



PEKING UNIVERSITY HEALTH CENTER-MACAO POLYTECHNIC UNIVERSITY NURSING ACADEMY
BACHELOR OF SCIENCES IN NURSING
LEARNING MODULE OUTLINE

Academic Year	2023-2024	Semester	2
Module Code	NPHA1102		
Learning Module	Pharmacology		
Pre-requisite(s)	N/A		
Medium of Instruction	Chinese / English		
Credits	3	Contact Hours	45
Instructor	Kenny Kuok Zhou Hong Li Hui Cui Suying	Email	cfkuok@mpu.edu.mo
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MODULE DESCRIPTION

This 45-hours subject covers basic concepts of pharmacology. It introduces the common used drugs with their pharmacological mechanisms, actions and side-effects, indications and contraindications systematically. Students could apply such knowledge to safe and effective administration of medications to clients.

MODULE INTENDED LEARNING OUTCOMES (ILOS)

On completion of this learning module, students will be able to:

M1.	Understand the basic concepts and regularities of pharmacology;
M2.	Explain the principles of drug actions;
M3.	Describe the drug classification and their action mechanisms;
M4.	Evaluate the reasonable of clinical drug usage and familiar with the severe side effects.

These ILOs aims to enable students to attain the following Programme Intended Learning Outcomes (PILOs):

PILOs	M1	M2	M3	M4	M5	M6
P1. Demonstrate an understanding of the holistic nature of the clients' health status involving individual, family, and community aspects.	✓	✓	✓	✓		
P2. Demonstrate effective communication skills and the ability to establish and maintain a therapeutic relationship with clients.	✓	✓	✓	✓		



P3. Demonstrate a mastery and an application of knowledge and skills for nursing practice, including biological sciences, social sciences and humanities, by making appropriate clinical reasoning and performing safe and therapeutic practice.	✓	✓	✓	✓		
P4. Demonstrate the ability to maintain legal and ethical standards of nursing practice.	✓	✓	✓	✓		
P5. Demonstrate the ability to carry out relevant research and contribute to the health of the community.	✓	✓	✓	✓		
P6. Work effectively and efficiently alone or in teams.	✓	✓	✓	✓		
P7. Demonstrate the ability to identify and evaluate health care issues.	✓	✓	✓	✓		
P8. Demonstrate a critical understanding and apply the principles of evidence-based practice to the delivery of nursing care.	✓	✓	✓	✓		

MODULE SCHEDULE, COVERAGE AND STUDY LOAD

Week	Content Coverage	Contact Hours
A: 6 B: 1 C: 1	Introduction to pharmacology	2
A: 6 B: 2 C: 2	Pharmacokinetics and pharmacodynamics	3
A: 7-8 B: 3-4 C: 3-4	Drugs affecting the central nervous system	6
A: 8 B: 5 C: 5	General and local anesthetics	2
A: 9 B: 10 C: 8	Drugs affecting the autonomic nervous system	4
A: 9 B: 10 C: 8	Drugs used to manage pain	2
A: 9-10 B: 10 C: 8	Drugs affecting the cardiovascular system	6
A: 10 B: 10-11 C: 8	Drugs affecting the endocrine system and metabolic diseases	6
A: 10 B: 11 C: 8-9	Chemotherapeutic drugs	10
A: 10	Active learning module	2



B: 11 C: 9		
	Examination	2

TEACHING AND LEARNING ACTIVITIES

In this learning module, students will work towards attaining the ILOs through the following teaching and learning activities:

Teaching and Learning Activities	M1	M2	M3	M4	M5	M6
T1. Lectures	✓	✓	✓	✓		
T2. Active learning module	✓	✓	✓	✓		
T3. Final examination	✓	✓	✓	✓		

ATTENDANCE

Attendance requirements are governed by the Academic Regulations Governing Bachelor's Degree Programmes of the Macao Polytechnic University. Students who do not meet the attendance requirements for the learning module shall be awarded an 'F' grade.

ASSESSMENT

This learning module is graded on a 100-point scale, with 100 being the highest possible score and 50 being the passing score.

Any student from Faculty of Health Sciences and Sports (FCSD) scoring less than 35% of the total mark in the final examination will be given an "F" grade for the module even if the overall grade is 50% or higher.

In this learning module, students are required to complete the following assessment activities:

Assessment Activities	Weighting (%)	ILOs to be Assessed (M1,M2,M3,M4,M5.....)
A1. Final examination	60	M1, M2, M3, M4
A2. Active learning module	40	M2, M3, M4

The assessment will be conducted following the University's Assessment Strategy (see www.mpu.edu.mo/teaching_learning/en/assessment_strategy.php). Passing this learning module indicates that students will have attained the ILOs of this learning module and thus acquired its credits.



MARKING SCHEME

Assessment Activities	Assessment Criteria	Mark Ranges				
		88-100 High	73-87 Signification	58-72 Moderate	50-57 Basic	<50 Fail
A1. Final Examination	Demonstrate the ability to identify and apply appropriate concepts, methods and techniques	Excellent	Good/ Very Good	Satisfactory	Marginal Pass	Not reaching marginal levels
A2. Assignments (individual or group)	Demonstrate the ability to complete individual or group assignment, answer questions on the topics covered in the module.	Excellent	Good/ Very Good	Satisfactory	Marginal Pass	Not reaching marginal levels

REQUIRED READINGS 書單

Karen Whalen. (2018). *Lippincott's illustrated reviews: pharmacology* (7th ed). Lippincott Williams & Wilkins.

REFERENCES 參考文獻

Roach, S.S. (2004). *Introductory Clinical Pharmacology* (7th ed.). Lippincott Williams & Wilkins.

Rang, H. P., Ritter, J. M., Flower, R. J., Henderson, G. (2015). *Rang & Dale's Pharmacology* (8th ed.). Churchill Livingstone.

STUDENT FEEDBACK

At the end of every semester, students are invited to provide feedback on the learning module and the teaching arrangement through questionnaires. Your feedback is valuable for instructors to enhance the module and its delivery for future students. The instructor and programme coordinators will consider all feedback and respond with actions formally in the annual programme review.

ACADEMIC INTEGRITY

The Macao Polytechnic University requires students to have full commitment to academic integrity when engaging in research and academic activities. Violations of academic integrity, which include but are not limited to plagiarism, collusion, fabrication or falsification, repeated use of assignments and cheating in examinations, are considered as serious academic offenses and may lead to disciplinary actions. Students should read the relevant regulations and guidelines in the Student Handbook which is distributed upon the admission into the University, a copy of which can also be found at www.mpu.edu.mo/student_handbook/.



Time table 1 Year 1 class A

Kenny's sessions

Session	Date	Time	Topics
1	2024/02/19	14:30-16:30	Introduction to pharmacology
2	2024/02/22	14:30-16:30	Introduction to pharmacokinetics and pharmacodynamics
3	2024/02/26	14:30-16:30	Drugs affecting the CNS: - Drugs for Parkinson disease - Drugs for Alzheimer's disease
4	2024/02/29	14:30-17:30	Drugs affecting the CNS: - Antidepressant drugs - Anxiolytic drugs
5	2024/03/04	14:30-16:30	Drugs affecting the CNS: - Antipsychotic drugs - Antiepileptic drugs - CNS stimulants
6	2024/03/06	14:30-16:30	General and local anesthetics

Li Hu's sessions

Session	Date	Time	Topics
1	2024/03/13	9:00-11:00	Drugs affecting the ANS: - Adrenergic agonists and antagonists
2	2024/03/13	11:00-13:00	Drugs affecting the ANS: - Cholinergic agonists and antagonists - Neuromuscular blocking drugs
3	2024/03/14	9:00-11:00	Drugs used to manage pain: - Opioids & non-opioid analgesics - Nonsteroidal anti-inflammatory drugs
4	2024/03/14	11:00-13:00	Drugs affecting the CVS: - Antihypertensive drugs - Diuretics
5	2024/03/15	11:00-13:00	Drugs affecting the CVS: - Drugs for heart failure and angina pectoris
6	2024/03/18	11:00-13:00	Drugs affecting the CVS: - Antiarrhythmic drugs, anticoagulants and thrombolytic drugs, antianemic drugs
7	2024/03/18	14:30-16:30	Drugs affecting the metabolic diseases: - Drugs for diabetes mellitus - Antihyperlipidemic drugs
8	2024/03/19	9:00-11:00	Drugs affecting the endocrine systems: - Cortex hormones and corticosteroids - Sex hormones and replacement therapy
9	2024/03/19	11:00-13:00	Drugs affecting the endocrine systems: - Drugs for thyroid dysfunction and osteoporosis
10	2024/03/20	11:00-13:00	Antibacterial drugs I



11	2024/03/20	14:30-16:30	Antibacterial drugs II
12	2024/03/21	9:00-11:00	- Antituberculosis drugs - Antileprosy drugs - Antifungal drugs
13	2024/03/21	11:00-13:00	Antineoplastic drugs
14	2024/03/22	9:00-11:00	- Antiviral drugs - Antimalarial and antiparasitic drugs
15	2024/03/22	11:00-13:00	Reviews and student reports

Time table 2 Year 1 class B

Kenny's sessions

Session	Date	Time	Topics
1	2024/01/04	9:00-11:00	Introduction to pharmacology
2	2024/01/11	9:00-11:00	Introduction to pharmacokinetics and pharmacodynamics
3	2024/01/18	9:00-11:00	Drugs affecting the CNS: - Drugs for Parkinson disease - Drugs for Alzheimer's disease
4	2024/01/23	14:30-17:30	Drugs affecting the CNS: - Antidepressant drugs - Anxiolytic drugs
5	2024/01/25	9:00-11:00	Drugs affecting the CNS: - Antipsychotic drugs - Antiepileptic drugs - CNS stimulants
6	2024/01/29	14:30-16:30	General and local anesthetics

Cui Suying's sessions

Session	Date	Time	Topics
1	2024/03/19	14:30-16:30	Drugs affecting the ANS: - Adrenergic agonists and antagonists
2	2024/03/20	11:00-13:00	Drugs affecting the ANS: - Cholinergic agonists and antagonists - Neuromuscular blocking drugs
3	2024/03/20	14:30-16:30	Drugs used to manage pain: - Opioids & non-opioid analgesics - Nonsteroidal anti-inflammatory drugs
4	2024/03/21	9:00-11:00	Drugs affecting the CVS: - Antihypertensive drugs - Diuretics
5	2024/03/21	11:00-13:00	Drugs affecting the CVS: - Drugs for heart failure and angina pectoris
6	2024/03/22	9:00-11:00	Drugs affecting the CVS: - Antiarrhythmic drugs, anticoagulants and



			thrombolytic drugs, antianemic drugs
7	2024/03/22	11:00-13:00	Drugs affecting the metabolic diseases: - Drugs for diabetes mellitus - Antihyperlipidemic drugs
8	2024/03/25	9:00-11:00	Drugs affecting the endocrine systems: - Cortex hormones and corticosteroids - Sex hormones and replacement therapy
9	2024/03/25	11:00-13:00	Drugs affecting the endocrine systems: - Drugs for thyroid dysfunction and osteoporosis
10	2024/03/26	9:00-11:00	Antibacterial drugs I
11	2024/03/26	11:00-13:00	Antibacterial drugs II
12	2024/03/27	9:00-11:00	- Antituberculosis drugs - Antileprosy drugs - Antifungal drugs
13	2024/03/27	11:00-13:00	Antineoplastic drugs
14	2024/03/28	9:00-11:00	- Antiviral drugs - Antimalarial and antiparasitic drugs
15	2024/03/28	11:00-13:00	Reviews and student reports

Time table 3 Year 1 class C

Kenny's sessions

Session	Date	Time	Topics
1	2024/01/04	11:00-13:00	Introduction to pharmacology
2	2024/01/11	11:00-13:00	Introduction to pharmacokinetics and pharmacodynamics
3	2024/01/18	11:00-13:00	Drugs affecting the CNS: - Drugs for Parkinson disease - Drugs for Alzheimer's disease
4	2024/01/24	14:30-17:30	Drugs affecting the CNS: - Antidepressant drugs - Anxiolytic drugs
5	2024/01/25	11:00-13:00	Drugs affecting the CNS: - Antipsychotic drugs - Antiepileptic drugs - CNS stimulants
6	2024/02/01	11:00-13:00	General and local anesthetics

周虹老師部分

Session	Date	Time	Topics
1	2024/03/04	9:00-11:00	Drugs affecting the ANS: - Adrenergic agonists and antagonists



2	2024/03/04	11:00-13:00	Drugs affecting the ANS: - Cholinergic agonists and antagonists - Neuromuscular blocking drugs
3	2024/03/05	9:00-11:00	Drugs used to manage pain: - Opioids & non-opioid analgesics - Nonsteroidal anti-inflammatory drugs
4	2024/03/05	11:00-13:00	Drugs affecting the CVS: - Antihypertensive drugs - Diuretics
5	2024/03/06	9:00-11:00	Drugs affecting the CVS: - Drugs for heart failure and angina pectoris
6	2024/03/06	11:00-13:00	Drugs affecting the CVS: - Antiarrhythmic drugs, anticoagulants and thrombolytic drugs, antianemic drugs
7	2024/03/07	9:00-11:00	Drugs affecting the metabolic diseases: - Drugs for diabetes mellitus - Antihyperlipidemic drugs
8	2024/03/07	11:00-13:00	Drugs affecting the endocrine systems: - Cortex hormones and corticosteroids - Sex hormones and replacement therapy
9	2024/03/08	9:00-11:00	Drugs affecting the endocrine systems: - Drugs for thyroid dysfunction and osteoporosis
10	2024/03/08	11:00-13:00	Antibacterial drugs I
11	2024/03/11	9:00-11:00	Antibacterial drugs II
12	2024/03/11	11:00-13:00	- Antituberculosis drugs - Antileprosy drugs - Antifungal drugs
13	2024/03/12	9:00-11:00	Antineoplastic drugs
14	2024/03/12	11:00-13:00	- Antiviral drugs - Antimalarial and antiparasitic drugs
15	2024/03/13	9:00-11:00	Reviews and student reports