

# Pediatric Gastroenterology/Nutrition Syllabus

## Contact Information

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## Course Information

### Brief Description of Course

Diagnosis and management of infants through adolescents (outpatient and inpatient) with intestinal, liver and nutritional disorders. The student will assist in inpatient subspecialty consultation parallel to the pediatric resident under supervision by GI fellow and Attending. The students will work in conjunction with the 2 GI residents and GI fellow. There is no night or weekend call. The elective includes daily attending teaching rounds, observation of gastrointestinal procedures and biopsies and participation in clinical and pathology conferences. On request, participation in the various GI outpatient clinics may be arranged.

### Course Goals

As a result of successfully completing this course, students will be able to:

1. Practical experience in the management and evaluation of pediatric gastrointestinal and nutritional problems.
2. Understand the indications, risks and limitations of gastrointestinal/liver procedures: endoscopy, colonoscopy, pH/Impedance probe studies, and liver biopsy.
3. Understand psychosocial, financial and ethical issues associated with acute and chronic gastrointestinal diseases.
4. Identify which clinical problems require referral for subspecialty gastrointestinal/liver evaluation

## Course Format & Schedule

### Timeline

Monday	Tuesday	Wednesday	Thursday	Friday
8a Morn Report	8a Morn Report	8a Morn Report	8 AM Grand Rnds	8 AM Division Mtg: Eccles 4
8:30 AM rounds w/ resident/fellow	8:30 AM rounds w/ resident/fellow	8:30 AM rounds w/ resident/fellow	8:30 AM rounds w/ resident/fellow	8:30 AM rounds w/ resident/fellow
12-1 PM Noon Conf./Lunch	12-1 PM Noon Conf./Lunch	12-1 PM Noon Conf./Lunch	12-1 PM Noon Conf./Lunch	12-1 PM Noon Conf./Lunch
1-4 PM consultations	1-4 PM consultations	1-4 PM consultations	1-4 PM consultations	1-4 PM consultations
4 PM Didactic Rounds/Sign out	Didactic Rounds 4 pm/Sign out	Didactic Rounds 4 pm/Sign out	Didactic Rounds 4 pm /Sign out	Didactic Rounds 4pm /Sign out

### Educational and Instructional Modalities

### Role of the Student in this Course

#### Curriculum:

The student will seek direct inpatient exposure, didactic discussion or specific text readings for each of the following topics during the 4 week rotation. There is an online folder with key position papers, guidelines and lay press articles that should be reviewed during the month.

(Starred (\*) topics listed below may be covered in general noon lectures or available as Power Point presentations in Canvas)

### **A. Gastroenterology:**

Seek direct clinical experience with patients, augmented by discussion with attending, and supplemental reading (see educational resources) for each of the following common GI/Liver problems:

- \*Gastrointestinal Emergencies: GI bleeding/Obstruction/Peritonitis
- \*Chronic Recurrent Abdominal Pain/ Irritable Bowel Syndrome
- \*Stool Retention Syndromes: Constipation/Encopresis/Hirschsprung's-Neuronal dysplasia
- Anorectal anatomy and physiology
- Dysphagia/Aspiration/Achalasia
- Vomiting/\*Gastroesophageal Reflux Disease/Cyclic Vomiting Syndrome
- Esophagitis-peptic and allergic
- Food and formula intolerance/Allergic gastroenteropathies
- Chronic Diarrhea/Malabsorption:
  - Parasitoses: Giardiasis, cryptosporidiosis, amebiasis
  - \*Celiac Disease
  - Diet-related nonspecific diarrhea
- \*Inflammatory Bowel Diseases: Crohn's, Ulcerative Colitis, Indeterminate, Eosinophilic, Clostridium difficile, Infectious enterocolitis
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- Peptic Ulcer Disease: Helicobacter pylori, NSAID
- Dysmotility: Achalasia, Gastroparesis, Pseudoobstruction, Bacterial Overgrowth
- \*Pancreatitis
- \*Short bowel syndrome: probiotics/bacterial overgrowth

### **B. Liver Disease**

Seek direct clinical experience with patients, augmented by discussion with attending, and supplemental reading (see educational resources) for each of the following common hepatology problems:

- \*Cholestasis: Neonatal and Older (including biliary atresia/Alagille syndrome/ alpha-1-antitrypsin deficiency)
- \*Hepatitis: Acute viral, toxic/fulminant/chronic viral, autoimmune
- \*Cirrhosis/Portal Hypertension
- \*Liver Transplantation

### **C. Gastroenterologic Procedures:**

[Daily, variable schedule and availability]

Seek direct clinical observation with indications, technique and risks, augmented by discussion with attending, and supplemental reading (see educational resources) for each of the following procedures:

- Esophagogastroduodenoscopy
- Colonoscopy
- Manometry: Esophageal, Recto-anal motility studies,
- pH probe studies: 24 hour single and dual channel, Bravo ambulatory
- Liver biopsy.
- Esophageal variceal band ligation
- Paracentesis
- Percutaneous Endoscopic Gastrostomy
- Referral Process for Open Gastrostomy, Nissen or Laparoscopic Fundoplication

### **The Rotation**

**A.** This will be an inpatient-based 4 week duration Pediatric Gastroenterology and Nutrition rotation. It is designed to allow the medical student to become familiar with the management of common pediatric gastroenterology problems and to

recognize gastroenterology problems that should be referred to the inpatient subspecialist. All patient activities will be done in conjunction with and supervised by the attending pediatric gastroenterologist and/or GI fellow on the hospital service for the week. The student may perform clinical patient assessments, both history and physical examination, independently and then directly validated and staffed by the attending physician with opportunity for bed-side and didactic teaching. The student is encouraged to consult the literature, curriculum materials, website documents and textbooks to generalize his knowledge base. A record will be kept of topics addressed as listed in this document. Topics not covered in the patient-based clinic encounters should be learned by independent reading of curriculum material and texts, augmented by didactic dialogue with the attending physicians. When appropriate, the student will help conduct outcome management for laboratory, radiology and procedure results as well as responses to interventions, including follow-up clinic visits for patients encountered in the first weeks of the rotation.

**B.** The student should observe at least one of the following procedures during the rotation: esophagogastroduodenoscopy, colonoscopy, liver biopsy and pH probe study. If possible, other procedures such as motility study, variceal band ligation, paracentesis or percutaneous gastrostomy may be observed. The student will better understand the indications, contraindications, and risks of the procedures.

**C.** On request, the student may arrange for ½ day afternoon outpatient GI observation/participation in the various clinics at Eccles Outpatient Center 2<sup>nd</sup> Floor Station 4. (General GI, IBD, Nutrition Center, Dysphagia, Eosinophilic Diseases, Cystic Fibrosis)

**D.** The student should prepare a 5 minute brief presentation and 15 minute evidence-based and referenced discussion of an interesting patient encountered during the rotation. Optimally, this will be presented to the Division members on one of the Friday 8 am division meetings or to attending team after rounds.

**E.** Conferences – review with team

### Required Textbook(s)/Readings

Book Title + ISBN	Author/Publisher/Edition	Appx Cost
Pediatric Gastrointestinal Disease	Hyams	

### Additional Resources

Up to Date

Power Point Presentations/articles on Canvas

## Assessment & Grading

### Preceptor Evaluations

This Clinical Courses employs a preceptor evaluation which contributes to the student's overall course grade.

### Assessments

Assessment/Assignment	Due Date	Weight towards Final Grade
Preceptor Evaluations		100%

### Grading System

Students will receive a final letter grade of PASS (P), or FAIL (F) for this course.

PASS: A student who achieves the criteria will be assigned a grade of PASS for the course.

FAIL: A student who fails to achieve the criteria for PASS will be assigned a grade of FAIL for the course.

## Student Feedback

Student feedback is important and helps identify opportunities to improve the course.

At the conclusion of each course, clerkship or rotation medical students are required to complete a summative evaluation. Evaluations are completed electronically and remain confidential.

## Standard Policies

Please refer to the Student Handbook (on the Student Affairs website) for these policies:

- Accommodations**
- Addressing Sexual Misconduct**
- Attendance policy**
- Dress Code**
- Examination and Grading Policies**
- Grade or Score Appeal**
- Professionalism, Roles & Responsibilities**
- Mistreatment**

## Center for Disability & Access Services

The University of Utah seeks to provide equal access to its programs, services and activities for people with disabilities. If you will need accommodations in the class, reasonable prior notice needs to be given to the Center for Disability and Access, 162 Olpin Union Building, 581-5020 (V/TDD). Staff of the Center for Disability and Access will work with you and the instructor to make arrangements for accommodations. All written information in this course can be made available in alternative format with prior notification to the Center for Disability and Access.

The Senior Director of the Academic Success Program, Dr. Steven Baumann (1C047B SOM Dean's Office, 587-3671, or [steven.baumann@hsc.utah.edu](mailto:steven.baumann@hsc.utah.edu)), serves as the liaison between the School of Medicine and the Center for Disability and Access.