



**Philadelphia University**  
**Faculty of Nursing**  
**First Semester, 2009/2010**

**Course Syllabus**

<b>Course Title:</b> <i>Critical Care Nursing (Clinical).</i>	<b>Course code:</b> <i>( 910426 )</i>
<b>Course Level:</b> <i>4<sup>th</sup> year</i>	<b>Course prerequisite(s) and/or corequisite(s):</b> <i>( 910421),( 910419 )</i>
<b>Clinical Training Time:</b> <i>Sunday &amp; Tuesday 8 – 2 pm</i>	<b>Credit hours:</b> <i>3 Credit hours</i>

**Academic Staff Specifics**

<b>Name</b>	<b>Rank</b>	<b>Office Number and Location</b>	<b>Office Hours</b>	<b>E-mail Address</b>
<i>Dr. Sahar El- Shenawi</i>	<i>Assistant Professor</i>	<i>(2<sup>nd</sup> floor) 0915507</i>	<i>Sunday (2-3 pm) Tuesday (2-3 pm)</i>	<i>sshawawy @Philadelphia.edu.jo drsaharelshenawi@yahoo.com</i>
<i>Dr. Abd-El- Menem</i>	<i>Assistant Professor</i>	<i>(Ground floor) 092119</i>	<i>Monday 11-12 Wednesday 11-12</i>	<i>abatih@philadelphia.edu.jo Abdbatiha2yahoo.com</i>

**Course Description:**

*This course is designed to provide nursing students with the skills required to care competently and safely for critically ill patient. It focuses on having the students expand their knowledge base and master critical care nursing psychomotor skills associated with assessment and provision of comprehensive nursing care for patient with acute life threatening conditions and attitudes through reflection in and on action in clinical settings. It also focuses on the application of immediate rapid and accurate nursing assessment and provision of quality nursing care according to priorities. It enable the students to provide comprehensive quality nursing care for critically ill patient with different body system alterations, with different types of invasive devices and with different types of machines encountered in critical care settings and to understand the critical care*

*environment in which practice occurs in order to provide care for the critically ill patients in the different critical care settings. Nursing process is used as an approach of providing holistic patient care .Critical thinking, clinical judgment, decision making and team work are emphasized in this course.*

### **Course Objectives:**

- *Demonstrate the ability to assess critically ill patients with the different invasive devices & machines and their families*
- *Provide comprehensive nursing care for the critically ill patients with the different acute and life threatening conditions and their families.*
- *Demonstrate the most commonly used critical care nursing procedures*
- *Demonstrate the routine care for the most commonly inserted invasive devices*
- *Demonstrate the routine care for the most commonly used machines*

### **Course Components**

- *Common needs /problems and nursing diagnosis for critically ill patient & their families.*
- *General care of critically ill patient & their families.*
- *The most commonly used nursing diagnosis for critically ill patients*
- *The most commonly used drugs & infusion*
- *The most commonly used invasive devices*
- *The most commonly used machines*
- *Critical care nursing procedures*
- *Nursing case study on the most commonly acute and life threatening conditions encountered in critical care units*

### **Textbook:**

Title: *AACN Procedure Manual for Critical Care 5<sup>th</sup> Edition*

Author: *Wiegand D. and Carlson K.*

Publisher: *Elsevier Saunders, Philadelphia, 2005.*

*In addition to the above, the students will be provided with handouts by the lecturer.*

### **Module References**

*Students will be expected to give the same attention to these references as given to the Module textbook(s)*

1. *Altman G . Delmar's fundamental and advanced nursing skills,2<sup>nd</sup> edition ,Delmer learning, a division of Thomson learning, Inc, Canada 2004.*
2. *Comer S. Delmar's Critical care nursing care plans,2<sup>nd</sup> edition, Thomson –Delmar Learning, Australia ,2005*
3. *Schilling j. Critical Care Challenges : disorders, treatment and procedures ,Lippincott Williams and Wilkins- A Wolters Kluwer company, Philadelphia, 2003.*

## **Teaching Methods:**

*Lab sessions , discussion, demonstration and re-demonstration, role play. role modeling, clinical practices, reflection in action in clinical setting, reflection on clinical patient round, post clinical conference, assignment ,seminar and quiz, reflection on clinical documents, exercises on Glasgow Coma Scale, sedation scale, ABG interpretation, ECG strips analysis and dysrrhythmia interpretation, infusion rate & drug dosage calculation.*

## **Learning Outcomes:**

### **• Knowledge and understanding**

- Recognize the common needs /problems of critically ill patients and their families*
- Identify the most commonly used nursing diagnosis for critically ill patients*
- Identify the component and organization of crush \ emergency cart*
- Recognize all relevant information regarding invasive devices and machines frequently used in critical care units*
- Recognize causes of machines alarms and methods of troubleshooting it*
- Identify action, side effects and the important nursing considerations regarding administration of the most commonly used medications & infusions in critical care units*

### **• Cognitive skills (thinking and analysis).**

- Interpret results of laboratory findings & diagnostic procedures*
- Interpret arterial blood gases results*
- Analyze ECG tracing*
- Recognize the different types of cardiac dysrhythmias*
- Practice drug dosage and infusion calculation*
- Select the appropriate nursing diagnosis for each critically patient according to priority*
- Use problem solving and critical thinking skills in carrying out patient care.*

### **• Communication skills (personal and academic).**

- Communicate effectively with patients, families and health care team*
- Communicate effectively with critically ill patients with impaired verbal communication*
- Provide relevant health teaching and emotional care to patients and their families*
- Record and or report essential data pertinent to patients and nursing intervention*

### **• Practical and subject specific skills (Transferable Skills).**

- Demonstrate assessment of the critically ill patient effectively*
- Write at least one assessment sheet and one critical care nursing record for critically ill patient every week*
- Write two comprehensive nursing care plan (ICU & CCU) clarifying actual and /or potential patient health problems.*
- Assist with collection of or collect laboratory specimens and assist patients undergoing diagnostic procedures*
- Perform basic and specific nursing skills following the steps of the checklists*
- Demonstrate cardiopulmonary resuscitation for the different age group (if available)*
- Insert invasive devices such as oropharyngeal airway ,nasogastric tube ,urinary catheter...*
- Assist physician with insertion of invasive devices such as endotracheal tube & tracheostomy tube, chest tube, arterial catheter ,central venous catheter.( if available)*

- Demonstrate the routine care for the different types of invasive devices such as artificial airways chest tube & underwater seal ,arterial catheter, central venous catheter....
- Assist with removal or remove invasive devices such as artificial airways, chest tube & underwater seal ,arterial catheter, central venous catheter, , nasogastric tube, urinary catheter....
- Perform the different techniques of chest physiotherapy
- Administer Inhalation therapy via nebulizer and oxygen therapy via the different methods
- Perform tracheal suctioning following aseptic technique.
- Obtain arterial blood sample from critically ill patient and interpret their values
- Perform 12 lead electrocardiogram and interpret it.
- Initiate cardiac monitoring
- monitor and provide routine care for patient on cardiac monitor
- Assist the physician with defibrillation ( if available)
- Administer emergency\ prescribed medication
- Measure \ Monitor the central venous pressure.
- Provide nursing care for patient undergoing cardiac catheterization ( if available)
- Provide comprehensive nursing care for patient with pacemaker ( if available)
- Perform nutritional assessment for critically ill patient
- Provide nasogastric tube feeding for critically ill patient
- Administer nasogastric medication for critically ill patient
- Perform gastric lavage for critically ill patient
- Provide parenteral nutrition for critically ill patient
- Perform physiotherapy for the critically ill patient as indicated
- Provide safe holistic individualized nursing care to unconscious patient , patient on mechanical ventilator ,patient with acute coronary syndrome patient undergoing cardiac catheterization , open heart surgery ....etc.

### **Course Evaluation**

Assessment Instruments	Mark
● Professionalism	10
● Lab evaluation	5
● Critical care nursing clinical documents - Assessment of critically ill patient - Nursing diagnosis\ nursing care plane - Critical care nursing record / Nursing report on other areas	15
● Monitoring, & Nursing Care	10
● Self learning activities - Written assignment & Discussion of reading assignment - Oral presentation of written assignment & patient case study ( in nursing round / post conference)Written patient case study	10
● Nursing clinical round	5
● Quizzes	5
● Clinical Exam ( mid-term and final exam) - Mid-term clinical exam - Final clinical exam	20 20
<b>Total</b>	<b>100%</b>

\* Make-up exams will be offered for valid reasons only with consent of the Dean. Make-up exams may be different from regular exams in content and format.

## Course Academic Calendar

Week		Content	Comments
(1)	Sunday 11/10	<ul style="list-style-type: none"><li>Finalizing the registration of the courses</li></ul>	Assign coordinators
	Tuesday 13/10	<ul style="list-style-type: none"><li>Introduction to the course in lab.</li><li>Distribution of handout and assessment assignment</li></ul>	
(2)	Lab Sessions		
	Sunday 18/10	<ul style="list-style-type: none"><li>Introduction to the course &amp; course syllabus</li><li>Guidelines for physical assessment</li><li>Collection of subjective &amp; objective data</li><li>Physical examination techniques for critically ill pt.</li></ul>	Video film
	Tuesday 20/10	<ul style="list-style-type: none"><li>Assessment of critically ill patient &amp; its terminology</li><li>Nursing care plan</li><li>Critical care nursing record &amp; Reports for other units</li><li>Evaluation criteria</li><li>Distribution of assignments &amp; case studies</li></ul>	First open book exam Glasgow coma & sedation scales exercises
(3)	Hospital Settings		
	Sunday 25/10	<p><u>Practice in critical care units</u></p> <ul style="list-style-type: none"><li>Orientation to units , patient 's chart, invasive devices and machines,</li><li>Application of clinical documents.</li></ul> <p><u>Practice in other units</u></p> <ul style="list-style-type: none"><li>Orientation to other units (emergency unit ,cardiac catheterization ,chest physiotherapy ,endoscopy, dialysis, radiology),</li><li>Application of reports of other units.</li></ul> <p><u>Post conference</u></p> <ul style="list-style-type: none"><li>Discussion of reading assignment on common needs ,problems and nursing diagnosis for critically ill patient &amp; their families.</li></ul>	Submission of first open book exam with discussion of model answer
	Tuesday 27/10	<p><u>Practice in critical care units</u></p> <ul style="list-style-type: none"><li>Orientation to units , patient 's chart, invasive devices and machines,</li><li>Application of clinical documents.</li></ul> <p><u>Practice in other units</u></p> <ul style="list-style-type: none"><li>Orientation to other units (emergency unit ,cardiac catheterization ,chest physiotherapy , endoscopy, dialysis, radiology),</li><li>Application of reports.</li></ul> <p><u>Post conference</u></p> <ul style="list-style-type: none"><li>Discussion of reading assignment on general care of critically ill patient &amp; their families.</li></ul>	Orientation to hospital for all students
(4)	Lab Sessions		
	Sunday 1/11	<ul style="list-style-type: none"><li>Respiratory assessment (clinical revision)</li><li>Artificial airways</li><li>Suctioning ( Use of ambu bag ,Percussion &amp; vibration ,oxygen therapy &amp; Inhalation therapy</li><li>Mechanical ventilation</li></ul>	First Quiz (general)
	Tuesday 3/11	<ul style="list-style-type: none"><li>Pulse oximeter &amp; Capnogram</li><li>Arterial puncture &amp; Arterial line</li><li>ABG interpretation</li><li>Chest tube</li></ul>	Second open book exam ABGs interpretation exercises

(5)	<b>Hospital Settings</b>		
	<b>Sunday 8/11</b>	<b><u>Practice in Critical Care Units</u></b> <ul style="list-style-type: none"> <li>Clinical application of respiratory assessment,</li> <li>Assessment of noninvasive &amp; invasive respiratory devices and mechanical ventilator,</li> <li>Exercises on patient's ABG interpretation.</li> </ul> <b><u>Post conference</u></b> <ul style="list-style-type: none"> <li>Discussion of reading assignment on respiratory nursing diagnosis.</li> </ul>	<b>Submission of second open book exam with discussion of model answer</b>
	<b>Tuesday 10/11</b>	<b><u>Practice in Critical Care Units</u></b> <ul style="list-style-type: none"> <li>Clinical application of respiratory assessment,</li> <li>Assessment of noninvasive &amp; invasive respiratory devices and mechanical ventilator,</li> <li>Exercises on patient's ABG interpretation.</li> </ul> <b><u>Post conference</u></b> <ul style="list-style-type: none"> <li>Discussion of reading assignment on most commonly used respiratory drugs.</li> </ul>	
(6)	<b>Sunday 15/11</b>	<b><u>Practice in Critical Care Units</u></b> <ul style="list-style-type: none"> <li>Clinical application for respiratory procedures,</li> <li>Clinical practice on mechanical ventilation.</li> </ul> <b><u>Post conference</u></b> <ul style="list-style-type: none"> <li>Patient case study on acute respiratory failure /mechanical ventilation.</li> </ul>	
	<b>Tuesday 17/11</b>	<b><u>Practice in Critical Care Units</u></b> <ul style="list-style-type: none"> <li>Clinical application for respiratory procedures,</li> <li>Clinical practice on mechanical ventilation.</li> </ul> <b><u>Post conference</u></b> <ul style="list-style-type: none"> <li>Patient case study on other respiratory disorders.</li> </ul>	
(7)	<b>Lab Sessions</b>		
	<b><u>Sunday 22/11</u></b>	<ul style="list-style-type: none"> <li>Cardiovascular assessment (clinical revision)</li> <li>ECG &amp; Cardiac monitor,</li> <li>ECG tracing analysis,</li> <li>Central venous catheter &amp; CVP measurement.</li> </ul>	<b>Second Quiz (Respiratory) Video film Third open book exam dysrhythmia exercises</b>
	<b><u>Tuesday 24/11</u></b>	<ul style="list-style-type: none"> <li>Cardiac dysrhythmia,</li> <li>Basic life support,</li> <li>Cardiac catheterization.</li> </ul>	
(8)	<b><u>29/11 &amp; 1/12</u></b>	<b>El-ATHA Feast</b>	
(9)	<b>Hospital Settings</b>		
	<b>Sunday 6/12</b>	<b><u>Practice in Critical Care Units</u></b> <ul style="list-style-type: none"> <li>Clinical application of cardiovascular and peripheral vascular assessment,</li> <li>Assessment of noninvasive &amp; invasive cardiovascular devices and cardiac monitor,</li> <li>Exercises on patient's ECG analysis &amp; dysrhythmia interpretation.</li> </ul> <b><u>Post conference</u></b> <ul style="list-style-type: none"> <li>Discussion of reading assignment on cardiovascular nursing diagnosis.</li> </ul>	<b>Submission of third open book exam with discussion of model answer</b>
	<b>Tuesday 8/12</b>	<b><u>Practice in Critical Care Units</u></b> <ul style="list-style-type: none"> <li>Clinical application of cardiovascular and peripheral vascular assessment,</li> <li>Assessment of noninvasive &amp; invasive cardiovascular devices and cardiac monitor,</li> <li>Exercises on patient's ECG analysis &amp; dysrhythmia</li> </ul>	

		interpretation. <b><u>Post conference</u></b> <ul style="list-style-type: none"><li>• Discussion of reading assignment on most commonly used cardiovascular drugs.</li></ul>	
( 10 )	Sunday 13\12	<b><u>Practice in Critical Care Units</u></b> <ul style="list-style-type: none"><li>• Application for cardiovascular procedures,</li><li>• Clinical practice on ECG , cardiac monitor ,defibrillator &amp; pacemaker.</li></ul> <b><u>Post conference</u></b> <ul style="list-style-type: none"><li>• Patient case study on angina/ cardiac catheterization</li><li>• Patient case study on acute myocardial infarction.</li></ul>	
	Tuesday 15\12	<b><u>Practice in Critical Care Units</u></b> <ul style="list-style-type: none"><li>• Application for cardiovascular procedures.</li><li>• Clinical practice on ECG , cardiac monitor ,defibrillator &amp; pacemaker,</li></ul> <b><u>Post conference</u></b> <ul style="list-style-type: none"><li>• Patient case study on coronary artery bypass graft (CABG).</li></ul>	
(11)	Sunday 20\12	<b>Mid term clinical exam &amp; quiz</b>	<b>Revision</b>
	Tuesday 22\12	<b>Mid term clinical exam &amp; quiz</b>	
(12)	<b>Lab Sessions</b>		
	<b><u>Sunday 27\12</u></b>	<ul style="list-style-type: none"><li>• Cardioversion &amp; defibrillation</li><li>• Pacemaker</li><li>• Emergency cart &amp; Emergency drugs</li><li>• Drug dosage calculation</li><li>• Advanced life support algorithms</li></ul>	<b>Third Quiz</b> ( Cardiac) Video film
	<b><u>Tuesday 29\12</u></b>	<ul style="list-style-type: none"><li>• Assessment of nervous system and other body systems</li><li>• Nasogastric tube</li><li>• Total parenteral nutrition</li><li>• Gluco check</li><li>• Urinary catheter</li></ul>	<b>Fourth open book exam on drugs &amp; infusions dosage calculation</b>
(13)	Sunday 3\1	<b><u>Practice in Critical Care Units</u></b> <ul style="list-style-type: none"><li>• Application of assessment of nervous system,</li><li>• Exercises on patient's drugs &amp; infusion dosage calculation.</li></ul> <b><u>Post conference</u></b> <ul style="list-style-type: none"><li>• Discussion of assignment on neurological nursing diagnosis.</li></ul>	<b>Submission of Fourth open book exam with discussion of model answer</b>
	Tuesday 5\1	<b><u>Practice in Critical Care Units</u></b> <ul style="list-style-type: none"><li>• Application of assessment of nervous system,</li><li>• Exercises on patient's drugs &amp; infusion calculation.</li></ul> <b><u>Post conference</u></b> <ul style="list-style-type: none"><li>• Discussion of reading assignment on commonly used neurological drugs.</li></ul>	
(14)	Sunday 10\1	<b><u>Practice in Critical Care Units</u></b> <ul style="list-style-type: none"><li>• Application of assessment for other body systems,</li><li>• Clinical practice on IV infusion pump, syringe pump &amp; enteral nutrition feeding pump.</li></ul> <b><u>Post conference</u></b> <ul style="list-style-type: none"><li>• Patient case study on cerebrovascular stroke.</li><li>• Patient case study on other neurological disorders / trauma.</li></ul>	

	<b>Tuesday 12\1</b>	<b><u>Practice in Critical Care Units</u></b> <ul style="list-style-type: none"> <li>• Application of assessment for other body systems,</li> <li>• Clinical practice on IV infusion pump, syringe pump &amp; enteral nutrition feeding pump.</li> </ul> <b><u>Post conference</u></b> <ul style="list-style-type: none"> <li>• Discussion of assignment on other nursing diagnosis,</li> <li>• Patient case study on medical emergency.</li> </ul>	<b>Fourth Quiz</b> (neurological system & other body systems)
<b>(15)</b>	<b>Sunday 17\1</b>	<b>Final Examination</b>	<b>Revision</b>
	<b>Tuesday 19\1</b>	<b>Final Examination</b>	

### **Attendance Policy:**

- Absence from lab sessions or hospital settings shall not exceed 15%.
- One day absent will lead to two grades decrease in score of professionalism in addition to decrease in the total score of the student.
- In case of absence because of presence of first or second exam for any other subject in the same time, the student must inform the instructor in advance and submit a signed document from the teacher of other subject reveals this in the day just after absence.
- Students who exceed the 15% limit without a medical or emergency excuse acceptable to and approved by the Dean of the faculty shall not be allowed to take the final examination and shall receive a mark of zero for the course.
- If the excuse is approved by the Dean, the student shall be considered to have withdrawn from the course.

### **Documentation and Academic Honesty**

- Submit your home work covered with a sheet containing your name, number, course title and number, and type and number of the home work (e.g. tutorial, assignment, and project).
- Any completed homework must be handed in on the due date.
- Submission after the deadline will lead to one grade decrease in the score of the home work for each delayed day in addition to decrease in score of professionalism.
- Keep a duplicate copy of your work because it may be needed while the original is being marked.

### **• Protection by Copyright**

1. Clinical documents, written assignment, exercises or any other self learning activities or homework submitted for evaluation must be your own work, unless in the case of group projects a joint effort is expected and is indicated
2. Use of quotations or data from the work of others is entirely acceptable, and is often very valuable provided that the source of the quotation or data is given. Failure to provide a source or put quotation marks around material that is taken from elsewhere gives the appearance that the comments are ostensibly your own. When quoting word-for-word from the work of another person quotation marks or indenting (setting the quotation in from the margin) must be used and the source of the quoted material must be acknowledged.
3. Sources of quotations used should be listed in full in a bibliography at the end of your piece of work.



## **Avoiding Plagiarism.**

1. Unacknowledged direct copying from the work of another person, or the close paraphrasing of somebody else's work, is called plagiarism and is a serious offence, equated with cheating in examinations. This applies to copying both from other students' work and from published sources such as books, reports or journal articles.
2. Paraphrasing, when the original statement is still identifiable and has no acknowledgement, is plagiarism. A close paraphrase of another person's work must have an acknowledgement to the source. It is not acceptable for you to put together unacknowledged passages from the same or from different sources linking these together with a few words or sentences of your own and changing a few words from the original text: this is regarded as over-dependence on other sources, which is a form of plagiarism.
3. Direct quotations from an earlier piece of your own work, if not attributed, suggest that your work is original, when in fact it is not. The direct copying of one's own writings qualifies as plagiarism if the fact that the work has been or is to be presented elsewhere is not acknowledged.
4. Plagiarism is a serious offence and will always result in imposition of a penalty. In deciding upon the penalty the Department will take into account factors such as the year of study, the extent and proportion of the work that has been plagiarized, and the apparent intent of the student. The penalties that can be imposed range from a minimum of a zero mark for the work (without allowing resubmission) through caution to disciplinary measures (such as suspension or expulsion).