

## FOURTH YEAR SCHEDULE & GUIDELINES 2011-2012

The fourth year for the Class of 2012 begins Monday, June 6, 2011.

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.

**No student will be allowed to begin the fourth year until they have passed the USMLE Step 1 exam. Students are required to take USMLE Step 2 CK no later than December 31, 2011 and Step 2 CS no later than October 31, 2011.**

The required rotations are: Geriatrics/Home Medical Care, Neurology, Radiology, Subinternship, Ambulatory Medicine and Surgery Subspecialty.

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 8, 2011. Those students who fail to submit a schedule by this date will be scheduled to appear before the Student Evaluation and Promotions Committee.

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.** Add/Drop forms must be used and are available in the Office of the Registrar, Room A-414, and on the Office of the Registrar's Website,

<http://www.bumc.bu.edu/busm/reg>

Use this form to add a new rotation or drop a rotation to which you are already committed. This form must have the signature of the supervisor of the rotation which is being added or dropped. To request a release from a rotation, the request must be made at least one month prior to the beginning date of the rotation. Such changes cannot be considered final until administrative approval is given. **Please note: some electives reserve the right to require a substitute be provided before releasing a student from an elective. Inquire about department policy when signing up for electives.**

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

Elective rotations: Students must complete 20 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. The other twelve weeks of elective rotations may be taken inside or outside the BU system. Credit toward degree requirements will be granted for no more than twelve weeks of fourth year rotations taken outside of the Boston University School of Medicine system.

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

Outside electives: Students may arrange electives at LCME-accredited United States medical schools. If these electives are part of an accredited fourth year curriculum, credit will be given without Boston University School of Medicine faculty approval. Upon notification that a student has been accepted for any outside elective, the student must then notify the Registrar's office and complete a Scheduled Outside Elective form.

Outside electives that are not part of an accredited fourth year curriculum at an accredited U.S. medical school: The student must obtain BUSM faculty approval prior to arranging this elective, using the Outside Elective Approval Form. 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 then notify the Registrar's Office and complete a Scheduled Outside Elective form.

### Dates in the scheduling process are:

Jan. 25 Class Meeting, 4:30p.m., Bakst Auditorium

Jan. 25-Feb. 13 Enter choices for required fourth year rotations via Internet.

March 4 Fourth year schedules with required courses appear on Registrar's website.

July 8 Fourth Year Schedules, signed by field specific advisor must be submitted to the Registrar.

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

International electives: a student may take elective rotations for fourth year credit outside the United States. Credit as an inside elective may be given for up to four weeks for rotations arranged through the BUSM International Health Program; all other time in International Health will be credited as outside elective time. All International electives must have prior signed approval by Dr. Suzy Sarfaty, Assistant Dean of Academic Affairs-Director of International Health Programs, BUSM. If you would like to arrange an elective please review the website at: <http://www.bumc.bu.edu/iimbusm> Dr. Sarfaty, would like you to pay particular attention to the following sections: Clinical Electives, FAQ's and the BUSM IV Elective Summaries as preparation for applying. For further details, please contact Ana Bediako in the Office of Enrichment @ [abediako@bu.edu](mailto:abediako@bu.edu).

Research: A student in good academic standing may request up to eight weeks of fourth year credit for a research project four 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 a letter from the preceptor confirming their willingness to precept the student, a summary of the proposed project, a description of the role and responsibilities of the student, and the method by which the student's performance can be evaluated and graded. Additional time spent on the project will not be eligible for credit. Students who submit requests for credit after the start of research must petition the Student Evaluation and Promotions Committee. Research done outside BUSM will count toward the allowed twelve weeks of outside elective time.

### **ENTERING CHOICES FOR REQUIRED COURSES (January 25, 2011-February 13, 2011):**

The Internet address is:

[www.bumc.bu.edu/busm/reg](http://www.bumc.bu.edu/busm/reg)

The majority of students must provide choices for each of the (4) required rotations. If you have already completed some of the required courses you should only provide information for those you need to complete in the academic year 2011-2012

The required fourth year rotations are only able to take a specific maximum 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 all courses and in all blocks, at least one choice for each of the required courses: Neurology, Radiology, Geriatrics, Ambulatory Medicine and Surgery Subspecialty should be in blocks 9-12, 13-16, and 17-19.

**Please remember the required subinternship may not be taken in Block 19.**

## **DESCRIPTION OF REQUIRED COURSES:**

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

The Geriatrics rotation is designed to give fourth year medical students exposure first-hand to the needs of community-dwelling older adults. The objectives of the rotation include:

- (1) Learning about common geriatric syndromes.
- (2) Understanding and using functional assessment in the evaluation of older adults.
- (3) Working with an interdisciplinary team including nurses, social workers, and community health care providers to develop care plans.
- (4) Learning about home care and what is possible to provide medically for elderly patients living in the community.

During this rotation, students will have the unique opportunity (few medical schools offer this experience) to go out regularly on house calls with a physician or nurse preceptor. There will also be home visits which trainees will conduct independently (paired with one other student). Additional experiences including going to community sites such as an adult day health center and a nursing home. Students will attend daily lectures, write an evidence based discussion of a patient management problem and participate in a computer based case discussions. A standardized patient experience will provide feedback on communication skills with elderly patient's midway through the rotation. Performance will be evaluated by both physician and nurse preceptors.

### **NEUROLOGY**

The goal of the Clerkship in Neurology is to teach the students how a Neurologist thinks about disease. *The objectives include:*

1. The ability to perform a detailed neurological history and examination and to record the results.
2. The ability to interpret historical information and abnormalities found on examination so that the lesion may be localized in the nervous system (where's the lesion?);
3. Familiarity with common neurological diseases so that knowledge of location of the lesion can lead to the generation of a differential diagnosis (what's the lesion?);
4. Familiarity with the presentation and pathophysiology of common neurological disorders and disorders associated with common medical and surgical conditions;
5. An understanding of the rationale for the treatment and prevention of neurological disease;
6. Familiarity with the prognosis, psychosocial and economic aspects of long term neurologic impairment and disability. Each student will be assigned to one of several clinical sites where a coordinator will oversee the clerkship. The course objectives, core reading material and student evaluation policy will be provided to the students in the online material.

### **RADIOLOGY**

#### **CLERKSHIP LEARNING OBJECTIVES**

1. By the end of the Radiology Clerkship, BUSM-3 and BUSM-4 students will be able to recall the available diagnostic imaging examinations and their relative costs and identify their indications, contraindications, and complications.
2. By the end of the Radiology Clerkship, BUSM-3 and BUSM-4 students will be able to recall the principles of evidence-based imaging and identify the most efficacious imaging examination(s) for each patient's specific clinical scenario.
3. By the end of the Radiology Clerkship, BUSM-3 and BUSM-4 students will be able to recognize the patient's needs and fears regarding imaging procedures, recall patient experience with imaging procedures, identify preparations for the procedure, plan post-procedural care, and estimate ionizing radiation exposure.
4. By the end of the Radiology Clerkship, BUSM-3 and BUSM-4 students will be able to identify normal anatomy and common pathologic entities on diagnostic imaging studies.

5. By the end of the Radiology Clerkship, BUSM-3 and BUSM-4 students will be able to interpret diagnostic imaging studies in the context of previously learned pathologic anatomy and pathophysiology, and formulate an appropriate differential diagnosis based on the patient's clinical and radiologic findings.
6. By the end of the Radiology Clerkship, BUSM-3 and BUSM-4 students will be able to recall the available diagnostic imaging examinations and the role of the radiologist.
7. By the end of the Radiology Clerkship, BUSM-3 and BUSM-4 students will be able to interpret diagnostic imaging study(ies), and using the study(ies), organize and produce a presentation of that case at a departmental noon radiology-pathology conference.

## **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 elective must be at least four weeks in duration.

### **SUBINTERNSHIP IN FAMILY MEDICINE:**

#### **030.1i Sub internship in Family Medicine - Boston Medical Center**

Students will work as a member of the family medicine team on the East Newton Campus at BMC. The patient pool will be from the HealthNet Rounder system.

Students will be acting interns working with 3rd year Family Medicine residents. They will be responsible for evaluation and management of patients. Residents and the family medicine ward attending will provide daily supervision, support, teaching, and feedback with respect to sub-intern's patients including the history obtained physical exam findings, and management plans. There are many formal teaching opportunities available. Sub interns will attend and participate in the following scheduled educational activities:

- Monday: Family medicine resident noon conference – large conference room on Dowling 5 south
- Tuesday: Family medicine noon conference – Dowling amphitheater, 1st floor
- Wednesday: Medicine firm conference at 11:30 am, 8<sup>th</sup> floor conference room ENC
- Thursdays – 12noon, healthnet firm conference – dowling 5 south

Students will also meet regularly with the family medicine Ward attending for teaching rounds, case review and bedside work rounds.

A requirement to complete the sub internship is a formal presentation during Thursday noon conference facilitated by the FM attending for that week. This will occur on the 3<sup>rd</sup> Thursday of the rotation.

### **SUBINTERNSHIP IN MEDICINE**

#### **100.1 Subinternship in Medicine - Boston Medical Center**

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 subintern will work as an advanced care provider under the direct supervision of the ward resident and assume increasing responsibility for the initial evaluation and integration of the total care of assigned patients. The student is expected to integrate 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.

The subintern will play a crucial role in patient care and must commit to working the complete four week block.

Responsibilities 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)
- Taking late-night “call” approximately every 4<sup>th</sup> night
- Providing patient care through the last Sunday of the rotation

### **100.11 Advanced Acting Internship in Medicine - Boston Medical Center**

The Advanced Acting Internship (AAI) builds upon and is a more intensive version of the traditional subinternship. Two AAI students are paired on a ward team that has one fewer intern than the traditional ward team, and together, are expected to fulfill the role of one intern. Advanced Acting Interns work under the direct supervision of the ward resident and assume care of assigned patients. The student is expected to integrate book 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 appropriated. Clinical work will be supplemented by conferences offered by the Department of Medicine.

The Advanced Acting Intern will play a crucial role in patient care and must commit to working the complete 4-week block. Overnight call in the hospital should be expected.

By providing this in-depth experience, we believe that you will have a unique opportunity to develop the attributes of an increasingly independent clinician and better prepare yourself for your internship. Your work as an Advanced Acting Intern will be recognized in your course evaluation and letters of recommendation.

Because of space limitations, we cannot guarantee that everyone who is interested can be an AAI. Students will be selected by lottery weighed by your clinical performance during the third year. The AAI experience is only open to BUSM students.

Responsibilities include:

- Admitting patients to the team
- Following a core of patients (on average 4-10 patients)
- Taking overnight “call” approximately every 4<sup>th</sup> night

### **201.3 Inpatient Gynecology**

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. The student primarily will work with the East Newton gyn service. Students will prepare a case based presentation at Gyn noon conference and are expected to participate in educating the clerkship students. To receive honors in the clerkship the student will write a paper or create an academic project.

### **202.3 Maternal-Fetal Medicine**

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.

## **SUBINTERNSHIPS IN PEDIATRICS:**

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

Students will gain experience in the direct evaluation and management of patients (ages 0-21yrs) in the Pediatric Emergency Department. 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 mandatory weekend or overnight call, but half of your shifts will be during the evening hours of 3-10 pm. Attendance at the Department of Pediatrics conferences is encouraged and students will be required to give a presentation to the faculty and fellows of the division at the end of their rotation. The rotation is a subinternship. Note that for July through December, priority will be given to students applying for internship in Pediatrics.

### **051.3 Inpatient Pediatric Medicine**

An experience in inpatient pediatric medicine during which the student will have supervised responsibilities on the pediatric ward at a level which the inpatient team judges to be commensurate with an individual student's abilities. The student will admit and have responsibility for his/her own patients under the direction of the faculty and house staff on the inpatient service. He/she will be an integral member of the inpatient team participating in all levels of activity.

### **052.3 Pediatric Intensive Care Unit-Boston Medical Center**

The PICU is a multidisciplinary six bed unit caring for children and adolescents from newborns up to their 22nd birthday; the sub-I will work closely on a team with a PICU senior pediatric resident from the Boston Combined Residency Program in Pediatrics (BCRP) and PICU attending. The sub-I will be the primary provider for all assigned patients. Major teaching objectives of the rotation are the pathophysiology of childhood critical illness, pediatric advanced life support (PALS), and understanding of intensive care support (i.e. mechanical ventilation and hyperalimentation) as well as psychological and social support for patients and their families. Call is every 4th night including weekends until 10pm

Goals:

- 1) The student will take responsibility for patients, under the supervision of the resident and attending physician
- 2) The student will perform appropriate histories and physical examinations, complete and appropriate write ups, a discussion of the differential diagnosis and principles of pathophysiology as applied to the case. These write-ups will be reviewed and signed by the appropriate supervision physician.
- 3) The student will suggest and write treatment orders under the supervision of the supervising physician
- 4) The student will write daily progress notes reviewed and signed by the appropriate physician.
- 5) The student will help with the disposition and transfers of his/her patients and will follow all PICU transfer to the inpatient unit

### **053.0 Pediatric Subinternship – MassGeneral for Children at North Shore Medical Center**

#### **Description of Elective:**

##### **I. Goals**

1. To gain experience and skills in caring for pediatric patients on a general pediatric inpatient unit.
2. Manage, under resident supervision, a variety of acute medical conditions on the inpatient unit.
3. Appreciate the role of the primary care physician regarding the hospitalized pediatric patient in the community.
4. Gain experience in communicating with primary care physicians, pediatric hospitalists, subspecialists, nursing and resident housestaff regarding the care of the hospitalized pediatric patient.
6. Appreciate decision-making strategies for pediatric transfers for tertiary care.
7. Contribute to the teaching of the third year medical students on the pediatric team.
8. Develop career goals and explore subspecialties in pediatrics, if relevant.

## II. Responsibilities

### 1. Inpatient Unit

- A. History physical examination and admission note on admissions
- B. Daily progress notes
- C. All admission notes, progress notes, and orders must be cosigned by a pediatric resident or attending.
- D. Coordinate patient care along with the attending and resident
- E. Participate in the teaching of medical students
- F. Student may be asked to give informal educational talks.
- G. 1:4 overnight call (with senior resident), typically 4 weeknights and 2 weekends during a 4-week block [schedule to be sent via email prior to the start of the block]

### 2. Ambulatory Care/Emergency Department

- A. Depending on the student's interest, the director can arrange for half-day sessions with pediatric subspecialists at MGfC at NSMC.
- B. Again, depending on the student's interest, the director can arrange for afternoon or evening sessions in the Pediatric ED, with supervision by attending staff.

## 057.3 Neonatology - Boston Medical Center

The student participates in the work-up and care of high risk patients from the time of their delivery on the Maternity Floor through their nursery course and follow-up in the clinic. The Sub-I pre-rounds and examines his/her 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. Time is available for the student to read in depth about perinatal medicine and to participate in seminars with house staff and senior staff. There are several didactic teaching conferences daily, associated with the rotation.

## SUBINTERNSHIPS IN SURGERY:

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 eight possible sub-internship rotations in general surgery or some subunit of general surgery:

1. **400.00**      **General Surgery, Cape Cod**
2. **400.1a.**    **General Surgery, Vascular Service**
3. **400.1b**    **General Surgery, Oncology Service**
4. **400.1c**    **General Surgery, GI Service**
5. **400.2**      **General Surgery, VA Boston Healthcare System**
6. **400.3**      **General Surgery, Menino Pavilion**
7. **403.1**      **Surgical Intensive Care Unit**

#### **404.1 SURGERY SUBSPECIALTY**

All students must complete the surgery subspecialty requirement in either their third or fourth year. The Surgical Education Office offers a four-week rotation consisting of two two-week subspecialty rotations. Students select the subspecialties they wish to do, limited by capacity. Options include:

Anesthesia (BMC or VA)  
Cardiac Surgery (BMC or VA)  
Neurosurgery (BMC)  
Ophthalmology (BMC or VA)  
Orthopedics (BMC or VA)  
Otolaryngology (BMC)  
Plastic Surgery (BMC)  
Urology (BMC or VA)

Please do not hesitate to contact the Surgical Education Office if you have any questions.

Contact: Myriam Castagne  
Telephone: 617 638-8443

#### **102.1 AMBULATORY MEDICINE**

**Ambulatory Medicine Block:** All Students who did not complete an Ambulatory Medicine rotation in the third year must satisfy the requirement for a four week ambulatory rotation in medicine in their fourth year. For the 4 week ambulatory medicine rotation students will be assigned to one of the following sites: Jamaica Plain VA, Bedford VA, Roger Williams Medical Center, Neighborhood Health Centers, Private Practices or BMC.

#### **FOURTH YEAR BLOCK DATES FOR 2011-2012**

<b>Dates</b>	<b>Block</b>
<b>6/6/2011-7/3/2011</b>	<b>09</b>
<b>7/4/2011-7/31/2011</b>	<b>10</b>
<b>8/1/2011-8/28/2011</b>	<b>11</b>
<b>8/29/2011-9/25/2011</b>	<b>12</b>
<b>9/26/2011-10/23/2011</b>	<b>13</b>
<b>10/24/2011-11/20/2011</b>	<b>14</b>
<b>11/21/2011-12/18/2011</b>	<b>15</b>
<b>12/19/2011-1/22/2012</b>	<b>16</b>
<b>1/23/2012-2/19/2012</b>	<b>17</b>
<b>2/20/2012-3/18/2012</b>	<b>18</b>
<b>3/26/2012-4/15/2012</b>	<b>19</b>
<b>4/16/2012-5/13/2012</b>	<b>20</b>

<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>	1	1	1	1	1	1	1	2	2	2	X	2
<b>050.3- Pediatric Emergency Medicine-BMC</b>	2	2	2	2	2	2	2	2	2	2	X	2
<b>051.3- Inpatient Pediatric Medicine-BMC</b>	1	1	1	1	1	1	1	1	1	1	X	1
<b>052.3- Pediatric Intensive Care Unit-BMC</b>	1	1	1	1	1	1	1	1	1	1	X	1
<b>053.0- Pediatric Subinternship- MassGeneral for Children at North Shore Medical Center</b>	1	1	1	1	1	1	1	1	1	1	X	1
<b>057.3- Neonatology-BMC</b>	2	2	2	2	2	2	2	2	2	2	X	2
<b>100.1- Subinternship in Medicine-BMC</b>	10	9	9	9	9	10	10	10	10	10	X	10
<b>100.11-Advanced Acting Internship in Medicine-BMC</b>	X	2	2	2	2	X	X	X	X	X	X	X
<b>201.3- Inpatient Gynecology-BMC</b>	1	1	1	1	1	1	1	1	1	1	X	1
<b>202.3- Maternal-Fetal Medicine-BMC</b>	1	1	1	1	1	1	1	1	1	1	X	1
<b>400.00- General Surgery, Cape Cod</b>	1	1	1	1	1	1	1	1	1	1	X	1
<b>400.1a- General Surgery, Vascular Service-BMC</b>	1	1	1	1	1	1	1	1	1	1	X	1
<b>400.1b- General Surgery, Oncology Service-BMC</b>	1	1	1	1	1	1	1	1	1	1	X	1
<b>400.1c- General Surgery, GI Service-BMC</b>	1	1	1	1	1	1	1	1	1	1	X	1
<b>400.2- General Surgery, VA Boston Healthcare System</b>	2	2	2	2	2	2	2	2	2	2	X	2
<b>400.3- General Surgery, Menino Pavilion-BMC</b>	2	2	2	2	2	2	2	2	2	2	X	2
<b>403.1- Surgical Intensive Care Unit-BMC</b>	3	3	3	3	3	3	3	3	3	3	X	3