

	Block 9 4/14 - 5/11/25	Block 10 5/12 - 6/8/25	Block 11 6/9 - 7/6/25	Block 12 7/7 - 8/3/25	Block 13 8/4 - 8/31/25	Block 14 9/1 - 9/28/25	Block 15 9/29 - 10/26/25	Block 16 10/27 - 11/23/25	Block 17 11/24 - 12/21/25	Block 18 1/5 - 2/1/26	Block 19 2/2 - 3/1/26	Block 20 3/16 - 4/12/26	Block 21 4/13 - 5/10/26
Sub I - Advanced Medicine: Medical Intensive Care Unit MEDMD 441 / 101.1	3	3	3	3	3	3	3	3	3	3	3	3	0
Sub I - Family Medicine - BMC MEDMD 427 / 030.1i	2	2	2	1	2	2	2	2	2	2	2	2	2
Sub I - Pediatric Emergency Medicine - BMC MEDMD 514 / 050.3	1	1	1	1	1	1	1	1	1	1	1	1	1
Sub I - Pediatric Inpatient Medicine - BMC MEDMD 509 / 051.3	2	2	2	2	2	2	2	2	2	2	2	2	2
Sub I - Pediatric Intensive Care Unit - BMC MEDMD 511 / 052.3	1	1	1	1	1	1	1	1	1	1	1	1	1
Sub I - Acute Care and Trauma Surgery MEDMD 555 / 400.3	2	2	2	2	2	2	2	2	2	2	2	2	2
Sub I - Cardiac Surgery MEDMD 552 / 405.2	1	1	1	1	1	0	0	0	0	1	1	1	1
Sub I - Colon and Rectal Surgery MEDMD 549 / 404.3	1	1	1	1	1	1	1	1	1	1	1	1	1
Sub I - Emergency Medicine MEDMD 421 / 403.3	7	12	12	12	4	4	4	4	4	4	4	4	4
Sub I - Inpatient Gynecology - BMC MEDMD 471 / 201.3	1	1	1	1	1	0	0	0	1	1	1	1	0

Sub I - Maternal-Fetal Medicine - BMC MEDMD 472 / 202.3	1	1	1	1	1	0	0	0	1	1	1	1	0
Sub I - Medicine - BMC MEDMD 440 / 100.1	5	11	11	11	11	5	5	5	5	5	5	5	0
Sub I - Minimally Invasive Surgery MEDMD 550 / 404.2	1	1	1	1	1	1	1	1	1	1	1	1	1
Sub I - Neonatology - BMC MEDMD 571 / 057.3	2	2	2	2	2	2	2	2	2	2	2	2	2
Sub I - Orthopaedic Surgery MEDMD 551 / 551.3	7	7	7	7	7	7	7	7	7	7	7	7	0
Sub I - Otolaryngology - Head and Neck Surgery MEDMD 485 / 560.1	5	5	5	5	5	5	5	5	5	5	5	5	5
Sub I - Plastic and Reconstructive Surgery MEDMD 548 / 465.2	1	2	2	2	2	2	2	2	2	2	2	2	2
Sub I - Surgical Intensive Care Unit MEDMD 546 / 403.1	2	2	2	2	2	2	2	2	2	2	2	2	2
Sub I - Surgical Oncology MEDMD 557 / 400.1b	1	1	1	1	1	1	1	1	1	1	1	1	1
Sub I - Thoracic Surgery MEDMD 554 / 410.2	1	1	1	1	1	1	1	1	1	1	1	1	1
Sub I - Vascular Surgery MEDMD 558 / 400.1a	1	1	1	1	1	1	1	1	1	1	1	1	1
Geriatrics MEDMD 434 / 98	0	16	16	16	16	16	16	16	16	16	16	16	16
	Fall Semester							Spring Semester					

Sub I - Advanced Medicine: Medical Intensive Care Unit

MEDMD 441 / 101.1

Instructors: **Hector Marquez, M.D. and Christine Reardon, M.D., Pulmonary/Critical Care Medicine Faculty**

Location: Boston Medical Center, Menino Pavilion

Contact: Kathyann Adamson *email:* kathyw@bu.edu

Number of Students: Two (fourth year BU medical students only)

Period to be offered: One Month

Description of Elective:

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 teams. 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 2 PGY2 or PGY3 residents, 2 PGY1 residents, a nurse practitioner and pulmonary/critical care attending. The PGY2 or PGY3 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.

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.

Sub I - Family Medicine - BMC
MEDMD 427 / 030.1i

Instructor: Talia Singer-Clark, M.D.

Interim Instructor (end of June): Lizzeth Alarcon, M.D.

Telephone: 414-6237 *email:* chenille@bu.edu

Location: BMC-Dowling 5 Room 5414

Administrative Contact: Chenille Hogan *Email:* 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.

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 organized by the course director twice per week via Zoom.
- Organize two presentations on a pertinent topic for the rest of the team.
- Complete one admission per week.
- Complete two discharges per week.

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)

**Sub I - Pediatric Emergency Medicine - BMC
MEDMD 514 / 050.3**

Instructor: **Lorrie Edwards, M.D.**

Location: Boston Medical Center – Menino Pavilion

Telephone: 414-5514 *Contact:* Lisa Blake – Vose 5

Number of Students: One

Period to be offered: One month

Description of Elective:

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. **This rotation is therefore not recommended for students during residency interview months.** Attendance at the Department of Pediatrics conferences, **weekly** resident conferences, **and monthly simulation** 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. **This rotation is designed for one student per block, but depending on staffing and space could potentially accommodate a second student as needed at the discretion of the course director.**

This elective satisfies the sub-internship requirement.

Note: Faculty in the Department of Pediatric Emergency Medicine at BMC are no longer able to write a standardized letter of evaluation (SLOE) for an adult emergency residency application. The current policy from the Association of Emergency Medicine Residency Program Directors is that only faculty of an Emergency Medicine Residency Program may write a SLOE. Students applying in emergency medicine are, of course, always welcome to take this sub-internship.

**Sub I - Pediatric Inpatient Medicine - BMC
MEDMD 509 / 051.3**

Instructor: **Elizabeth Hutton, M.D.**

Location: Boston Medical Center – Menino Pavilion

Contact: Carly Werner *Email:* Carly.Werner@bmc.org

Number of Students: Two

Period to be offered: All blocks except 9

Description of Elective:

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.

Note: This elective satisfies the subinternship requirement

Sub I - Pediatric Intensive Care Unit - BMC
MEDMD 511 / 052.3

Instructor: **Sara Ross, M.D.**

Location: Boston Medical Center-Menino Pavilion

Contact: Carly Werner *Email:* Carly.Werner@bmc.org

Number of Students: One per block

Period to be offered: One Month

Description of Elective:

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.
- 4) 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.
- 5) 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.
- 6) The student will identify all of the attendings and residents who supervise them during the rotation and assign Focus forms to all of those individuals so that comprehensive feedback can be collected for grading.

Sub I - Acute Care and Trauma Surgery

MEDMD 555 / 400.3

Instructor: **Kathryn Twomey, M.D.**

Faculty: **Peter Burke, M.D. FACS; Tracey Dechert, M.D. FACS; Aaron Richman, M.D.; Sabrina Sanchez M.D. MPH FACS; Robert Schulze M.D. MBA FACS FCCM**

Contact: Lana Ketlere *email:* lane.ketlere@bmc.org

Telephone: 617- 638-8442

Number of Students: Two

Period to be offered: One month

Description of Elective:

The Trauma and Acute Care surgery elective at Boston Medical Center is clinical program with a strong focus on management of acute general surgical disease and the multimodal and multidisciplinary management of traumatic injury. The elective is four weeks in duration and is designed to develop the complex peri-, intra-, and post-operative decision making and basic open and laparoscopic surgical skills of the medical student. The goals of the elective include:

- Provide exceptional care for surgical patients
- Develop pre-operative, intra-operative, and post-operative management strategies in acute general surgical and traumatic surgical maladies
- Develop an understanding of co-morbid medical conditions that can influence surgical decision making.

Once assigned students will be notified via email with instructions for reporting and service specific assignments and duties.

Note: This elective satisfies the sub-internship requirement

Sub I - Cardiac Surgery
MEDMD 552 / 405.2

Instructor: **Alex Karavas, M.D.**

Location: Boston Menino Pavilion

Telephone: 618-638-8442 *Contact:* Lana Ketlere *email:* lane.ketlere@bmc.org

Number of Students: One

Period to be Offered: One Month

Description of Elective:

The rotation takes place at Boston Medical Center. Student will be part of the cardiac surgery team and expected to be involved in the day-to-day clinical care. Student will be working directly with the cardiac surgeons and physician assistants with goal to gain gradual comfort and supervised independency with basic surgical skills and management of cardiac surgery in the preoperative and postoperative setting as well as in the clinic.

Sub I - Colon and Rectal Surgery

MEDMD 549 / 404.3

Course Director – Dr. Olga Beresneva Course Instructors: Jason Hall, MD, Pager: 2373, Joanne Favuzza, DO, Pager: 3880, Olga Beresneva, MD, Pager: 8139

Administrative Contacts

- **Coordinator:** The student administrative contact for this rotation will be Lana Ketlere in the Department of General Surgery at BU/BMC (lane.ketlere@bmc.org).

NUMBER OF STUDENTS 1 student per block

LENGTH OF SUB-I: 4 weeks

AVAILABLE BLOCK: 9-20

Description of Sub-internship

The Fourth Year Sub-internship is a 4 week course in Colon and Rectal Surgery designed to immerse the 4th year student in all aspects of Colon and Rectal Surgery at Boston Medical Center. This rotation will provide students with the basic components of colon and rectal disorders and surgeries and the care of patients with these disorders. The student will be an integral part of the surgical team in the inpatient unit, the operating room, and the surgical clinic.

The acquisition of knowledge and skills in the care of the colorectal patient will be conducted in the following setting and activities.

- Colon and Rectal surgery clinic – Shapiro 6th floor
 - evaluation of new and established patients
 - follow-up of medically and surgically treated patients
 - assist in basic endoscopy including anoscopy and proctoscopy
 - assist in office procedures such as drainage of abscesses, excision of thrombosed external hemorrhoids and tags, rubber band ligation
 - assist in wound care
 - assist in ostomy care
- Emergency department – as above
- Surgical inpatient service – comprehensive perioperative management

The 4th year student will be an integral part of the surgery team on the inpatient units, outpatient clinic, and in the operating room during the 4-week sub-internship. The student will function as acting interns responsible for the evaluation and continued management of their own patients, under the direct supervision of the attending physicians, residents and physician assistants. Specifically, the student will take on the management of at least three new patients each week, and will assume primary responsibility for the care of these patients, with appropriate supervision. In addition, the student 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 at least 2 weekend calls during the 4 week rotation alongside residents and attending physicians. With supervision, the student will also perform or assist procedures as appropriate to educational level and patient safety including venipuncture, IV line placement, arterial blood gas, foley catheter placement, nasogastric tube insertion, preparing and draping for surgery, assisting with surgery, and closure of surgical wounds. All Sub-I activities will be performed under appropriate supervision which can include attendings, residents, APP's or other qualified individuals on the Service.

Sub I - Emergency Medicine
MEDMD 421 / 403.3

Once scheduled, all requests for block changes or release from the Emergency Medicine sub-internship must be received at least 30 days prior to the start of the rotation.

Instructor: Kelly Mayo, M.D.

Location: Boston Medical Center, Dowling Building – 1st Floor, 9:00 a.m.

Emergency Dept. Conference Room

Contact: Liz Traina *email:* etraina@bu.edu *Telephone:* 813 727-2941

Number of Students: 4-12 (depending on the block requested)

Period to be Offered: 4 weeks

Description of Elective:

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. 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 IBEX (computer tracking, order entry, documentation) training session on the first Tuesday of the rotation.

**Sub I - Inpatient Gynecology - BMC
MEDMD 471 / 201.3**

Instructor: Padmasini Kandadai, M.D.

Location: Boston Medical Center

Telephone:414-7481, Makeba Kent

Number of Students: One

Period to be offered: One Month

Description of Elective:

The student participates as a subintern in all aspects of the inpatient and ambulatory gynecology service, assisting in minor and major gynecologic surgical procedures and following patients post-operatively.

Successful completion of the core OB/GYN, Medicine and Surgery rotations are prerequisite.

**Sub I - Maternal-Fetal Medicine - BMC
MEDMD 472 / 202.3**

Instructor: Emily Rosenthal, M.D.

Location: Boston Medical Center

Telephone:414-7481, Makeba Kent

Number of Students: One

Period to be offered: One Month

Description of Elective:

The student works with the Maternal Fetal Medicine and resident staff caring for high-risk pregnant patients, in both ambulatory and in-patient settings. The student will function as an acting intern for patients on the ante partum service. The student will attend the high risk prenatal clinics and spend one day per week on the labor floor. They will attend conferences run by the High Risk Department; additionally the student is expected to present at a MFM Thursday noon conference. To receive honors in the clerkship the student will write a paper or create a teaching tool for clerkship students.

Successful completion of the core OB/GYN, Medicine and Surgery rotations are prerequisite.

Sub I - Medicine - BMC
MEDMD 440 / 100.1

Director: Joseph Rencic, M.D.

Location: Boston Medical Center

Telephone: (617) 358-3524

Number of Students: 5

Period to be Offered: Four weeks (Blocks 9-14 and 16-20)

Description of Elective:

The Subinternship 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 (Integrated Acting Internship): Running throughout the year, the Pathway A experience provides a ward experience with 5 students 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 (Acting Internship): 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 B and be notified within ~4 weeks of the start of your block.

Sub I - Minimally Invasive Surgery
MEDMD 550 / 404.2

Instructor: **Donald Hess, M.D., FACS**

Faculty: **Brian Carmine, M.D. , Cullen Carter, M.D. and Luise Pernar, M.D.**

Contact: Lana Ketlere *email:* lane.ketlere@bmc.org

Telephone: 617 638-8442

Number of Students: One

Period to be Offered: One Month

Description of Elective:

The minimally invasive surgery elective at Boston University Medical Center is a combined clinical and research program with a strong focus in laparoscopic bariatric surgery and additional experience in laparoscopic foregut, endoscopic and robotic surgery. The elective is four weeks in duration and is designed to develop the surgical, educational and research skills of the medical student. The goals of the elective include:

- Provide exceptional care for surgical patients
- Learn pre-operative and post-operative management of bariatric surgery
- Obtain introductory training in minimally invasive surgery with special focus in bariatric surgery

Students should report on the first day of the rotation to morning rounds at 6:00 a.m., Menino 4W

Sub I - Neonatology - BMC
MEDMD 571 / 057.3

Instructor: **Ruby Bartolome, M.D.**

Location: Boston Medical Center

Contact: Carly Werner *Email:* Carly.Werner@bmc.org

Number of Students: Two

Period to be offered: One Month – All blocks

Description of Elective:

The student participates in the work-up and care of high risk babies from the time of their delivery 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.

Sub I - Orthopaedic Surgery

MEDMD 551 / 551.3

Rotation Director: Xinning (Tiger) Li, M.D., FAOA, FAAOS email: xinning.li@bmc.org

CONTACT AND COURSE ORIENTATION INFORMATION

Lynnette St. Louis, Residency & Fellowship Program Coordinator 617-638-8934 lynnette.st.louis@bmc.org

Number of Students: 5 per block

Period to be Offered: 4 weeks (Blocks 9-20)

Description of Elective:

The Orthopaedic Sub-I will take place at the Boston Medical Center at both the inpatient and outpatient setting that comprises of six total subspecialties:

- Orthopaedic Trauma – Fracture Care
- Hand and Elbow Surgery
- Spine
- Sports Medicine and Shoulder Surgery
- Foot and Ankle
- Arthroplasty (Hip and Knee)

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:
 - a. Function as acting intern responsible for the evaluation and continued management of patients under supervision of residents and attendings.
 - b. 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.
 - c. All Sub-I will be required to present a 12 min talk on the 3rd weds of the month during grand rounds on a case or topic of interest. 3 mins for questions at the end.
 - d. 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.
 - e. 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

Sub I - Otolaryngology - Head and Neck Surgery

MEDMD 485 / 560.1

Instructors: Jessica Levi, M.D. and Gregory Grillone, M.D., Chairman

Location: Boston Medical Center

Contact: Janine Lipsky Telephone: 617 638-7066

Number of Students: Four

Period to be Offered: One month

Description of Elective:

This elective provides an intense learning experience for students interested in a career in Otolaryngology – Head and Neck Surgery, and for others with specific interest in head and neck cancer, facial plastic and reconstructive surgery, allergy involving the nose and sinuses, and the auditory system. Students observe and work with faculty and residents in the Department of Otolaryngology – Head and Neck Surgery at the Boston Medical Center. Approximately half of the time is devoted to learning how to evaluate and treat ambulatory outpatients with otolaryngologic disorders. The other half of the time is spent observing and assisting in the operating room and evaluating hospitalized patients. Students are expected to attend weekly teaching conferences including Friday morning case conference, Pathology conference, Radiology conference, Audiology conference, Tumor Board conference, and structured Wednesday afternoon didactic lectures.

Student Responsibilities – Fourth year medical students are required to do the following:

1. Be present and on time for clinics, rounds, surgeries, conferences
2. Acquire specified knowledge and skills (as delineated in “Otolaryngology Student Knowledge/ Skills Checklist”)
3. Assist residents in providing patient care
4. Prepare and present an eight minute Powerpoint presentation on a chosen topic.

Participation, Expectations of Performance, and Grading

The Department of Otolaryngology uses elements adapted from the ACGME Residency Review Committee Guidelines for General Competencies in Medical Education as a basis for student evaluations. Because the clinical rotation can be considered an opportunity to begin learning skills that a medical school graduate will be expected to acquire, we shall judge student performance in the categories of the six ACGME1 competencies listed below:

1. Patient care that is compassionate, appropriate, and effective for the treatment of health programs and the promotion of health
2. Medical Knowledge about established and evolving biomedical, clinical, and cognate sciences, as well as the application of this knowledge to patient care
3. Practice-based learning and improvement that involves the investigation and evaluation of care for their patients, the appraisal and assimilation of scientific evidence, and improvements in patient care
4. Interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and other health professionals;
5. Professionalism, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to patients of diverse backgrounds;
6. Systems-based practice, as manifested by actions that demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.

Requests to drop this elective must be submitted via the electronic add/drop system to Janine Lipsky, Education Program Coordinator at least 30 days prior to the start of the elective. Students who wish to drop the elective less than 30 days prior to the start must request special permission from Jessica Levi, M.D. All requests must be in writing.

Sub I - Plastic and Reconstructive Surgery
MEDMD 548 / 465.2

Instructor: **Daniel Roh, M.D.**

Location: Boston Medical Center, Menino Pavilion

Contact: Lana Ketlere *email:* lane.ketlere@bmc.org

Number of Students: Two

Period to be Offered: One month

Description of Elective:

The elective in Plastic and Reconstructive Surgery will consist of a two week period with exposure to general plastic surgery with an emphasis on the aesthetic aspects of the field. This will provide the student with a broad basis in the area of elective plastic surgery.

All arrangements for electives must be made through the Medical Student Coordinator at Boston Medical Center.

Sub I - Surgical Intensive Care Unit
MEDMD 546 / 403.1

Instructors: **Aaron Richman, M.D.**

Location: Boston Menino Pavilion

Telephone: 638-8442 *Contact:* Lana Ketlere *email:* lane.ketlere@bmc.org

Number of Students: Four

Period to be Offered: One Month

Description of Elective:

Fourth year medical students are eligible to participate in the Surgical Intensive Care Unit elective at Boston Medical Center. This can be a one or two month elective which will be spent at the Menino Pavilion surgical intensive care unit. Students will be active members of the team and will participate in daily rounds and will be responsible for presenting in detail, all patients whom they have called on previously. He/she will defend the therapy initiated and propose a comprehensive treatment plan. Additionally, the student will participate in all procedures performed in the surgical intensive care unit. The Section on Critical Care offers daily teaching rounds as well as didactic lectures. It is hoped at the conclusion of this elective the student will have an appreciation of the problems and care of the critically ill patient.

400.1b - Sub I - Surgical Oncology
MEDMD 557 / 400.1b

Instructor: **Teviah Sachs, M.D. and Staff**

Contact: Lana Ketlere email: lana.ketlere@bmc.org

Telephone: 617- 638-8442

Number of Students: One

Period to be offered: One month

General Objectives & Expectations:

As the Sub-Intern on the service, your responsibilities include shepherding the third year students, and helping to manage the OR assignments for each of the students and yourself. You are also expected to take a more senior role on the service and set an example for the third year students on how to perform in clinical situations and the operating room. You should take your knowledge to the next step, knowing not only the basics of the operation, but understanding the larger questions. You should be able to think about the pathology of the disease, the future treatments that would be necessary and the long term expectations and prognosis. You should know the literature as well, and be able to speak on recent developments in the disease of the patients of whom you are taking care. You should also take into account the cultural, societal and economic factors as they apply to your patients.

Mozden Service Specific Objectives:

Endocrine: Dr. McAneny & Dr. Drake

Describe the workup of a thyroid nodule. Describe the surgical anatomy of the thyroid and parathyroid glands. Describe the options for treatment of hyperthyroidism. Describe the potential complications of thyroid surgery and approaches to prevent them. Describe the staging of thyroid cancer and its prognosis.

Breast: Dr. Cassidy & Dr. Geary

Describe the basic anatomy of the female breast. Describe the standard clinical risk factors for breast cancer. Take an appropriate, focused history from a patient with a breast problem. Perform an appropriate, complete physical examination of the breasts. Demonstrate appropriate regard for a patient's concerns regarding breast cancer diagnosis. Demonstrate appropriate regard for a patient's anxiety regarding clinical breast examination. Perform a basic review of a mammogram and identify common abnormal findings. Describe the evaluation of and the differential diagnosis of a breast mass. Describe the BIRADS system for mammography interpretation. Select appropriate methods of biopsy of breast abnormalities. Interpret pathology reports of breast cancer. Differentiate the pathologic types of breast cancer including ductal, lobular, duct carcinoma in situ, and lobular carcinoma in situ. Describe the staging system for breast cancer. Identify and describe locally advanced breast cancer, including inflammatory breast cancer and its management. Select appropriate surgical approaches (lumpectomy vs. mastectomy) for different breast cancers. Explain the sentinel node concept. Identify patients who are candidates for radiation therapy, hormone therapy and chemotherapy. Describe the known breast cancer genes. Explain breast cancer prevention strategies.

Melanoma: Dr. Cassidy & Dr. Sachs

Describe the diagnostic evaluation and management of a pigmented skin lesion. Describe the pathogenesis of and prevention strategies for melanomas. Describe the staging system and apply that system to a patient's melanoma. Describe the local surgical management of a melanoma. Describe the regional management of a melanoma. Explain the sentinel node concept. Discuss systemic therapy issues for melanoma. Identify sites of distant recurrence of melanoma.

Pancreas, Liver and Biliary System: Dr. Sachs

Describe the anatomy of the Pancreas, Liver & Bile Ducts. Identify a hepatobiliary or pancreatic mass on a CT or MRI scan. Describe critical findings on imaging for determining resectability. List the types of imaging used to stage these cancers. Describe basic components of a Whipple procedure. Differentiate the prognosis of neuroendocrine and ampullary cancers from adenocarcinoma of the pancreas. Understand the causes and treatments for Hepatocellular Cancer. List possible complications following a pancreatic, hepatic or biliary resection and how to manage them. Describe possible non-surgical or adjuvant therapies for these cancers. Characterize the survival from these cancers.

Sub I - Thoracic Surgery
MEDMD 554 / 410.2

Instructors: **Kei Suzuki, M.D. and Virginia Litle, M.D.**

Location: Boston Medical Center

Contact: Lana Ketlere *email:* lane.ketlere@bmc.org

Number of Students: One

Period to be Offered: One month (2020/2021-Block 9, 10 and 11)

Description of Elective:

The thoracic surgery service sees a high volume of patients with chest disease, and performs a broad range of procedures related to the thoracic cavity including, but not limited to thoracotomy, thoracoscopy, bronchoscopy, mediastinoscopy, pulmonary wedge resection, lobectomy, pneumonectomy, endoscopy, esophageal stenting, esophageal myotomy, esophagectomy, hiatal hernia repair, antireflux surgery, etc. The service cares for a number of postoperative patients, and frequently consults on patients with complex needs on other services. Due to the nature of thoracic disease, patients can be quite ill during the perioperative and postoperative period.

The sub-intern student will be an integral part of the thoracic surgery team in the operating room, inpatient unit, and outpatient clinic at Boston Medical Center during this 4-week sub-internship experience. Students will be responsible for evaluation and management of their own patients under the direct supervision of attending surgeons and residents, and will care for at least three new patients per week, performing histories and physicals, coordinating care, etc. They will perform procedures as appropriate, including venipuncture, IV placement, arterial blood gas, foley catheter placement, nasogastric tube insertion, bronchoscopy, thoracostomy, and closure of surgical wounds, all under appropriate supervision. The sub-intern will also take call with the surgical team on a regular schedule.

As Boston University is a teaching program, students will also have the opportunity to enhance their teaching skills by assisting in the education of clerkship students in the operating room as well as the inpatient and outpatient settings.

The goals for the rotation include:

- Assist in the care for acute and chronic disease seen in these surgical patients, as evaluated and managed by the service
- Learn pre-operative and post-operative management of patients undergoing thoracic procedures
- Obtain introductory training in thoracic surgery procedures such as bronchoscopy, endoscopy, thoracentesis, chest tube placement/management/removal, etc
- Function as a sub-intern with responsibilities commensurate with this educational requirement:
 - o Function as acting interns responsible for the evaluation and continued management of their own patients, under the direct supervision of the attending physicians and residents.
 - o Care for at least three new patients per week, and possibly more depending on the opportunities for patient care.
 - o 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 should report to morning rounds at the thoracic surgery workroom on Menino 3rd floor IMCU (near patient bed 30)

Sub I - Vascular Surgery**MEDMD 558 / 400.1a***Instructor:* Elizabeth G. King, M.D.*Faculty:* Alik Farber, M.D.; Jeffrey Siracuse, M.D.; Jeffrey Kalish, M.D.*Contact:* Lana Ketlere email: lana.ketlere@bmc.org*Telephone:* 617- 638-8442*Number of Students:**Period to be offered:* One month**Description of Elective:**

The Vascular Surgery elective at Boston Medical Center provides 4th year medical students with an immersive experience in vascular surgery, offering a comprehensive view of the diagnosis, management and treatment of vascular diseases. Students will work closely with the vascular surgery team, participating in the care of patients across a variety of clinical settings, including the operating room, interventional radiology suite, inpatient wards and outpatient clinic.

Learning objectives:

Develop proficiency in obtaining detailed vascular histories and performing focused physical exams

Gain hands-on experience with vascular diagnostic tools, including vascular ultrasound and non-invasive vascular laboratory tests (ankle-brachial index, arterial duplex, venous reflux studies)

Enhance clinical reasoning and decision making skills in managing commonly encountered vascular conditions, such as peripheral artery disease, dialysis access creation and maintenance, carotid artery disease, aortic aneurysms, venous disease and vascular trauma

Geriatrics Clerkship
MEDMD 434 / 98

Instructors: **Megan Young, M.D.**

Location: Robinson 2700 – Boston Medical Center, Robinson Complex

Telephone: 638-6155

Course Director: Megan Young, M.D.

Course Administrator: Megan Rose email: megrose@bu.edu

www.bumc.bu.edu/geriatrics

Number of Students: Varies (see note below)

Period to be offered: One month

Description of Elective:

During this rotation, students will have the unique opportunity (few medical schools offer this experience) to go out regularly on home visits with a physician or nurse preceptor. Additional experiences may include going to community sites such as an adult day health center or 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, present an end-of-life project and learn about social determinants of health.

Both physician and nurse preceptors will evaluate students' performance in the rotation. Course objectives include: students will learn about common geriatric syndromes, understand and use functional assessment in the evaluation of older adults, work with an interdisciplinary team to develop complex care plans. Students will and learn about home care and what is possible to provide medically for elderly patients living in the community. Additionally students will be able to Define and explain the philosophy and role of palliative care, and differentiate hospice from palliative care, participate in discussions about what matters most to an older adult, and work with the patient and team to honor these priorities. Furthermore students will formally identify how structural and social determinants of health impact health outcomes and healthcare access for older adults and those who care for them.

Note: This is a required rotation at CAMED but may be taken as an elective by external students on a space available basis only.