UNSW Course Outline

PHAR3111 Clinical Pharmacology for Health and Exercise Science - 2024

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General Course Information

Course Code : PHAR3111
Year : 2024
Term : Term 1
Teaching Period : T1
Is a multi-term course? : No
Faculty : Faculty of Medicine and Health
Academic Unit : School of Biomedical Sciences
Delivery Mode : In Person
Delivery Format : Standard
Delivery Location : Kensington
Campus : Sydney
Study Level : Undergraduate
Units of Credit : 6

Useful Links

Handbook Class Timetable

Course Details & Outcomes

Course Description

Clinical Pharmacology for Health and Exercise Science introduces you to the basic principles of

pharmacology with an emphasis on the interaction of drugs and exercise. The course will provide you with an understanding of the principles of drug action (pharmacodynamics) in terms of drug chemistry, drug-receptor interaction, receptor signalling and dose-response relationships and how the body handles drugs. You will gain an appreciation of the mechanisms by which drugs act, utilizing clinical examples and the impact of treatment on acute and chronic responses to exercise in major health conditions.

Course Aims

This course aims to provide you with:

1) an understanding of the principles of pharmacology including pharmacodynamics and pharmacokinetics

2) an appreciation of the mechanisms by which drugs act

3) an understanding of the interaction of drugs, disease and exercise

Relationship to Other Courses

Assistance with progression checking:

If you are unsure how this course fits within your program, you can seek guidance on optimising your program structure from staff at the Nucleus Student Hub.

- Progression plans for UNSW Medicine and Health programs can be found on the UNSW Medicine & Health website.
- Progression plans for UNSW Science programs can be found on the UNSW Science website.

Course Learning Outcomes

Course Learning Outcomes
CLO1 : Explain how selected drugs/therapeutics work and are used safely
CLO2 : Describe the clinical application of a range of drug classes
CLO3 : Critically analyse, interpret and effectively communicate pharmacological data and literature

Course Learning Outcomes	Assessment Item
CLO1 : Explain how selected drugs/ therapeutics work and are used safely	• Quizzes • Mid-term progress Test • Poster Presentation • Final Examination
CLO2 : Describe the clinical application of a range of drug classes	• Quizzes • Mid-term progress Test • Poster Presentation • Final Examination
CLO3 : Critically analyse, interpret and effectively communicate pharmacological data and literature	• Quizzes • Mid-term progress Test • Poster Presentation • Final Examination

Learning and Teaching Technologies

Moodle - Learning Management System | Echo 360 | Microsoft Teams

Learning and Teaching in this course

All course materials and course announcements are provided on the course learning management system, Moodle (or Open Access).

By accessing and using the ICT resources provided by UNSW, you are agreeing to abide by the 'Acceptable Use of UNSW ICT Resources' policy particularly on respect for intellectual property and copyright, legal and ethical use of ICT resources and security and privacy.

Additional Course Information

The Department of Pharmacology is part of the School of Biomedical Science, UNSW Medicine & Health, and is located in the Wallace Wurth Building.

Assessments

Assessment Structure

Assessment Item	Weight	Relevant Dates
Quizzes Assessment Format: Individual	15%	Start Date: Wednesday 1pm, Weeks 3, 5 and 9 Due Date: At the conclusion of the set time for the quiz
Mid-term progress Test Assessment Format: Individual	15%	Start Date: 25/03/2024 12:00 PM Due Date: 25/03/2024 01:15 PM
Poster Presentation Assessment Format: Group	20%	Start Date: Not Applicable Due Date: 15/04/2024 12:00 PM
Final Examination Assessment Format: Individual	50%	Start Date: Official Exam Period Due Date: Official Exam Period

Assessment Details

Quizzes

Assessment Overview

Quizzes may include a variety of question formats including multiple choice and short answer questions. There will be three online quizzes during the term, each worth 5%. Each quiz will cover material across the course including practical classes. You will receive individual feedback on quizzes and the results will be posted via the learning management system.

Course Learning Outcomes

- CLO1 : Explain how selected drugs/therapeutics work and are used safely
- CLO2 : Describe the clinical application of a range of drug classes
- CLO3 : Critically analyse, interpret and effectively communicate pharmacological data and literature

Detailed Assessment Description

Additional information about this assesment task can be found on the course Moodle page.

Assessment Length

20-25 minutes

Submission notes

This test will be delivered via the Inspera platform. No short extension is available for this assessment task.

Assessment information

No generative Artificial Intelligence (AI) is permitted for this assessment task.

Assignment submission Turnitin type

Not Applicable

Mid-term progress Test

Assessment Overview

The progress test will provide feedback on your progression in the course. The test will consist of multiple choice questions and short answer questions. It will be based on the material in the first half of the course, prior to the test including lectures, tutorials and practical classes. Generalised feedback will be provided via the learning management system. Individualised feedback can be provided on request.

Course Learning Outcomes

- CLO1 : Explain how selected drugs/therapeutics work and are used safely
- CLO2 : Describe the clinical application of a range of drug classes
- CLO3 : Critically analyse, interpret and effectively communicate pharmacological data and literature

Detailed Assessment Description

Detailed information about this assessment will be provided on the course Moodle page.

Assessment Length

1 hour plus 10 minutes

Submission notes

This test will be delivered via the Inspera platform. No short extension is available for this assessment task.

Assessment information

No generative Artificial Intelligence (AI) is permitted for this assessment task.

Assignment submission Turnitin type

Not Applicable

Poster Presentation

Assessment Overview

You will work in teams to research a given topic for presentation as a scientific poster. You will

be expected to answer questions relating to your group's given topic both individually and as a group. Poster presentations will be graded on scientific content, visual communication and verbal presentation by academic staff.

A marking rubric will be used to evaluate this assignment and provide you with feedback. Additional specific feedback will be given via the learning management system. Team members will also provide an assessment of each others team work. This will be used to moderate each individuals' grade.

Course Learning Outcomes

- CLO1 : Explain how selected drugs/therapeutics work and are used safely
- CLO2 : Describe the clinical application of a range of drug classes
- CLO3 : Critically analyse, interpret and effectively communicate pharmacological data and literature

Detailed Assessment Description

Additional information about this assesment task can be found on the course Moodle page.

Assessment Length

See Moodle for details.

Submission notes

See Moodle for details. No short extension is available for this assessment task.

Assessment information

Full assistance of generative Artificial Intelligence (AI) is permitted with attribution for this assessment task. This assessment requires you to write a first draft of the poster yourself. You are then permitted to use generative AI to improve your poster draft. Your own original draft must be attached as an appendix. You must also provide a statement of if or how you have used generative AI in the production of your poster and provide the search terms/prompts entered as well as a record of the full response of the AI tool used (this could be screenshots).

Assignment submission Turnitin type

Not Applicable

Final Examination

Assessment Overview

The final examination will be based on the material covered in the lectures, tutorials and practical classes. The exam will consist of multiple choice questions and short answer questions.

Generalised feedback will be provided. Individualised feedback can be provided on request.

Course Learning Outcomes

- CLO1 : Explain how selected drugs/therapeutics work and are used safely
- CLO2 : Describe the clinical application of a range of drug classes
- CLO3 : Critically analyse, interpret and effectively communicate pharmacological data and literature

Detailed Assessment Description

Detailed information about this assessment will be provided on the course Moodle page.

Assessment Length

2 hours plus 15 minutes

Submission notes

This will be a centrally timetable exam delivered using the Inspera platform. No short extension is available for this assessment task.

Assessment information

No generative Artificial Intelligence (AI) is permitted for this assessment task.

Assignment submission Turnitin type

Not Applicable

General Assessment Information

Detailed instructions regarding assessments for this course are provided on the course Moodle page (or Open Learning).

For student information on results, grades, and guides to assessment see: https://student.unsw.edu.au/assessment

Grading Basis

Standard

Requirements to pass course

In order to pass this course students must:

- Achieve a composite grade of at least 50 out of 100
- Meet any additional requirements specified in the assessment details section and on Moodle.

Course Schedule

Teaching Week/Module	Activity Type	Content
Week 1 : 12 February - 18 February	Lecture	Topics: • Pharmacodynamics: Agonists and antagonists • Pharmacodynamics: Sites of drug action • Pharmacokinetics: Drug absorption and distribution
	Laboratory	Concentration response: agonists and antagonists
	Tutorial	Introduction to course and scientific communication: posters
Week 2 : 19 February - 25 February	Lecture	Topics: • Pharmacokinetics: Drug metabolism and excretion • Cholinergic mechanisms • Adrenergic mechanisms
	Laboratory	Drug excretion
	Tutorial	Pharmacodynamics and autonomic pharmacology
Week 3 : 26 February - 3 March	Lecture	Topics: • Drugs to treat asthma and COPD • Drugs for diabetes • Bone mass and management
	Laboratory	The effect of caffeine on glucose metabolism
	Tutorial	Quiz 1 and drug metabolism
	Assessment	Quiz 1 (in Tutorial timeslot)
Week 4 : 4 March - 10 March	Lecture	Topics: • Drugs for obesity • Cardiovascular drugs • Cardiac failure and drugs for angina
	Laboratory	The effects of beta-adrenoceptor antagonists on exercise induced cardiovascular changes
	Tutorial	Endocrine and cardiivascular pharmacology
Week 5 : 11 March - 17 March	Lecture	Topics: • Renal pharmacology • Lipid lowering agents • Drugs to treat thrombosis
	Group Activity	Poster feedback (in practical class timeslot)
	Tutorial	Quiz 2 and Exam 1 preparation
	Assessment	Quiz 2 (in Tutorial timeslot)
Week 7 : 25 March - 31 March	Lecture	Topics: • Drugs in aging • Anti-inflammatory drugs • Drugs for arthritis
	Assessment	Exam 1: Progress test (in practical class timeslot)
	Tutorial	Anti-inflammatory drugs and evlaluating research paper
Week 8 : 1 April - 7 April	Lecture	Topics: • Analgesics • Cancer chemotherapy • Cachexia management
Week 9 : 8 April - 14 April	Lecture	Topics: • Drugs of addiction • Toxic effects of drugs
	Online Activity	Analgisics practical (self-directed online module)
	Tutorial	Quiz 3 and chemotherapy
	Assessment	Quiz 3 (in Tutorial timeslot)
Week 10 : 15 April - 21 April	Lecture	Topics: • Antipsychotics • Antidepressants • Anti-viral treatments
	Presentation	Poster presentation (in practical class timeslot)
	Tutorial	CNS drugs and Exam 2 preparation

Attendance Requirements

Students are strongly encouraged to attend all classes and review lecture recordings.

General Schedule Information

The times and locations of classes can be found on myUNSW under Class Timetable.

The expected engagement for all UNSW 6UOC courses is 150 hours per term. This includes lectures, tutorials, readings, and completion of assessments and exam preparation (if relevant).

Course Resources

Prescribed Resources

Prescribed Textbooks:

1. Pharmacology for Health Professionals. 5th Ed. 2019 (eBook available for 4th Ed. 2015)
2. Goodman & Gilman's: The Pharmacological Basis of Therapeutics. 14th Ed. McGraw Hill LLC. 2023 (eBook available)

Recommended Resources

Recommended resources for this course are provided on the course Moodle page.

Additional Costs

There are no additional costs associated with this course.

Course Evaluation and Development

Student feedback is taken seriously, and continual improvements are made to the course based, in part, on such feedback.

We use student feedback from myExperience surveys to develop and make improvements to the course each year. We do this by identifying areas of the course that require development from both the rating responses and written comments. Please spare a few minutes to complete the myExperience surveys for this course posted at the top of the Moodle page at the end of term.

Staff Details

Position	Name	Email	Location	Phone	Availability	Equitable Learning Services Contact	Primary Contact
Convenor	Trudie Binder		Wallace Wurth Building	via Teams	By appointment using course email phar3111@unsw.edu.au	Yes	Yes
	Johnson Liu		Wallace Wurth Building	via Teams	By appointment using course Email phar3111@unsw.edu.au	No	No
Lecturer	Lu Liu		Wallace Wurth Building	via Teams	By appointment using course email phar3111@unsw.edu.au	No	No
	Matthew Perry		Wallace Wurth Building	via Teams	By appointment using course email phar3111@unsw.edu.au	No	No
	Margaret Morris		Wallace Wurth Building	via Teams	By appointment using course Email phar3111@unsw.edu.au	No	No
	Marty Le Nedelec		Wallace Wurth Building	via Teams	By appointment using course Email phar3111@unsw.edu.au	No	No
	Jeff Holst		Wallace Wurth Building	via Teams	By appointment using course Email phar3111@unsw.edu.au	No	No

Other Useful Information

Academic Information

As a student of UNSW Medicine & Health you are expected to familiarise yourself with the contents of this course outline and the UNSW Student Code and policies and procedures related to your studies.

Student Code of Conduct

Throughout your time studying at UNSW Medicine & Health, you share a responsibility with us for maintaining a safe, harmonious and tolerant University environment. This includes within the courses you undertake during your degree and your interactions with the UNSW community, both on campus and online.

The UNSW Student Code of Conduct website provides a framework for the standard of conduct expected of UNSW students with respect to both academic integrity and your responsibility as a UNSW citizen.

Where the University believes a student may have breached the code, the University may take disciplinary action in accordance with the Student Misconduct Procedure.

The Student Conduct and Integrity Office provides further resources to assist you to understand your conduct obligations as a student at UNSW.

Academic Honesty and Plagarism

Academic integrity

UNSW has an ongoing commitment to fostering a culture of learning informed by academic integrity. All UNSW staff and students have a responsibility to adhere to the principle of academic integrity, and ethical scholarship of learning is fundamental to your success at UNSW Medicine & Health.

Plagiarism, contract cheating, and inappropriate use of generative AI undermine academic integrity and are not tolerated at UNSW. For more information see the Academic Integrity and Plagiarism toolkit.

In addition to the information you are required to review in your ELISE training, UNSW Medicine & Health strongly recommends that you complete the Working with Academic Integrity module before submitting your first assessment task.

Referencing

Referencing is a way of acknowledging the sources of information that you use to research your assignments. Preferred referencing styles vary among UNSW Medicine & Health disciplines, so check your course Learning Management System (e.g. Moodle or Open Learning) page for information on preferred referencing styles.

For further information on referencing support and styles, see the Current Student Referencing page.

Academic misconduct and plagiarism

At UNSW, academic misconduct is managed in accordance with the Student Misconduct Procedure. Allegations of plagiarism are generally handled according to the UNSW Plagiarism Management Procedure. Plagiarism is defined in the UNSW Plagiarism Policy and is not tolerated at UNSW.

Use of Generative AI and other tools in your assessment

UNSW has provided guiding statements for the use of Generative AI in assessments. This will differ, depending on the individual assessment task, your course requirements, and the course stage within your program.

Your course convenor will outline if and how you can use Generative AI in each your assessment tasks. Options for the use of generative AI include: (1) no assistance; (2) simple editing assistance; (3) planning assistance; and (4) full assistance with attribution.

You may be required to submit the original generative AI responses, or drafts of your original work. Inappropriate use of generative AI is considered academic misconduct.

See your course Moodle (or Open Learning) page for the full instructions for individual assessment tasks for your course.

Submission of Assessment Tasks

Short extensions and special consideration

Short extension

Commencing in Term 1, 2024, UNSW has introduced a short extension procedure for submission of assessment tasks. Not all tasks are eligible, and eligible tasks have a predetermined extension length. UNSW Medicine and Health have set School-level extension lengths for eligible assessment tasks. See your course assessment descriptions for more information.

Students must check the availability of a short extension in the individual assessment task information for their courses.

Short extensions do not require supporting documentation. They must be submitted before the assessment task deadline. No late applications will be accepted.

Late penalties apply to submission of assessment tasks without approved extension.

Special consideration

In cases where short term events beyond your control affect your performance in a specific assessment task you may formally apply for Special Consideration through myUNSW.

UNSW has a **Fit to Sit rule**, which means that by sitting an examination on the scheduled date, you are declaring that you are fit to do so and cannot later apply for Special Consideration.

Examinations include centrally timetabled examinations and scheduled, timed examinations and tests managed by your School.

Important information relating to Short Extension and Special Consideration is available here, including eligibility for Special Consideration, circumstances where students with Equitable Learning Plans can apply for Short Extensions and Special Consideration, and the appeals process.

Examinations

Information about the conduct of examinations in your course is provided on your course Moodle page.

Timed online assessment tasks

If you experience a technical or connection problem during a timed online assessment, such as a timed quiz, you can apply for Special Consideration. To be eligible to apply you need to contact the Course Convenor and advise them of the issue immediately. You will need to submit an application for Special Consideration immediately, and upload screenshots, error messages or other evidence of the technical issue as supporting documentation. Additional information can be found on: https://student.unsw.edu.au/special-consideration

Other assessment tasks

Late submission of assessment tasks

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 calendar day (including Saturday, Sunday and public holidays).

Late submissions penalties are capped at five calendar days (120 hours). This means that a student is not permitted to submit an assessment more than 5 calendar days (120 hours) after the due date for that assessment (unless extension or exemption previously agreed).

Failure to complete an assessment task

You are expected to complete all assessment tasks for your courses. In some courses, there will be a minimum pass mark required on a specific assessment task (a “hurdle task”) due to the

need to assure clinical competency.

Where a hurdle task is applicable, additional information is provided in the assessment information on your course Moodle page.

Feedback on assessments

Feedback on your performance in assessment tasks will be provided to you in a timely manner. For assessment tasks completed within the teaching period of a course, other than a final assessment, feedback will be provided within 10 working days of submission, under normal circumstances.

Feedback on continuous assessment tasks (e.g. laboratory and studio-based, workplace-based, weekly quizzes) will be provided prior to the midpoint of the course.

Any variation from the above information that is specific to an assessment task will be clearly indicated in the course and assessment information provided to you on your course Moodle (or Open Learning) page.

Faculty-specific Information

Additional support for students

The university offers a wide range of support services that are available for students. Here are some links for you to explore.

- The Current Students Gateway: https://student.unsw.edu.au
- Academic Skills and Support: https://student.unsw.edu.au/academic-skills
- Student support: https://www.student.unsw.edu.au/support
- Student Wellbeing, Health and Safety: https://student.unsw.edu.au/wellbeing

Mind Smart Guides are a series of mental health self-help resources designed to give you the psychological flexibility, resilience and self-management skills you need to thrive at university and at work.

- Mind Smart Guides: https://student.unsw.edu.au/mindsmart

- Equitable Learning Services: https://student.unsw.edu.au/els
- Guide to studying online: https://www.student.unsw.edu.au/online-study

Most courses in UNSW Medicine & Health use Moodle as your Learning Management System. Guidance for using UNSW Moodle can be found on the Current Student page. Difficulties with Moodle should be logged with the IT Service Centre.

- Moodle Support: https://student.unsw.edu.au/moodle-support

The IT Service Desk is your central point of contact for assistance and support with remote and on-campus study.

- UNSW IT Service Centre: https://www.myit.unsw.edu.au/services/students

Course evaluation and development

At UNSW Medicine & Health, students take an active role in designing their courses and their overall student experience. We regularly seek feedback from students, and continuous improvements are made based on your input. Towards the end of the term, you will be asked to participate in the myExperience survey, which serves as a source of evaluative feedback from students. Your input to this quality enhancement process is valuable in helping us meet your learning needs and deliver an effective and enriching learning experience. Student responses are carefully considered, and the action taken to enhance educational quality is documented in the myFeedback Matters section of your Moodle (or Open Learning) course page.

School-specific Information

Laboratory or practical class safety.

For courses where there is a laboratory or practical-based component, students are required to wear the specified personal protective equipment (e.g., laboratory coat, covered shoes, safety glasses) indicated in the associated student risk assessments. The student risk assessments will be provided on the course Moodle page and must be read and acknowledged prior to the class.

Master of Science in Health Data Science courses

Courses in the Master of Science in Health Data Science are hosted through Open Learning. Additional resources are available on the Health Data Science Student Hub.

School Contact Information

School guidelines on contacting staff:

Course questions

All questions related to course content should be posted on Moodle (or Open Learning) or as directed by your Course Convenor.

In cases where email communication with course convenors is necessary, we kindly request the following:

- Use your official email address for any correspondence with teaching staff.
- We expect a high standard of communication. All communication should avoid using short-hand or texting language.
- Include your full name, student ID, and your course code and name in all communication.

Our course convenors are expected to respond to emails during standard working hours of Monday to Friday, 9am-5pm.

Administrative questions

If you have an administrative question about your program of study at the School please submit your enquiry online at UNSW Ask Us.

Complaints and appeals

Student complaints and appeals: https://student.unsw.edu.au/complaints

If you have any grievances about your studies, we invite you to address these initially to the Course Convenor. If the response does not meet your expectations, you may then contact the School Grievance Officer, Prof Nick Di Girolamo (n.digirolamo@unsw.edu.au).

For MSc. HDS students: School Grievance Officer, Dr Sanja Lujic (s.lujic@unsw.edu.au), Centre

for Big Data Research in Health