

## FOURTH YEAR SCHEDULE & GUIDELINES 2021-2022

The fourth year for the Class of 2022 begins Monday, June 7, 2021.

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, 2021. The decision regarding Step 2 CS is dependent on when the exam will become available by the NBME.**

The required rotations are: Geriatrics/Home Medical Care and a Subinternship.

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 9, 2021. Those students who fail to submit a schedule by this date will be brought to the attention of the Associate Dean of Student Affairs.

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:

How to Schedule BUSM 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 an 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, using the Extramural Elective Form. This approval must be obtained before BUSM can send

### Dates in the scheduling process are:

Jan. 5 Class Meeting

Jan. 5-17 Enter choices for required fourth year rotations in E\*Value.

Feb 12 Fourth year schedules with required courses appear on Registrar's website.

July 9 Fourth Year Schedules, signed by field specific advisor must be submitted to the Registrar.

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 an Outside Elective Address 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/](http://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](mailto: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 5, 2021-January 17, 2021):**

The Internet address is:

[www.e-value.net](http://www.e-value.net)

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

[www.bumc.bu.edu/evaluate/students/](http://www.bumc.bu.edu/evaluate/students/)

The majority of students must provide choices for each of the (2) required 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 2021-2022 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.

<b>Subinternships</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>
<b>030.1i Subinternship in Family Medicine-BMC-Menino Pavilion</b>	2	1	2	2	2	2	2	2	2	2	2	2
<b>050.3 Pediatric Emergency Medicine-BMC</b>	1	1	1	1	1	1	1	1	1	1	1	1
<b>051.3 Inpatient Pediatric Medicine-BMC</b>	2	2	2	2	2	2	2	2	2	2	2	2
<b>052.3 Pediatric Intensive Care Unit-BMC</b>	1	1	1	1	1	1	1	1	1	1	1	1
<b>057.3 Neonatology-BMC</b>	1	1	1	1	1	1	1	1	1	1	1	1
<b>100.1 Subinternship in Medicine-BMC</b>	11	11	11	11	5	5	X	5	5	5	5	5
<b>101.1 Advanced Medicine Subinternship-Medical Intensive Care Unit</b>	3	3	3	3	3	3	3	3	3	3	3	3
<b>201.3 Inpatient Gynecology-BMC</b>	1	1	1	1	1	0	1	1	1	1	1	1
<b>202.3 Maternal-Fetal Medicine-BMC</b>	1	1	1	1	1	0	1	1	1	1	0	0
<b>400.1a General Surgery, Vascular Service</b>	1	1	1	1	1	1	1	1	1	1	1	1
<b>400.1b General Surgery, Oncology Service</b>	1	1	1	1	1	1	1	1	1	1	1	1
<b>400.3 Acute Care and Trauma Surgery, Menino Pavilion</b>	2	2	2	2	2	2	2	2	2	2	2	2
<b>403.1 Surgical Intensive Care Unit</b>	4	4	4	4	4	4	4	4	4	4	4	4
<b>404.2 Minimally Invasive Surgery</b>	1	1	1	1	1	1	1	1	1	1	1	1
<b>410.2 Thoracic Surgery</b>	1	1	1	0	0	0	0	0	0	0	0	0
<b>465.2 Plastic Surgery</b>	1	1	1	1	1	1	1	1	1	1	1	1
<b>403.3 Emergency Medicine</b>	12	10	6	6	4	4	4	4	4	4	4	4
<b>551.3 Orthopedic Surgery</b>	5	5	5	5	5	5	5	5	5	5	5	5
<b>560.1 Otolaryngology</b>	4	4	4	4	4	4	3	4	4	4	4	4

## BUSM IV Block Schedule 2021-2022

1	6/7 - 6/13	<b>9</b>
2	6/14 - 6/20	
3	6/21 - 6/27	
4	6/28 - 7/4	
5	7/5 - 7/11	<b>10</b>
6	7/12 - 7/18	
7	7/19 - 7/25	
8	7/26 - 8/1	
9	8/2 - 8/8	<b>11</b>
10	8/9 - 8/15	
11	8/16 - 8/22	
12	8/23 - 8/29	
13	8/30 - 9/5	<b>12</b>
14	9/6 - 9/12	
15	9/13 - 9/19	
16	9/20 - 9/26	
17	9/27 - 10/3	<b>13</b>
18	10/4 - 10/10	
19	10/11 - 10/17	
20	10/18 - 10/24	
21	10/25 - 10/31	<b>14</b>
22	11/1 - 11/7	
23	11/8 - 11/14	
24	11/15 - 11/21	
25	11/22 - 11/28	<b>15</b>
26	11/29 - 12/5	
27	12/6 - 12/12	
28	12/13 - 12/19	
29	12/20 - 12/23	<b>16</b>
30	<b>12/24 - 1/2</b>	
31	1/3 - 1/9	<b>VACATION</b>
32	1/10 - 1/16	<b>17</b>
33	1/17 - 1/23	
34	1/24 - 1/30	
35	1/31 - 2/6	
36	2/7 - 2/13	<b>18</b>
37	2/14 - 2/20	
38	2/21 - 2/27	
39	2/28 - 3/6	
40	3/7 - 3/13	<b>19</b>
41	3/14 - 3/20	
42	3/21 - 3/27	
43	3/28 - 4/3	
44	4/4 - 4/10	<b>20</b>
45	4/11 - 4/17	
46	4/18 - 4/24	
47	4/25 - 5/1	
48	5/2 - 5/8	<b>SENIOR EVENTS</b>
49	5/9 - 5/15	
50	5/16 - 5/18	
	<b>5/19/2022</b>	<b>COMMENCEMENT</b>

## **DESCRIPTION OF REQUIRED COURSES:**

### **GERIATRICS/HOME MEDICAL CARE**

The Geriatrics rotation provides fourth year medical students first-hand exposure to the needs of community-dwelling older adults. The objectives of the rotation are to:

- (1) Learn about common geriatric syndromes
- (2) Understand and use functional assessment in the evaluation of older adults
- (3) Explore patient and family understanding of illness, concerns, values, and goals in order to develop goal-concordant treatment plans across settings of care.
- (4) Learn about home care and how to medically provide for older adults living in the community
- (5) Gain exposure to working on interdisciplinary teams including nurses, social workers, and community health care providers.

During this rotation, students will have the unique opportunity (few medical schools offer this experience) to go out on house calls 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 internship in Family Medicine - Boston Medical Center**

<b>Instructor:</b>	Amanda DeLoureiro, MD
<b>Course Administrator:</b>	Florence Laforest, flaflores@bu.edu
<b>Location:</b>	Menino Pavilion. Boston University Medical Center
<b>Team:</b>	Family Medicine Inpatient Service Team A or Team B
<b>Students per Block:</b>	One per team
<b>Period offered:</b>	Block 9-20
<b>Orientation:</b>	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: Four people (Five if COW is facing wall)
- 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 (swing space or medical school)
- 6:50 am: The student will touch base with the resident via phone call and double check if there are new patients assigned to the student for the day.
- 7am: Team sign-out. The student will be in the swing space/medical school and join sign-out remotely via Zoom. The supervising resident will ensure the student is on the zoom call prior to starting sign out.
- 7:30-8:15am Examine patients in person in Menino, check telemetry
- 8:30am Rounds
  - If the team is doing table rounds, the student will join remotely from the swing space/medical school via Zoom and present patients via Zoom.
  - If the team is doing walk rounds, the student will join walk-rounds ensuring appropriate physical distancing. The sub-I will only go into their patients' rooms with the attending and the supervising resident
- After rounds, put in orders, talk to consultants, complete notes. The student will call 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 conference details.
- 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. The student should call into sign out via Zoom.

### 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.
- In general, will not be in the same workroom area as the rest of medical team unless the number of people in the workroom allows for appropriate physical distancing (see limits under **Location** above).

### 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 2<sup>nd</sup> or 3<sup>rd</sup> year resident in addition to the family medicine ward attending.
- During the times of the day during which the student is working in a different space than the rest of the team, students will contact residents via page or phone call for patient care questions.

- 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.
  - Attend dedicated sub-I teaching once a week in collaboration with IM department
  - 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 Acting Internship in 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 3<sup>rd</sup> 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 Advanced Sub-Internship-Medical Intensive Care Unit: Menino Pavilion

The Advanced Medicine Sub-Internship in the Medical Intensive Care Unit (MICU) is 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 team format which besides physicians, nurse practitioners and senior medical students, includes nurses, respiratory therapists, pharmacists, nutritionists, physical therapists and social workers. This multi-disciplinary approach provides excellent care to patients by capitalizing on the expertise of many services. Students are expected to participate on daily ventilator and work rounds, and to contribute to the management



of patients by collecting and assimilating data for presentation to the attending, arranging consults and tests, and by 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:

- 1) Reception of Honors grade in third year medicine clerkship or in the medicine sub-internship.
- 2) These requirements may be waived if the student is approved by the Clerkship Selection Committee, chaired by Dr. Sonia Ananthkrishnan.

## **SUBINTERNSHIPS IN OBSTETRICS AND GYNECOLOGY**

### **201.3 Inpatient Gynecology**

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 Maternal-Fetal Medicine**

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 will 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 the weekly MFM educational conferences. The student is expected to give a presentation at one of these sessions. To receive honors in the clerkship the student is required to have excellent clinical feedback and participate in a scholarly academic exercise.

## **SUBINTERNSHIPS IN PEDIATRICS**

### **050.3 Pediatric Emergency Medicine-Boston Medical Center**

This sub-internship in pediatric emergency medicine will provide students with experience in the direct evaluation and management of pediatric patients, ages 0-21 yrs. 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 3:30-10:30 pm. During the 4-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 a case-based 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 Inpatient Pediatric 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 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 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 Emergency Medicine – Boston Medical Center**

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. Field exposure to the pre-hospital care system is given with observation on a Boston EMS ambulance.

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.

All BU students interested in Blocks 9-16 must speak with Dr. Mayo prior to beginning the rotation.

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.

## **SUBINTERNSHIPS IN SURGERY**

**EDUCATION COORDINATOR:** Ms. Lana Ketlere [Lana.Ketlere@bmc.org](mailto:Lana.Ketlere@bmc.org), Office of Surgical Education, C515.

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. General Surgery, Vascular Service, Boston Medical Center (BMC)**
2. **400.1b General Surgery, Oncology Service, Boston Medical Center (BMC)**
3. **400.3 Acute Care and Trauma Surgery, Boston Medical Center (BMC)**
4. **403.1 Surgical Intensive Care Unit, Boston Medical Center (BMC)**
5. **404.2 Minimally Invasive Surgery, Boston Medical Center (BMC)**
6. **410.2 Thoracic Surgery (BMC)**
7. **465.2 Plastic Surgery (BMC)**

### **551.3 Orthopaedic Surgery**

The goal of the Orthopaedic surgery Subinternship (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. Pediatric Orthopaedics
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 min talk on the 3<sup>rd</sup> weds of the month during grand rounds on a case or topic of interest. 3 mins for questions at the end.
  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 the OR cases.

Sub-I will meet with their respective supervisor and the senior resident on service for the subspecialty at the beginning, 2weeks, 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 Otolaryngology-Head and Neck Surgery**

The Otolaryngology sub-internship rotation provides fourth year medical students with first-hand clinical and OR exposure to patients with varying otolaryngology ailments. The objectives of the rotation are:

1. Provide compassionate care to all patients with otolaryngologic disorders; demonstrate sensitivity and responsiveness to our diverse patient population. (B.3,B.4,C.1,C.4)
2. Gather essential and accurate information about otolaryngology patients and their conditions through history-taking, physical examination, laboratory data, imaging, audiograms and other tests. (C.1,U.2)
3. Communicate with other health professionals (including other medical services, Audiology and SLP) in a responsive and responsible manner. (A.5,C.5,C.8,S.4)
4. Enhance climate of professionalism by demonstrating mutual respect for colleagues and patients, trustworthiness, and accountability. (A.3,A.5,A.6,C.5,S.4)
5. Appraise and assimilate evidence from scientific studies related to patients' health problems and incorporate information into management. (R.2,U.4)
6. Identify and perform learning activities that address one's gaps in knowledge, skills, and, or attitudes (based on their own learning objectives). (E.3,U.10)
7. Work effectively with others as a member of a health care team in clinic, on rounds and in the OR. (A.5,A.6,C.1,C.5,S.4,S.5,U.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. (U.1,U.8,U.9,A5,E.1,E.2,E.3,E.4,E.6,S.4,S.5,)

Each subintern is expected to create their own learning objectives, relative to Otolaryngology-Head and Neck Surgery. As each objective is obtained the subintern is expected to review the objective, and what was learned, with an attending or senior level resident. At the end of the rotation the objectives will be reviewed for completeness by the Clerkship Director and/or Clerkship Coordinator. Throughout the rotation students will attend various department conferences and didactic sessions. The rotation will conclude with an eight minute, evidence-based PowerPoint presentation, on a chosen and approved topic, by the subintern.