**Course Department, Number & Title:** MED 807, Gastroenterology

**Course credit or length:** 2-4 Weeks

**Course director and contact information:** Dr. Ajmera, MD, 304.691.1095, ajmera@marshall.edu

**Course coordinator and contact information:** Brittani Ruiz; 304-691-1739, ruijb@marshall.edu

**Course location:** Cabell Huntington Hospital, St. Mary’s Hospital, Erma Byrd Center, Department of Internal Medicine

**Brief Course Description:** This elective will introduce the student to clinical gastroenterology. The student will be integrated into a clinical rotation similar to that of the interns whereby he or she is responsible for the consultation history and physical examination of a hospitalized patient for whom the primary service has requested a GI consultation. The student will be expected to discuss the case with the fellow or faculty, review the scientific literature pertinent to the case, and finally present the case to the attending during rounds. The student will make daily rounds with the house staff and attending on all patients on the GI Service, will attend all of the GI-oriented conferences, and Grand Rounds and may be asked to participate in one during his or her period of time here. He or she will be introduced to the procedural aspects of gastroenterology, including upper endoscopy and colonoscopy, and will have the opportunity to observe these in both his or her patients and others. There will be a strong interaction between the student and the other services that share in the management of gastroenterology patients, such as general and colorectal surgery, critical care, pathology, and radiology.

**Institutional Objective**

**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 be able to diagnose and manage gastrointestinal disorders.

**Outcome Measure**

The student will be able to obtain an accurate and complete history with emphasis on gastroenterological conditions and issues. The faculty will directly observe the student:

1. Performing a basic physical examination.

2. Recognizing fundamental signs and symptoms of gastroenterological disorders.

3. Recognizing the importance of and recommendation of screening.

4. Interpreting basic diagnostic data.

5. Explaining the fundamental rationale behind their choice of GI procedures.

The student will present at least four cases to faculty addressing the above, one of which will be randomly selected by the faculty, and include, but are not limited to:

1. Acute and Chronic Pancreatitis

2. Alcoholic Liver Disease
3. Barrett’s esophagus
4. Complications of end stage liver disease (Ascites, Spontaneous Bacterial Peritonitis, Encephalopathy, Portal Hypertension)
5. Diarrhea
6. Biliary Disease
7. GERD
8. GI Malignancies
9. GI motility disorders (Dysphagia, Gastroparesis, IBS, Constipation)
10. H. Pylori related GI disorders
11. Hereditary and Autoimmune Liver Disease
12. Indications, contraindications and complications of GI Endoscopies.
13. Inflammatory Bowel Disease
14. Malabsorption Syndromes
15. NSAID induced GI disorders
16. Portal Hypertension
17. Upper and Lower GI Bleed
18. Viral Hepatitis

Course Objective
The student will be familiar with common gastrointestinal diseases

Outcome Measure
Based on the common gastrointestinal diseases listed above, the student will be able to explain to faculty:
1. The manifestations of common gastrointestinal diseases.
2. The diagnostic evaluation and treatment of the common gastrointestinal diseases.
3. The indications and contraindications of gastrointestinal procedures associated with the common gastrointestinal diseases.
4. The importance of timely screenings
5. The prescribing of commonly used pharmacological therapies.

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.

Basic Science Course Objective
The student must demonstrate basic understanding of clinically relevant aspects of GI anatomy and physiology.

Outcome Measure
The student must be able to orally demonstrate to faculty knowledge of clinically relevant aspects of GI anatomy and physiology.
Course Objective
The student must demonstrate knowledge of preventive care guidelines employed in GI medicine.

Outcome Measure
The student must orally recite to faculty preventative care guidelines employed in GI medicine.

Course Objective
The student must demonstrate knowledge of common GI work-up and GI procedures.

Outcome Measure
The student must orally demonstrate to faculty basic knowledge including the indications, contraindications, complications, interpretation and reasonable expectations for most gastroenterological laboratory, radiographic, endoscopic and biopsy procedures and be familiar with relevant radiological and endoscopic images of common gastrointestinal and hepatic lesions. The student must also orally demonstrate familiarity with:

1. Colonoscopy
2. Enteroscopy
3. Esophageal dilation
4. Esophageal manometry
5. Esophageal pH monitoring
6. Esophagogastroduodenoscopy
7. Fecal occult blood testing and other stool examinations
8. Flexible sigmoidoscopy
9. Helicobacter pylori testing
10. Interpretation of ascetic fluid results
11. Intestinal absorption testing
12. Paracentesis testing
13. Polypectomy
14. Serum gastrin, viral hepatitis and other serological testing
15. GI CT scanning
16. Upper and lower GI radiography
17. Upper and lower GI ultrasound

Institutional Objective
Practice-based Learning and Improvement - Students must demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning.

Course Objective
The student will incrementally build upon knowledge gained from the patient-care encounters.

Outcome Measures
The student must demonstrate to faculty the ability to apply knowledge and skills learned from previous cases to similar clinical situations. The student must orally inform faculty of changes that he or she would make with regard to the approach to diagnosis and treatment. The student’s presentation shall include a search and critique of the GI literature to sustain the clinical reasoning.

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 will be able to communicate information effectively with patients and other care providers with regard to evaluation and management of Gastrointestinal Diseases.

**Outcome Measure**
The student will be able to demonstrate to faculty:
1. The ability to explain to patients the nature of their disease, its evaluation and treatment recommendations.
2. The ability to synthesize information obtained from various sources into a concise and complete GI consultation note.
3. The ability to communicate recommendations to the primary team in a timely manner.

**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. The student must demonstrate professionalism in interacting with patients and other care providers.

**Outcome Measure**
The student will be directly observed and assessed as part of the final grade by faculty to determine ethical behavior, reliability and level of dependability of the student and the student’s ability to accept criticisms or suggestions. The student will also be evaluated by faculty on:
1. Professionalism in interacting with patients and other care providers.
2. Ability to demonstrate sensitivity to and tolerance of differences in gender, age, culture, religion, sexual preference, socioeconomic status, beliefs, behaviors and disability of patients, their families and caregivers and professional colleagues.
3. Ability to identify and understand the barriers in providing care to GI patients.

**Institutional Objective**
**Systems-based Practice** - Students will be able to recognize and better understand the role of other health care professionals in the overall care of the patient.

**Course Objective**
The student will better understand health-care delivery systems and social service agencies which are critical to care of GI patients.

**Outcome Measure**
The student will orally demonstrate to faculty a basic understanding and utilization of various resources (such as social work, support groups, national foundations and governmental agencies) to provide support and more information to GI patients.

**Self-Directed Learning**
As a medical student, you are encouraged to use any unstructured time as an opportunity 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**

**Mid Point Evaluation**
In accordance with LCME standard ED-30, the Course Director will evaluate student performance at mid-point to review the student’s professional, clinical and academic performance up to that point. The formative evaluation must be reviewed with the student and the student will have an opportunity to discuss with the Course Director. The form must
be signed by the student and returned to the Course Director. The Course Director shall then forward a copy of the form
to the Office of Academic Affairs. The form will NOT however be included in the student’s official academic record. For
rotations that are two weeks, oral feedback will be given to the student at the end of week one.

**Case Presentation- 25%**
The student will be required to give a 10-15 minute case presentation on a case at a pre-arranged time during their
clinical rotation. The case must be pre-approved by the course director and the presentation will be given to the course
director and medical students. The student will be notified of the date and time of their presentation one week in
advance. The course director will assess the presentation and assign a percentage score.

**Attendance and Participation – 25%**
Attendance and participation are expected every day. Failure to attend all sessions will result in a lower grade.

**Preceptor Evaluation- 50%**
**Grading: Honors/Pass/Fail**
The preceptors’ evaluation will be based, but are not limited to, upon the following factors:
- The demonstration of basic knowledge
- Informal Oral Case Presentations/Patient Workup
- Maturity and Professionalism

Each component mentioned above (case presentation, attendance and participation and preceptor evaluation) must
be passed in order to successfully complete the course.

**MUJCESOM Policies:** All medical students taking this course will comply with School of Medicine policies given at
http://musom.marshall.edu/students/policies. Individual policies can be found at the following websites:

- Student Infectious Material Exposure: http://musom.marshall.edu/ups/postexposure.asp
- MS-IV Attendance: https://musom.marshall.edu/students/documents/policies/Yr4attendance.pdf
- Academic Standards Policy: https://musom.marshall.edu/students/documents/Policies/ASC-FINAL-POLICY.pdf
- Policy for Students with Disabilities: https://musom.marshall.edu/students/documents/Guidelines.pdf
- Inclement Weather Policy: https://musom.marshall.edu/students/documents/policies/MUSOM-Inclement-Weather-Policy.pdf
  Notification of delays and cancellations of classes are posted on the Medical Education Home Page when Marshall
  University Main Campus is not in session
  https://musom.marshall.edu/weather
Required Reading:
1) Uptodate.com
2) A.C.P. – M.K.S.A.P. (Medical Knowledge Self Assessment Program) – G.I. Section