UCI School of Medicine
Curriculum and Educational Policy Committee

630F Gastroenterology

This course is available to UC Irvine students only.

Course Name Gastroenterology **Course Director** Sandra S Park, MD

Academic Year 2022-2023

1. Course Director, Coordinator and General Administrative Information

FACULTY AND STAFF

Course Director:	Sandra S Park, MD	e-mail: sandrasp@hs.uci.edu
Course Coordinator:	Lanette Guerrero	e-mail: mlguerr1@hs.uci.edu

DESCRIPTION

During the Gastroenterology elective the student will be expose to patients with esophageal disorders, peptic ulcer disease, inflammatory bowel disease, gastrointestinal bleeding, pancreatitis, and acute and chronic liver diseases. The student will observe and participate in the diagnostic workup of these patients, their plan of therapy, and their follow-up. The student will observe and assist in gastrointestinal diagnostic and therapeutic endoscopy and in the acute care of gastrointestinal emergencies. The student will work closely with the attending on the Gastroenterology Service and with the Fellows in training. There are three types of teaching activities within the division. These include bedside rounds, teaching conferences and outpatient clinics. They are attended by the students, residents, and Fellows in Gastroenterology and are conducted by the attending faculty member. They are designed to elucidate the important clinical features of the patient's medical problem and correlate them with known pathophysiological considerations.

PREREQUISITES

This course is intended for 4th-year students enrolled in the undergraduate medical education program at University of California, Irvine School of Medicine (UCISOM).

RESTRICTIONS

This course is intended for 4th-year students enrolled in the undergraduate medical education program at University of California, Irvine School of Medicine (UCISOM).

COURSE DIRECTOR

Dr. Park is the current Program Director for the Gastroenterology Fellowship at University of California, Irvine Medical Center. She has been a faculty member at UCI since 2017.

Lanette Guerrero is the course coordinator for MS3 Mini-Elective and serves as program coordinator for the Gastroenterology Fellowship.

INFORMATION FOR THE FIRST DAY
Please report to the first-floor physician work room in Building 22C (Comprehensive Digestive Disease Center, CDDC) at the UCI Medical center on your first day at 7 am. Please call or text the fellow on GI consults if they are not in the workroom. The attached e-mail will have the names and phone numbers of the GI consult fellow. If you are unable to reach any fellows, please page the General GI fellow's pager at 714-506-3015.

EXPECTATIONS FOR THE ELECTIVE
The medical student will be assigned 1-2 patients to follow daily. The student will pre-round on the patients with the fellow, present the patients on rounds, discuss the assessment and plan on rounds, and communicate with the primary teams after rounds. New consults will be assigned to the medical student and the medical student will follow and learn about these new patients. The medical student is expected to read about the patient(s) he or she is following, and supplement bedside learning with self-directed learning using textbooks and articles. Medical students will present 1-2 short presentations (5-10 minutes) to the fellows or on rounds on GI topics of their choice during the rotation.

SCHEDULE FOR THE ELECTIVE

Week	Rotation
1	GI Consults
2	GI Consults
3	Ambulatory/Procedures
4	Liver Consults

SITE: UC Irvine Medical Center

DURATION: 2-4 weeks

Scheduling Coordinator: UC Irvine students please call (714) 456-8462 or e-mail the course coordinator to schedule the elective.

Periods Available: The time of the course must be pre-approved by the course director at least 3 months prior to the start of the course. No exceptions.

NUMBER OF STUDENTS ALLOWED: 1 per rotation block

WHAT STUDENTS SHOULD DO TO PREPARE FOR THE COURSE
See APPENDIX.

COMMUNICATION WITH FACULTY
Questions regarding the logistics of the elective should be directed to the Course Coordinator. Direct questions, comments, or concerns about the course can be directed to the Course Director. Contact information included at the beginning of the document.

The Course Director is also available to meet in person. Please email mlguerr1@hs.uci.edu to arrange an appointment. To ensure that your email will not be lost in the large volume of email received, please use the following convention for the subject line:

SUBJECT: COURSE NAME, your last name, your issue (e.g. XXX, Smith, Request for appointment)

2. Course Objectives and Program Objective Mapping

The following are the learning objectives for the 630F course. Students are expected to demonstrate proficiency in these areas in order to satisfactorily complete the course. In addition, the extent of a student's mastery of these objectives will help guide the course evaluation and grade.

Course Objective	Mapped UCI School of Medicine Program Objective	Sub Competency	Core Competency
Be experienced in conducting a history and physical for gastroenterology patients.	B-1. The ability to competently conduct a medical interview and counseling to take into account patient health beliefs, patient agenda and the need for comprehensive medical and psychosocial assessment B-2. The ability to competently perform a complete and organ-system-specific examination including a	Medical Interview Physical Exam	Skillful

	mental health status examination		
Be experienced at writing up and presenting gastroenterology patients.	B-3. The ability to articulate a cogent, accurate assessment and plan, and problem list, using diagnostic clinical reasoning skills in all the major disciplines	Patient Management	Skillful
Be knowledgeable in the basic concepts of gastrointestinal pathophysiology and the clinical aspects of gastrointestinal disorders.	A-2. Knowledge of the pathogenesis of diseases, interventions for effective treatment, and mechanisms of health maintenance to prevent disease	Disease Pathogenesis and Treatment	Knowledgeable
Be knowledgeable in the planning and performance of diagnostic procedures for the evaluation and treatment of gastroenterology patients.	A-2. Knowledge of the pathogenesis of diseases, interventions for effective treatment, and mechanisms of health maintenance to prevent disease	Disease Pathogenesis and Treatment	Knowledgeable
Demonstrate professionalism by attending all rounds, conferences and lectures assigned. Show interest in learning.	C-1. Honesty and integrity reflecting the standards of the profession, in interacting with colleagues, patients, families and professional organizations	Professionalism	Altruistic
Example:			
Acquire an understanding of some of the most common problems seen by family physicians.	A-2. Knowledge of the pathogenesis of diseases, interventions for effective treatment, and mechanisms of health maintenance to prevent disease	Disease Pathogenesis and Treatment	Knowledgeable

3. Course Resources

TEXTS AND READINGS: SUGGESTED
See APPENDIX

4. Major Exams, Assignments and Grading

MANDATORY SESSIONS
7:00 am to 8:30 am – GI Modules on Wednesdays, ZOOM session or in person at CDDC, 1st floor education center

- Link to be sent by Course Coordinator

MAJOR ASSIGNMENTS AND EXAMS
[None]

GRADING
Medical Students are graded using the following scale: Honors (H), Pass (P), Fail (F), and Incomplete (I). For further information, please review the Grading Policy.

You have 30 days from the date of the grade to appeal any aspect of this grade. Please contact your Clerkship/course Director should you have any questions

Requirements for "Pass":

To receive a grade of Pass, students must demonstrate successful performance in all the following areas:

- Knowledge
- Patient Care
- Practice-Based Learning
- Interpersonal & Communication Skills
- Professionalism
- Systems-Based Practice

Requirements for "Honors":

To receive a grade of Honors, students must demonstrate exceptional performance all the following areas:

- Knowledge
- Patient Care
- Practice-Based Learning

- Interpersonal & Communication Skills
- Professionalism
- Systems-Based Practice

Grounds for "Incomplete": You will not be issued a grade until all elements of the course have been completed.

REMEDIATION
Remediation, if needed will be designed by the Course Director to suit the issue at hand.

Grounds for "Fail": You will receive a grade of "Fail" if the requirements for passing the course have not been met. Please refer to the Grading Policy for the impact of the "Fail" grade to the transcript.

APPENDIX

Please review this list of commonly encountered conditions in the field of gastroenterology. For each topic, we have included relevant clinical questions and a corresponding guideline or article that can be referenced for the answer. Many of these guidelines can be found through the four main GI societies websites. If students have issues accessing these documents, please let the fellow or course director know. We hope that students will have a broad exposure to relevant GI procedures and knowledge. We they will develop skills that will aid them in lifelong self-directed learning.

Major GI Societies

1. American Association for the Study of Liver Diseases (AASLD): www.aasld.org
1. American College of Gastroenterology (ACG): www.gi.org
1. American Gastroenterology Association (AGA): www.gastro.org
1. American Society for Gastrointestinal Endoscopy (ASGE): www.asge.org

Guidelines from each society can be accessed through their main website.

GI Bleeding

Topic	Learning Objectives	Resources for Self-Directed Learning
Nonvariceal Upper GI Bleeding	Understand the importance of volume resuscitation for all patients with GI bleeding. Understand the data behind the recommendation for a restrictive transfusion strategy. Recognize the guideline recommendations for standard timing of endoscopy for UGIB. Be able to list features of GI bleeding that would warrant earlier timing of endoscopy. Understand the role of PPI treatment before endoscopy and its impact on need for endoscopic therapy, mortality, rebleeding, and need for surgery. Recognize what three features seen on endoscopy constitute high-risk stigmata and require continued hospitalization after endoscopy. Recognize what two features seen on endoscopy do not require hospitalization after endoscopy.	ACG 2021 Guideline "Upper Gastrointestinal & Ulcer Guideline" and ACG 2016 "Bleeding: Acute Lower Gastrointestinal Guideline"
	Understand the data behind the recommendation for a restrictive transfusion strategy.	International Consensus Group's 2019 Guideline "Management of Nonvariceal Upper GI Bleeding: Guideline Recommendations from the International Consensus Group" published in Annals of Internal Medicine
	Understand the sensitivity of nasogastric lavage for risk stratifying upper GI bleeding. Know how to interpret different results of gastric aspirate (blood, coffee grounds, nonbloody material) from NG lavage.	ASGE 2012 Guideline on "The role of endoscopy in the management of acute non-variceal upper GI bleeding"
Variceal Upper GI Bleeding	Know what physical exam findings, lab findings, imaging findings, medical history would lead you to suspect variceal bleeding.	ASGE 2014 Guideline on "The role of endoscopy in the management of variceal hemorrhage"
Peptic Ulcer Disease	Understand the role of PPI treatment before endoscopy and its impact on need for endoscopic therapy, mortality, rebleeding, and need for surgery.	Cochrane 2012 Review "Proton pump inhibitor treatment initiated prior to endoscopic diagnosis in upper GI bleeding"

Lower GI Bleeding	Understand the importance of volume resuscitation for all patients with GI bleeding. Recognize the importance of adequate bowel preparation for colonoscopy for GI bleeding. Be able to list three items on the differential for lower GI bleeding and associated features of presentation or history that would lead you to include them on the differential.	ACG 2016 Guideline "Management of Patients with Acute Lower GI Bleeding"
	Know what radiologic studies are or are not appropriate for localization of lower GI bleeding.	ACR (American College of Radiology) Appropriateness Criteria for Radiologic Management of Lower GI Tract Bleeding – Summary Table & Narrative File
Colonic Ischemia	Be able to list common presentations for colonic ischemia. Recognize the diagnostic Identify risk factors for colonic ischemia in a patient's past medical history and medication list. Be able to diagnose severe colonic ischemia (physical exam, imaging findings, lab findings, endoscopic findings) and indications for surgical consultation. Recognize the role of antibiotics for moderate or severe colonic ischemia.	ACG 2015 Guideline "Epidemiology, Risk Factors, Patterns of Presentation, Diagnosis, and Management of Colon Ischemia"

Miscellaneous Topics

Topic	Learning Objectives	Resources for Self-Directed Learning
Sigmoid volvulus & cecal volvulus	Recognize the signs and symptoms that warrant immediate surgical consultation. Be able to list the classic imaging findings for sigmoid and cecal volvulus on X-ray, barium enema, and CT. Recognize which of the two conditions (sigmoid volvulus, cecal volvulus) can be managed endoscopically. Recognize rates of recurrence of volvulus after endoscopic decompression and the role of surgery after decompression.	ASGE 2020 Guideline "The Role of Endoscopy in the Management of Acute Colonic Pseudo-obstruction and Colonic Volvulus"
Acute Colonic Pseudo-obstruction	Recognize the signs & symptoms that warrant immediate surgical consultation. What cecal diameter is a generally accepted cut-off associated with a very high risk of impending perforation? List contraindications to neostigmine. Be able to explain the role of colonic decompression in treatment of ACPO, rates of success, and associated risks.	ASGE 2020 Guideline "The Role of Endoscopy in the Management of Acute Colonic Pseudo-obstruction and Colonic Volvulus"

Pancreatic & Biliary Disease

Topic	Learning Objectives	Resources for Self-Directed Learning
Cholangitis	What is Charcot's triad? Is Charcot's triad more sensitive or more specific for acute cholangitis? What is the Tokyo Guidelines 2018 diagnostic criteria for acute cholangitis? What is the difference in criteria between suspected diagnosis and definite diagnosis? What is the definition of Grade I, II, and III acute cholangitis? What is the data shared in the Tokyo Guidelines about urgent or early drainage for these classes?	Tokyo Guidelines 2018: Diagnostic Criteria and Severity Grading of Acute Cholangitis Tokyo Guidelines 2018: Initial Management of Acute Biliary Infection and Flowchart for Acute Cholangitis
	Recognize the difference between MRI noncontrast, MRI with IV contrast, MRCP. Recognize which studies are or are not appropriate for evaluation for common bile duct stones, ductal stones, and masses.	American College of Radiology Statement about ACR Appropriateness Criteria re: Jaundice EASL Clinical Practice Guidelines on the prevention, diagnosis, and treatment of gallstones (2016)
Acute Pancreatitis	What are the diagnostic criteria for acute pancreatitis? Recognize why an abdominal ultrasound is recommended for all patients with acute pancreatitis. Be able to list five different causes of pancreatitis. What is the definition of severe acute pancreatitis by the revised Atlanta criteria (2013)? What is the definition of aggressive IV hydration that is recommended for patients in the first 24 hours of presentation? What fluid is preferred for these patients? What is the data related to prophylactic antibiotics for infected necrosis as described in the guidelines? When should enteral nutrition be restarted in acute pancreatitis?	ACG Guidelines 2013 "Management of Acute Pancreatitis"

Liver Disease

Topic	Learning Objectives	Resources for Self-Directed Learning
Acute Liver Failure	What is the definition of acute liver failure?	AASLD Position Paper: The Management of Acute Liver Failure: Update 2011
Abnormal LFTs	Be able to distinguish between cholestatic injury and hepatocellular injury. What is a healthy normal ALT in men and women? How long do anti-HCV antibodies take to become positive after exposure? Understand how to interpret hepatitis B surface antigen (HBsAg), hepatitis B surface antibody (Anti HBs), hepatitis B core antibody total (Anti HBc total) for patients with chronic hepatitis B, passive immunity to hepatitis B, active immunity to hepatitis B. Understand scenarios where HBV DNA, hepatitis B e antigen (HBeAg), Hepatitis B e antibody (Anti HBe) are indicated.	ACG Guideline 2017 “Evaluation of Abnormal Liver Chemistries”

Inflammatory Bowel Disease

Topic	Learning Objectives	Resources for Self-Directed Learning
Ulcerative Colitis Flare	What is the definition of a severe UC flare (compared to a mild flare) based upon Truelove & WItts criteria? Recognize the difference between induction therapy and maintenance therapy for UC. Be aware of the risk of colectomy in patients with severe disease.	AGA 2020 Guidelines “Management of Moderate to Severe Ulcerative Colitis”
	Recognize the poor outcomes associated with NSAIDs in patients with UC. Recognize the importance of pharmacologic VTE prophylaxis in patients with acute flare.	ACG 2019 Guidelines “Ulcerative Colitis in Adults”

	Recognize signs and symptoms of toxic megacolon.	
	Be familiar with various inpatient protocols for hospitalized patients with UC flares.	University of Michigan Severe Ulcerative Colitis Protocol (2017) Society of Hospital Medicine's "Inpatient Management of Acute Severe Ulcerative Colitis" (2019)
	Be able to recognize bowel wall thickening on a CT scan.	Radiology Assistant https://radiologyassistant.nl/abdomen/bowel-wall-thickening-ct-pattern
Crohn's Disease	Recognize the differences in treatment between UC and Crohn's disease. Learn the features of Crohn's disease and clinical management	ACG 2018 Guideline "Management of Crohn's Disease in Adults"
Clostridium difficile infection	Understand how toxin enzyme immunoassays (EIA) work. Understand how glutamate dehydrogenase (GDH) immunoassays work. Understand how nucleic acid amplification tests (NAAT) work. Recognize how these tests compare in terms of sensitivity & specificity. Understand the limitations of these tests.	IDSA 2018 Clinical Practice Guidelines for C Difficile Infection

Miscellaneous topics

Topic	Learning Objectives	Resources for Self-Directed Learning
Dysphagia	Learn how to obtain a good history for dysphagia. Recognize pertinent questions to help distinguish between mechanical causes versus motility causes of dysphagia. What esophageal diameter is associated with dysphagia?	ASGE Guideline 2014 "The role of endoscopy in the evaluation and management of dysphagia"
Nausea and vomiting	Identify elements of a history that would distinguish between GI causes and non-GI causes of nausea and vomiting. Understand how a gastric emptying study is performed, and what the diagnostic criteria for gastroparesis is. Understand the long-term risks related to metoclopramide and how to counsel patients about use of this drug.	ACG Guidelines 2018 "Chronic nausea and vomiting: evaluation and treatment" AGA Technical Review on Nausea and Vomiting (2001)
Chronic abdominal pain	What are the diagnostic criteria for narcotic bowel syndrome?	Clinical Gastroenterology & Hepatology 2008 article by Dr.

	What are the diagnostic criteria for functional abdominal pain syndrome?	Douglas Drossman "Severe and refractory chronic abdominal pain: treatment strategies"
	What are the diagnostic criteria for functional dyspepsia? What are the diagnostic criteria for cyclic vomiting syndrome?	Gastroenterology 2016 article by Stanghellini et al "Gastroduodenal disorders"
Diarrhea	What is the evidence surrounding empiric antimicrobial therapy for acute diarrhea infections?	ACG Guidelines 2016 "Diagnosis, Treatment, and Prevention of Acute Diarrheal Infections in Adults"
	What is the definition of chronic diarrhea? What are alarm features that warrant further testing for chronic diarrhea?	Clinical Gastroenterology & Hepatology 2017 article by Schiller et al "Chronic Diarrhea: Diagnosis and Management"