

Oakland University School of Nursing

CRITICAL CARE/EMERGENCY DEPARTMENT-PRECEPTED

**NRS 3900 (360)
CRN #15197**

Faculty:

**Barbara Penprase, PhD, RN, CNE, ANEF
Professor
Endowed Professor-Crittenton Hospital Medical
Center**

**Sheila Ann Meshinski, RN, BSN
Lecturer**

**Alison Picot, RN, BSN
Lecturer**

COURSE NUMBER: NRS 3900 (360) – CRN #15197

CREDIT & HOUR ALLOCATION:	<u>Credits</u>	<u>Hrs/Wks</u>	<u>Total Hours Semester</u>
	<u>1</u>	<u>1 x 7</u>	<u>7</u>

COURSE TITLE: Critical Care/Emergency Department – precepted

CLASS TIME & LOCATION: All classes in 2018 HHB (Human Health Building)
1/3/2018 – 4/25/2018 – Wednesday, 5:00-9:00 PM
1/16/2018 – Tuesday, 5:00-9:00 PM
1/17/2018 and 2/7/2018 – Wednesday, 6:01 – 9:00 PM

FACULTY OF RECORD: Barbara Penprase, Ph.D., RN, CNE, ANEF
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Sheila Ann Meshinski, RN, BSN
Lecturer
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COURSE OVERVIEW

The purpose of this 1 credit hour course is to prepare student nurses to work in a critical care and emergency departments in hospitals.

COURSE OBJECTIVES

At the completion of the course, students will be able to:

1. Understand the historical and theoretical principles applicable to critical care nursing.
2. Use the nursing process in the care of the critical care and emergency patients.
3. Understand the AACN standards of practice which guide critical care nursing
4. Perform nursing skills that are unique to critical and emergency nursing.
5. Understand the role and expectations of critical care and emergency nursing.
6. Examine legal-ethical issues relevant to critical care and emergency nursing.
7. Collaborate with other health care providers to deliver optimal care to the patient and their families.

8. Demonstrate effective use of time and resources in carrying out responsibilities in the practicum setting.

ESSENTIAL CONTENT

Critical Care and Emergency Room Nurses responsibilities and roles with focus on the following:

- Emergency Assessment, Triage and Disposition
- Cardiovascular Care
- Respiratory Care
- Neurological and Psychiatric Care
- GI System
- Endocrine and Renal Diseases
- Hematology and Infectious Diseases
- Trauma

AACN Standards of Practice and Emergency Nurses Association Clinical practice Guidelines to guide the students nursing practice.

Equipment and technology that is used specifically in the critical care and emergency setting.

Course Topic: Topics in Nursing in Preparation of Critical Care and Emergency Room Clinical Experiences

Course Overview: This course will focus on the nursing care of individuals and families during the critical care and emergency room experience.

- Completion of all assigned readings, assignments and attendance at class lectures.
- Completion of all quizzes and final examination.

Evaluation Techniques:

- 7 Quizzes and 9 self-packet quizzes 70%
- Class participation 30%

Required Textbook:

Burns, S. (2014). *AACN Essentials of Critical Care Nursing*. New York: McGraw-Hill Medical
ISBN-13: 978-0071822794
ISBN-10: 0071822798

Recommended:

Howard, P., & Steinmann, R. (2010). *Sheehy's Emergency Nursing: Principles and Practice* (6th Ed.). Missouri: Elsevier.
ISBN-13: 978-0323055857
ISBN-10: 0323055850

Schumacher, L., & Chernecky, C. (2010). *Sanders Nursing Survival Guide: Critical Care & Emergency Nursing* (2nd Ed). Missouri: Elsevier.
ISBN-13: 978-1416061694
ISBN-10: 141606169X

Dubin, Dale. (2000). *Rapid Interpretation of EKG's* (6th Ed.). Florida: Cover

IMPORTANT INFORMATION

1. Attendance at lectures, WebX and simulation is expected. Class takes precedence over clinical!
2. Attendance at all quizzes is mandatory. At faculty discretion, make-up quizzes will only be given in extenuating circumstances. The student will be required to submit documentation pertaining to their reason for absence. Only one make up quiz is allowed per semester. After the first missed quiz, a grade of "0" will be given for each quiz missed thereafter. No other arrangements will be made for any student who misses a regularly scheduled examination. For content areas that have more than one quiz, the average grade for the grouping of quizzes will be used as the final grade. However, ALL QUIZZES must be completed within each section. If not, the student will receive a "0" for that content area of quizzes.
3. Lecture evaluation will be based on quizzes and class participation (which is reflected by attending class as well as participating while in class).
4. If quizzes are given during class, faculty will determine seating arrangements. Nothing is permitted on the desk except the quiz and 2 pencils. All belongings are to remain on the floor in the front of the classroom. If a cell phone or other electronic device sounds during a quiz, faculty will immediately collect the student's quiz and determine appropriate course of action. However, most quizzes are online.

6. Students are responsible for monitoring their own quiz-taking time, so that quizzes are completed in the allotted time.
7. Your signature on the quiz signifies that you have neither given nor received assistance on the exam (cheating). All quizzes are considered “secure”, and therefore should never be removed from the classroom. If the quiz is on-line, it is expected the student to take the quiz alone. This is not a group activity. Student honesty is expected. Quizzes can be tracked to show that students are taking them together, so please do not share your answers with other students.
8. Moodle will be used to communicate course activities and changes. Students are expected to check Moodle on a regular basis. The Firefox server is recommended by the Moodle IT department for accessing and completing Moodle activities. The Moodle Help Desk can be reached at 248-805-1625.

COURSE STRUCTURE

The purpose of this 1 credit course is to prepare student nurses to work in a perioperative setting. The course is designed to provide the student nurse the opportunity to learn the basic skills and content to prepare you to begin as a novice nurse in the ED or CCU upon graduation. This course will be fast paced and will cover a large amount of material. Nursing care of the CCU/ED patient is based on your knowledge and comprehension of basic anatomy, physiology, disease prevention, and concepts from communication, physical assessment, and spirituality. The three domains of learning: cognitive, psychomotor, affective will be addressed during this educational opportunity. In the cognitive domain, students will gain knowledge and understanding of nursing practice by attending lecture. Psychomotor learning will take place by performing basic skills in the actual setting with a preceptor as well as in simulations. Affective learning will occur as the students will reflect on their experiences and compose their thoughts in daily logs.

CLASS FORMAT

Required reading are referenced in the syllabus but will be re-emphasized in class. Many of the lectures will have been prerecorded and students are EXPECTED TO review this content BEFORE attending classes. It is expected that students will be prepared for class by reading the material provided. Thus, the readings and prerecorded materials will provide you with a breadth of material, and use the class periods primarily to concentrate on a more detailed analysis and discussion of selected topics (i.e., depth of coverage) that are drawn from the readings as well allowing for more active learning methodologies. This does mean that you will be reading a large amount of information that will not be covered in class, but will be covered on the quizzes. Please feel free to raise any questions you may have about material that isn't (or is) being covered in class. Your comments and questions are welcomed, encouraged and valued! The class is going to use many different teaching methodologies including “flipped classroom” and simulations which are based on active learning strategies. There will be some traditional lecture but most lectures will include some form of active learning sessions. Quizzes will be the “test” of your knowledge base.

General Information

- If you want to contact any of the professors, it is best to through Moodle. However, Dr. Penprase's cell phone number is 248-892-0354 if there is an immediate need to contact a faculty member.
- Email messages should be sent ONLY through the course site's e-mail system. Please do not send to the Oakland.edu e-mail.
- Any general information about the course, assignments, etc will be presented via the Moodle course site. Web-X maybe used for some of the course content as a teaching modality.
- If you need to meet with either of the faculty, an appointment will be scheduled upon common availability. Please contact the appropriate faculty via e-mail in the course site.

Review of Quizzes:

Results of quizzes will be shared with students in the next class following the quiz. Students will have **one week** after the quiz is reviewed to make an appointment to review the quiz.

All students are directed to the Student Handbooks for the School of Nursing's "Policies and Procedures for Progression, Retention and Dismissal". Please refer to the last page for the School Of Nursing Grade Conversion.

ACADEMIC CONDUCT AND PROFESSIONALISM

Completion of all course related assignments must be the result of the student's individual effort, except in the circumstance where the assignment requires group effort. Students will be prohibited from taking and/or receiving the efforts of another person on any exam or assignment, prohibited from using unauthorized resources on quizzes, prohibited from giving and/or selling other student/faculty papers or assignments **unauthorized by the instructor.**

Plagiarism will not be tolerated and resource materials should be referenced using APA format for applicable course assignments.

Penalties for academic misconduct in this course will be severe and will result in a numerical grade of 0.0 for this course.

COURSE OUTLINE

All lecture topics and readings are contingent on progress made in the lecture/discussion in the classroom. Thus, the professor may change or add to topics and/or readings as deemed necessary. Any change in reading assignments will be posted on *Moodle* forum. Reading assignments will be provided during class time for the following class. Please read **PRIOR** to lectures.

The below schedule may change depending on how we move through the content. So remember to be flexible related to this. Much of the information you will receive during lecture is not covered in the assigned book. We used all 3 books to develop the course but hope we will cover the content thoroughly for you. Use your Med/Surg book as a secondary source since much of this information is covered in that book as well. *Rapid*

Interpretation of EKG's is considered a landmark book for those of you who would like to learn ECGs (EKGs) at a deeper level. This is an excellent resource. We will have a class early in the course to learn to read ECGs and use this book as well as others.

There will be more classes/simulations taught at the beginning of the semester for the first 3 weeks. During this time, we will set up your clinical experience with your preceptor (Barb Penprase – Troy; Sheila Meshinski – Royal Oak). with your preceptor is completed you can begin your clinical experiences but classes are mandatory. You were selected into this program by Beaumont because you are taking the course.

CLASS SCHEDULE

Wednesday class is scheduled from 5:00pm to 9:00pm

Other dates, the time will be noted for additional classes and simulations and will be underlined and may vary once the semester begins.

Quizzes indicated on this schedule will cover the content previous to the date on the quiz. However, there will be several self-taught packets that will be due each week as well. Those dates will be on the moodle website with drop dead dates when they are due. Quizzes for each content area which will include self-packets-final grade will for content area will be the “average” of the different quizzes.

Wednesday, January 3: In Class Psycho-Social Overview of Course and Introduction

Lecture: Psycho-Social Needs

- Psycho-Social Assessment
- Populations at Risk (such as suicide, depression)
- Toxicology (overdose)
 - Toxidromes associated with recreational drug abuse
 - Toxidromes associated with accidental or intentional overdose
 - Toxidromes associated with environmental toxic exposure

Reading: to be determined by faculty

Saturday, Jan 6: SIMULATION (8:00am to 12:00pm @ HFH Macomb)

- Psycho Social Assessment;
- Hemodynamic Equipment (IV starts, review of CVP, A-lines, Swan Ganz)

Wednesday, January 10: In Class Trauma & Toxicological Emergencies

- Mechanisms of trauma
- Trauma epidemiology
 - Special populations: pediatric trauma, geriatric trauma
- Trauma assessment

- Immediate (across-the-room): MARCH
- Primary: ABCDE
- Secondary: FGHI
- Principles of trauma resuscitation
- Blunt force trauma
- Penetrating trauma
- Burns and blast trauma
- Drowning and traumatic asphyxiation
- Orthopedic injuries
- Injury prevention
 - Trauma secondary to violence

Reading: Chapter 17

Review all postings under the date on the course site BEFORE CLASS including powerpoint presentation.

Thursday, January 11: Simulation Ventilators & Oxygen supply equipment @ Crittenton Hospital from 10 to 12am

- Will be divided into 2 groups. Simulation will last 1 hour. More information will follow. This date maybe changed depending on the acuity at the hospital.

Wednesday, January 17: In Class: Focused Assessment & Review of ECGs from 5:00pm to 9:00pm

QUIZ 1 DUE: Psycho-Social, Trauma and Assessment

- Principles of emergency and critical care nursing
- Rapid assessment tools
 - Pediatric Assessment Triangle
 - START
 - Critical Care Assessment Sheet
- Triage
 - Chief complaints vs. diagnoses
 - Emergency Severity Index
 - Mass casualty incidents
 - Critical Care site patient will be admitted to.
- Primary and secondary assessments
- Disposition
 - Access to continuing care
 - EMTALA and the “medical screening examination”
 - Elopement and “against medical advice” discharge

Readings: Chapter 1

Review all postings under the date on the course site BEFORE CLASS including powerpoint presentation.

- Review of ECG

Reading: Chapter 3

Saturday, January 20: Simulation Henry Ford Macomb Hospital 8:00-12:00pm

- Mock Code
- Maybe divided into 2 groups.

Wednesday, January 24: In Class Review of Pharmacology & Hemodynamic monitoring

Review of medications for ICU and ED

- Review of hemodynamic monitoring

Readings: Chapters 4 & 7

Wednesday, January 31, February 7 & 14: In Class Cardiovascular System

- Overview of cardiovascular physiology
- Cardiovascular assessment
- Hemodynamics and hemodynamic assessment
- Basic ECG interpretation
 - Rhythm strips
 - 12-lead
- AHA/ILCOR Emergency Cardiovascular Care guidelines
 - Cardiopulmonary resuscitation
 - Post-resuscitation nursing care
 - Nursing care of the family in a resuscitation event
- Nursing care of acute coronary syndromes
 - STEMI
 - NSTEMI
 - Unstable angina
- Nursing care of acute rhythm abnormalities
 - Tachycardias
 - Bradycardias and heart blocks
 - Non-perfusing rhythms
 - Electrophysiological and pharmacological interventions
- Nursing care of acute perfusion abnormalities
 - Decompensated (acute or acute-on-chronic) heart failure
 - Cardiogenic shock
 - Cardiac tamponade
 - Vascular dissections and aneurysms

Reading: Chapters 9, 18, 19, 26

Review all postings under the date on the course site BEFORE CLASS including powerpoint presentation.

Wednesday, February 28 & March 7: In Class Respiratory
QUIZ 2 DUE over CV content

- Applied pulmonary physiology
 - Ventilation vs. perfusion
 - Shunt physiology
- Pulmonary assessment
- Blood gas interpretation
- Principles of mechanical ventilation
 - Invasive vs. non-invasive ventilation interventions
 - Nursing care of the mechanically ventilated patient
- Nursing care of airway emergencies
 - Rapid sequence intubation
 - Emergency surgical airway interventions
- Nursing care of ventilation abnormalities
 - ARDS/acute respiratory failure
 - COPD and other restrictive airway diseases
 - Pneumonia
- Nursing care of perfusion abnormalities
 - Pulmonary embolus
 - Pulmonary hypertension

Reading: Chapters 10 & 20

Review all postings under the date on the course site BEFORE CLASS including powerpoint presentation.

Wednesday, March 14: In Class Neuro
QUIZ 3 DUE over Respiratory content

- Special Assessment Techniques
- Diagnostic Test
- ICP concepts and monitoring
- Acute Ischemic Attacks
- Contusions/concussions
- Skull fractures
- Diffuse Axonal Injury
- Traumatic Brain Trauma - hematomas
 - Subdural
 - Epidural
 - Intracerebral
- Seizures
- Infections

Reading: Chapters 12 & 21

Review all postings under the date on the course site BEFORE CLASS including powerpoint presentation.

Wednesday, March 21: In Class Genitourinary & Gastrointestinal
QUIZ 4 DUE over Neuro content

- Applied gastrointestinal physiology and assessment
- Nursing care of the acute abdomen
 - Appendicitis
 - Diverticulitis
 - Cholecystitis
 - Acute and chronic enterocolitis (ulcerative, Crohn's)
- Male genitourinary emergencies
 - Testicular torsion
 - Urinary retention
- Female genitourinary emergencies
 - Ovarian torsion
 - Dysfunctional uterine bleeding
- Acute urinary tract infections
- Sexually transmitted infections

Reading: Chapters 14

Review all postings under the date on the course site BEFORE CLASS including powerpoint presentation.

Wednesday, March 28: In Class Renal & Endocrine
QUIZ 5 DUE over GI/GU content
Endocrine

- Applied renal physiology
- Review of fluid and electrolyte physiology
- Nursing care of acute electrolyte abnormalities
- Nursing care of acute renal abnormalities
 - Renal calculi and other obstructive disorders
 - Acute renal failure
 - Emergency initiation of renal replacement therapy (“emergent dialysis”)
 - Complications associated with renal replacement therapies
- Applied endocrine physiology
- Nursing care of acute endocrine abnormalities
 - Hyperglycemic emergencies (diabetic ketoacidosis, hyperosmolar nonketotic acidosis)
 - Hypoglycemia
 - Hyperthyroidism/thyroid storm
 - Hypothyroidism/myxedema coma

Reading: Renal Chapter 15; Endocrine Chapter 16

Review all postings under the date on the course site BEFORE CLASS including powerpoint presentation.

Wednesday, April 4: In Class Hematologic and Infectious Disease
QUIZ 6 DUE over Renal & Endocrine

- Brief review of hematology
- Nursing care of acute hematological disorders
 - Sickle cell disease
 - Acute and acute-on-chronic anemia
 - Thrombocytopenia
 - Diabetes
 - Ketoacidosis
 - Hypglycemia
 - SIADH
- Nursing care of acute and acute-on-chronic coagulopathic disorders
 - DIC
 - Systemic: Hemophilia, Factor V Leiden, MTHFR mutation
 - Induced: Anticoagulant therapies
 - Peripheral thromboembolic diseases
 - Emergency reversal of therapeutic anticoagulation
 - Multiorgan Dysfunction Syndrome (MODS)
- Applied immune physiology
- Emergency epidemiology
 - Emergency considerations in communicable infectious disease
- Nursing care of the immunocompromised patient
 - Special populations: oncology, pediatrics, geriatrics
- Nursing care of sepsis and septic shock
 - Early goal-directed sepsis care
 - Pharmacological interventions in septic shock

Reading: Chapter 13

Review all postings under the date on the course site BEFORE CLASS including powerpoint presentation.

Wednesday, April 11: In Class Lecture: Vulnerable Populations
QUIZ 7 DUE over Hematology and Infectious Diseases

- The lecture day is reserved for discussing vulnerable populations
 - Pediatrics
 - Elderly
- Obstetrical emergencies

- Threatened or incomplete spontaneous abortion
- Pregnancy-induced hypertension
- Placental abruption disorders
- Precipitous delivery of the newborn

Reading: to be determined by faculty

Oakland University School of Nursing

GRADE CONVERSION

Note: 70% = 2.5

<u>PERCENTAGE</u>	<u>GPA</u>
<u>100.00</u>	<u>4.0</u>
<u>98.00 – 99.99</u>	<u>3.9</u>
<u>96.00 – 97.99</u>	<u>3.8</u>
<u>94.00 – 95.99</u>	<u>3.7</u>
<u>92.00 – 93.99</u>	<u>3.6</u>
<u>90.00 – 91.99</u>	<u>3.5</u>
<u>88.00 – 89.99</u>	<u>3.4</u>
<u>86.00 – 87.99</u>	<u>3.3</u>
<u>84.00 – 85.99</u>	<u>3.2</u>
<u>82.00 – 83.99</u>	<u>3.1</u>
<u>80.00 – 81.99</u>	<u>3.0</u>
<u>78.00 – 79.99</u>	<u>2.9</u>
<u>76.00 – 77.99</u>	<u>2.8</u>
<u>74.00 – 75.99</u>	<u>2.7</u>
<u>72.00 – 73.99</u>	<u>2.6</u>
<u>70.00 – 71.99</u>	<u>2.5</u>
<u>68.00 – 69.99</u>	<u>2.4</u>
<u>66.00 – 67.99</u>	<u>2.3</u>
<u>64.00 – 65.99</u>	<u>2.2</u>
<u>62.00 – 63.99</u>	<u>2.1</u>
<u>60.00 – 61.99</u>	<u>2.0</u>
<u>58.00 – 59.99</u>	<u>1.9</u>
<u>56.00 – 57.99</u>	<u>1.8</u>
<u>54.00 – 55.99</u>	<u>1.7</u>
<u>52.00 – 53.99</u>	<u>1.6</u>
<u>50.00 – 51.99</u>	<u>1.5</u>
<u>48.00 – 49.99</u>	<u>1.4</u>
<u>46.00 – 47.99</u>	<u>1.3</u>
<u>44.00 – 45.99</u>	<u>1.2</u>
<u>42.00 – 43.99</u>	<u>1.1</u>
<u>40.00 – 41.99</u>	<u>1.0</u>

