



FACULTY OF HEALTH SCIENCES AND SPORTS
MASTER OF SCIENCE IN NURSING
LEARNING MODULE OUTLINE

Academic Year	2024/2025	Semester	I
Module Code	NURS6129		
Learning Module	Emergency and Critical Care Nursing		
Pre-requisite(s)	Nil		
Medium of Instruction	Chinese / English		
Credits	6	Contact Hours	90
Instructor	Wang Yan David Chan LOK I HANG CHAN IOC IN WONG ION CHEONG LEONG IOK SAN VONG ANA CHAN SIU PONG LEONG SOK I MA SIN U AU ANDRE LEONG SEK IAN HO KA IAN	Email	ywang@mpu.edu.mo t1898@mpu.edu.mo t1897@mpu.edu.mo t1895@mpu.edu.mo t1892@mpu.edu.mo t1900@mpu.edu.mo t1896@mpu.edu.mo t1891@mpu.edu.mo t1899@mpu.edu.mo t1894@mpu.edu.mo t1893@mpu.edu.mo t1890@mpu.edu.mo
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MODULE DESCRIPTION

This module describes the scope of the two major nursing specialties: Emergency Nursing and Critical Nursing. The contents include the epidemiology of accident prevention and injury; emergency care for adults and children; life-saving grief after trauma; physical examination of emergency patients; medical and surgical emergency care, and acute illness care at different stages of life; and basic and intensive care of critical care and its quality management, as well as clinical skills and interpretation of special conditions for ECG, arterial blood gas and X-ray chest radiographs and critical care.

MODULE INTENDED LEARNING OUTCOMES (ILOS)

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

M1.	Demonstrate understanding of emergent and critical diseases' mechanisms, manifestations, and medical treatment principles.
M2.	Design caring plans for emergent and critical patients.
M3.	Demonstrate advanced skills in assessing, intervening, evaluating, and health education for emergent and critical patients.



M4.	Demonstrate an understanding of using devices and apparatus in emergent and critical nursing.
M5.	Demonstrated ability for interdisciplinary collaboration.
M6.	Demonstrate advanced sensitivity to contemporary issues in critical and emergent nursing.

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

PILOs	M1	M2	M3	M4	M5	M6
P1. Knowledge and awareness of a range of advanced modules, fields, theories and approaches applicable to nursing discipline	✓	✓				
P2. Knowledge and understanding of advanced assessment tools used to assess and interpret issues in nursing, challenges and risks in a changing context	✓		✓	✓		
P3. Critical understanding of the growing scientific and clinical literature which affect nursing in practice	✓	✓	✓	✓	✓	✓
P4. Knowledge of advanced nursing competency working in different clinical specialties	✓	✓	✓	✓	✓	✓
P5. Develop an understanding of the theories, analytical approaches, methodologies and practices that underpin nursing in modern society	✓	✓			✓	✓
P6. Evaluate, extrapolate and synthesise relevant literature and empirical data and competently apply these to different nursing actual situations	✓	✓	✓	✓	✓	✓
P7. Develop ability to apply nursing theory to the analysis of a broad range of actual problems in current practice area		✓	✓		✓	✓
P8. Develop the capabilities in clinical analysis and thinking, as well as disciplinary research	✓	✓	✓	✓	✓	✓
P9. To learn continuously within academia and industry and beyond and to employ relevant information and knowledge in understanding different contexts	✓	✓	✓	✓	✓	✓
P10. To acquire research skills and values which can provide different approaches to the problem solving and decision making in nursing area	✓	✓	✓	✓	✓	✓
P11. To develop advanced knowledge and analytical skills that are transferable to nursing in practice	✓	✓	✓	✓	✓	✓
P12. To reinforce evidenced-based nursing through learnt knowledge and skills in research	✓	✓	✓	✓	✓	✓
P13. To have a positive attitude towards society and the environment	✓	✓	✓	✓	✓	✓
P14. To adhere to high moral standards and to commit to excellence in life-long learning	✓	✓	✓	✓	✓	✓



MODULE SCHEDULE, COVERAGE AND STUDY LOAD

Week	Content Coverage	Contact Hours
1	Introduction, Health Assessment, Clinical data analysis, Mechanical ventilation, Disaster, Trauma and CPR	19
2	Respiratory health assessment, Respiratory intervention & care, Cardiac health assessment, Cardiac intervention & care	14
3	Cardiac intervention & care, Critical care - Neurological system, Critical care - Urological system	13
4	Critical care - Digestive system, Emergency care	14
5	Emergency care	14
6	Critical & Emergency care, Trauma care - Simulation	14

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. Lecture	✓	✓	✓	✓	✓	✓
T2. Tutorial discussion	✓	✓	✓	✓	✓	✓
T3. Simulation scenario	✓	✓	✓	✓	✓	✓

ATTENDANCE

Attendance requirements are governed by the Academic Regulations Governing Master'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. Class assignments	60	M1, M2, M3, M4, M5, M6
A2. Final examinations	40	M1, M2, M3, M4, M5, M6

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

Descriptions:

- Each tutor will assign each student a score for the class assignment considering the teaching contents. The final score of class assignments will be combined according to the proportion of the learning hours.
- Each assignment is scored on a 100-point scale.
- The assignment could be MCQs, short questions, case studies, reflection papers, discussion reports, etc.
- The assignment could be finished closed-book or opened-book.
- The assignment could be finished individually or by teamwork.
- Each assignment should have a marking scheme.

REQUIRED READINGS

Emergency Nurses Association. Sheehy's emergency nursing: Principles and practice (7th). 2019, Mosby. ISBN-13: 978-0323485463.

Sarah A. Delgado. AACN Essentials of Critical Care Nursing (5th). 2023, McGraw Hill / Medical. ISBN-13: 978-1264269884

REFERENCES

Intensive and Critical Care Nursing: <https://www.sciencedirect.com/journal/intensive-and-critical-care-nursing>

Journal of Emergency Nursing: <https://www.jenonline.org/>

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/.



Date	Time	Title	Contents	Tutor
20240822	1830-2130	Introduction	Subject introduction	王艷
			Pathologic condition of the respiratory system	
20240824	0900-1300	Health Assessment Workshop (Resp & CVS system)	Acid-base balance (ABG analysis)	David Chan
			SpO ₂ & ETCO ₂ monitoring	
			Lung function test	
			CVS system - Bedside echo (POCUS)	
	1400-1800	Clinical Data Analysis Workshop	Common laboratory data analysis	David Chan
			ECG and arrhythmias analysis	
CXR analysis (Heart & Lung)				
20240825	0900-1300	Mechanical Ventilation workshop	Principle of mechanical ventilation	David Chan
			Ventilator operation & setting	
			Ventilatory care	
	1400-1800	Disaster, Trauma, and CPR workshop	Principle of disaster management	David Chan
			Four phases of disaster management & disaster triage skill	
			Principle of trauma management	
			CPR skill	
			Trauma assessment & spinal immobilization	
			Management of life-threatening injuries	
			Massive bleeding control with CAT and wound packing	
20240903	1830-2130	Resp Health Assessment	Fluid & electrolyte balance	陸式恒
			Shock & hemodynamic monitoring	
20240905	1830-2130	Resp Intervention & Care	Airway management	陳玉燕
			Oxygen & Humidification therapy	
			High-flow nasal cannula & noninvasive ventilation	
			other advances-ECMO & Prone ventilation	
20240907	0900-1000	Cardiac Health Assessment	Shock & hemodynamic monitoring	王潤璋
	1000-1100		Heart failure & IABP	梁玉珊
	1100-1200	Cardiac intervention & care	Common arrhythmias and treatment-1	梁玉珊
	1200-1300		Acute Coronary Syndrome and treatment-1	黃穎芝
	1400-1500	Cardiac Intervention & Care	Conductional block & temporary pacing	梁玉珊
	1500-1700		Acute Coronary Syndrome and treatment-2	黃穎芝
			Common arrhythmias and treatment-2	黃穎芝
			1700-1800	Cardiac arrest & ACLS
20240910	1830-2130	Cardiac Intervention & Care	Vascular access – CVP & IO insertion	王潤璋
			ACLS scenario training	
20240912	1830-2130	Critical Care - Neurological system	Common neurological problems in critical care	王艷
20240914	0900-1200		Neurological monitoring & care	專家



20240914	1400-1800	Critical Care - Urological system	Acute renal failure & CRRT	陸式恒
20240917	1830-2130	Critical Care - Digestive system	Acute pancreatitis, endocrine emergency, sepsis, DIC	王艷
20240919	1830-2130	Emergency Care	Hazmat management	陳兆邦
20240921	0900-1300		Transport of critically ill patients	梁淑儀
			SAM splint	
			Simple suturing	
	1400-1800		Lab practice	馬倩瑜
20240924	1830-2130		Common medical emergency – drug overdose, drowning ...etc.	王艷
20240926	1830-2130		Common surgical emergency – burns, spinal injury... etc.	王艷
20240928	0900-1300		Obstetric and gynecological emergencies	歐政南
	1400-1800	Pediatric emergencies	專家	
20241008	1830-2130	Critical & Emergency care	Pain sedation neuromuscular blockade management	王艷
20241010	1830-2130		Pharmacology	王艷
20241012	0900-1300	Trauma Care - Simulation	Trauma assessment	1.梁錫恩 2.何嘉恩
			Trauma therapeutics	
			Grips	
			Spinal immobilization	
	1400-1800	Disaster triage		
20241017	1830-2030	Exam		王艷