澳門理工大學
Universidade Politécnica de Macau
Macao Polytechnic University

PEKING UNIVERSITY HEALTH SCIENCE CENTER

- MACAO POLYTECHNIC UNIVERSITY NURSING ACADEMY (AE)

BACHELOR OF SCIENCE IN NURSING

LEARNING MODULE OUTLINE

Academic Year	2025-2026	Semester	1
Module Code	NAAP1101		
Learning Module	Anatomy And Physiology		
Pre-requisite(s)	Nil		
Medium of Instruction	Chinese & English		
Credits	4	Contact Hours	60
Instructor	Lang Bin (Subject Teacher) Part-time teachers	Email	blang@mpu.edu.mo
Office	LG105	Office Phone	88936952

MODULE DESCRIPTION

This 60-hour subject of human anatomy and physiology is a fundamental element in the nursing program. Students would learn the basic concepts of the gross morphology and spatial interrelations of the structures and functions of the human body. With this background, the student would be able to go into study of all other essential subjects including pathophysiology, pharmacology, and health assessment. Such study is also essential for the nurse to plan appropriate intervention for the client with health problems, perform appropriate skills for maintaining health and promote comfort for the client, and give health teaching.

MODULE INTENDED LEARNING OUTCOMES (ILOS)

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

M1.	Master the basic concepts of the gross morphology.
M2.	Understand the spatial interrelations of the structures of the human body.
M3.	Master the basic concepts of life's activities.
M4.	Understand the functions and mechanisms of the human body.
M5.	Apply the knowledges in nursing care.

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

The PILOs are aligned with the Dublin descriptors, including knowledge and understanding, acquisition, application, critical judgment, communication skills, and learning skills/ability.

PILOs 課程預期學習成效	M1	M2	M3	M4	M5
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 **acquisition**, mastery, and **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 community's health.			✓		✓
P6. Work effectively and efficiently alone or in teams.			✓		
P7. Demonstrate the **ability** to identify and evaluate health care issues.					✓
P8. Demonstrate a **critical judgment** and **apply** the principles of evidence-based practice to deliver nursing care.	✓		✓		✓

MODULE SCHEDULE, COVERAGE AND STUDY LOAD

1A 1B 1C

Week	Content Coverage	Contact Hours
1	General description to human body • The cells, tissues and organisation of the body • Physiology of the cells • Regulation of body functions	6
2	Locomotor system • Osteology • Arthrology • Myology	6
3	Blood • The composition of blood • Hemostasis • Blood types	2
3-4	Cardiovascular system Structure of cardiovascular system • General description	8

	• Heart • Arteries • Veins • Lymph Function of cardiovascular system • Electrical properties of the cardiac muscle • The electrocardiogram • The heart as a pump • Dynamics of blood and lymph flow • Cardiovascular regulatory mechanisms • Circulation through special regions • Cardiovascular homeostasis in health and disease	
5	Digestive system Structure of digestive system • General description • Oral cavity / Pharynx / Esophagus / Stomach / Small intestine / Large intestine / Liver / Pancreas Function of digestive system • Functional anatomy of the Gastrointestinal tract • Mouth and esophagus • Digestion in stomach • Digestion in small intestine • Absorption in the small intestine • Function of the colon	6
6	Respiration system (6 class hours) Structure of respiration system • General description • Nose / Larynx / Trachea and bronchi / Lungs / Pleura / Mediastinum Function of respiration system • Pulmonary function • Gas exchange in the lungs • Gas transport between the lungs and tissues • Regulation of respiration • Respiratory adjustments in health and disease	6
7	Urinary System Structure of urinary system • General description • Kidneys / Ureters / Urinary bladder / Urethra Function of urinary system • Functional anatomy of kidney • Glomerular filteration • Tubular reabsorption and secretion • Regulation of urine formation • Micturition	6
8	Nervous system Structure of nervous system • General description • Spinal nerves	6

	• Cranial nerves • Meninges of brain and spinal Cord • Blood vessels of brain and spinal Cord • Blood-brain barrier Function of nervous system • Nerve cells and neuroglia • Synaptic transmission • Reflexes	
9	Reproductive System Male reproductive system • Internal reproductive organs • External reproductive organs • Male urethra • Function of male reproductive system Female reproductive system • Internal reproductive organs • External reproductive organs • Appendix: mamma / perineum • Function of female reproductive system	4
10	Sensory Organs Structure of sensory organs • General description • Visual organ: eyeball / accessory organs of eye / blood vessels and nerves of eye • Vestibulocochlear organ: external ear / middle ear / internal ear / conduction of sound waves Function of sensory organs • Initiation of impulses in sense organs • Vision • Hearing	2
11	Endocrine system Structure of endocrine system • General description • Hypophysis / thyroid gland / parathyroid glands /suprarenal glands /pineal body / • pancreatic islets / thymus / gonads Function of endocrine system • The hypothalamo-hypophysial system • The thyroid gland • The parathyroid glands and other calcium metabolism-related hormones • The adrenal glands • Endocrine functions of the pancreas	2
12	Energy metabolism and body temperature (2 class hours) • Energy metabolism • Body temperature	2
13	Test (2 class hours) Examination (2 class hours)	4

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
T1. Lecture	✓	✓	✓	✓	
T2. Discussion		✓		✓	
T3. Patient case studies					✓
T4. Writing assignment				✓	✓
T5. Multimedia resources (videos, podcasts, or online resources)		✓		✓	✓
T6. Oral Presentation					✓

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

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

Assessment Activities	Weighting (%)	ILOs to be Assessed
A1. Group assignment	20	M1, M2, M4, M5
A2. Test	30	M1, M2, M5
A3. Final Examination	50	M3, M4, M5

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.

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

MARKING SCHEME

High grades will be awarded to work that demonstrates exceptional understanding and mastery of the subject matter and consistently exceeding expectations. The followings are the general assessment criteria for the assessment activities.

Assessment Activities	Assessment Criteria	Mark Ranges				
		88-100	73-87	58-72	50-57	<50
A1. Group assignment	Describe clearly the background of the assignment; Rational analysis and explanation; Deep reflection; Complete and clear data;	Excellent	Good/ Very Good	Satisfactory	Marginal Pass	Fail; not reaching marginal levels
A2. Test	Demonstrate the ability to identify and apply appropriate concepts, methods, and techniques	Excellent	Good/ Very Good	Satisfactory	Marginal Pass	Fail; not reaching marginal levels
A3. Final Examination		Excellent	Good/ Very Good	Satisfactory	Marginal Pass	Fail; not reaching marginal levels

Please refer to the 'Essay Rubic.pdf' and 'Group Presentation Evaluation Form.pdf' for the grading criteria of the writing assignment and oral presentation.

REQUIRED READINGS

柏樹令（2018）。系統解剖學 (第九版)。北京：人民衛生出版社。

王庭槐 （2018）。生理學 (第九版)。北京：人民衛生出版社。

REFERENCES

Bai Shuling.(2007). *Textbook of Anatomy*. Beijin: People's Medical Publishing House.

Yao Tai.(2008). *Textbook of Physiology.* Beijin: People's Medical Publishing House.

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/.