Goals and Objectives: At the end of the course, the MIS fellow will be familiar with GI endoscopes, towers, and the instruments used for endoscopy and endoscopic surgery. The fellow will also be able to identify the most common types of GI pathology and options for management.

Course Chairs: Jeff Marks, M.D., F.A.C.S. and TBD

Course Faculty: TBD

Thursday, September 12, 2019
3:00-8:00pm Registration at the TBD
7:00-8:30pm Faculty & Fellows Welcome Reception at the TBD
8:00-8:15pm Faculty Briefing TBD

Friday, September 13, 2019
6:30am Meet in hotel lobby to travel to TBD
6:45am Breakfast in TBD
7:15am Welcome to Case Western TBD
7:30-7:45am Introduction: Why you’re here, what we’re going to learn. TBD
7:45-8:30am Panel I: Masses, Polyps, and Ulcers with Biopsy and Polypectomy Techniques (45 minutes)
Cases will be presented that illustrate the use of endoscopic biopsy forceps and snares, with emphasis on the type of pathology that are best suited for each of these instruments. Endoscopic video clips will be presented to enhance the fellow’s ability to recognize GI endolumenal pathology.
Moderator: TBD
Panelists: TBD

Case 1: Colon cancer (5 minutes)
Biopsy forceps (cold) and biopsy brush

Case 2: Pedunculated polyp (5 minutes)
Snare Cautery Polypectomy

Case 3: Sessile cecal polyp (5 minutes)
Cold Snare Polypectomy
Case 4: Rectosigmoid hyperplastic polyp (5 minutes)  
Cold vs hot biopsy forceps; mini-snare

Case 5: Barrett’s esophagus (5 minutes)  
Multiquadrant biopsy (Seattle protocol)

Case 6: Gastric Ulcer (5 minutes)  
Multiple biopsy of ulcer edges

Case 7: Fundic gland polyps (5 minutes)  
Management? No biopsy?

Case 8: Sessile Rectal Lesion (10 minutes)  
Endoscopic mucosal resection

8:30-8:45am **Bleeding Management Overview**  
**Presenter:** TBD

Energy sources: Different types of energy sources and instruments will be presented along with application techniques for GI endoscopy.

- Overview of the Tools of the Trade
- Overview of multimodal therapy
- Overview of clip types and capabilities

8:45-9:15am **Panel 2: Control of Hemorrhage with Case Presentations:** Bleeding Ulcers, Anastomoses, GAVE, Post-Polypectomy Bleeding, Radiation Proctitis
Cases will be presented that illustrate how the types of energy sources are used in GI endoscopy, specifically, coaptive coagulation, radiofrequency ablation, Argon plasma and other laser applications. Endoscopic video clips will be presented to enhance the fellow’s ability to recognize GI endoluminal pathology.

**Moderator:** TBD  
**Panelists:** TBD

- Bleeding Management Cases- Thermal (5 minutes)  
- Prophylactic Vessel Management- Coag grasper (5 minutes)  
- Vascular lesion (AVM, DeLafoy) - Gold probe (5 minutes)  
- GAVE/Proctitis- APC (5 minutes)  
- Polyp Bleeding Prevention- Bipolar cautery/Hot Biopsy (5 minutes)

9:15-9:30am **Clips, Suture and Nets:**  
Types of endo-clips, suturing devices and retrieval nets utilized in GI endoscopy will be introduced along with the appropriate uses of these instruments.
9:30-9:45am  **Break** *(Refreshments provided in the TBD–Room TBD)*

9:45-10:30am  **Panel 3: Non-thermal Bleeding Case Presentations**

Cases will be presented that illustrate how the types of endoclips, suturing devices and retrieval nets are utilized in GI endoscopy, specifically, endoclips for control of hemorrhage, suturing devices for closure of a mucosotomy and a Roth net for either retrieval of a specimen or foreign body. Endoscopic video clips will be presented to enhance the fellow’s ability to recognize GI endoluminal pathology.

**Moderator:** TBD  
**Panelists:** TBD

- Bleeding Management – Non-Thermal Cases (5 minutes)
- Variceal Bleeding – Banding (5 minutes)
- Variceal Bleeding – Blakemore tube (5 minutes)
- Peptic Ulcer – Injection therapy (5 minutes)
- Peptic Ulcer – topical medications (fibrin sealant) (5 minutes)
- Gastric Varix – Cyanoacrilate Injection (5 minutes)
- Staple line bleeding – Endoclip (5 minutes)
- Peptic ulcer bleeding – OTSC (5 minutes)
- Bleeding management – Overstitch (5 minutes)
- Polyp Bleeding Prevention – Endoloop (5 minutes)

10:30-10:45am  **Dilators and Stents:**

Appropriate uses of dilators (e.g., Maloney, Savory, balloon, pneumatic) will be presented which are utilized in GI endoscopy to dilate benign, malignant esophageal strictures and esophageal stents used for treatment of esophageal strictures and perforation.

**Presenter:** TBD

10:45-11:30am  **Panel 4: Stricture and perforation management**

Illustration of the types of dilators and stents and how they are used in GI endoscopy, specifically, dilation of a benign esophageal stricture (e.g. balloon, Savory), treatment of a benign or malignant esophageal stricture with a stent, and treatment of an esophageal perforation with a covered stent. Endoscopic video clips will be presented to enhance the fellow’s ability to recognize GI endoluminal pathology.

**Moderator:** TBD  
**Panelists:** TBD

Case 1: Anastomotic stricture (GJ post gastric bypass)  (10 minutes)  
Balloon dilation

Case 2: Schatzki’s ring  
Balloon dilation (can traverse)  (5 minutes)
Case 3: Esophageal cancer (10 minutes)
Stent (fully vs. partially covered)

Case 4: Colon cancer (5 minutes)
Stent (uncovered)

Case 5: Sleeve gastrectomy leak (10 minutes)
Stent (covered, multiple)

Case 6: Radiation induced cervical stricture (5 minutes)
Savary dilators, wire-guided, fluoroscopy

11:30-12pm Advanced Endoscopic Techniques - how I do it
Endoscopic Mucosal Resection, Endoscopic Submucosal Dissection, Mucosal Ablation, and Per-Oral Endoscopic Myotomy: Introduction of tools and appropriate technique application of endoscopic mucosal resection, endoscopic submucosal dissection, mucosal ablation with either radiofrequency ablation or cryoablation, and per-oral endoscopic myotomy.

Presenter: TBD

12-12:45pm Lunch and Lab Overview

1:00-5:00pm Hands-on Laboratory (Case Western staff escort participants to Lab)

(Refreshments and Snacks provided in the TBD – Room: TBD)

Instructors: TBD

Group I: 10 stations 30 fellows (Duration: 4 hours)

1. Tower Setup and Trouble Shooting
2. Foreign Body Removal
3. Sclerotherapy
4. Variceal Banding
5. Tattoo
6. Saline Lift Polypectomy
7. Management of Bleeding
8. Application of Clips
9. Polyloop Placement
10. Balloon Dilation
11. Enteral Access (PEG, PEG-JET)
12. POEM/POP

Group II: 10 stations 30 fellows (Duration: 4 hours- 24 minutes per station)

   Station 11-EMR (TBD)
   Station 12-EMR (TBD)
Station 13-TIF procedure for Reflux (TBD)
Station 14-EndoFLIP (TBD)
Station 15-Apollo overstitch (TBD)
Station 16-Apollo overstitch (TBD)
Station 17-Ovesco (TBD)
Station 18-Stretta (TBD)
Station 19-GI Stenting (TBD)
Station 20-Barrx (TBD)

5:15pm Meet in TBD to travel back to hotel
6:30pm Meet in hotel lobby for shuttle to (TBD, 1st shuttle depart TBD, return to hotel at 9pm and 2nd shuttle depart TBD, return to hotel at 12pm)

Saturday, September 14, 2019

8:00am Meet in Hotel lobby to shuttle to Case Western
8:15-9:00am Breakfast in the TBD, room TBD
8:25-8:40am Endoscopic Weight Loss Procedures
Presenter: TBD
8:40-9:00am Endoscopic GERD Management
Presenter: TBD

9:00-1:00pm Hands-on Laboratory (Case Western staff escort participants to Lab)
Group I will perform the techniques in Stations 16-25. Group II will perform the techniques in stations 1-15.
11:00am Break (Refreshments and Snacks provided in the TBD – Room: TBD)
1:00pm Box lunch and Evaluations – Room TBD
2:00pm Airport shuttle departs to Cleveland Hopkins International Airport