Course Department, Number & Title: EMS 744, Emergency Medicine

Course length: 2 Weeks

Course Director and contact information: Beth Toppins, M.D. (304)972-6698 or toppinsbeth@yahoo.com

Course Coordinator: Glenna Michael, michael@marshall.edu; 304-691-1191

Course Location: Cabell Huntington Hospital only

Grading: Pass/Fail

Brief Course Description: This course is a required two week experience for all Fourth Year Students and must be successfully completed prior to graduation. Students are expected to complete a minimum of 8 shifts in the Cabell Huntington Emergency Department but are free to do more than the minimum. Students will have the option to substitute one of their scheduled ED shifts as a ride-along with Cabell County EMS, or if they qualify with HealthNet Aeromedical Services. It is the student’s responsibility to notify Dr. Toppins if they would like to participate in the ride-along so the proper paperwork can be submitted. It is the student’s responsibility to complete and submit required paperwork. Students will evaluate patients and formulate effective testing and treatment strategies. Active participation in patient care and procedural skills is required.

Students will be assigned to see patients under the direct supervision of faculty preceptors. Scheduling of the students' shifts is to be at the convenience of the preceptors who work with the students. Midnight, evening and weekend shifts are typically required.

INSTITUTIONAL AND COURSE OBJECTIVES

Institutional Objectives addressed by this course include:

Patient Care: Students must demonstrate the ability to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.

Course Objective

The student will obtain a focused history on a chief complaint and to develop efficient diagnostic tests and procedures to arrive at a final diagnosis and appropriate treatment plan. The student will be required to write a 1-2 page summary of an interesting patient that they cared for during their two week rotation. This can be submitted at any time during the rotation and must be handled in a confidential manner since it requires a patient identifier including patient name, date of birth, date of service. This paper should detail what you found interesting about the patient’s presentation, the patient’s physical exam/diagnostic findings, or disease process. Failure to submit this paper will result in an incomplete.

Outcome Measure

The student may be asked to orally present to the faculty member on an appropriate Emergency Medicine topic which may include but is not limited to the following:

- Abnormal Uterine Bleeding
- Acute psychosis / delirium
- Acute pulmonary embolus
- Acute Chest Pain
- Acute stroke
Adrenal crisis
Airway obstruction
Anaphylaxis
Acute abdomen
Bronchitis (including pneumonia)
Cardiac arrest
Cauda equina syndrome
CNS Bleeds
Diabetic ketoacidosis
Dissecting aortic aneurysm
Drug Overdose
Ectopic pregnancy / placental abruption
Hypo / hyperthermia
Meningitis
Myocardial infarction / Unstable angina
Pneumothorax
Seizures
Sepsis
Shock
Splenic rupture
Threatened Abortion
Transfusion reactions
Toxic exposures
Traumatic injuries, life-threatening

Basic Science Course Objective
The student will be able to describe the pathophysiology of the diseases in the patient encounters above.

Basic Science Outcome Measure
The student will discuss with the attending the pathophysiology of the disease process of the patient encounters above, including:

• What causes the disease
• How these changes affect normal physiology resulting in the disease
• What are the underlying mechanisms of disease
• How these changes result in the clinical manifestations of the disease in the patient, including:
  o Symptoms of the disease
  o Physical exam findings
  o Radiographic findings
  o Laboratory abnormalities

Basic Science Course Objective
The student will be able to review the normal physiology as it relates to the organ or system involved in the disease process in the patient encounters above.

Basic Science Outcome Measure
The student will discuss with the attending basic physiologic principles in at least two of the patient encounters mentioned above. For example, if the patient is hypertensive, the student will review systemic vascular resistance including

• What factors maintain vascular tone
• What factors affect vascular tone to change systemic vascular resistance

Course Objective
The student will successfully perform procedural skills pertaining to Emergency Medicine.

**Outcome Measure**
The student will be directly observed by faculty performing the following procedural skills (minimum number indicated). *It is the student’s responsibility to notify the ED charge nurse and ED phlebotomist on the days of their rotation that they need these procedures. If you encounter any barriers with this, please inform your ED attending.*

a. IV insertion (4)
b. NG tube (1)
c. Venipuncture Performance (3)
d. ABG Collection (1)
e. Foley catheter insertion (1)

**Institutional Objective**

*Medical Knowledge- Students must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences, as well as the application of this knowledge to patient care.*

**Course Objective**
The student will demonstrate knowledge in field, including investigatory and analytic thinking and knowledge and application of the basic and clinical sciences.

**Outcome Measure**
The student may be asked to orally prioritize patients presenting to the Emergency Room in a Mass Casualty Scenario. The student should be able to provide a rationale for the treatment order of patients presenting to the Emergency Department.

**Institutional Objective**

*Interpersonal and Communication Skills- Students must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals.*

**Course Objective**
The student must demonstrate the ability to create therapeutic relationships, employ good listening skills and work effectively as part of a health care team.

**Outcome Measure**
The student must demonstrate to a faculty member the ability to create a therapeutic relationship with at least three (3) patients, employ listening skills and work effectively as part of a health care team.

**Institutional Objective**

*Professionalism - Students must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.*

**Course Objective**
The student will behave in an ethical, responsible, reliable and dependable manner and be able to accept constructive feedback to improve performance.
Outcome Measure
The student will be directly observed by faculty and peer evaluation to determine ethical behavior, reliability and level of dependability of the student and the student’s ability to accept criticisms or suggestions.

Course Objective
The student must be committed to self-evaluation and willing to acknowledge and address his/her limitations.

COURSE SPECIFIC INFORMATION

PROFESSIONALISM EXPECTATIONS OF STUDENTS
Students are expected to:

1. Display professional behavior at all times
2. Be punctual and reliable for all clinical shifts
3. Make advance arrangements for any scheduling requests. Once posted, changes in a student’s assigned schedule will be made only in case of an emergency (e.g. illness or death of a relative). Failure to arrange leave time in advance will result in a 2-1 make-up penalty.
4. Complete all assigned shifts. If a student cannot come due to illness or other emergent reason, call the E.D. (526-2002) & notify the attending. Missed shifts must be made-up before a grade can be assigned. No changes in the assigned schedule are permitted unless ADVANCE approval is given by Dr. Toppins.
5. Complete assigned reading and other assignments.
6. Dress appropriately. Name tag is required and white coat is optional. A student should dress the way he/she would for other rotations. However, other acceptable attire, i.e. scrubs, may be specified by the Course Director. A stethoscope is also required.

Excessive or habitual violations of professionalism may result in lowering of the final grade or failure.

STUDENT INVOLVEMENT LEVEL: A useful distinction is often made between three levels of student involvement in patient care as follows:

1. Student may initially observe the preceptor's approach to emergency care.
2. Students may later assist the preceptor by seeing patients first, obtaining a patient history, performing a focused physical exam, and presenting patient data to the preceptor for decision-making.
3. Upon demonstrating sufficient clinical maturity, the student may be allowed to manage all or part of the patient encounter by independently evaluating the patient, formulating a diagnostic/therapeutic plan for the preceptor's approval, and then presenting the approved plan to the patient.

While students are to obtain as much patient care experience as possible, the amount of such care is left to the discretion of the preceptor to make a determination about the level of patient responsibility each student can appropriately handle.

Self-Directed Learning
As a medical student, you are encouraged to use any unstructured time as a time to read about your patients, research questions that arise during the day, prepare for case conferences, and prepare for student-faculty rounds. Preceptors have been specifically asked to look for evidence that you have read articles and books between clinic sessions. Use this time to build your knowledge of medicine and learn from your patients.

**ASSESSMENT METHODS**

**Final Examination-**
A final exam will be given at the end of the rotation. Study material and readings will be assigned at the beginning of the rotation and students are encouraged to read the material early in the course. Students must score at least 75% to pass the exam. Passage of the examination is a requirement for passage of the course - irrespective of the student’s performance on other components of this course. The exam can be scheduled with Glenna Michael and taken in her office at your convenience after the successful completion of the rotation. It is a 25 question paper exam which covers general Emergency Medicine topics. Students may retest one (1) time only and must retake the examination within two weeks. An unsuccessful second attempt will result in failure of the course, irrespective of other academic or clinical performance.

Students who are unable to retest within the required two week period must submit a written request to the Course Director to be granted permission to delay the retake. The Course Director will decide if the request is acceptable and notify the student of whether the request is granted. The Course Director’s decision may be appealed to the Family Medicine Department Chair, whose decision is final.

**Preceptor-Evaluation-**
Grading: Pass/Fail
The preceptors’ evaluation will be based, but are not limited to, upon the following factors:

- Attendance and participation
- Completion and submission of a patient case report
- Maturity and Professionalism
- Oral Case Presentation/Patient Workup
- The demonstration of basic knowledge of patient care

Each component mentioned above (on-line examination and preceptor evaluation) must be passed in order to successfully complete the course.

**Evaluation of Course and Faculty Requirement**
Completion of evaluations of Course and Faculty members by students is a required component of this course. Students will be issued an “Incomplete” until the course and faculty evaluations have been submitted.

**CLINICAL SITE:** Only Cabell Huntington Hospital is available. There will be no exception.

**TEXTBOOK/ASSIGNED READINGS - Tintinalli, Judith E : Tintinalli’s Emergency Medicine, 8th Edition**