

PDTY2102: Pharmacology in Clinical Podiatry Practice

Ourimbah

Semester 1 - 2024



THE UNIVERSITY OF
NEWCASTLE
AUSTRALIA

OVERVIEW

Course Description

This course reviews the general principles of pharmacology and quality use of medicines. It specifically reviews pharmacokinetics and pharmacodynamics; providing students with a clear basis to understand the process by which a drug enters, is absorbed and impacts the intended site of action, drug metabolism and excretion. This course provides students with knowledge of this process on specific populations. Principles of anaesthesia are covered with emphasis on safe and effective administration of local anaesthesia in a clinical setting.

This course reviews the general principles of dermatology with specific emphasis placed upon the implications of dermatological conditions of the lower limbs. This course extends students' knowledge of basic pharmacology emphasising clinically relevant pharmacology and its integration with podiatric dermatology and microbiology.

Academic Progress Requirements

This course is a compulsory program requirement for students in the following program(s):

- Bachelor of Podiatry

In addition to meeting the University's overall requirements for academic progression, students enrolled in these program(s) must satisfactorily complete this course in order to progress in their program.

Requisites

This course is only available to students enrolled in the Bachelor of Podiatry program.

Pre-requisite - successful completion of PDTY1202, HUBS1108 and HUBS1404

Assumed Knowledge Contact Hours

Anatomy and physiology of the human body Pharmacology

Ourimbah Clinical

Face to Face Off Campus
40 hours during semester as directed.

Integrated Learning Session

Face to Face On Campus
1 hour per week for 12 weeks starting Week 1. Two of these sessions will be self-directed and online.

Lecture

Face to Face On Campus
2 hour(s) per week(s) for 11 week(s)
These are approximate hours per week. Some material is delivered online.

Unit Weighting

10

COURSE OUTLINE

www.newcastle.edu.au

CRICOS Provider 00109J

Workload	Students are required to spend on average 120-140 hours of effort (contact and non-contact) including assessments per 10 unit course.
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CONTACTS

Course Coordinator	Ourimbah Dr Antoni Fellas Antoni.Fellas@newcastle.edu.au Consultation: Via email, phone or in person. Please email Antoni to set-up a suitable appointment time.
Teaching Staff	Mr Peter Miller will be delivering the pharmacology lectures attached to this course and assisting in supervising the clinical sessions. Mr John Niemotko will be teaching the integrated learning sessions.
School Office	School of Health Sciences Room 302, ICT Building Callaghan SchoolHealthSciences@newcastle.edu.au +61 2 4921 7053

SYLLABUS

Course Content	<ol style="list-style-type: none">1. General pharmacology including an indepth review of principles of pharmacology2. Applied drug therapy: immune, inflammatory and infectious disorders3. Systemic pharmacology relating to the cardiovascular, respiratory, musculoskeletal, nervous and endocrine systems4. Principles of local and general anaesthesia5. Adverse drug reactions and interactions and the use of drug therapy in specific populations6. Case based pharmacological management7. Skin structure and function8. Skin conditions affecting the lower limb
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Course Learning Outcomes	<p>On successful completion of this course, students will be able to:</p> <ol style="list-style-type: none">1. Demonstrate sound understanding of the concepts of quality use of medicines and the Pharmaceutical Benefits Scheme (PBS) and use the appropriate terminology when discussing drug names, classifications and regimes.2. Demonstrate an in-depth knowledge of pharmacokinetics and pharmacodynamics and factors that may affect drug absorption, drug clearance, volume of distribution and half-life with regard to efficacy and safety for specific patient groups.3. Demonstrate the ability to perform risk: benefit analysis when considering pharmacological management, and to formulate appropriate goal orientated pharmaceutical management plans.4. Demonstrate thorough knowledge of roles and rationales for drug prescription and therapy, and describe the physiological effects of drug regimes in systemic conditions affecting the cardiovascular, respiratory, musculoskeletal, nervous, endocrine, and integumentary systems with relevance to podiatry5. Using appropriate terminology, describe the implications of the invasion and multiplication of pathogenic microorganisms in body tissues, the role of drug therapy and the concept of antibiotic resistance.6. Demonstrate a detailed knowledge of skin and nail structure and function, common integumentary system pathologies, and appropriate pharmacological interventions including
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indications and contraindications

7. Nominate and implement appropriate laboratory tests for podiatrically relevant fungal and bacterial infections, and demonstrate detailed knowledge of pharmacological options and agents.

8. Describe and discuss the importance of anti-inflammatory and analgesic medications with specific relevance to podiatry.

9. Describe the principles of local and general anaesthesia and the indications for use of anaesthesia in podiatry, with specific emphasis on safe and effective administration of local anaesthesia in a clinical setting.

10. Demonstrate the ability to perform a case-based medications review in a clinical setting, and recognise possible sequelae of drug therapy including adverse effects and interactions; and consider these in relation to dose and systemic factors.

11. Demonstrate appropriate professional behaviour including meeting attendance requirements and participation in group-based activities

Course Materials

This course is supported by the Canvas course site: PDTY2102 PHARM IN CLIN POD PRAC (S1 2024 CENTRALCST) CRS.300795.2024.S1

COMPULSORY REQUIREMENTS

In order to pass this course, each student must complete ALL of the following compulsory requirements:

Contact Hour Requirements:

- Clinical attendance requirement – student must attend all rostered clinical sessions and any further sessions required for assignment completion.
- Integrated learning session (aka tutorial) – students must attend all tutorial sessions.

Course Assessment Requirements:

- Assessment 2 - Attendance and Professional Behaviour: Pass requirement - Must pass this assessment item to pass the course.
- Assessment 3 - Assignment: Pass requirement - Must pass this assessment item to pass the course.

Compulsory Placement and WHS Requirements:

- CPR and anaphylaxis certificates
- NSW Health Verification Requirements - Mandatory NSW Health Verification Requirements must be met.

SCHEDULE

Week - Date	Tutorial (Wednesday)	Lecture (Thursday)		Clinical (Thursday)
		Pharmacology	Clinical Practice	
1 - 26/02	Skin structure and function (online and self-directed)	Review of Pharmacokinetics and dynamics	Course introduction	Group 1: Clinic info session
2 - 4/03	Describing skin lesions	Antibiotic therapy for podiatry	Bacterial infections	Group 2: Clinic info session
3 - 11/03	Team challenge 1	Antifungal therapy for podiatry	Fungal infections	Rostered clinic session
4 - 18/03	Nail disorders	Quality use of medicines (online)		Rostered clinic session
5 - 25/03	Onychomycosis cases	Cardiovascular pharmacology in podiatry practice		Rostered clinic session
6 - 1/04	Cardiovascular cases	Drugs affecting the blood	Polypharmacy	Rostered clinic session
7 - 8/04	Team challenge 2	Anti-inflammatories and disease modifying anti-rheumatic drugs	Gout	Rostered clinic session
Recess from 15th April to 28th April				
8 - 29/04	Review material weeks 1-7 (online and self-directed)	Mid-semester Exam		No Clinic
9 - 06/05	Rheumatoid cases	Anaesthetics and analgesics in podiatry	Local anaesthesia	Rostered clinic session
10 - 13/05	Local anaesthetic cases	Endocrine pharmacology	Diabetes	Rostered clinic session
11 - 20/05	Diabetes cases	Respiratory pharmacology in podiatry	Mid-semester exam review*	Rostered clinic session
12 - 27/05	Team challenge 3	Pharmacological treatment of conditions affecting the CNS	Exam information session (online)	Rostered clinic session

ASSESSMENTS

This course has 4 assessments. Each assessment is described in more detail in the sections below.

	Assessment Name	Due Date	Involvement	Weighting	Learning Outcomes
1	Mid-Semester In-Class Examination	Thursday 2 nd May (Week 8). During normal lecture time.	Individual	35%	1, 2, 3, 4, 5, 6, 7
2	Attendance and Professional Behaviour*	All clinical and learning integrated (tutorial) sessions.	Individual	Pass/Fail	11
3	Assignment*	Medication review 1: Friday 31 st May (week 12) Medication review 2: Date and time to be released on Canvas	Individual	Med review 1 (5%), Med review 2 (10%) both must pass	10
4	Formal Examination	Formal exam period	Individual	50%	1, 2, 3, 4, 5, 6, 7, 8, 9

* This assessment has a compulsory requirement.

Late Submissions

The mark for an assessment item submitted after the designated time on the due date, without an approved extension of time, will be reduced by 10% of the possible maximum mark for that assessment item for each day or part day that the assessment item is late. Note: this applies equally to week and weekend days.

Reusing one's own work, or part thereof, that has been submitted previously and counted towards another course without permission from the relevant Course Coordinator and 2) making contact or colluding with another person, contrary to instructions, during an examination, in-term test, quiz or other individual assessment item are considered forms of Academic Fraud within the Student Academic Integrity Policy. This information is located in the policy glossary under academic fraud, the Academic Integrity Module and/or details in HLSC1000 content on Academic Integrity.

Assessment 1 - In-Class Examination

Assessment Type	In Term Test
Description	Short answer in-class examination assessing materials from weeks 1-7. Further information will be provided via the PDTY2102 Canvas site.
Weighting	35%
Due Date	Thursday, 2 nd May (during lecture time)
Submission Method	In Class
Assessment Criteria	Assess learning outcomes 1-7
Return Method	This assessment item will not be returned
Feedback Provided	A general feedback session will take place in the week 11 lecture (provided all students have sat the exam). Individual consultations will be provided on request.
Opportunity to Reattempt	Students WILL NOT be given the opportunity to reattempt this assessment without successfully applying for Adverse Circumstances.

Assessment 2 - Attendance and Professional Behaviour

Assessment Type	Participation
Description	All students are expected to meet the attendance requirements for tutorial and clinical sessions – one tutorial session per week and their rostered clinical sessions. Clinical sessions are conducted throughout weeks 1-12 of semester and in week 15 and 16. Tutorials are on campus and clinical sessions at the University of Newcastle Student Podiatry Clinic at Wyong Hospital. All students must pass the professional behaviour assessment in each clinical and tutorial session. Assessment is based on the University Placement Policy (Policy 000768) with specific reference to actions deemed as "misconduct" and "unprofessional" as defined by this

policy and including observation of all policies and procedures set out by the University Podiatry Clinic in regard to all aspects of clinical practice.

This assessment ensures students have appropriate knowledge and skills to behave in a professional and ethical manner on subsequent internal and external placement. Students not meeting the professional behaviour requirements for all clinical sessions will not meet the compulsory course component requirements for the assessment item and will be given a failed grade (FF) for the course.

Weighting
Compulsory
Requirements

This is a formative assessment and will not contribute to your final grade.

Pass requirement - Must pass this assessment item to pass the course. Pass Requirement - Students must pass this assessment item to pass the course. Attendance at all allocated clinics and tutorials is compulsory.

If you are unable to attend a clinical session you must:

- Contact the clinic by phone as soon as possible – 4394 7280
- Notify Dr Antoni Fellas by email – antoni.fellas@newcastle.edu.au
- Lodge an application for Adverse Circumstances

If you are unable to attend a tutorial session you must:

- Notify Dr Antoni Fellas by email – antoni.fellas@newcastle.edu.au
- Lodge an application for Adverse Circumstances

Assessment Criteria
Opportunity to
Reattempt

Assesses learning outcome 11

The assessment is carried out over the course of the semester therefore reattempt of this assessment item can only be granted following a successful application for Adverse Circumstances

Assessment 3 - Assignment

Assessment Type
Description

Written Assignment

This assignment assesses your ability to perform a medication review. To complete this assignment, you will need to perform two medication reviews: one on a patient attending the University of Newcastle Podiatry Clinic, and one in-class review (this will be a fake patient scenario)

Weighting
Compulsory
Requirements
Due Date

15% (medication review 1 - 5%; medication review 2 - 10%)

Pass Requirement - Students must pass this assessment item to pass the course.

Submission Method

Medication review 1: via the PDTY2102 Canvas site Friday 31st May 5.00pm (Week 12)
Medication review 2: In-class, date and time for each student will be on Canvas.

Medication review 1: Online via Canvas
Medication review 2: Submitted in class at the end of the examination

Assessment Criteria
Return Method
Feedback Provided
Opportunity to
Reattempt

Assesses learning outcomes 1,3,10

This assignment will not be returned

Individual feedback will be provided on request

The assessment is carried out over the course of the semester therefore reattempt of this assessment item can only be granted following a successful application for Adverse Circumstances

Assessment 4 - Formal Examination

Assessment Type
Description

Formal Examination

This examination assesses all course content. This examination assesses students' knowledge and understanding of pharmacology and how it relates to the practice of podiatry including conditions that are commonly encountered clinically and their appropriate pharmacological management. This examination assesses students' capability to practice safely on future internal and external clinical placements.

This is a closed book examination.

Weighting
Due Date

50%

Formal exam period

Submission Method
Assessment Criteria

Formal exam – This is a closed book examination

Assesses learning outcomes 1-10

Return Method
Feedback Provided

This assessment will not be returned

Individual feedback will be provided on request

Opportunity to
Reattempt

Students WILL NOT be given the opportunity to reattempt this assessment without successfully applying for Adverse Circumstances

CLASS TYPE	DAY	START	END	ROOM	WEEKS
Integrated Learning (Tutorial)	Wednesday	2:00pm or 3:00pm	3:00pm or 4:00pm	MP203	1-12
Lecture	Thursday	10:00am	12:00pm	CS218	1-7, 9-12
Clinical Practical	Thursday	1:00pm	5:00pm	Wyong Clinic	Rostered*
Clinical Practical	As rostered* for 2 days	9:00am	5:00pm	Wyong Clinic	After end of semester

*Roster will be made available on Canvas.

ADDITIONAL INFORMATION

Grading Scheme

This course is graded as follows:

Range of Marks	Grade	Description
85-100	High Distinction (HD)	Outstanding standard indicating comprehensive knowledge and understanding of the relevant materials; demonstration of an outstanding level of academic achievement; mastery of skills*; and achievement of all assessment objectives.
75-84	Distinction (D)	Excellent standard indicating a very high level of knowledge and understanding of the relevant materials; demonstration of a very high level of academic ability; sound development of skills*; and achievement of all assessment objectives.
65-74	Credit (C)	Good standard indicating a high level of knowledge and understanding of the relevant materials; demonstration of a high level of academic achievement; reasonable development of skills*; and achievement of all learning outcomes.
50-64	Pass (P)	Satisfactory standard indicating an adequate knowledge and understanding of the relevant materials; demonstration of an adequate level of academic achievement; satisfactory development of skills*; and achievement of all learning outcomes.
0-49	Fail (FF)	Failure to satisfactorily achieve learning outcomes. If all compulsory course components are not completed the mark will be zero. A fail grade may also be awarded following disciplinary action.

*Skills are those identified for the purposes of assessment task(s).

Communication Methods

Communication methods used in this course include: Communication methods used in this course include: email, phone, face to face, and Canvas. Please email antoni.fellas@newcastle.edu.au to arrange an appointment.

Course Evaluation

Each year feedback is sought from students and other stakeholders about the courses offered in the University for the purposes of identifying areas of excellence and potential improvement. The following has been implemented:

- Adding slides to the introduction lecture that clearly state that some of the pharmacology content (from the pharmacist's lectures) is not directly examinable. Additionally, more reminders (face to face during tutorials and emails) will be provided to students throughout the semester.
- More reminders and encouragement of the tasks that should be done during the Wyong practical sessions

Oral Interviews (Vivas) As part of the evaluation process of any assessment item in this course an oral examination

(viva) may be conducted. The purpose of the oral examination is to verify the authorship of the material submitted in response to the assessment task. The oral examination will be conducted in accordance with the principles set out in the [Oral Examination \(viva\) Procedure](#). In cases where the oral examination reveals the assessment item may not be the student's own work the case will be dealt with under the [Student Conduct Rule](#).

Academic Misconduct All students are required to meet the academic integrity standards of the University. These standards reinforce the importance of integrity and honesty in an academic environment. Academic Integrity policies apply to all students of the University in all modes of study and in all locations. For the Student Academic Integrity Policy, refer to <https://policies.newcastle.edu.au/document/view-current.php?id=35>.

Adverse Circumstances The University acknowledges the right of students to seek consideration for the impact of allowable adverse circumstances that may affect their performance in assessment item(s). Applications for special consideration due to adverse circumstances will be made using the online Adverse Circumstances system where:

1. the assessment item is a major assessment item; or
2. the assessment item is a minor assessment item and the Course Co-ordinator has specified in the Course Outline that students may apply the online Adverse Circumstances system;
3. you are requesting a change of placement; or
4. the course has a compulsory attendance requirement.

Before applying you must refer to the Adverse Circumstance Affecting Assessment Items Procedure available at:
<https://policies.newcastle.edu.au/document/view-current.php?id=236>

Important Policy Information The Help button in the Canvas Navigation menu contains helpful information for using the Learning Management System. Students should familiarise themselves with the policies and procedures at <https://www.newcastle.edu.au/current-students/respect-at-uni/policies-and-procedures> that support a safe and respectful environment at the University.

Withdrawal from a course containing a placement In this course, students may withdraw without academic penalty in the first two weeks of semester only. This will allow prior notice to be given to most placements of any student's intention to withdraw from the placement, and may allow the place to be re-allocated. Withdrawal after the official date will usually result in an F grade. If there are Adverse Circumstances, students may apply to the Head of School for permission to withdraw from the course, after the official final date, without academic penalty. Permission to withdraw will not normally be given to students who have begun the placement and been placed at risk or advised that they are likely to fail.

Contribution to ANZPAC competency standards This course provides students with the opportunity to demonstrate competency in the following competency standards of the Australian and New Zealand Podiatry Accreditation Council: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 2.1, 2.2, 2.3, 2.4, 3.1, 3.2, 3.3, 4.1, 4.2, 4.3, 5.1, 5.2, 5.3, 6.1, 6.2, 6.3, 7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 8.1, 8.2, 8.3, 8.4, 8.5, 8.6.

This course outline was approved by the Head of School. No alteration of this course outline is permitted without Head of School approval. If a change is approved, students will be notified and an amended course outline will be provided in the same manner as the original.

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