Course Outline

VISN1111

GEOMETRICAL AND PHYSICAL OPTICS

Optometry and Vision Science

Faculty of Science

Term 2, 2020

1. Staff

Position	Name	Email	Consultation times and locations
Course Convenor	Dr Maitreyee Roy	m.roy@unsw.edu.au	Via email
Lecturer	Dr Maitreyee Roy	m.roy@unsw.edu.au	Via email
Tutor & Demonstrator	TBA	TBA	Via email

2. Course information

Units of credit: 6

Pre-requisite(s): For students intending to take this course as a core component of an Optometry or Vision Science major, HSC Mathematics and Physics is highly recommended.

Teaching times and locations: Online delivery.

Lectures

Monday 11 am to 1 pm (Weeks 1 to 5 and 7 to 10); Tuesday 11 am to 1 pm (Weeks 1 to 5 and 7 to 10)

Group Tutorials

Wednesday 11 am to 12 pm (Weeks 1 to 5 and 7 to 10)

Group Practicals

Thursday 11 am to 12 pm & 3 pm to 4 pm (Weeks 1 to 5 and 7 to 10)

2.1 Course summary

This course provides an understanding of geometrical and physical optics. It is the first optics course in the vision science major in the science or advanced science programs and the optometry program. This course will be delivered by lectures, laboratory classes and tutorial exercises designed to present, with least complexity, concepts in optics relevant to optometry & vision science.

Brief curriculum:

Geometrical optics: Basics of light and light propagation, rectilinear propagation of light, refraction and reflection at the plane and spherical surfaces, prisms, thin lenses, thick lenses, optical systems with multiple surfaces, simple magnifiers, compound magnifiers, telescopes, microscopes, stops, pupils and windows.

Physical optics: The wave nature of light, superposition of waves, Interference, diffraction, and polarisation.

2.2 Course aims

The course aims to help students acquire understanding and a great deal of familiarity with geometrical and physical optics principles regarding the optics instrumentation, eye and vision. Relevant skills needed for the practice of Optometry and Vision Science rely on optics background. Learning optics to a good standard will enable a student to appreciate and learn the subsequent courses with confidence and considerable ease.

2.3 Course learning outcomes (CLO)

At the successful completion of this course, you (the student) should be able to:

1. Demonstrate the essential optics knowledge that is required for building a career in optometry/vision science.
2. Gain an understanding of the basics of light, the rules for its propagation and transmission through optical surfaces and components, imaging by optical components.
3. Apply the law of refraction and reflection to find the image location in an optical system and be able to describe image formation using the optical ray-tracing method.
4. Describe the optical principles of simple optical systems that include simple magnifiers, microscope and telescopes and be able to understand the concept of magnification.
5. Use the principles of wave phenomena and superposition of waves to describe the optics of Interference, diffraction and polarisation.
6. Solve a range of problems in geometric and physical optics by selecting the appropriate formulae and performing numerical calculations.
7. Develop team-working skills to be able to work with others effectively.

2.4 Relationship between course and program learning outcomes and assessments

This course is designed to address the CLO and PLO as below. This course is a core and first optics course for Bachelor of Vision Science program (3181 and 3182) and the Master of Optometry program (3182 and 8095). The completion of both programs will allow graduates to register as a practising optometrist in Austalia and New Zealand.

VISN 1111- pre-requisite for VISN1221 Visual Optics course

VISN1111 & VISN1221- pre-requisite for OPTM2133 The Clinical Environment

Course Learning Outcome (CLO)	LO Statement	Program Learning Outcome (PLO)	Related Tasks & Assessment
CLO 1	Gain an understanding of the basics of light, the rules for its propagation and transmission through optical surfaces and components, imaging by optical components.	PLO 3181[1]: 1, 2, 3, 4, 5, 7 PLO 3182[2]: 1, 2, 3,7	Lectures Tutorial/Practical classes Moodle Quizzes Mid-term & Final Exams
CLO 2	Apply the law of refraction and reflection to find the image location in an optical system and be able to describe image formation using the optical ray-tracing method.	PLO 3181: 1, 2, 3, 4, 5, 7 PLO 3182: 1, 2, 3,7	Lectures Tutorial/Practical classes Moodle Quizzes Mid-term & Final Exams
CLO 3	Describe the optical principles of simple optical systems that include simple magnifiers, microscope and telescopes and be able to understand the concept of magnification.	PLO 3181: 1, 2, 3, 4, 5, 7 PLO 3182: 1, 2, 3,7	Lectures Tutorial/Practical classes Moodle Quizzes Mid-term & Final Exams
CLO 4	Use the principles of wave phenomena and superposition of waves to describe the optics	PLO 3181: 1, 2, 3, 4, 5, 7	Lectures Tutorial/Practical

[1] https://www.handbook.unsw.edu.au/undergraduate/programs/2020/3181

[2] https://www.handbook.unsw.edu.au/undergraduate/programs/2020/3182

	of Interference, diffraction and polarisation.	PLO 3182: 1, 2, 3,7	classes Moodle Quizzes Mid-term & Final Exams
CLO 5	Solve a range of problems in geometric and physical optics by selecting the appropriate formulae and performing numerical calculations.	PLO 3181: 1, 2, 3, 4, 5, 7 PLO 3182: 1, 2, 3,7	Lectures Tutorial/Practical classes Moodle Quizzes Mid-term & Final Exams
CLO 6	Develop team working skills to be able to work with others effectively.	PLO 3181: 1, 2, 3, 4, 5, 7 PLO 3182: 1, 2, 3,7	Tutorial/Practical classes
CLO 7	Demonstrate the essential optics knowledge that is required for building a career in optometry/vision science.	PLO 3181: 1, 2, 4, 5, 7 PLO 3182: 1, 2, 3,7	Tutorial/Practical classes Moodle Quizzes Mid-term & Final Exams

3. Strategies and approaches to learning

3.1 Learning and teaching activities

The course VISN1111 Geometric and Physical Optics is delivered internally through lectures, laboratory work, tutorial exercises and self-directed online learning, to present with least complexity, concepts in optics relevant to the Optometry and Vision Science using a various problem-solving approach.

Students will find this course elementary, interesting and relevant if they follow the lectures closely and study consistently and adequately from the outset. It is the sole purpose of the guidelines and requirements set out below to encourage that approach. Students who choose not to cooperate will find the course challenging, onerous and incomprehensible.

The prescribed text and the lecture notes are the primary resources. Students are encouraged to read the prescribed and additional reading and the lecture notes to increase their learning as well as develop their learning skills. Students should study them and clarify any doubts they may have. Students are to regard the lecture period as quality time. Students are urged to revise material covered in previous lectures and to the greatest possible extent, be attentive and comprehend the material as it is presented in class.

Lecturers, tutorials and practicals are carefully designed such real-life optics problems that put the student's understanding to test. The interactive lectures and tutorial activities are designed to develop the capabilities of students as well as to motivate them to learn with greater interest. Attempting to solve the tutorial problems

beforehand each week will promote the intellectual development of the student. Students are encouraged to answer critical questions based on the lab activities at the end of each lab through the lab report form.

Much of the midterm test, tutorial problems and final exam questions are heavily based on testing the student's understanding and thinking abilities in the subject. Analytical thinking is developed through the derivations of relevant formulae. Successful learning of optics heavily relies on problem-solving skills, and it is an excellent opportunity for students to build it.

The Moodle quizzes are designed to encourage students to test their knowledge and understanding presented in the course and also provides them with an opportunity to revise the material before the midterm test and the final exam.

Students are encouraged to work in a team for the tutorials, and laboratory activities for which students are required to communicate with each other effectively.

Written communication is also required in as part of the tutorials and practical. The class test and final exam will have some questions that expect students to give descriptive answers.

3.2 Expectations of students

Expectations of Students	Laboratory and tutorial sessions (online) are aimed for team-based learning to enhance student engagement and the quality of learning. • Tutorials (Week 1 to Week 10, except Week 6): These tutorials provide a particularly effective and critical learning experience to help you to contextualise important subject matter presented elsewhere in the course. Students are expected to attempt the tutorial problems of each week beforehand and identify difficult problems. The difficult problems will be worked out at the tutorial. In the tutorial, students should attempt to understand the working and ask questions if they have any. Half the learning of optics is in problem-solving. • Practicals (Week 1 to Week 10, except Week 6): These reinforce theoretical components of the course, and encourage you to understand key concepts from the lecture, videos and reading material. Students should study the laboratory notes and attempt to understand the experiment and visualise the procedure before the lab class. In the lab experiment, each week, students will observe and perform calculations in a report form provided in the lab notes. The form also includes a set of questions at the end that probe student's understanding of the lab, their observation skills and the results obtained. Students are required to submit a completed group lab report for each lab via Moodle within the submission time. • Students are encouraged to discuss with each other to enhance their understanding and solve these problems. Knowledge acquired week after week and the ability to apply the acquired knowledge will be tested through these problems. It is an opportunity to improve problem-solving skills. • Students are expected to attempt the three online quizzes (Weeks 2, 5 and 10). Three attempts are allowed with an hour time limit. **Email: 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** www.it.unsw.edu.au/ Telephone: 02 9385 1333 Email: itservicecentre@unsw.edu.au

4. Course schedule and structure

Some of this information is available on the *Online Handbook*[3] *and the UNSW Timetable*[4]

Week	Lecture Topics		Tutorials (Wednesday, 1 hour)	Practical (Thursday, 1 hour)	Assignment and Submission dates (see also 'Assessment Tasks & Feedback')
	Lecture 1 (Monday, 11 am- 1pm)	Lecture 2 (Tuesday, 11 am- 1pm)			
Week 1 **1st June –5th June**	Course introduction & basics of light and propagation	Refraction at plane surfaces, prism (parts 1& 2)	Basics of light and light propagation and refraction at plane surfaces	Reflection and refraction at a plane surface: Prism	
Week 2 **8th June –12thJune**	Public holiday- no lecture	Refraction at spherical surfaces (part 1 & part 2)	Refraction at spherical surfaces	Refraction at curved surfaces (Part 1) Estimation of lens power: Method based on lens form (Part 2)	**Moodle Quiz 1**
Week 3 **15thJune –19thJune**	Thin lenses	Lens systems	Thin lenses & Lens system	Estimation of lens power: A method based on imaging techniques	
Week 4 **22nd June –26thJune**	Thick lenses	Mirrors	Thick lenses & Mirrors	Estimation of the equivalent power of the lens system/ thick lens	**Moodle Quiz 2**
Week 5 **29th June –3rd July**	**Mid-session exam**	Visual instruments: simple magnifiers	Simple magnifiers	Simple magnifiers	**Mid-session exam**

Week 6 **6th July –10th July**	**---------- ---Flexibility Week----------**				
Week 7 **13th July –17th July**	Telescopes	Microscopes	Telescopes & Microscopes	Telescopes and Microscopes	
Week 8 **20th –24th July**	Mid-semester exam feedback	Aperture stops, Field stops, pupils and windows	Aperture stops, Field stops, pupils and windows	Interference	
Week 9 **27th July –31st July**	Wave nature of light & superposition	Interference	Wave nature of light & superposition & Interference	Diffraction	**Moodle Quiz 3**
Week 10 **3rd August –7th August**	Diffraction	Polarisation	Diffraction & Polarisation	Polarisation	

[3] UNSW Virtual Handbook: http://www.handbook.unsw.edu.au

[4] UNSW Timetable: http://www.timetable.unsw.edu.au/

5. Assessment

5.1 Assessment tasks

Task	Length	Weight	Due Date
Assessment 1: Moodle Self-Test Quizzes to monitor student learning and progress during the course.	There are three online Moodle quizzes scheduled to be released on Monday 9 am of Weeks 2, 4 and 9. Each quiz will take approximately 60 minutes.	15%	Each quiz will close on Sunday midnight of Weeks 2, 4 and 9.
Assessment 2: Laboratory reports Students are encouraged to work in groups and equally participate in the lab reports.	Each week, students will observe, record measurements and perform calculations in a report form provided in the lab notes. Students are also encouraged to answer critical questions based on the lab activities at the end of each lab through the lab report form.	10%	Students are required to submit completed lab report forms for each lab via Moodle on Friday midnight of the subsequent lab weeks (Week 2- Week 10).
Assessment 3: Mid-session exam	The mid-session exam (MCQ and short-answer questions format) will be held on Monday 29th June. It is based on definitions, concepts, ray tracing and problem-solving. The mid-session exam will be delivered through Moodle.	20%	Week 5 Monday, 29/06/2020
Assessment 4: Final exam	The final exam is based on MCQ and short-answer questions format delivered through Moodle, which will be scheduled during examination week.	55%	Exam period

Further information
UNSW grading system: student.unsw.edu.au/grades

UNSW assessment policy: student.unsw.edu.au/assessment

5.2 Assessment criteria and standards

Assessment 1: Moodle Self-Test Quizzes

Knowledge & abilities assessed: Each quiz covers materials taught in the previous weeks to provide regular feedback on the level of understanding of course materials. Learning involves knowing key definitions, formulae, underlying concepts and methods to solve problems. It is an opportunity to revises materials presented during the course.

Assessment criteria: Accurate response
Highest grade from three attempts. Students must complete the quiz within the given time period.

Assessment 2: Laboratory Reports

Knowledge & abilities assessed: Each week, students will read, observe the lab experiment, record measurements and perform calculations in a report form provided on Moodle/Lab. The lab report form also includes a set of questions at the end that probe student's understanding of the lab, their observation skills and the results obtained. Students are encouraged to work in groups and equally participate in the lab reports. Completed group lab report form for each lab should be submitted via Moodle within the lab report submission time.

Assessment criteria: Accurate response
Incomplete calculations, incomplete answers, lack of neatness in presentation and late submissions will result in loss of marks.

Assessment 3: Mid-session Exam

Knowledge & abilities assessed: Understanding of all the topics covered from Weeks 1-4 inclusive.

Assessment criteria: Accurate response,
The approach used to solve the problem, working shown, the correctness of answers, draw ray diagrams and the ability to define/describe concept clearly.

Assessment 4: Final Exam

Knowledge & abilities assessed: Understanding of all material taught Weeks 1-10 inclusive, excluding group laboratory activities

Assessment criteria: Accurate response
The approach used to solve the problem, working shown, the correctness of answers, draw ray diagrams and the ability to define/describe concept clearly.

5.3 Submission of assessment tasks

Assignment Submissions	Assignments should be submitted via Moodle (electronic submission). This includes completed laboratory reports and logs which should be scanned/photographed and submitted via Moodle. If your assignment requires submission of a pair of glasses/contact lenses, these may be submitted via the Assignment submission box at the Student Enquiry office (North Wing, Rupert Myers Building, Room 3.003), however the accompanying report should be submitted via Moodle. Marked assignments can be collected from the: • School Enquiry office **during counter opening hours**. You must show a valid student card to do this. The School Policy on Submission of Assignments (including penalties for late assignments) and the Assignment Attachment Sheet are available from the School office (RMB3.003) and the School website at: https://www.optometry.unsw.edu.au/study/undergraduate-degrees/important-information-and-policies

Assessment Procedures **UNSW Assessment Policy[5]**	**SCHOOL OF OPTOMETRY AND VISION SCIENCE, UNSW** **SUPPLEMENTARY EXAMINATION INFORMATION, 2020** **SPECIAL CONSIDERATION** On some occasions, sickness, misadventure or other circumstances beyond your control may prevent you from completing a course requirement, such as attending a formal end of semester examination. In these cases you may apply for Special Consideration. **UNSW operates under a Fit to Sit/ Submit rule for all assessments. If a student wishes to submit an application for special consideration for an exam or assessment, the application must be submitted prior to the start of the exam or before an assessment is submitted. If a student sits the exam/ submits an assignment, they are declaring themselves well enough to do so**. The application must be made via Online Services in myUNSW. Log into myUNSW and go to My Student Profile tab > My Student Services > Online Services > Special Consideration and attach student's supporting documentation (such as a medical certificate). **CHRONIC ISSUES AND PRE-EXISTING CONDITIONS** If you have chronic issues and pre-existing conditions, we recommend you apply for Educational adjustments for disability support through Disability Services. Register for Equitable Learning Support (formerly Disability Support Services) at https://student.unsw.edu.au/els/register

Absence from a final examination is a serious matter, normally resulting in a Fail (FL) grade. **If you are medically unfit to attend an examination, YOU MUST CONTACT THE SCHOOL DIRECTLY ON THE DAY OF THE EXAMINATION TO ADVISE OF THIS** (telephone 02 9385 4639, email: optometry@unsw.edu.au). You must also submit a Request for Special Consideration application as detailed on the UNSW website: https://student.unsw.edu.au/special-consideration.

It is the responsibility of the student to consult the web site or noticeboard to ascertain whether they have supplementary examinations. This information WILL NOT be conveyed in ANY other manner. Interstate, overseas or any other absence cannot be used as an excuse.

This information will be available on the School web site at https://www.optometry.unsw.edu.au/ (do not confuse the School website with the myUNSW website) and posted on the notice board on Level 3. This information will be available as soon as possible after the School Examination Committee meeting.

SUPPLEMENTARY EXAMINATIONS FOR 2020 WILL BE HELD AS FOLLOWS:

FOR TERM 1:

- **STAGE 1-4* COURSES: THURSDAY, 21ST MAY 2020 – SATURDAY, 23RD MAY 2020**
- **THERE WILL BE NO SUPPLEMENTARY EXAMINATIONS FOR STAGE 5 STUDENTS IN TERM 1 2020**

FOR TERM 2:

- **STAGE 1-3 COURSES: THURSDAY, 3RD SEPTEMBER 2020 - SATURDAY, 5TH SEPTEMBER 2020**
- **STAGE 4* COURSES: THURSDAY, 3RD SEPTEMBER 2020 AND FRIDAY, 4TH SEPTEMBER 2020**
- **THERE WILL BE NO SUPPLEMENTARY EXAMINATIONS FOR STAGE 5 STUDENTS IN TERM 2 2020**

FOR TERM 3:

- **STAGE 5 COURSES ONLY: DURING THE WEEK OF MONDAY, 14TH DECEMBER 2020 – FRIDAY, 18TH DECEMBER 2020**
- **STAGE 1-4* COURSES: THURSDAY, 17TH DECEMBER 2020, FRIDAY, 18TH DECEMBER AND SATURDAY, 19TH DECEMBER 2020**

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 an 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.

School of Optometry and Vision Science, UNSW, 15th November 2019

[5] UNSW Assessment Policy

5.4. Feedback on assessment

Task	Feedback		
	WHO	**WHEN**	**HOW**
Moddle Quizzes	Automated feedback	Week 3, 5 and 10	Moodle
Lab reports	Dr Maitreyee Roy (Course Convenor)	Within 10 working days of lab report submission	Moodle
Mid-term exam	Dr Maitreyee Roy (Course Convenor)	Week 8, 20th July	Online
Final exam	Dr Maitreyee Roy (Course Convenor)	Exam period	Final course mark

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.

Further information about referencing styles can be located at 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.[6] 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 student.unsw.edu.au/plagiarism**,** and
- The *ELISE* training site 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: student.unsw.edu.au/conduct.

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

7. Readings and resources

Prescribed Textbook:

- Tunnacliffe AH and Hirst JG, Optics, Published by the Association of British Dispensing Opticians (ABDO), (Reprinted 2003).

Other Recommended textbooks:

- Freeman MH, Optics 10th Edition. Butterworths (London) 1990 or 11th Edition (2003).
- Pedrotti L and Pedrotti F, Optics and Vision, Prentice-Hall, 1998.
- Pedrotti FL, Pedrotti LM and Pedrotti LS, Introduction to Optics, Cambridge University Press, 3rd Edition (2018).

These books are available at the UNSW library or at the UNSW Bookshop.

Required Readings:

Compulsory and optional readings as specified by the lecturers throughout the session will be made available on Moodle when not accessible online through the UNSW library.
Students will be provided with a soft copy of Laboratory Manual. Tutorial sheets will be posted on Moodle every week.

Moodle announcements for VISN1111 should be checked every day or two. This includes any scheduling changes, last minutes updates, etc.

In addition, the school website will hold important information, including timetables, staff contact details, and information on supplementary examinations. (http://www.optometry.unsw.edu.au)

Computer laboratory:

Optometry and Vision Science's computer lab is located in the lower ground of the Old Main Bldg. (OMBLG21). Room availability is usually stated on a weekly schedule posted on the door of the room. If these spaces are occupied or unavailable, the UNSW Library contains vast study and computing spaces that are open for longer hours than those in the School. Consult the UNSW Library website (http://info.library.unsw.edu.au/).

8. Administrative matters

Required Equipment, Training and Enabling Skills

Equipment Required	Calculator, ruler, pencil, colour pencils/pens will be useful all the time. Students should have the weekly lecture notes/tutorial sheet/lab notes with them for the lecture/tutorial/prac classes.
Enabling Skills Training Required to Complete this Course	The UNSW Current Student site (https://student.unsw.edu.au/support) has helpful resources on a variety of topics, including time management, examination preparation, and oral presentations. The Learning Centre also offers academic skills support to all students enrolled at UNSW (http://www.lc.unsw.edu.au). All commencing UNSW undergraduate students are expected to have completed the ELISE quiz accessible via Moodle. More information on ELISE is available on http://subjectguides.library.unsw.edu.au/elise/home

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	Dec 2018	This course replaces the earlier course VISN1231-Optics which was offered from 2006-2012 in S2. This course redesigned in 2015 to suit the academic requirement of the School. Some significant changes in the course structure have been made by introducing interactive lectures in the classroom, tutorial problems related to concept and theory and Moodle online quizzes for immediate feedback. In 2018, as part of the transition to the new trimester system (UNSW3+), this course went through some structural revisions. Many new digital activities and learning resources have been created and subsequently incorporated into the course as part of the Digital Uplift project.
myExperience[7]	2019	Based on the myExperience response, the rating for this course was excellent. Majority of the students indicated that they were extremely satisfied with the quality of the course. The best aspects of the course that were highlighted by most of the students were: the interactive timetable, lecture notes & encouraging learning environment, clear and concise lectures, engaging lectures, relevant tutorial questions and labs, test feedbacks, explanations (concepts & problem-solving), enjoyable lab experiments and tutorial questions, encouraging and helpful teaching supporting staffs.

		However, due to the UNSW3+, the course timetable was misaligned in terms of lectures, tutorials and prac classes. Planned improvements for 2020: Improving course timetable- Tutorial and Lab Classes after the lectures. Rechecking online Moodle quizzes based on STACK questions. myExperience (2019) students comment as follows: "The concept build up well, and weekly tutorial questions help with consolidating the knowledge. Concepts were broken down fairly simply so students were able to catch on Engaging content and good quality of teaching." "Content was covered well most of the times. Maitreyee encouraged participation in lectures which helped my understanding of content. Teaches relevant material. Power points are set out in a clear way, and it is logically able to be understood and followed along" "I really like the interactive timetable and the ray tracing lightboard video for Galilean and Keplerian telescopes and pre–lab videos and also the document of all the questions people ask before the exam and the lecturer answers to them." "How the labs and tutorial was consistent with the lecture content, and having opportunities to work in groups." "Feedback on exams was helpful and lecture material explained clearly." "Dr Roy is such a great lecturer. She cares about students a lot and I appreciate every single effort she has made. All the tutors are also helpful and nice." "Very thoughtful and understanding lecturer, provides good tips and important feedback to students."

Work Health and Safety[8]	Information on relevant Occupational Health and Safety policies and expectations both at UNSW and if there are any school specific requirements. 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
Equity and Diversity	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) at 9385 4734 or https://student.unsw.edu.au/els 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.

Student Complaint Procedure[9]	School Contact	Faculty Contact	University Contact
	Dr Alex Hui alex.hui@unsw.edu.au Tel: 9385 9228	A/Prof Alison Beavis Deputy Dean (Education) a.beavis@unsw.edu.au Tel: 9385 0752 Or Dr Gavin Edwards Associate Dean (Academic Programs) g.edwards@unsw.edu.au Tel: 9385 4652	Student Conduct and Integrity Unit Telephone 02 9385 8515, email studentcomplaints@unsw.edu.au
University Counselling and Psychological Services[10]	Information on Counselling and Psychological Services [CAPS] is available at: https://www.counselling.unsw.edu.au/ Tel: 9385 5418		

[7]myExperience process: https://teaching.unsw.edu.au/myexperience

[8]UNSW OHS Home page

[9]Student Complaint Procedure

[10]University Counselling and Psychological Services

9. Additional support for students

- The *Current Students* Gateway: student.unsw.edu.au
- Academic Skills and Support: student.unsw.edu.au/skills
- Student Wellbeing, Health and Safety: student.unsw.edu.au/wellbeing
- Equitable Learning Services (formerly Disability Support Services): https://student.unsw.edu.au/els
- UNSW IT Service Centre: www.it.unsw.edu.au/students