Immunology Diagnosis & Differential Diagnosis	P1 Prework: Fact sheet 1 task released
Week 2	No F2F IL or BB Collaborate Mon 12-1 Drop In	Adnexia Lectures 1-5	
Week 3	F2F IL 2 Directed Investigations, Eyelids and Eyelashes A/Prof Michele Madigan/ A/Prof Nicole Carnt	Lacrimal System Orbital Disorders (1 & 2) Conjunctiva (1-3)	Practical 1: Diagnosis and differentials: Fact sheet 1
Week 4	F2F IL 3 Lacrimal System, Orbit and Conjunctiva TBA A/Prof Nicole Carnt	Midterm Test –Friday 10th March 2023 2PM- 4PM Pupil Reactions Iris and Ciliary Body	P2 Prework: Fact sheet 2 task released
Week 5	F2F IL 4 Pupils, Iris and Ciliary Body Ms Rebecca Deng/ A/Prof Nicole Carnt	Non viral Microbial Keratitis (1-3) Corneal Herpetic Disease Corneal Dystrophies	
Week 7	F2F IL 5 Corneal Infection and Inflammation Prof Fiona Stapleton/ A/Prof Nicole Carnt	Uveitis (1-4)	Practical 2: Diagnosis and differentials: Fact sheet 2
Week 8	F2F IL 6 Uveitis Mr Michael Yapp/ A/Prof Nicole Carnt	Trauma (1&2) Episclera/Sclera Red Eye and Emergencies	P3 Prework: Interview a friend/relative who has had either cataract or refractive surgery.
Week 9	F2F IL 7 Trauma, Red Eye, Emergencies Ms Lily Ho/ A/Prof Nicole Carnt No BB Collaborate Mon 12-1 Drop In as Easter	Lens (1-3) Dry Eye	
Week 10	F2F IL 8 Lens, Dry Eye Prof Isabelle Jalbert	Revision	Practical 3: Cataract and Refractive surgery

Exam Period: 28 April – 11 May

School managed supplementary exams period:

FOR TERM 1:

- STAGE 1-4* COURSES: WEDNESDAY, 17 MAY 2023 – FRIDAY, 19 MAY 2023
- THERE WILL BE NO SUPPLEMENTARY EXAMINATIONS FOR STAGE 5 STUDENTS IN TERM 1 2023

Supplementary examinations will be held at the scheduled time only. If students who are granted supplementary examinations do not attend, a failure will be recorded for that course. **Students should not make travel arrangements, or any other commitments, before establishing whether or not they have supplementary examinations. Ignorance of these procedures, interstate, overseas or any other absence will not be accepted as an excuse. But usual Special Consideration still applies.**

If additional assessment is not scheduled, this does NOT indicate whether or not a student has passed or failed the course. Results will be received in the usual way. Please do not contact the School in this regard.

Please note the above applies to OPTM and VISN courses only. Any information on supplementary examinations for servicing courses (e.g. CHEM****) is the responsibility of the School conducting the course.

* Stage 4 includes courses in the first year of the MClinoptom program.

5. Assessment

5.1 Assessment tasks

Task	Length	% of total mark	Due Date
Midterm Test	1.5 hour	25%	See Schedule
Practical A– Disease Fact Sheets	N/A	10%	See Schedule
Practical B– Case Diagnosis Presentation	N/A	10%	See Schedule
Final exam	2 hours	55%	T1 Exam Period

Further information

UNSW grading system: <https://student.unsw.edu.au/grades>

UNSW assessment policy: <https://student.unsw.edu.au/assessment>

IMPORTANT: Assessments may cover ANY part of the course unless otherwise indicated. In addition, assessment may cover any aspect of assumed knowledge specifically or indirectly for this course.

- 1. Midterm Test:** There will be 1 Midterm test worth 25% of your Final Mark. Knowledge-specific questions and clinical cases (including images) may be included in this assessment. Information regarding cases may also be presented including patient history, signs and symptoms; clinical and histopathologic appearance can also be included as appropriate. This assessment will help you continue to further develop in-depth course knowledge and a capacity for analytical and critical thinking and for creative problem solving.
- 2. Tutorials and Disease Fact Sheets:** Tutorial classes are held 3 times during session (Weeks 3, 7 and 10). Assessment is worth 20%. Tutorials will be held in Mathews 103. The class has been divided into two practical classes times. In groups students will be allocated anterior segment eye diseases to work on. The disease fact sheet will contain details on the signs, symptoms, pathogenesis, epidemiology, differential diagnoses, a multiple choice question and references related to your assigned disease. During the tutorials, the groups will present cases and answer questions from their peers and lecturers. A group mark will be assigned for each team for both the Disease Facts sheets (10%) and the Case Presentations (10%). Attendance at these three tutorials is compulsory.
- 3. Final exam:** The final exam will be a comprehensive review of **ALL** material covered in this term and prior assumed knowledge. The exam may be a combination of multiple choice and extended matching. The final exam is worth 55% of your overall mark for the course. This assessment will help you develop an ability to engage in independent and reflective learning, an ability to integrate the range of ocular diseases information into a useful clinical practice tool and help ensure that you are competent to proceed into in future courses in the Vision Science and Optometry program.

The course coordinator is responsible for the calculation of provisional composite marks and a recommendation for action for each student. The Examination Committee comprising senior members of the Faculty and which is chaired by the Head of the School of Optometry and Vision

Science at UNSW meet to review the provisional marks. The Examination Committee meets at the end of each session or at other times in extraordinary circumstances and grades are awarded according to the UNSW assessment policy (<https://student.unsw.edu.au/assessment>). Final composite marks are released to the student via email and myUNSW and students are notified of results and need for possible supplementary examinations (<https://student.unsw.edu.au/results> and <https://student.unsw.edu.au/academic-transcript>).

All submissions, including late submissions, are subject to the School of Optometry and Vision Science Policy on Submission of Assignments (https://www.optometry.unsw.edu.au/files/sovs_policy_for_submission_of_assign_28_2_18.pdf)

5.2 Assessment criteria and standards

Task	Assessment Criteria
Midterm Test	Accurate response
Tutorial Assessments	Ability to source literature, clarity, succinctness, appropriateness and accuracy of answers (verbal or written)
Final exam	Accurate response

5.3 Submission of assessment tasks

Late Submission

UNSW has standard late submission penalties as outlined in the UNSW Assessment Implementation Procedure, with no permitted variation. All late assignments (unless extension or exemption previously agreed) will be penalised by 5% of the maximum mark per day (including Saturday, Sunday and public holidays). For example, if an assessment task is worth 30 marks, then 1.5 marks will be lost per day (5% of 30) for each day it is late. So, if the grade earned is 24/30 and the task is two days late the student receives a grade of 24 – 3 marks = 21 marks.

Late submission is capped at 5 days (120 hours). This means that a student cannot submit an assessment more than 5 days (120 hours) after the due date for that assessment.

Special Consideration

If you experience a short-term event beyond your control (exceptional circumstances) that impacts your performance in a particular assessment task, you can apply for Special Considerations.

You must apply for Special Consideration **before** the start of your exam or due date for your assessment, except where your circumstances of illness or misadventure stop you from doing so.

If your circumstances stop you from applying before your exam or assessment due date, you must **apply within 3 working days** of the assessment, or the period covered by your supporting documentation.

More information can be found on the [Special Consideration website](#).

5.4. Feedback on assessment

Task	Feedback		
	WHO	WHEN	HOW
Midterm Test 1	A/Prof Carnt	Approximately 2 weeks after submission	Marks
Disease Fact Sheets & Case Presentations	A/Prof Carnt	Approximately 2 weeks after submission	Verbal group feedback and marks
Final exam	A/Prof Carnt	Official Grades	Exams section notification

6. Academic integrity, referencing and plagiarism

Referencing is a way of acknowledging the sources of information that you use to research your assignments. You need to provide a reference whenever you draw on someone else's words, ideas or research. Not referencing other people's work can constitute plagiarism.

Please use Vancouver or APA referencing style for this course. Change to referencing style used in your course

Further information about referencing styles can be located at

<https://student.unsw.edu.au/referencing>

Academic integrity is fundamental to success at university. Academic integrity can be defined as a commitment to six fundamental values in academic pursuits: honesty, trust, fairness, respect, responsibility and courage.¹ At UNSW, this means that your work must be your own, and others' ideas should be appropriately acknowledged. If you don't follow these rules, plagiarism may be detected in your work.

Further information about academic integrity and **plagiarism** can be located at:

- The Current Students site <https://student.unsw.edu.au/plagiarism>, and
- The ELISE training site <https://subjectguides.library.unsw.edu.au/elise>

The Conduct and Integrity Unit provides further resources to assist you to understand your conduct obligations as a student: <https://student.unsw.edu.au/conduct>.

7. Readings and resources

Set Texts:

Salmon, John F. *Kanski's Clinical Ophthalmology: A Systematic Approach*. 9th ed. New York: Elsevier/Saunders, 2020.

¹ International Center for Academic Integrity, 'The Fundamental Values of Academic Integrity', T. Fishman (ed), Clemson University, 2013.

This textbook is a comprehensive Ocular Disease Atlas that later becomes an excellent everyday resource in your clinical practice. You can purchase this book through the UNSW bookshop. A copy is held at the UNSW library.

Bagheri, Nika, Brynn N. Wajda, Charles M. Calvo, Alia K. Durrani, Mark A. Friedberg, Christopher J. Rapuano, Wills Eye Hospital, and Ovid Technologies, Inc. *The Wills Eye Manual: Office and Emergency Room Diagnosis and Treatment of Eye Disease*, 2017.

This textbook is a critical reference to aid in the diagnosis, differential diagnosis and management of ocular diseases.

The following are recommended textbooks rather than prescribed:

Bruce, Adrian S., and Michael S. Loughnan. *Anterior Eye Disease and Therapeutics A-Z*, 2011.

Forrester, John V., Andrew D. Dick, Paul G. McMenamin, Fiona Roberts, and Eric Pearlman. *The Eye: Basic Sciences in Practice*. 4th ed. 2016.

Stapleton, Fiona., and British Contact Lens Association. *The Anterior Eye and Therapeutics: Diagnosis and Management*, 2003.

Yanoff, Myron, and Joseph W. Sassani. *Ocular Pathology*. Seventh ed. 2015.

8. Administrative matters

Student enquiries should be submitted via student portal <https://portal.insight.unsw.edu.au/web-forms/>

Required Equipment, Training and Enabling Skills

Equipment Required	None
Enabling Skills Training Required to Complete this Course	Skills beyond ELISE level online information literacy are expected. Go to UNSW Library/Online Training/LOIS and complete the complete series of tutorials. Those with poor English skills (relating to writing, oral delivery, grammar, expression) should visit the Learning Centre for help before it is too late.

Course Evaluation and Development

Student feedback is gathered periodically by various means. Such feedback is considered carefully with a view to acting on it constructively wherever possible. This course outline conveys how feedback has helped to shape and develop this course.

Mechanisms of Review	Last Review Date	Comments or Changes Resulting from Reviews
Major Course Review	n/a	This course was run for the first time in Term 1 2019.

myExperience²	2022	This course has been streamlined for content and the number of assessments has been reduced.
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Work Health and Safety³	<p>Information on relevant Occupational Health and Safety policies and expectations both at UNSW and if there are any school specific requirements.</p> <p>Information on relevant policies and expectations is provided during General Safety Induction training. A copy of the Induction booklet distributed at this training is available from the School of Optometry and Vision Science office (RMB3.003) and the School website at: https://www.optometry.unsw.edu.au/about/information-and-policies/work-health-and-safety</p>		
Equity and Diversity	<p>Those students who have a disability or are dealing with personal circumstances that affect their study that requires some adjustment in their teaching or learning environment are encouraged to discuss their study needs with the course Convenor prior to, or at the commencement of, their course, or with the Equity Officer (Disability) in the Equitable Learning Services (formerly Disability Support Services). Appointments with Equitable Learning Services are now being offered as video, phone and in person at the Kensington Campus. Contact ELS via Email: els@unsw.edu.au or https://student.unsw.edu.au/els</p> <p>Issues to be discussed may include access to materials, signers or note-takers, the provision of services and additional exam and assessment arrangements. Early notification is essential to enable any necessary adjustments to be made.</p>		
Student Complaint Procedure⁴	School Contact	Faculty Contact	University Contact
	A/Prof Sieu Khuu Deputy Head of School sieu.khuu@unsw.edu.au	Professor Gary Velan Senior Vice Dean, Education gary.velan@unsw.edu.au	Student Conduct and Integrity Unit Email: studentconduct@unsw.edu.au

Psychology and Wellness⁵

Information on Psychology and Wellness (Formerly known as Counselling and Psychological Services) is available at:

<https://www.counselling.unsw.edu.au/>

²myExperience process: <https://teaching.unsw.edu.au/myexperience>

³[UNSW Work Health and Safety](#)

⁴[Student Complaint Procedure](#)

⁵[Psychology and Wellness](#)

9. Additional support for students

- The Current Students Gateway: <https://student.unsw.edu.au/>
- Academic Skills and Support: <https://student.unsw.edu.au/academic-skills>
- *Student Wellbeing and Health* <https://www.student.unsw.edu.au/wellbeing>
- UNSW IT Service Centre: <https://www.myit.unsw.edu.au/services/students>
- *UNSW Student Life Hub*: <https://student.unsw.edu.au/hub#main-content>
- *Student Support and Development*: <https://student.unsw.edu.au/support>
- *IT, eLearning and Apps*: <https://student.unsw.edu.au/elearning>
- *Student Support and Success Advisors*: <https://student.unsw.edu.au/advisors>
- *Equitable Learning Services (Formerly Disability Support Unit)*: <https://student.unsw.edu.au/els>
- *Transitioning to Online Learning* <https://www.covid19studyonline.unsw.edu.au/>
- *Guide to Online Study* <https://student.unsw.edu.au/online-study>