

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

**Module Outline**

<b>Learning Module</b>	Emergency and Critical Nursing			<b>Class Code</b>	NURS6107
<b>Pre-requisite(s)</b>	Nil				
<b>Medium of Instruction</b>	Chinese / English			<b>Credit</b>	6
<b>Lecture Hours</b>	90 hrs	<b>Lab/Practice Hours</b>	---	<b>Total Hours</b>	90 hrs

**Description**

This 90-hour subject has two closely-correlative parts: emergency nursing and critical care which both are essential components of the health care delivery system. The contents will be primarily oriented toward the adult patient. Emergency nursing focuses on caring for individuals with traumatic conditions either in the pre-hospital setting or in hospital emergency, who vary in aetiology, profile, diagnostics, treatment, and prognosis. It will encompass triage, legal and ethical issues, managing acute emergencies, and communications strategies in the ED. Critical care provides students with the knowledge and skills required to care for critically ill patients, which encompasses assessment and provision of comprehensive nursing care for patients with acutely life-threatening conditions. It will equip students with the knowledge and skills on different types of invasive devices and machines which will be encountered in critical care settings. The nursing process is used as an approach to providing holistic patient care. Critical thinking, clinical judgment, decision-making, and teamwork are emphasized in this course.

**Learning Outcomes**

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

1. Understanding of the pre-hospital & in-hospital triage system.
2. Understanding of the important ethical and legal issues encountered in dealing with victim/patient in emergency conditions.
3. Demonstrate the first aid measures and nursing management for patients with different medical emergencies such as trauma, cardiovascular emergency, gastrointestinal bleeding, allergic hypersensitivity emergencies, toxicological emergencies, environmental emergencies, etc.
4. Demonstrate the ability to assess and care for critically ill patients.
5. Demonstrate the ability to routinely care for invasive devices and machines.

6. Demonstrate understanding of effective communication with patients, families, and health care team members and the importance of the proper documentation of essential data pertinent to patient/victim condition or trauma.

## **Content**

### **1. Clinic foundation (12 hours)**

- 1.1 Nursing assessment and resuscitation (3 hours)
- 1.2 Triage and transfer (2 hours)
- 1.3 Organ and tissue donation (1 hours)
- 1.4 Isolation and personal protective equipment (2 hours)
- 1.5 Disaster preparedness and response (2 hours)
- 1.6 Legal and regulatory issues (2 hours)

*(UNDERSTAND: memorize definitions and scopes; describe involvement and ward setting. MASTER: apply principles, judge legal and ethical issues.)*

### **2. Clinical emergencies (23 hours)**

- 2.1 Shock emergencies (2 hours)
- 2.2 Fluid and electrolyte abnormalities (2 hours)
- 2.3 Cardiovascular emergencies (2 hours)
- 2.4 Respiratory emergencies (2 hours)
- 2.5 Abdominal emergencies (3 hours)
- 2.6 Dental, ear, nose and throat emergencies (1 hours)
- 2.7 Endocrine emergencies (1 hours)
- 2.8 Obstetric and gynaecologic emergencies (1 hours)
- 2.9 Environmental and toxicological emergencies (2 hours)
- 2.10 Hematologic and oncologic emergencies (1 hours)
- 2.11 Communicable and infectious disease emergencies (1 hours)
- 2.12 Neurologic emergencies (3 hours)
- 2.13 Psychiatric/psychosocial emergencies (2 hours)

*(UNDERSTAND: memorize definitions, aetiology, risk factors, and stages. COMPREHEND: analyse mechanisms, pathophysiology, and clinical manifestations. MASTER: apply diagnoses, caring principles; propose health education.)*

### **3. Trauma (10 hours)**

- 3.1 Nursing assessment and trauma resuscitation (1 hours)
- 3.2 Abdominal and urologic trauma (2 hours)
- 3.3 Burn trauma (2 hours)
- 3.4 Ocular and maxillofacial trauma (1 hours)
- 3.5 Neurologic trauma (2 hours)
- 3.6 Orthopaedic trauma (1 hours)

### 3.7 Thoracic trauma (1 hours)

*(COMPREHEND: differentiate the fast responses of trauma. UNDERSTAND: memorize clinical manifestations and nursing interventions of trauma. MASTER: apply knowledge to analyze problems of trauma. Make correct nursing diagnosis and nursing intervention.)*

## 4. Essentials of critical care (28 hours)

- 4.1 Assessment of critically ill patients (6 hours)
- 4.2 Hemodynamic monitoring (6 hours)
- 4.3 Airway and ventilator management (8 hours)
- 4.4 Pain, sedation and neuromuscular blockade management (4 hours)
- 4.5 Pharmacology and nutrition support in critical care (3 hours)
- 4.6 Ethical and legal considerations (1 hours)

*(UNDERSTAND: describe concepts, rationales for special therapies in ICU. MASTER: apply knowledge to analyse problems in ICU. Make correct nursing diagnosis and nursing intervention.)*

## 5. Pathologic conditions in critical care (17 hours)

- 5.1 Cardiovascular system (3 hours)
- 5.2 Respiratory system (2 hours)
- 5.3 Neurologic system (2 hours)
- 5.4 Hematologic and immune systems (2 hours)
- 5.5 Gastrointestinal system (2 hours)
- 5.6 Renal system (2 hours)
- 5.7 Trauma (2 hours)
- 5.8 Endocrine system (2 hours)

*(UNDERSTAND: describe concepts, rationales for special therapies in ICU. MASTER: apply knowledge to analyse problems in ICU. Make correct nursing diagnosis and nursing intervention.)*

## **Teaching Method**

Lectures, audio-visual materials, discussion, and assigned self-reading.

## **Attendance**

Attendance of the course is in accordance with the attendance stated in the 'Academic and Disciplinary Rules and Regulations'. Students are not eligible to attend the final examination and re-sit examination, moreover, an "F" will be given as the final grade to students who have less than the stated attendance for the enrolled subject.

## **Assessment**

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

	<b>Item</b>	<b>Description</b>	<b>Percentage</b>
1.	Class performance	Performance in the discussion on cases studies	20%
2.	Assignment	Nursing care planning	20%
3.	Exam	A close-book exam	60%

**Total Percentage:** 100%

## **Teaching Material(s)**

### **Textbook(s)**

1. Emergency Nurses Association (2019). *Sheehy's Emergency Nursing: Principles and Practice (7th)*. Mosby.
2. Suzanne Burns (2019). *AACN Essentials of Critical Care Nursing (4th)*. McGraw-Hill Education / Medical.
3. 張波(2016)，*危急重症護理學*，北京：人民衛生出版社。

### **Reference book(s)**

1. Vicki Sweet (2018). *Emergency nursing: core curriculum (7<sup>th</sup>)*. Elsevier.
2. 吳孟凌、唐景俠等(2019)，*急重症護理學*，臺北：華杏。
3. 蔡秀鶯、吳淑玲、吳宏蘭、李瑜弘、黃嫦芳等(2019)，*重症護理學*，臺北：永大。
4. 許虹(2016)，*急救護理學（第二版）*，北京：人民衛生出版社。