

FOURTH YEAR SCHEDULE & GUIDELINES 2023-2024

The fourth year for the Class of 2024 begins Tuesday, May 30, 2023.

Promotion to the fourth year is contingent upon passing all third year clerkships and the clerkship exams (good academic standing). A student must be in good academic standing to register for any fourth year rotation or elective.

Students are required to take USMLE Step 2 CK before November 1, 2023.

The required rotations are: Geriatrics Clerkship, a Subinternship and a longitudinal teaching course.

Your completed schedule, with the signature of your field specific advisor, must be filed in the Office of the Registrar (Room A-414) no later than July 7, 2023 . Those students who fail to submit a schedule by this date will be brought to the attention of the Associate Dean of Student Affairs.

Dates in the scheduling process are:

Jan. 9 Class Meeting

Jan. 9-15 Enter choices for required fourth year rotations in E*Value.

Feb 3 Fourth year schedules with required courses appear on Registrar's website.

July 7 Fourth Year Schedules, signed by field specific advisor must be submitted to the Registrar.

Changes in your fourth year schedule must conform to the following guidelines: **You will not be able to drop a required rotation without also rescheduling it at the same time.**

Elective rotations: Students must complete 28 weeks of elective rotations. Eight weeks must be fulfilled within the BU system, i.e., taken from the Fourth Year Elective Catalogue, or independently arranged within the BU system and approved by the department chair designated on the approval form. Of the 28 elective weeks, no more than (12) can be taken in nonclinical areas. These include but are not limited to research, quality improvement, and teaching/scholarly activities. Credit toward degree requirements will be granted for no more than 20 weeks of fourth year rotations taken outside of the Boston University School of Medicine system.

Failure to show up for a rotation that has not been properly dropped, and rescheduled if necessary, may result in a Fail grade.

Grades for electives taken in excess of degree requirements will be recorded on the transcript.

How to Schedule BUSM Required Courses and Electives Using the Online Add/Drop System:

1. Log In Link: <http://wwwapp.bumc.bu.edu/busm/eads/students>
2. You will see your current schedule. Click on the Schedule Change button to Add, Move or Drop an elective.
3. Choose the action you would like to take for that Block.
 - Add** - Select the course from the drop down menu. Only those participating courses will appear. All other electives require use of the paper Add/Drop form. When finished hit the Submit Request button.
 - Move** - will allow you to change the elective to another time. The drop down will list only available blocks. You cannot move into a block where a request is pending or a course is scheduled.
 - Drop** - allows you to remove the elective from your schedule.
4. You will return to the Schedule Change screen after each action there you can track the status of your request.
5. You will receive emails confirming all requests to Add, Move or Drop.
6. Once the request has been approved it will appear on your current schedule and you will receive an email from the coordinator.

Outside electives: Students may arrange electives at LCME-accredited United States medical schools, if these electives are part of an accredited fourth year curriculum. Upon notification that a student has been accepted for any outside elective, the student must complete the online Extramural Elective Form.

Outside electives that are not part of an accredited fourth year curriculum: The student must obtain BUSM faculty approval prior to arranging this elective. This approval must be obtained before BUSM can send out any paperwork on the student's behalf and before the student starts the elective. Upon notification that a student has been accepted for any outside elective, the student must complete the online Extramural Elective Form.

Limit of time in specialties: Credit will be granted for no more than 16 weeks of fourth year rotations and/or electives in any one subspecialty. Research is included as part of this guideline.

Limited time in non-clinical electives: A student can take no more than (12) weeks of nonclinical electives. This includes research, quality improvement and teaching/scholarly electives.

Global health electives: A student may undertake elective rotations for fourth year credit outside the United States. All global health electives must be approved by Suzanne Sarfaty, M.D., Director of Global Health Programs, BUSM. See the Global Health Program website for more info: www.bumc.bu.edu/ghbusm/setupelective/. NOTE: The Global Health Program has its own (electronic) add form for global health electives (the BUSM elective paper form is not accepted). For more info, contact Ana Gregory (anagreg@bu.edu).

Research: A student in good academic standing may request up to 8 weeks of fourth year credit for a research project at least eight weeks prior to the start of the project. Students must submit a completed Research Elective Approval Form (available in the Office of the Registrar or on their website) along with all supporting documentation. Additional time spent on the project will not be eligible for credit. Research done outside BUSM will count toward the allowed sixteen weeks of outside elective time.

ENTERING CHOICES FOR REQUIRED COURSES (January 9, 2023-January 15, 2023):

The Internet address is:

www.e-value.net

A reference guide for student schedule optimization can be found at:

www.bumc.bu.edu/evalue/students/

The majority of students must provide choices for Geriatrics and the Subinternship rotations. If you have already completed one of the required courses you should only provide information for the one you need to complete in the 2023-2024 academic year.

The required fourth year rotations are only able to take a specific number of students for each rotation per block. In addition, some rotations require a minimum number of students per block. To assure a balanced number of students in the course and in all blocks, at least one choice for Geriatrics should be in blocks 9-13 and 14-19.

Subinternships	9	10	11	12	13	14	15	16	17	18	19	20
030.1i Sub I - Family Medicine-BMC	2	2	1	2	2	2	2	2	2	2	2	2
050.3 Sub I - Pediatric Emergency Medicine-BMC	1	1	1	1	1	1	1	1	1	1	1	1
051.3 Sub I – Pediatric Inpatient Medicine-BMC	2	2	2	2	2	2	2	2	2	2	2	2
052.3 Sub I - Pediatric Intensive Care Unit-BMC	1	1	1	1	1	1	1	1	1	1	1	1
057.3 Sub I - Neonatology-BMC	2	2	2	2	2	2	2	2	2	2	2	2
100.1 Sub I - Medicine-BMC	11	11	11	11	5	5	0	5	5	5	5	0
101.1 Sub I - Advanced Medicine: Medical Intensive Care Unit	3	3	3	3	3	3	3	3	3	3	3	3
201.3 Sub I - Inpatient Gynecology-BMC	1	1	1	1	1	0	0	0	1	1	1	1
202.3 Sub I - Maternal-Fetal Medicine-BMC	1	1	1	1	1	0	0	0	1	1	1	1
400.1a Sub I - Vascular Surgery	1	1	1	1	1	1	1	1	1	1	1	1
400.1b Sub I – Surgical Oncology	1	1	1	1	1	1	1	1	1	1	1	1
400.3 Sub I - Acute Care and Trauma Surgery	2	2	2	2	2	2	2	2	2	2	2	2
403.1 Sub I- Surgical Intensive Care Unit	4	4	4	4	4	4	4	4	4	4	4	4
404.2 Sub I - Minimally Invasive Surgery	1	1	1	1	1	1	1	1	1	1	1	1
404.3 Sub I – Colon and Rectal Surgery	1	1	1	1	1	1	1	1	1	1	1	1
410.2 Sub I - Thoracic Surgery	1	1	1	1	1	1	1	1	1	1	1	1
465.2 Sub I - Plastic and Reconstructive Surgery	1	1	1	1	1	1	1	1	1	1	1	1
403.3 Sub I - Emergency Medicine	12	12	12	12	4	4	4	4	4	4	4	4
551.3 Sub I - Orthopedic Surgery	5	5	5	5	5	5	5	5	5	5	5	5
560.1 Sub I – Otolaryngology-Head and Neck Surgery	4	4	4	4	4	4	3	4	4	4	4	4

DESCRIPTION OF REQUIRED COURSES:

GERIATRICS CLERKSHIP

The Geriatrics rotation provides fourth year medical students first-hand exposure to the needs of community-dwelling older adults. By the end of the fourth year Geriatrics clerkship, the BUSM IV student will be able to:

1. Demonstrate an understanding of the diagnosis and treatment of common geriatric disease and syndromes such as cognitive impairment, delirium, depression, urinary incontinence, falls, fractures, immobility, pressure ulcers, sensory impairment and elder mistreatment
2. Distinguish the roles and responsibilities of other team members (nursing, case management, social work, physical therapy)
3. Describe the roles and responsibilities of resources available through community agencies such as visiting nurses, home health aides, home care agency case managers, home delivered meals, and adult day health
4. Evaluate and incorporate cognitive, psychosocial and functional status into the overall assessment of the older patient
5. When evaluating an older patient's medication list, describe strategies for optimizing medication regimens, and deprescribing those medications which are potentially inappropriate, high risk, or lack a current indication
6. For older patients, particularly for those with cognitive, sensory, or functional impairment, use communication techniques to demonstrate cultural sensitivity and respect, including appropriate body language and thoughtful seating arrangements
7. Demonstrates awareness of one's own emotions and attitudes, and coping strategies for managing stress and uncertainty when caring for seriously ill patients
8. Define and explain the philosophy and role of palliative care, and differentiates hospice from palliative care
9. Elicit what matters most to an older adult, and work with the patient and team to honor these priorities
10. Identify how structural and social determinants of health impact health outcomes and healthcare access for older adults and those who care for them

During this rotation, students will have the unique opportunity (few medical schools offer this experience) to go out on home visits with a physician or nurse preceptor. Possible additional experiences include going to community sites, such as an adult day health center and a nursing home. Students will participate in case-based lectures, write an evidence-based discussion of a patient management problem, engage in computer-based case discussions, interview a patient or family member for The My Life My Story Project and present an end-of-life project.

SUBINTERNSHIPS

A Subinternship can be defined as an intensive in-patient clinical experience in which the student accepts responsibility for patient care at an advanced level from the third year core clerkships. This rotation must be at least four weeks in duration.

SUBINTERNSHIP IN FAMILY MEDICINE

030.1i Sub I – Family Medicine

Instructor:	Talia Singer-Clark, MD
Course Administrator:	Chenille Hogan, chenille@bu.edu
Location:	Menino Pavilion. Boston University Medical Center
Team:	Family Medicine Inpatient Service Team A or Team B
Students per Block:	One per team
Period offered:	Block 9-20
Orientation:	First day of the rotation

Overview

Students will work as interns with the family medicine inpatient team. They will care for a wide variety of patients from the HealthNet Rounder system, acting as the primary caregiver for their patients. They will have all the responsibilities of an intern, including daily management of their patients, new admissions, attending conferences and participating in daily teaching.

Due to COVID-19, the structure of the day has been adjusted to ensure physical distancing and optimize the safety of the student, other members of the medical team, and patients.

Location: Menino 7E

- Team A: The Team A workroom is located in the hallway outside of the 7E unit (room 7115). Maximum capacity: Five people
- Team B: The Team B workroom is temporarily located in the 7E family room. Maximum capacity: Five people.
- Swing space- Workroom down the hall on the right on 7E floor (room 758). Maximum capacity: Three people (Four if COW is facing wall).
- Medical school- L209- Specific to student with badge access by BUSM. To be used if student needs work space and the main workrooms or swing space are not available.

Daily schedule:

Generally 6:15am to 6:30pm, 6 days per week. One day per week will be extended until 8pm to allow for an independent admission.

- 6:15am: Chart pre-rounding on prior patients and examine patients in person, check tele
- 6:50 am: The student will touch base with the resident and double check if there are new patients assigned to the student for the day.
- 7am: Team sign-out.
- 7:30-8:15am Examine patients and call consults, request interpreters, etc.
- 8:30am Rounds
After rounds, put in orders, talk to consultants, complete notes. The student will talk to supervising resident with any questions, and to ensure orders are co-signed in timely matter. Noon conference Monday-Friday, the student will ask residents for most updated information and zoom conferencedetails.
Afternoon- Follow up on tasks and complete notes, update sign out, and place morning labs. Complete an admission if the patient is expected to arrive before 5pm. Ideally, the student should do an admission once per week. If they haven't, then they are expected to stay late once a week to complete an admission and staff with the evening attending.
- Sign-out at 6pm.

Additional COVID-19 Information

The student will:

- Not provide care for any person confirmed to have COVID-19 or be a person under investigation for COVID-19.
- Wear a surgical facemask and scrubs at all times when inside the hospital.
- Wear a surgical mask, face shield, and gloves when physically interacting with a patient, and practice appropriate hand hygiene before and after each patient interaction.
- Be able to call into a patient's room if needed for follow up questions, afternoon check-ins, etc.
- Practice physical distancing (6 feet apart) if meeting the team outside of a patient's room in person.
- Avoid eating in the workrooms to minimize time "unmasked," which creates risk of infection among providers. The student can eat in the break rooms, hospital cafeteria, or alternate location in medical school where physical distancing can be practiced.

Weekends

- Students are expected to work three weekend days during the month, arranged in discussion with the senior resident. NOTE: students follow the holiday/vacation schedule of the team not of Boston University, speak with the team prior to making any travel arrangements.

Supervision

Students will be directly supervised by the 2nd or 3rd year resident in addition to the family medicine ward attending.

If after seeing their patients in-person (but before rounds), the student is worried about a patient being sick or unstable, they will immediately come to the work room to alert the supervising resident who will then evaluate the patient.

Education/Curriculum

- The Sub-I student is expected to:
 - Be responsible for the care of their patients and should be the primary contact for the patient, consultants, and nursing. During the first week, the sub-I will care for two patients on the team and work up to four patients by the end of the month
 - Participate in all conferences/daily teaching.
 - Organize two presentations on a pertinent topic for the rest of the team.
 - Complete one admission per week.
 - Complete two discharges per week.

Feedback

Students will ask for informal feedback during the course of the rotation from supervising residents and attendings.

Once per week (Thursdays), the outgoing attending will chat with the student and provide feedback about the past week working together.

The course director will meet with the sub-I student half way through the rotation to check in and review an H/P together. They will meet again at the end of the rotation.

The student can always email the course director if there are any concerns that come up during the rotation.

Objectives

- Assess, formulate a differential diagnosis, and propose initial evaluation and management for patients with common acute illness presentations (**U, R**)
- Demonstrate competency in advanced history-taking, communication, physical examination, and critical thinking skills (**B, C, A**)
- Manage an acute exacerbation of a chronic illness for patients with common chronic diseases (**U, C, R, S**)
- Develop an evidence-based plan to minimize future exacerbations of specific chronic conditions (**U, R**)
- Discuss the principles of family medicine care as they apply to inpatient medicine (**B, U, C, E, S**)
- Discuss the value of the provision of multidisciplinary team care to any health care system (U, S)

Evaluation:

- Evaluation based on above goals and standard BU student evaluation (CSEF) completed by supervising resident and all FM inpatient attendings for the four-week rotation.
- Summative evaluation will be completed by course instructor at the conclusion of the rotation

Guidelines for Absences

Students are reminded to maintain standards of professionalism, courtesy and common sense when scheduling residency interviews that take place during fourth year rotations. Try to schedule interviews during vacation blocks whenever possible. In general, a student may, with **advance permission** from the rotation director, be away for no more than *four days* during the four-week rotation.

Please take note of the following guidelines:

Students must work a minimum of two continuous weeks with no absences in order to pass the rotation.

- If a student is absent for more than four days, those missed days must be made up in order to pass the rotation. In some cases, a student may be required to repeat the rotation.

Students follow the holiday/vacation schedule of the team, not of Boston University. Speak with the rotation director *prior* to making any travel arrangements during the rotation.

SUBINTERNSHIPS IN MEDICINE

100.1 Sub I - Medicine- Boston Medical Center

The Acting Internship in Medicine is designed to challenge and enhance the capacity of the student to work as an increasingly independent, highly competent, and compassionate caregiver and contributing team member. To achieve this goal, the acting intern will work as an advanced care provider under the direct supervision of a medicine ward resident and teaching attending. Students will assume increasing responsibility for the initial evaluation and management of assigned patients. The student is expected to combine medical knowledge with clinical and interpersonal skills in order to demonstrate independent thought and develop a plan of action. The student is expected to develop a balance between acting independently and acknowledging his/her limitations and seeking help as appropriate. Clinical work will be supplemented by conferences offered by the Department of Medicine. There are 2 pathways of experience in the Acting Internship.

Pathway A: Running throughout the year, the Pathway A experience provides a ward experience called the Integrated Acting Internship (5 per block). In this experience, students are integrated onto a typical ward team consisting of a resident and 2 interns. Students on the integrated team will have the opportunity to interface with 3rd year students on their Medicine clerkship.

Responsibilities of the Pathway A Integrated Acting Internship include:

- Admitting patients to the team – you will likely start at one admission per day during several days of the week but should work toward admitting two patients regularly on long call days, and hopefully, three or more patients on one or more occasions.
- Following a core of patients (on average 3-6 patients)
- Providing patient care through the last Sunday of the rotation

Pathway B is called the Acting Internship and only occurs from June to September. We have the capacity for 6 students to participate in this experience per block. You will be part of a team with a resident and two other acting interns and **no** interns.

Responsibilities of the Pathway B Acting Internship include:

- Admitting patients to the team
- Following a core of patients (team of 3 students covers on average 4-10 patients)
- Taking overnight shifts 3-4 nights over the 4-week block (# of nights to be determined)
- Providing patient care through the last Sunday of the rotation

After selecting a block for your Acting Internship in Medicine, you will be assigned to either Pathway A or Pathway B2 and be notified within ~4 weeks of the start of your block.

101.1 Sub- I- Advanced Medicine: Medical Intensive Care Unit -BMC

The Advanced Medicine Sub-Internship in the Medical Intensive Care Unit (MICU) is a challenging rotation designed to provide highly motivated students with an introduction to the diagnosis and management of critically ill patients with single and multi-system organ failure. The MICU is designed to provide state of the art care to seriously or critically ill patients in an environment that emphasizes learning, teaching and independence. Students are exposed to a large spectrum of clinical problems including, but not limited to, respiratory failure with or without mechanical ventilation, ARDS, shock, sepsis, gastrointestinal hemorrhage, diseases related to alcohol or drug excess, HIV-related conditions, pulmonary edema, pulmonary emboli, renal, hepatic or cardiac failure, DKA, fluid, electrolyte or thermic disturbances, CVA or complications of malignancies.

Care is provided in a multidisciplinary/team format with physicians, nurse practitioners, medical students, nurses, respiratory therapists, pharmacists, nutritionists, physical therapists and social workers. This multidisciplinary approach provides excellent care to patients by capitalizing on the expertise of many services. We expect students to participate on daily ventilator and work rounds, contribute to the management of patients by

collecting and assimilating data for presentation to the attending, arranging consults and tests, placing orders, and performing common procedures under direct supervision.

Patients are cared for by three team. Two teams (Red and Blue) consist of 2 PGY2 or PGY3 residents, 2 PGY1 residents, a pulmonary/critical care attending and a pulmonary/critical care fellow. The third team (Green) consists of two PGY2 or PGY3 residents, 2 PGY1 residents, a nurse practitioner and pulmonary/critical care attending. The PGY 2 or 3 admits and performs the initial management on all patients in the MICU with the supervision of the MICU Attending/Fellow during the day or the Special Care Unit Night Coverage (SCUNC) at night. Subsequent daily care is then assumed by a PGY1 resident, Nurse Practitioner or a Medical Student on a sub-internship rotation student.

Students are assigned to the Red and Blue MICU teams preferentially but if necessary can be assigned to the Green team. Students are required to be present for 6 days of the week (weekdays and either Saturday or Sunday). There is no night call.

Restrictions: None. Recommended for students with Honor grade in third year medicine clerkship or in the medicine sub-internship but not necessary.

SUBINTERNSHIPS IN OBSTETRICS AND GYNECOLOGY

201.3 Sub I - Inpatient Gynecology-BMC

The student participates as a subintern in all aspects of the inpatient gynecology service, assisting in minor and major gynecologic surgical procedures and following patients postoperatively. The student will also participate with inpatient and Emergency Room consults and complete a week of night float. Students will participate in the weekly pre-operative conference, including presentation of cases during the final week. Students are expected to participate in educating the third year clerkship students. The student will be evaluated on his or her clinical and teaching skills as part of the final grade.

202.3 Sub I - Maternal-Fetal Medicine-BMC

The student will function as a Sub-Intern in the care of high-risk obstetric patients at Boston Medical Center. In addition to inpatient responsibilities, the student will attend high risk outpatients clinics with the Maternal-Fetal Medicine faculty. The student may also participate in ultrasound sessions in the Antenatal Testing Unit. The student is expected to cover one weekend of their choice rounding with the Maternal-Fetal Medicine attending and will spend one day per week as an acting intern on Labor and Delivery. Protected time for didactics is built into the rotation. In addition, the student will attend any specialty MFM educational conferences. The student is expected to give a presentation at one of these sessions. A portion of exceptional students may receive Honors in the clerkship which requires excellent clinical feedback, consistent demonstration of reach behaviors across all C-SEF domains exceeding a clinical clerk and participation in a scholarly academic exercise.

SUBINTERNSHIPS IN PEDIATRICS

050.3 – Sub I -Pediatric Emergency Medicine-BMC

This sub-internship in pediatric emergency medicine will provide students with experience in the direct evaluation and management of pediatric patients, ages 0-21yrs. The rotation will focus on clinical problem solving, and will emphasize skills in the differential diagnosis and treatment of acutely ill children. There is no overnight call, but students may elect to have some weekend shifts in addition to weekday shifts to complete the required complement of shifts during the rotation. Approximately half of your shifts will be during the day hours of 8am - 3pm and half will be in the evening hours of 3:30pm - 10:30 pm. Students are allowed to work a limited number of overnights and weekends if they want to. During the four-week block there are 19 required shifts irrespective of excused absences for residency interviews. Attendance at the Department of Pediatrics conferences and twice monthly resident conferences is encouraged. At the end of their rotation, students will be required to present an evidence based medicine session to evaluate their ability to interpret and incorporate the medical literature into their practice. Note that for July through December, priority will be given to students applying for internship in pediatrics and emergency medicine.

051.3 Sub I – Pediatric Inpatient Medicine

Students rotating on the Inpatient Pediatric Sub-internship will function as the primary clinician for 2-4 patients under the direct supervision of the senior resident and the pediatric attending. In this role, students are responsible for all aspects of inpatient management for their patients including serving as the contact point for patients/families, placing orders, completing documentation, communicating with the interdisciplinary care team, placing subspecialty consults as appropriate, and planning for discharge. Students will reference the relevant medical literature and clinical guidelines in developing management plans for patients, and will also communicate key learning points to the wards team in focused teaching sessions.

During this rotation, the student will be exposed to a wide range of general pediatric diagnoses and have the opportunity to serve as the primary clinician for patients aged from birth up to young adulthood. In terms of structure, students will spend two weeks working as part of the day team (11 day shifts) and two weeks working as part of the night team (10 night shifts). This allows students to gain clinical knowledge and experience as a clinician on the day team, while also developing important triage and cross coverage skills as part of working on a night resident team.

052.3 Sub I - Pediatric Intensive Care Unit - Boston Medical Center

The PICU is a multidisciplinary four bed unit caring for children and adolescents from newborn to 22 years. The sub-intern will work on a team with a senior pediatric resident from the Boston Combined Residency Program in Pediatrics (BCRP) and the PICU attending. The sub-I will act as the primary provider for their assigned patients. Major teaching objectives of the rotation are the pathophysiology of childhood critical illness, contents of the pediatric advanced life support (PALS) guidelines, and the various types of intensive care support (i.e. forms of mechanical ventilation, critical care nutrition, and coordination of care), as well as psychological and social support for patients and their families.

Sub-Interns are expected to stay later into the evening approximately every 4th night (about 7 times a month and including some weekend days) to increase exposure to new admissions to the PICU. The student should stay as late as they feel is safe for their return to their residence, as we do not have a sleep space in the hospital.

Goals:

- 1) The student will take responsibility for patients, including initial and daily exam, differential diagnosis, admission and daily documentation, treatment planning, and frequent repeat assessment, under the close supervision of the resident and attending physician.
- 2) The student will suggest and write treatment orders (when appropriate) under the supervision of the PICU resident.
- 3) The student will collect daily objective data, present on morning rounds and write daily progress notes for their patients, notes will be reviewed and signed by the appropriate physician.
- 5) The student will contact consulting services and accepting service teams when the patient is transferred, as appropriate, under supervision of the PICU resident or attending.
- 6) The student will participate in PICU teaching sessions with the resident and attending focused on PICU diagnoses and treatment modalities, and will be expected to pick a clinical question for presentation, including brief literature review, to the PICU team at least once during the rotation.
- 7) The student will identify all of the attendings and residents who supervise them during the rotation and assign Evaluate forms to all of those individuals so that comprehensive feedback can be collected for grading.

057.3 Sub I - Neonatology - Boston Medical Center

The student participates in the work-up and care of high risk babies from the time of their delivery on the Maternity Floor through their NICU course. The Sub-I pre-rounds and examines their patients in preparation to present these patients during morning work rounds. The student formulates a care plan with the NICU staff and carries out that plan. Sub-I's participate in procedures, discharge planning and family meetings. Time is available for the student to read in depth about perinatal medicine and to participate in seminars with house staff and senior staff.

403.3 Sub I - Emergency Medicine – BMC

Four weeks are spent working in the Boston Medical Center Emergency Department, a Level 1 trauma center. Students take an active role in the initial evaluation and treatment of patients, work alongside our senior residents, attendings, and nursing staff, and are exposed to wide variety of patients, illnesses, and procedures. For many patients, the ED is the first exposure that they have to the medical system and students will gain valuable experience as they are able to follow patients from presentation, through their workup, and onto their diagnosis and treatment.

Students participate in daily teaching sessions, weekly departmental conferences, as well as a didactic lecture series designed specifically for them including ultrasound and SIM sessions. The skills learned are as applicable to those going on to a career in EM, as to those entering other specialties.

Please note that students must be present for the orientation session on the first day of the rotation, as well as for an EPIC (computer tracking, order entry, documentation) training session on the first Monday of the rotation if they are from an outside institution.

SUBINTERNSHIPS IN SURGERY

EDUCATION COORDINATOR: Ms. Lana Ketlere Lana.Ketlere@bmc.org, Office of Surgical Education, 85 E. Concord St., 3113

The Department of Surgery offers fourth year students the opportunity to be sub-interns at a variety of our major teaching hospitals. The student will be assigned patients to admit and follow during their hospital course. The student will work with the resident and attending staff in managing the patient's surgical problems in the operating room, on the inpatient wards and in the ambulatory setting. Attendance at morning and afternoon rounds, morbidity and mortality conferences, and other teaching conferences is an important part of the rotation as well as being on call with residents. Instruction will focus on principles and pathophysiology of surgical disease, pre- and post-operative care, indication for surgical intervention, and procedural skills. This rotation is especially suitable for any student wishing more intensive training in surgery than is possible during the required third year clerkship.

Surgery offers six possible sub-internship rotations in general surgery or some sub-unit of general surgery:

1. **400.1a. Sub I – Vascular Surgery (Boston Medical Center)**
2. **400.1b Sub I – Surgical Oncology (Boston Medicine Center)**
3. **400.3 Sub I - Acute Care and Trauma Surgery (Boston Medical Center)**
4. **403.1 Sub I - Surgical Intensive Care Unit (Boston Medical Center)**
5. **404.2 Sub I - Minimally Invasive Surgery (Boston Medical Center)**
6. **404.3 Sub I – Colon and Rectal Surgery (Boston Medical Center)**
7. **410.2 Sub I - Thoracic Surgery (Boston Medical Center)**
8. **465.2 Sub I – Plastic and Reconstructive Surgery (Boston Medical Center)**

551.3 Sub I - Orthopaedic Surgery

The goal of the Orthopaedic surgery Sub-Internship (Sub-I) is to immerse the student in the patients requiring orthopedic care in the emergency room, subspecialty clinic and in the operating room. The student will be an integral part of the Orthopaedic team both for the outpatient and inpatient unit at Boston Medical Center during this 4-week Sub-Internship experience. Students will be responsible for evaluation and management of patients under the direct supervision of attending surgeons, residents, and advanced care practitioners. At the end of the rotation, this elective is for the BUSM student or away Sub-I to have a basic understanding of clinical and operative orthopaedics, be able to evaluate and manage patients with orthopaedic injuries in the ED and clinic setting at the Intern level. Understand the basics of the musculoskeletal examination. Additionally, the Sub-I will learn the basics and the logistics of operative orthopaedic surgery.

Orthopaedic Sub-I will have the option to choose from the following sub-specialties:

1. Orthopaedic Trauma – Fracture Care

2. Hand and Elbow Surgery
3. Spine
4. Sports Medicine and Shoulder Surgery
5. Foot & Ankle
6. Arthroplasty (Hip and Knee)

Sub-I orthopaedic rotation will be on one subspecialty service for 4 weeks. Availability depends on the number of students that is rotating with us on that block. Please provide Dr. Li and the Chief resident with your preference of top 3 sub-specialties for the Sub-I rotation.

DESCRIPTION OF ELECTIVE

This Orthopaedic Sub-I will take place at the Boston Medical Center at both the inpatient and outpatient setting that comprises of six total subspecialties (above). The Sub-I will have the option to choose which subspecialty will fit their clinical interest and career goals. Please go to <https://www.bumc.bu.edu/orthopaedics/> to read about the description of each specific subspecialty. The Sub-I on the Orthopaedic service will be responsible for the following:

1. Assist in the care for patients in the emergency room, clinics and operating room whom have orthopedic injuries.
2. Learn the preoperative and postoperative management of patients undergoing orthopedic procedures.
3. Learn how to evaluate patients in the clinic setting including taking pertinent orthopaedic history and performing an appropriate physical examination.
4. Obtain introductory training in orthopedic procedures such as casting, splinting, joint aspirations, wound closure, wound management, management of wound vacs, management of external fixation devices, principles of surgical stabilization of fractures and basics in arthroplasty and spine fixation.
5. Function as a Acting-Intern with responsibilities commensurate with this educational requirement:
 1. Function as acting intern responsible for the evaluation and continued management of patients under supervision of residents and attendings.
 2. As part of the care team, will perform initial H&Ps, assist in coordinating care, assist with or perform supervised procedures appropriate for the sub-intern, present cases, use evidence-based medicine principles to help guide patient care, etc.
 3. All Sub-I will be required to present a 12 minute presentation, 3 minutes for questions at the end. These will be held on the 3rd Wednesday of the month during Grand Rounds on a case or topic of interest.
 4. It is expected that the Sub-I will prepare for every single OR case by obtaining the patient history, indications for surgery, anatomy, surgical approach, steps to the procedure, and read two pertinent articles related to each case.
 5. It is expected that the Sub-I will read daily, on the consults seen in the ED, patients seen in clinic and OR cases.

Sub-I will meet with their respective supervisor and the senior resident on service for the subspecialty at the beginning, 2 weeks, and at the end of the month for formal feedback

OBJECTIVES

By the end of this elective, the BUSM student will be able to:

1. Perform an examination of an orthopaedic patient specific to their orthopaedic needs, at the Sub-I learner level (U.1, U.2, R.1).
2. Develop a management plan for patients with orthopaedic injuries (B.1, U.2, U.3, U.4, R.3).
3. Participate and demonstrate Sub-I level proficiency in basic orthopaedic procedures when evaluating patients in the ED such as casting, splinting, joint aspirations, wound closure, wound management, management of wound vacs, management of external fixation devices, principles of surgical stabilization of fractures and basics in arthroplasty and spine fixation (U.1).
4. Express the key underpinnings in the operative management of orthopaedics patients on their respective subspecialty rotation (U.1).
5. Execute the duties of a Sub-I as dictated by the BUSM under the Sub-I guidelines, which includes exhibiting professional behaviors and communicating with both colleagues and patients (B.1, B.3, C.1, C.3, C.8, A.5, A.6).

560.1 Sub I - Otolaryngology-Head and Neck Surgery

GOAL AND SUMMARY

The Otolaryngology-Head and Neck Surgery sub-internship is designed to immerse the student in Otolaryngology, which includes head and neck cancer, facial plastic and reconstructive surgery, allergy involving the nose and sinuses, and the auditory system. The student will be an integral part of the Otolaryngology-Head and Neck Surgery team in the ambulatory outpatient clinic, with hospitalized patients, and in the operating room at Boston Medical Center during this 4-week sub-internship experience. Similar to the experience of our residents, students will also be exposed to facial plastic and reconstructive surgery patients at the The Boston Center for Facial Plastics.

DESCRIPTION OF ELECTIVE

The student is expected to function as a subintern while on rotation with the Department of Otolaryngology-Head and Neck Surgery at Boston Medical Center and at The Boston Center for Facial Plastics.

The Otolaryngology – Head and Neck Surgery service provides broad opportunities to explore key services for patient care that are seen in this specialty. This includes all subspecialties of the field such as head and neck surgery and oncology, otology, neurotology, skull base surgery, pediatrics, plastic and reconstructive surgery, laryngology/swallowing disorders, thyroid and parathyroid surgery, allergy, and rhinology.

Each subintern is expected to achieve competency in their skills in taking medical history and physical examination and technical skills. This is monitored throughout the rotation with the use of the Otolaryngology Student Competency Assessment Review (OSCAR) card, which the students use as a tool to initiate feedback conversations with faculty and senior level residents. During the mid-rotation check-in with the Clerkship Coordinator and at the end of the rotation the OSCAR card will be discussed and reviewed for completeness. The rotation will conclude with an eight minute, evidence-based PowerPoint presentation, on a chosen and approved topic, by the subintern.

The student is expected to function as a subintern with responsibilities commensurate with this educational requirement:

- As part of patient care you will be expected to do the following: perform initial history and physicals, write orders, assist in coordinating care, assist with or perform supervised procedures as applicable and appropriate for the sub-intern, present cases, use evidence-based medicine principles to help guide patient care, participate in teaching sessions, and take call alongside residents and attending physicians.
- Students will see patients in clinic where there will be a mix of observation as well as direct patient care. They will function as acting interns responsible for the evaluation and management of patients seen, under the direct supervision of attending physicians. There students may also interact with APPs, residents, other students or Audiologists and Speech Language Pathologist.
- Students will be present on rounds with the residents (the beginning and end of the day). Students will be asked to follow individual patients (at least 3 per week) on the Otolaryngology service; students should note that many patients on service may leave after a day. However, students should continue to follow patients they operate on. Students will be asked to assist in coordinating care for the inpatients.
- Students will see consults with a resident or APP where they will be exposed to acute and chronically ill patients
- Students are expected to be involved in surgeries as well.
- Students are expected to take 4 days or nights of call during the rotation.
- Students are expected to attend educational conferences (see curriculum).

OBJECTIVES

By the end of this elective, the student should be able to:

1. Provide compassionate care to all patients with otolaryngologic disorders; demonstrate sensitivity and responsiveness to our diverse patient population. (CSDR.1, CSDR.2,CSDR.9, C.1, C.2, C.3, C.7, C.8, PCC.1, PCC.2, PCC.5, HE.2, HE.3)
2. Gather essential and accurate information about otolaryngology patients and their conditions through history-taking, physical examination, laboratory data, imaging, audiograms and other tests. (MK.2, MK.4, CSDR.1, CSDR.2, CSDR.3, CSDR.4, CSDR.5, CSDR.8)
3. Communicate with other health professionals (including other medical services, Audiology and SLP) in a responsive and responsible manner. (C.1, C.4, C.5, C.7, C.8, C.9, PPD.1, PPD.2, HS.3, HS.4)
4. Enhance climate of professionalism by demonstrating mutual respect for colleagues and patients, trustworthiness, and accountability. (C.1, C.2, C.4, C.5, C.7, C.8, C.9, PCC.1, PCC.2, PCC.3, PCC.4, PCC.5, PPD.1, PPD.2, PPD.3, LL.1, LL.4, LL.6, HS.3, HS.4)

5. Appraise and assimilate evidence from scientific studies related to patients' health problems and incorporate information into management. (MK.7, MK.8, CSDR.4, CSDR.8, LL.5, LL.6, HS.2)
6. Identify and perform learning activities that address one's gaps in knowledge, skills, and, or attitudes (based on their own learning objectives). (PPD.1, LL.1, LL.2, LL.3, LL.4, LL.6)
7. Work effectively with others as a member of a health care team in clinic, on rounds and in the OR. (C.4, C.5, C.9, PPD.1, PPD.2)
8. Become proficient in basic suturing and knot tying skills, as well as other level-appropriate skills needed to participate effectively in OR cases. (CSDR.7, PPD.1, LL.1, LL.2, LL.4)