

SURG 7750: Core Sub-Internship in Vascular Surgery

Approved: June 19, 2020

Credit Hours: 4

Contact Information

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Course Information

Brief Description of Course

This course is a 4-week clinical experience in a hospital setting at the University of Utah. The Vascular Surgery team will provide experience on the care and treatment of vascular disease/disorders. The student will assume the role of an intern in both the inpatient and outpatient settings including participation in procedures. They will assume responsibility for patient work up, pre- and post-op care, rounds, conferences and journal club.

Course Goals & Objectives

As a result of successfully completing the Core Sub-Internship in Vascular Surgery course, students will have demonstrated the ability to perform each of the following for ambulatory and hospitalized patients presenting with new and follow-up core chief complaints/diagnoses relevant to the course:

Patient Care (Problem Solving and Clinical Skills)

Students are expected to provide patient care that is compassionate, appropriate and effective for the treatment of vascular problems.

1. Act in the capacity of the primary junior house officer for a select group of inpatients on the Vascular Surgery Service.
2. Perform history and physical examinations tailored to the presentation of the patient in the clinical setting, including the patient's cultural background, communication ability and health literacy level.
3. Synthesize information obtained from patient records, history and physical examination to construct a rational differential diagnosis and a cost-effective, evidence-based management plan for the patient.
4. Modify and optimize the patient's management plan as necessary by incorporating results of diagnostic tests, procedures, consultations, and responses to therapy.
5. Accurately document subjective and objective findings, assessments and plans in the medical record according to established guidelines.
6. Clearly present patients to attending and resident physicians, consultants, peers, and allied health professionals.
7. Utilize a systematic approach to clinical reasoning and problem solving that begins with vascular problem identification and ends with case resolution, explicitly acknowledging the degree of uncertainty at each step of the process. Such an approach to be demonstrated for carotid, PAD, aortic and venous problems.

8. Integrate a broad knowledge of the biomedical sciences and pathophysiology into the clinical reasoning process.
9. Utilize information technologies to optimize patient care.
10. Safeguard patient confidentiality while documenting and retrieving patient information from the medical record.
11. Demonstrate an understanding of chronic disease management to include:
 - the importance of the team approach
 - the application of social and behavioral science to the management and care of the dying patient
12. Outline and apply the common components of preoperative orders.
13. Outline and apply the common components of admission and post-operative orders.
 - Write an order for postoperative patient-controlled analgesia
 - Demonstrate the ability to write a complete set of admission orders
 - Demonstrate the ability to complete a succinct, comprehensive discharge/transfer summary
14. Identify, outline and participate in the management of the patient with common or urgent perioperative problems, including: Fever, Chest pain, Arrhythmia, Hypotension, Hypertension, Respiratory distress/Shortness of breath, Tachycardia, Mental status changes/Unresponsiveness, Hypoxemia, Oliguria/Anuria, Urinary retention, Nausea/Vomiting, Hyperglycemia, Lower extremity swelling, Compartment syndromes

Medical Knowledge

Students are expected to demonstrate knowledge of established and evolving biomedical and clinical sciences.

1. Demonstrate familiarity with the pathophysiology of atherosclerosis including risk factors and appropriate intervention.
2. Demonstrate familiarity with the common clinical presentations of the following: Carotid artery disease, Peripheral artery disease (PAD), Aortic aneurysmal disease, Venous disease
3. Demonstrate familiarity with non-invasive vascular laboratory testing including: Ankle-brachial indices, Plethysmography, Duplex scanning
4. Demonstrate the ability to interpret computed tomographic angiograms.
5. Demonstrate the ability to interpret catheter-based contrast studies.
6. Demonstrate a working knowledge of the coagulation cascade including the mechanism of action and appropriate use of antiplatelet, anticoagulant and thrombolytic agents.

Successful students will have also:

1. Practice-Based Learning and Improvement – Students are expected to investigate and evaluate their patient care practices by appraisal and assimilation of scientific evidence.
2. Systems-Based Practice – Students are expected to demonstrate an awareness of the larger context and system of health care and effectively call on system resources to provide optimal care.
3. Interpersonal and Communication Skills – Students are expected to effectively communicate and collaborate with patients, their families and health professionals.
4. Professionalism – Students are expected to demonstrate a commitment to carrying out professional responsibilities, and to be responsive and compassionate.
5. Self-Directed Learning – Anticipate clinical activities and prepare for them in advance through appropriate reading or study using diverse learning modalities. Suggested resources include: *Rutherford's Vascular Surgery, 8th Edition*, *Strandness's Duplex Scanning in Vascular Disorders*, *Journal of Vascular Surgery*, and <http://www.vascularweb.org>
6. Technical Skills – Becoming adept at the following skills: use of the continuous wave Doppler to assess lower extremity perfusion, handling guidewires and catheters during endovascular procedures, assisting the faculty surgeon or vascular fellow during open vascular surgical procedures

Benchmarks for Priority EPAs.

**Please refer to <https://medicine.utah.edu/students/programs/md/curriculum/competencies.php> for detailed information on UUSOM Program Objectives.

Clinical Course Format & Schedule

Timeline

The Vascular Surgery sub-I is a four-week rotation (28 days). Student hours are consistent with the 2020 ACGME requirements for residents. Students will have one 24-hour period each week completely free of clinical responsibilities. Your duty periods will not exceed 30 hours under any circumstances, and should generally not exceed 14 hours unless you are on overnight call. You will have 10 hours free between duty periods. If you feel that you are working more than the residents or more than an 80-hour work week, please notify Dr. Griffin who will evaluate your situation and make appropriate adjustments to your schedule.

If there is ever any reason why you cannot participate in any clinical aspect of the sub-internship, it is your responsibility to notify the vascular fellow so that there will never be any question as to whether or not you have been released from certain responsibilities. If you have an emergency that precludes your participation in clinical duties, you must page the vascular fellow as soon as you are aware or by 6:00 am. This applies in circumstances of illness or when there are other physical or emotional factors that prevent you from performing certain duties while on the sub-internship.

During interview season, students are expected to use their five days off to attend interviews and complete USMLE exams. Students who have used all five of their days off for interviews and require additional days for residency program interviews and/or sitting for USMLE Step 2 Clinical Knowledge and Clinical Skills testing will be allowed a maximum of three additional days away from the course provided that they have had no other absences for other reasons. **These absences must be arranged/communicated to the clerkship director and clerkship coordinator in advance.**

Schedule

Your schedule will be emailed to you one week prior to the beginning of your sub-I.

Please refer to the Clinical Curriculum Procedures and Practices for detailed information on **Phase 4 Course Attendance Expectations and **Medical Student Clinical and Educational Work Practices**.

Conference Schedule

While on the Vascular Surgery Sub-internship, **100% attendance is expected** during the regularly scheduled Wednesday morning conference block. Check with the vascular fellow for the schedule of activities that week.

During the final Wednesday conference of the Sub-internship, you are expected to present a 20 minute case presentation based on a patient you cared for during the rotation. This presentation can focus on any notable aspects of the patient's presentation, diagnostic work-up or management. Be prepared to discuss the rationale for whatever diagnostic or treatment plan was actually implemented relative to the available alternatives.

Educational and Instructional Modalities

Modality	Percentage
Clinical Didactic	5%
Clinic Time	90%
Lecture	5%

Role of the Student in this Clinical Course

Dr. Griffin and the vascular fellow will organize your clinical experience while on the Vascular Surgery Service. You should use the vascular fellow as your mentor for the rotation and try to apprentice with the junior residents. You should find out the operating room schedule the night before and which case(s) you will be assigned to so that you can review imaging and read about the disease, case, and patient before surgery. Additionally, you are expected to participate in at least one day of clinic per week for your service. We do expect you to participate in self-directed learning as outlined above.

Call – Sub-interns will take overnight call from home twice per week and one weekend during their rotation. These call assignments will coincide with the vascular fellow's call schedule.

Student concerns – Please contact Dr. Griffin with issues relating to work hours, student treatment by faculty or housestaff, or any other professionalism concern. Your discussion will be confidential. Information that you provide will be used for professional development and to improve the learning environment of the clerkship.

Core Chief Complaints, Core Diagnoses & Clinical Encounter Criteria

During the Core Sub-Internship in Vascular Surgery students are expected to experience and participate in a variety of clinical encounters with patients. The following table outlines the types of patient encounters expected for each student during the rotation. Students are required to log all of their encounters in the Case Log Application available via Tools. Where noted, alternatives to authentic clinical encounters may be allowed. Each student remains responsible for completion of the patient log; any student with concerns that he/she is in jeopardy of not fulfilling the requisite number of encounters for a particular core chief complaint, core diagnosis, or setting should contact Dr. Griffin by the end of the second week of the course to ensure that these experiences can be arranged.

Core Chief Complaint, Diagnosis, Visit Type, Procedure	Allowed Clinical Settings	Level of Student Responsibility*	Number Required	Alt**
Minimum Number of Patients	Inpatient	DPC; TMPC	25	

*Levels of Student Responsibility: Provide Direct Patient Care (DPC), Participate as a Team Member for Patient Care (TMPC), Observe Patient Care (OPC)

**Alternative Experiences: Where indicated with a ✓ online cases, textbook reading, and or didactic experiences are allowed as alternatives to clinical experiences.

Recommended Resources

Assessment & Grading

	Weight	Must Pass/ Must Complete	EPA/UUSOM Program Objective(s) Measured	Due Date
Course Assessments				
Preceptor Evaluations	100%	Must Pass	EPA 1a, 1b, 2, 3, 5, 6, 9	End of Course
Assignments and Must Complete Elements				
Observed Clinical Encounter		Must Complete	EPA 1a, 1b, 2, 3, 4, 5, 6, 8	4 th Wednesday of Course
Mid-Course Formative Feedback (2)		Must Complete	PCRS 3.1, 3.2; EPA 1a, 1b, 2, 3, 5, 6, 9	2 nd Wednesday of Course
Case Log		Must Complete	PCRS 1.1, 5.6	End of Clerkship
Work Hours Log		Must Complete	PCRS 5.6	End of Clerkship
Conference Attendance		Must Complete	PCRS 3.3	Weekly
Housestaff Case/AM Report Presentation		Must Complete	EPA 1a, 1b, 2, 3, 4, 6	4 th Wednesday of Course

Grading System

Your grade will result from a consensus evaluation by the faculty and vascular fellow (with additional input from the Vascular Surgery mid-level providers) at the completion of your rotation. This consensus evaluation will be based on previously completed MSIV Sub-Internship Final Performance Evaluation by each evaluator. Each score from the table above is converted to a score between 0-4, where 2.0 represents the minimum passing score and 4.0 is the maximum score. The final overall numerical course score is the weighted average of each score from the table above. Final overall course scores are rounded to one decimal point using standard rounding (e.g. 3.49 = 3.5).

Students will receive final letter grades of HONORS (H), HIGH PASS (HP), PASS (P), or FAIL (F).

HONORS: A student who earns a final numerical course score of 3.0 or greater, passes each of the Must Pass elements on the clerkship on the first attempt, and completes all of the Must Complete elements by the due date will earn a grade of HONORS for the course.

HIGH PASS: A student who earns a final numerical course score of 2.7, passes each of the Must Pass elements on the clerkship on the first attempt, and completes all of the Must Complete elements by the due date will be assigned a grade of HIGH PASS for the course.

PASS: A student who earns a final numerical course score of 2.0 or greater, passes each of the Must Pass elements,

and completes all of the Must Complete elements by the due date will be assigned a grade of PASS for the course.

FAIL: A student who earns a final numerical course score of less than 2.0 and/or fails one or more Must Pass elements of the clerkship and/or fails to complete all of the Must Complete elements by the due date will be assigned a grade of FAIL for the course.

Preceptor Evaluations

All Phase 4 Courses employ a common preceptor evaluation form that instructs evaluators to select performance-based behaviors along multiple dimensions that best represent the student's highest sustained performance during the preceptor's period of observation. The preceptor evaluations are must pass elements of the course. The passing student must achieve an overall score of 2.0 for the preceptor evaluations. A student who does not achieve a passing score for the preceptor evaluation component will receive a grade of FAIL for the course.

Mid-Course Formative Feedback

All Phase 4 Courses employ a common mid-course formative feedback form that includes both a student self-assessment and faculty assessment of student section. This self-assessment and feedback is intended to be formative in nature and will not be used in the calculation of preceptor evaluation data for final grade determination. Students will be instructed on the process of self-assessment and formative feedback and will be responsible for timely completion and submission of the data to the Course Director according to individual course specified process for selection of preceptors and occurrence frequency. Students with formative feedback suggesting need for remediation should contact the Course Director to develop a learning plan.

Student Feedback

Student feedback is an important aspect of curriculum quality improvement. Thus, students are expected to complete all assigned feedback surveys specific to a course by the due date. For clinical courses in Phases 3-4 the surveys are an end-of-course survey and individual surveys of clinical faculty. Surveys are administered online and student responses are anonymous.

Please refer to the resource section of the course canvas page for all Academic Year 2019-2020 student feedback survey due dates.

Standard Practices

Please refer to the Clinical Curriculum Procedures and Practices for the following:

- Phase 4 Developmental Benchmarks for Priority EPAs**
- Phase 4 Formative Feedback Form**
- Phase 4 Global Rating Form (Preceptor Evaluation)**
- Phase 4 Attendance Expectations**
- Medical Student Clinical and Educational Work (formerly Duty Hours)**
- Medical Student Clinical Documentation**
- Medical Student Call Rooms**
- Medical Student Mobile Communication**
- Students as Interpreters**

Standard Policies

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

- Accommodations**
- Addressing Sexual Misconduct**
- Dress Code**
- Examination and Grading Policies**
- Grade or Score Appeal**
- Professionalism, Roles & Responsibilities**
- Mistreatment**
- Infectious, Environmental and Bloodborne Pathogen Exposures Policy**

Alternate Name and/or Personal Pronoun

Class rosters are provided to the instructor with the student's legal name as well as 'Preferred' first name (if previously entered by you in the Student Profile section of your CIS account). While CIS refers to this as merely a preference, we will honor you by referring to you with the name and pronoun that feels best for you in class, on papers, exams, group projects, etc. Please advise us of any name or pronoun changes (and please update CIS) so we can help create a learning environment in which you, your name, and your pronoun will be respected.

Center for Disability & Access Services

The School of Medicine seeks to provide equal access to its programs, services and activities for all medical students. The Center for Disability and Access (CDA) provides accommodations and support for the educational development of medical students with disabilities. Medical students with a documented disability and students seeking to establish the existence of a disability and to request accommodation are required to meet with the CDA Director for recommended accommodations. The CDA will work closely with eligible students and the Academic Success Program to make arrangements for approved accommodations. The School of Medicine and CDA maintain a collegial, cooperative, and collaborative relationship to ensure compliance with federal and state regulations for students with disabilities.

Steven Baumann EdD, School of Medicine Senior Director of Academic Success Program, serves as the liaison between the School Of Medicine and the CDA.

Contact Information:

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University of Utah Center for Disability and Access

Olpin Student Union Building, Room 162 Phone (Voice/TDD): (801) 581-5020

<http://disability.utah.edu>

Safety Statement

The University of Utah values the safety of all campus community members. To report suspicious activity or to request a courtesy escort, call campus police at 801-585-COPS (801-585-2677). You will receive important emergency alerts and safety messages regarding campus safety via text message. For more information regarding safety and to view available training resources, including helpful videos, visit safeu.utah.edu.