

Macao Polytechnic Institute
School of Health Sciences and Sports
Master of Science in Nursing

Module Outline

Learning Module	Advanced Nursing Pharmacology		Class Code	NURS6103
Pre-requisite(s)	Nil			
Medium of Instruction	Chinese / English		Credit	3
Lecture Hours	45 hrs	Lab/Practice Hours	---	Total Hours 45 hrs

Description

This 45-hours subject is an advanced course in pharmacology. It aims to equip students with more in-depth knowledge about clinical pharmacology and pharmacotherapeutics.

Learning Outcomes

After completing the learning module, students will be able to:

1. Understand the classifications, indications, major adverse effects, potential drug-drug interactions and precautions of different medications;
2. Understand the pharmacotherapeutic plans and clinical guidelines for common diseases;
3. Appreciate how to monitoring of the effectiveness and safety of different medications;
4. Evaluate clinical trials and scientific literature about medications.

Content

1. Introduction to clinical pharmacology and pharmacotherapeutics (4 hours)
 - 1.1 *Pharmacokinetics and pharmacodynamics*
 - 1.2 *Drug interactions*
 - 1.3 *Adverse drug reaction*
 - 1.4 *Application of pharmacology in nursing practice*
 - 1.5 *Clinical trials and scientific literature about medications*
2. Drug therapy across the life span (4 hours)
 - 2.1 *Drug therapy during pregnancy and breast-feeding*
 - 2.2 *Drug therapy in pediatric patients*
 - 2.3 *Drug therapy in geriatric patients*

3. Drugs affecting the nervous system (10 hours)
 - 3.1 *Adrenergic and cholinergic drugs*
 - 3.2 *Drugs for Parkinson disease*
 - 3.3 *Drugs for Alzheimer's disease*
 - 3.4 *Sedative, hypnotic and anxiolytic drugs*
 - 3.5 *Antidepressant drugs*
 - 3.6 *Antipsychotic drugs*
 - 3.7 *Drugs for seizure disorders*
 - 3.8 *Drugs for pain*
4. Drugs affecting the cardiovascular system (6 hours)
 - 4.1 *Antihypertensive drugs and diuretics*
 - 4.2 *Drugs for heart failure*
 - 4.3 *Drugs for angina pectoris*
 - 4.4 *Antiarrhythmic drugs*
 - 4.5 *Anticoagulants, thrombolytic drugs and antianemic drugs*
5. Drugs for endocrine disorders (6 hours)
 - 5.1 *Drugs for diabetes mellitus*
 - 5.2 *Drugs hyperlipidemia*
 - 5.3 *Drugs for thyroid disorders*
 - 5.4 *Cortex hormones and corticosteroids*
 - 5.5 *Sex hormones and replacement therapy*
6. Chemotherapeutic drugs (10 hours)
 - 6.1 *Antibacterial drugs*
 - 6.2 *Antifungal drugs*
 - 6.3 *Antiviral drugs*
 - 6.4 *Antineoplastic drugs*
7. Active learning module (3 hours)
8. Examination (2 hours)

Teaching Method

Lectures, videos, case studies, group discussion

Attendance

Attendance requirements are governed by the “Academic Regulations Governing Master’s Degree Programmes of Macao Polytechnic Institute”.

Assessment

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

	Item	Description	Percentage
1.	Active learning module	To be announced in class	40%
2.	Final examination	All material in this module	60%
Total Percentage:			100%

Teaching Material(s)

Textbook(s)

Jacqueline R.B., Laura D.R. (2019). *Lehne's pharmacology for nursing care* (10th ed).
Elsevier.

Reference

Reference book(s)

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