University of South Florida *Morsani College of Medicine*

Advanced Surgical Skills FOURTH YEAR ELECTIVE *MEL 7815*

Syllabus 2022-2023



Morsani College of Medicine Office of Educational Affairs University of South Florida



TABLE OF CONTENTS

| page 3 | Course Director's Welcome |
|-----------|--|
| 4 | Key Contacts |
| 5 | Goals Professionalism Course Locations |
| 6 | Dress Code Didactic Sessions |
| 7 | Open Procedures and Laboratory Experiences |
| 9 | Textbooks and Other Course Materials |
| 10 | Grading |
| 11 | Grade Appeal: Policy and Process |
| 12 | Attendance and Absence Policies |
| 13 | Academic Honesty |
| 14 | Getting Help Standard Precautions Bloodborne Pathogens and Communicable Disease Exposures |
| 15 | Morsani College of Medicine's Student Handbook Tampa General Hospital's Shuttle App Office of the Provost's Core Syllabus Policy Statement |

Course Director's Welcome

Welcome to the Advanced Surgical Skills course. I hope the four weeks you spend on this elective will be rewarding and educational. This syllabus has been designed to serve as a reference guide and it is the responsibility of every student to be aware of all information provided both in the syllabus and on the course's Canvas page. Attendance is required at the Department of Surgery's Monday morning Morbidity & Mortality (M&M) conference and Grand Rounds, as well as any other required resident activities. You will be evaluated based on your surgical skill and simulation performance, final exam grade, attendance, and professionalism.

This four-week elective is designed to help you develop the surgical skills that all students should possess at the time of entering a surgical internship. Advanced surgical principles and procedures will be taught with an emphasis on knowledge, operative instrumentation, airway management, and operative procedures. The course consists of a one-month intensive operative experience using prosections and advanced simulation. After completion of the elective, students should be able to identify and understand the management of surgical problems and be able to complete basic surgical procedures.

Should you have any questions, comments, suggestions, or problems, please feel free to contact me.

Joseph Sujka, M.D.

Key Contacts

Course Director

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Course Coordinator

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<u>Goals</u>

At the completion of the elective, students should be able to:

1. Complete common surgical procedures using simulators and prosections

2. Develop skills that will be needed during the first weeks of residency, such as being the first responder for critically ill or unstable patients, emergency procedures (ventilation), common electrolyte abnormalities, management of common and urgent perioperative conditions, interpreting radiographs, operative anatomy

- 3. Establish the fundamentals of basic perioperative care of the surgical patient
- 4. Demonstrate proficiency in basic suturing and knot tying techniques
- 5. Develop an effective strategy for self-directed learning.
- 6. Demonstrate understanding of basics of wound care and management.

Professionalism

As a medical student at USF, all students are expected to adhere to the policies set forth in the Morsani College of Medicine's Student Handbook. A link to the handbook can be found on the Canvas and at the end of the syllabus. Professionalism and participation are significant components of this course's grade. All students are expected to arrive to lectures and labs early and to maintain a professional image in both behavior and appearance at all times. In the anatomy lab, students are expected to show the utmost respect for the deceased individuals who have donated their bodies for medical education. Professionalism accounts for a percentage of your final grade and acts of unprofessionalism will cause a reduction in your final grade. However, a single or any act of unprofessionalism can be in and of itself a reason for Remediation or Failure of the course, at the discretion of the Course Director. Any student not upholding the highest standards of professionalism will be subject to course remediation or failure.

Course Locations

On Mondays, all course sessions will be at Tampa General Hospital. On Tuesdays, Wednesdays, Thursdays and Fridays, all sessions will be held at the USF Center for Advanced Medical Learning and Simulation (CAMLS). A detailed calendar will be provided at orientation and will also be accessible via the course's Canvas page. All sessions are subject to time and location changes, which will be emailed directly to you by the course coordinator. It is the student's responsibility to check their email and/or contact the course coordinator about any conflicts or changes to the schedule.

Dress Code

For all Monday morning Department of Surgery conferences, professional attire is required. Professional attire for men includes dress shirt, tie, slacks, belt, and close-toe dress shoes. Professional attire for women includes a dress, blouse with either pants or skirt, and close-toe shoes. Jeans, shorts, short skirts, t-shirts, sandals and tennis shoes are not considered professional attire.

Scrub wear is acceptable during simulation sessions, but scrubs should be covered by a white lab coat when outside of the simulation laboratory.

Didactic Sessions

Attendance at <u>ALL</u> didactic sessions is mandatory. Failure to attend may result in grade reduction.

All students are expected to attend Morbidity and Mortality, Grand Rounds and Resident Education Conferences on Monday mornings.

Lectures specific to the course include the following:

- 1. Intern Survival
- 2. Case Based Learning
- 3. Electrosurgery
- 4. Safety in the OR
- 5. Wound Care Management
- 6. Introduction to trauma
- 7. Robotic surgery

Open Procedures and Laboratory Experiences

- 1. Orientation and introduction to the names of various types of surgical instrumentation
- 2. Basic suturing
- 3. Familiarity using open and laparoscopic surgical instruments and equipment introduction to surgical techniques, proper handling of tissues, proper use of instruments, suture types, linear and circular staplers, high-energy devices (Bovie, Autosonics dissector, Ligasure), suturing devices (Endostitch).
- 4. Complete an open bowel anastomosis (synthetic bowel, possibly prosection) hand sewn and stapled
- 5. Repair/replace a large artery with prosthetic graft and vein (synthetic vessels, possibly prosection)

SIMULATION – All laboratory simulation experiences will be accompanied with an orientation to the simulation equipment and the procedures to be completed.

1. SimMan is an advanced human patient simulator from Laerdal that has realistic anatomy and clinical functionality.

Airway management and emergency airway procedures Inline stabilization and management of the unstable airway Bag/Mask Ventilation Intubation Cricothyroidotomy Trismus Tongue Edema Pharyngeal Edema Laryngospasm Decreased Cervical Range of Motion Pneumothorax Decompression Chest Tube Placement Stomach Decompression Understand ATLS principles and practice running trauma scenarios Understand ACLS/BLS principles and practice 2. Fundamental in Laparoscopic Surgery (FLS) Course – the definitive laparoscopic skills enhancement and assessment module.

Compete the web-based educational didactic modules Preoperative Considerations Intra-operative Considerations Basic Laparoscopic Procedures Postoperative Care and Complications Complete laparoscopic box trainer skills Transferring Precision cutting Placement and securing of ligating loop Simple suture with extracorporeal knot Simple suture with intracorporeal knot

FLS online sign on and access web site: http://fls-online.org Program ID: RES0144 User ID: cairey Password: tghsim

 LAP MENTOR II by Simbionix is for hands-on practice of complete laparoscopic procedures. Basic Skills Drills and Tasks Lap Cholecystectomy Training Tasks Basic Suturing Skills Lap Cholecystectomy full Procedures Other Surgical Operative Procedures (Extra Credit - hernia, sigmoid colectomy)

4. ANGIOMENTOR is a state-of-the-art endovascular simulator, which creates a virtual medical environment to engage the clinician with life-like vascular anatomies and catheter based haptics for procedures on coronary, iliac, SFA, renal and carotid arteries. The course consists of on-line didactic teaching sessions and a variety of simulation scenarios.

Utilize SimSuite education, The Right Pathway to Practice Focus on Pre-procedure patient briefing Hemodynamic monitoring – identify and read hemodynamic waveforms using arterial lines, central venous catheters, and pulmonary artery catheters. Recognize normal sinus rhythm and the basic components of an electrocardiogram Understand, identify, and treat atrial dysrhythmias, ventricular dysrhythmias, and heart blocks Aortic angiography with runoff Iliac or superficial femoral artery stenting

5. BLUE PHANTOM

Central venous access with and without ultrasound guidance – subclavian and internal jugular

6. GI MENTOR II by Simbionix enables training to perform a wide variety of upper and lower GI procedures.

Endoscopic Skill Building Exercises Colonoscopy Full Procedures Gastroscopy Full Procedures Flexible Sigmoidoscopy Full Procedures Basic ERCP Full Procedures (Extra credit) Virtual Ultrasound

Textbooks and Other Course Materials

<u>Required</u>

Current Surgical Therapy 10th edition; John L. Cameron: Mosby; 2010.

Atlas of Minimally Invasive Surgery Hardcover/DVD edition; CT Frantzides & MA Carlson: Saunders; 2008.

ATLS Advanced Trauma Life Support Program for Doctors. Student Course Manual. 8th Ed. American College of Surgeons, 2008.

Advanced Cardiovascular Life Support Provider Manual (American Heart Association, ACLS Provider Manual). American Heart Association, 2006.

<u>Recommended</u>

Cope's Early Diagnosis of the Acute Abdomen 22nd edition; Z Cope, W. Silen; Oxford University Press; 2010.

Greenfield's Surgery: Scientific Principles and Practice 5th edition; M Mulholloand, KD Lillemore, GM Doherty, RV Maier, D.M. Simeone, GR Upchurch: Williams & Wilkins; 2010.

Sabiston Textbook of Surgery: Expert Consult Premium Edition-18th edition; CM Townsend, RD Beauchamp, BM Evers, KL Mattox; Saunders; 2007.

Principles of Surgery, 9th edition; ed. S.I. Schwartz; McGraw-Hill; 2009.

Zollinger's Atlas of Surgical Operations 9th edition; R Zollinger, Jr. & EC Ellison.: McGraw-Hill Professional; 2010.

Atlas of Gastrointestinal Surgery, Vol 1-2nd edition; JL Cameron & C Sandone: PMPH USA; 2006.

Grading

Course Grade Determination

Final grades will be submitted to the Registrar's Office within four weeks of the completion of the rotation.

Final grades (Honors, Pass, Fail) will be based on satisfactory completion of all aspects of the course, including all aspects of professionalism. Professionalism accounts for a percentage of your final grade and acts of unprofessionalism will cause a reduction in your final grade. However, a single or any act of unprofessionalism can be in and of itself a reason for Remediation or Failure, at the discretion of the Course Director.

Final grades are broken down as follows:

| Laboratory/Simulation Performance | Final Exam | Attendance |
|--------------------------------------|------------|------------|
| 40% | 40% | 20% |

Final exams will be given on the last day of the course and will include a written exam and simulation exams. Attendance at the final examinations is mandatory. The purpose of the exams is to test laparoscopic skills, knowledge of surgical diseases, procedures, and instrumentation. Questions are not based on specific individual lectures, but rather on topics within the broad field of surgery.

Final grades (Honors, Pass, Fail) will be based on satisfactory completion of all aspects of the course

Honors Eligibility

In order to be considered for a grade of Honors, a student must:

- Demonstrate that they have read about and learned from each course simulation session
- Satisfactorily complete all simulation sessions
- Satisfactorily complete all FLS training sessions
- Achieve a passing score on the final examinations

Unsuccessful Course

A grade of "Failure" may be issued for any of the following:

- Failure to demonstrate competency during the simulations or other course activities
- Unprofessional behavior as assessed by the department faculty and/or the course director, including failure to arrive promptly at all mandatory sessions
- Unexcused or unexplained absences
- Failure to complete any component of the course as judged by the course director, regardless of numerical scores obtained for the individual components of the course

Course Remediation

- Any student who fails to pass the examinations will be issued an "R" grade and given the opportunity to retake the exams with approval of the APRC, assuming other course assessment parameters listed under "Unsuccessful Course" are on par with his or her peers
- Remediation for students who fail the final examination or any other component is at the discretion of the course director.
- Remediation for students exhibiting unprofessional behavior is at the discretion of the course director

Grade Appeal: Policy and Process

1. Basis for Appeal

A student may appeal a course grade if the student has evidence that the grade was assigned in an erroneous manner. This is not a process for appeal of established departmental grading policies. The following procedure provides guidelines for the appeal process. All persons concerned with this process should make every attempt to adhere to the approximate time schedule outlined in the following description of the appeal process.

2. Appeal to the Faculty Member for Review of the Assigned Grade

Within five (5) school days after the receipt of the grade, the student may appeal in writing to the responsible faculty member any assigned grade that they dispute. The faculty member will review the course grading guidelines with the student to ensure that the process is understood and has been followed. If it is found that the assigned grade is incorrect in the judgment of the faculty member, he/she will initiate the appropriate change. If the change is made at this point, the matter is concluded. The faculty member will respond in writing with the faculty member's resolution of the matter to the student within five (5) school days of the student's request for review. If the faculty member is no longer with the University, the student shall confer with the departmental chairperson who will then make every effort to receive written input concerning the matter from the former faculty member. If it is not possible to receive information from the former faculty member regarding the grade, then the student may appeal the grade as described below and the departmental chairperson will represent the interests of the faculty member who issued the grades.

3. Appeal to the Department Chairperson/Associate Dean for UME

If the question of the assigned grade cannot be resolved between the student and the faculty member, the student may appeal in writing to the Associate Dean for UME (all required courses and interdisciplinary electives) or the Chairperson of the department in which the course was taught. This appeal must be made within five (5) school days following the initial faculty member review. The student shall include all relevant information relating to the appeal with the written appeal. After receiving such an appeal in writing from the student, the UME Associate Dean or Chairperson shall review with the faculty member the substance of the student's appeal and seek to determine its validity. If the Associate Dean/Chairperson determines that the assigned grade is, in his/her judgment, inappropriate, the chairperson should recommend to the faculty member that the grade be changed. The faculty member may or may not concur with the chairperson's/Associate Dean's recommendation. The Associate Dean/Chairperson will notify the student in writing, within five (5) school days of receipt of the appeal, whether or not the assigned grade will be changed by the faculty member. If the grade is changed to the student's satisfaction, the matter is concluded. If the grade is not changed, the chairperson/Associate Dean will advise the student of the right of appeal to the Vice Dean for Educational Affairs. If the student elects to appeal, copies of all written communication mentioned above shall be sent by the chairperson/Associate Dean to the Vice Dean for Educational Affairs as described below.

4. Appeal to the Vice Dean for Educational Affairs

If the grade is not changed to the satisfaction of the student at the departmental level, the student may appeal the assigned grade, in writing, to the Vice Dean for Educational Affairs. This appeal must occur within five (5) school days of receipt of the decision of the chairperson/Associate Dean. The student will prepare an appeal in writing, which should be reviewed by the AD for SA of the MCOM as to form/sufficiency (satisfactory structure) The Vice Dean for Educational Affairs may discuss the case with the student, the faculty member, the chairperson of the department in which the course was taught or the Associate Dean for UME, the Associate Dean for Student Affairs and the Chair of the APRC. Following these discussions, the Vice Dean for Educational Affairs may make a recommendation to the faculty member, the student, and the department chairperson/Associate Dean. If this results in an acceptable solution to all parties, the matter is concluded. If not, then a Hearing Committee will be appointed. The Vice Dean for Educational Affairs may, if he/she chooses, appoint a Hearing Committee upon receiving the initial appeal. The appeal will be handled as expeditiously as possible by the Vice Dean for Educational Affairs. When the decision is made to establish a hearing to investigate an appeal, the Vice Dean for Educational Affairs shall convene an ad hoc committee comprised of three senior members of the faculty of the Morsani College of Medicine who had not previously been involved in issuing the grade or the appeal process and three medical students, all of whom shall have voting privileges. This Committee shall elect a chairperson and hold a hearing concerning the appeal at a time acceptable to all participants. At this hearing all material relevant to the appeal shall be presented by the student, the Associate Dean for Student Affairs, the Chair of the APRC, the faculty member issuing the grade or raising the concern, or the department chairperson/Associate Dean for UME. Others may be requested to assist the Committee. The student may request to have another individual present. The Hearing Committee will submit to the Vice Dean for Educational Affairs a written report containing a recommendation for a specific course of action regarding the student's grade appeal. If the Committee cannot reach a conclusion, the written report will be submitted to the Vice Dean for Educational Affairs who will consider the reason(s) why the committee failed to reach a decision. The Vice Dean for Educational Affairs will then recommend a solution, which may or may not contain some or all of the recommendations of the Hearing Committee. As delegated authority of the Dean, the decision of the Vice Dean for Educational Affairs is final.

Attendance and Absence Policies

All absences from this elective (whether planned or unplanned) MUST be documented as soon as possible via the Online Absence Request Form: <u>https://usf.az1.qualtrics.com/jfe/form/SV_1RYdtSLEmVzUA61</u>

Unplanned absences (due to sudden illness, etc.) must be documented with the Online Absence Request Form <u>AND</u> the student should send an email to the Course Director and Coordinator explaining the nature of the absence. **Since this is such a short course, students should make every effort to attend all didactic sessions.** Recognizing that situations arise that require students to miss time from their lectures, the procedures presented below will be followed when an unplanned absence is necessary.

1. Unplanned Absences (Emergencies for Personal Illness, Family Illness, etc.)

The student will contact their direct supervising preceptor, the appropriate members of their team, and the Course Director and Coordinator to report their absenteeism on the first day of being absent. The student should indicate the nature of the unexpected illness or emergency. The Office of Student Affairs must also be notified of all absences via the Online Absence Request Form: https://confluence.usf.edu/display/MCOM/Absence+Forms

It will be the prerogative of the Course Director, following consultation with the student, to excuse the absence or request additional information about the absence. This may include requesting a physician's note or an explanation of the absence in detail. In order to be excused from mandatory course activities, the student must first contact the Course Director and Coordinator directly and send a copy of the request to the Office of Student Affairs. The Course Director will make the determination to grant or deny a request, in

addition to any required remediation. At the full discretion of the Course Director, excused absences may require remediation of missed course work, additional days and/or additional material, and may affect the final grade of the course.

2. Planned Absences

The student will submit a written request to the Course Director and Coordinator for permission to miss any clinic or ward experience, scheduled exams, course projects, or mandatory sessions for scheduled time off. The student will also submit a request to the Office of Student Affairs via the Online Absence Request Form: <u>https://confluence.usf.edu/display/MCOM/Absence+Forms</u>

The request should be submitted 6 weeks in advance or as soon as the student knows of the scheduled event PRIOR to the start of the course. Last minute requests (received after the start of the course) will require supporting documentation. The decision to grant or deny the request and determine subsequent action will be at the full discretion of the Course Director. As such any excused absences may require additional days and/or additional material and may proportionally affect the final grade. Opportunities for remediation of missed clinical time, mandatory course components and/or additional material (deemed necessary by the individual Course Director) will be scheduled so as to not impact the clinical experience of the other students in the course or detract from the required components of the current course or other courses in which they are enrolled. Written permission from the current Course Director is required for absences for any instances of remediation. Excused absences may proportionally affect final grade and/or may require remediation of missing course work, additional days and/or additional material at the discretion of the Course Director. Students are expected to fulfill all time commitments for this elective. All missed time must be made up. The appropriate remediation will be subject to the Course Director's discretion and should be fulfilled within a 2-month period.

3. Holidays and Religious Observations

All students, faculty, and staff at the USF have a right to expect that the University will reasonably accommodate their religious observances, practices and beliefs. Students are expected to attend classes and take examinations as determined by the University. The University will attempt, at the beginning of each academic term, to provide written notice of the class schedule and formal examination periods. The University, through its faculty, will make every attempt to schedule required classes and examinations in view of customarily observed religious holidays of those religious groups or communities comprising the University's constituency.

No student shall be compelled to attend class or sit for an examination at a day or time prohibited by his or her religious belief. Students are expected to notify their Directors/coordinators if they intend to be absent for clinical duties in accordance with this policy, prior to the scheduled religious holiday. Students absent for religious reasons will be given reasonable opportunities to make up any work missed.

Academic Honesty

All students of the College of Medicine are asked to sign a copy of the Student Pledge of Honor when they begin the first year. The Honor Code represents a model by which student begin to frame their professional behaviors and standards aspired to by future physicians and researchers. Any action that conflicts with the spirit of professional and personal behavior as described in The Preamble to the Student Pledge of Honor shall constitute violations of the Honor Code. A student whose actions are inconsistent with the spirit of the Honor Code may be accused by another student of violating the community spirit. Such actions include but are not be limited to

- lying
- cheating
- stealing

- plagiarizing the work of others
- causing purposeful or neglectful damage to property
- impeding the learning process of a colleague
- jeopardizing patient care in any way
- and failing to pursue others' actions thought to be in violation of the Honor Code

In the interest of promoting personal responsibility, a student who suspects a peer of violating the Honor Code is encouraged to confront that peer with the grievance and to attempt to resolve it independently. Should this not be possible, a suspected violation of the Honor Code shall be reported to any Honor Representative within three school days and the procedures set forth in the Honor Code bylaws are to be implemented.

The bylaws describe a procedure by which a satisfactory resolution to the situation may be achieved. The fundamental points of this process include a trial by a jury of peers, protection of anonymity, and self-government within the College of Medicine. The accused shall have the right to appeal any decision of the Honor Trial Jury.

Getting Help

Any student having academic or personal problems during the rotation is encouraged to contact the Course Director as soon as possible. In this way, we can provide you appropriate counseling during the rotation. If there are academic concerns regarding your rotation, we can make the appropriate suggestions. Alternatively, if there are other problems we can place you in contact with the appropriate services available to our medical students.

Standard Precautions

The USF Health Sciences Center endorses the use of Standard Precautions for all patients and all blood, body fluids and body substances. Standard Precautions embrace the concept that all patients are to be considered potentially infectious; precautions are appropriate when there is the potential for exposure to blood, body fluids, and other potentially infectious material. Precautions include:

- Wash hands before and after patient contact
- Wear gloves when contact with body substances, mucous membranes, and/or non-intact skin is likely
- Wear mask and goggles/face shield when face/mucous membranes may be splashed or aerosolized
- Wear gown or plastic apron when clothing may become soiled
- Dispose of all sharps (e.g. needles, scalpel blades) in designated red biohazard containers
- Use resuscitation device when providing mouth-to-mouth resuscitation

Bloodborne Pathogens & Communicable Disease Exposures

Immediately report all exposures to supervisor. Supervisor will access evaluation/treatment through

the Occupational Health Department at the facility where the incident occurs. Consult orange exposure cards for specific names and phone numbers. For all exposures occurring in a USF Health laboratory, the USF Medical Health Administration should be telephoned (813-974-3163) or paged (813-216-0153) immediately. To reach the "on call" USF Infectious Disease fellow, call (813-974-2201). Note: The site where the exposure occurs is responsible for the initial exposure management.

Morsani College of Medicine's Student Handbook

The MCOM Medical Student Handbook is available via the following link. This link is also located on your Canvas site.

https://confluence.usf.edu/display/MCOM/MD+Student+Handbook

Tampa General Hospital's Shuttle App

TGH is now offering both a website and mobile app for you to use to see when the next shuttle will arrive or depart for your parking lot. The app is available for Apple and Android devices and can be found by searching "Team TGH Shuttle Service" in the App Store or Google Play. Key features include route tracking, arrival estimates, and information updates. This link is also located on your Canvas site.

www.tgh.ridesystems.net

Office of the Provost's Core Syllabus Policy Statement

The University of South Florida's Syllabus Policy Statement from the Office of the Provost is available via the following link. This link is also located on your Canvas site.

http://regulationspolicies.usf.edu/policies-and-procedures/pdfs/policy-11-008.pdf