



# NEW YORK MEDICAL COLLEGE

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A MEMBER OF THE Touro College  
AND UNIVERSITY SYSTEM

## SCHOOL OF MEDICINE

### VISITING STUDENTS

### Elective Catalogue

2018-2019

**PROCEDURE FOR VISITING STUDENTS**  
**APPLYING FOR ELECTIVE ROTATIONS AT THE NEW YORK MEDICAL COLLEGE**  
**SCHOOL OF MEDICINE**

Since 1860, New York Medical College (NYMC) has trained generations of students from all over the world to deliver skilled and compassionate medical care, explore the basic science questions that lead to important discoveries, and provide leadership in the field of public health and essential services to people with specialized care needs.

We are very pleased that you have chosen New York Medical College School of Medicine (NYMC-SOM) as a site for your clinical education. The following information is being provided to help facilitate your experience with us. The requirements to apply and successfully complete rotations at our institution are listed below:

1. A visiting student must be matriculated at either an LCME accredited medical school, or a school of osteopathic medicine accredited by the American Osteopathic Association, and must be actively progressing toward the M.D. or D.O. degree at that school.
2. Students must be in the final year of training.
3. All electives are four weeks in duration and are available to eligible, qualified students, SPACE PERMITTING. **VISITING STUDENTS MUST COMPLY WITH OUR SCHEDULING PARAMETERS. NO OFF-DATE SCHEDULING WILL BE ACCOMMODATED.**
4. Visiting students are limited to no more than two (2) four-week rotations (8 weeks in total).
5. Once a rotation has been scheduled, if changes or dropping need to be made, this must be done at least 30 days prior to the start of the rotation.
6. Following approval by the NYMC-SOM Office of Student Affairs, the clinical department in which the visiting student has requested assignment will either accept or deny the request based on availability. Not all electives listed in the NYMC-SOM Senior Elective Handbook may be open to visiting students.
7. The VSLO application **must** include (incomplete applications will be ineligible):
  - a. Curriculum Vitae;
  - b. Photo;
  - c. Transcript uploaded by the home medical school;
  - d. Completed AAMC Standardized Immunization Form (**all health documents must be upload as ONE document, do not upload as separate files**)
  - e. Home medical school verification of: Academic Good Standing, anticipated graduation date, OSHA, Infection Control, BLS, Mask fit-testing, HIPAA, medical malpractice insurance coverage (a minimum of \$1 million per occurrence/\$3 million per aggregate), current personal health insurance, criminal background check, dates for clinical core clerkships including but not limited to Surgery, Medicine, Pediatrics, Obstetrics/Gynecology, and Psychiatry, and a passing USMLE Step I or COMLEX.
8. Some hospitals may send additional material to be completed as prerequisite to clinical participation.

9. Students will need a short white coat, name tag and stethoscope. We expect students to maintain a demeanor and appearance commensurate with the professional status of a student physician caring for patients.
10. NYMC-SOM does not provide housing for visiting students.
11. All of the pertinent NYMC-SOM policies & procedures that are in-place for our own students will also be applicable to visiting students as well, with the same obligations and protections including but not limited to the Attendance & Absentee policy, the Academic Integrity and Professionalism policy, and the Technical Standards for Admission and Continued Enrollment. Violation of any school policy may result in immediate withdrawal from the rotation.

## SECTION: ANESTHESIOLOGY

<b>Department:</b>	<b>Anesthesiology</b>
<b>Course Title:</b>	<b>ANESTHESIOLOGY ELECTIVE – ANSM 5101</b>
<b>Prerequisites:</b>	<b>Successful completion of Year 3 of the MD Program</b>
<b>Periods Offered:</b>	<b>Throughout the academic year excluding July</b>
<b>Site(s):</b>	<b>MET, WMC</b>
<b>Clinical/Non-Clinical:</b>	<b>Clinical</b>
<b>Duration of Elective:</b>	<b>1 month</b>
<b>Where/When to report on first day:</b>	<b>Information about where to report on the first day of the elective will be available after you have been assigned to your elective and site. Please note that you may be required to participate in hospital orientation activities on the first day of the rotation if you have never rotated at the assigned site.</b>

**Course Description:** This elective integrates students into the anesthetic team and provides students with an overview of clinical anesthesiology with an emphasis on pre-operative evaluation, anesthetic decision making, airway management, pulmonary and cardiac physiology, anesthetic pharmacology, and basic and invasive monitoring. Students will also have the opportunity to receive instruction in the following technical skills: endotracheal intubation, airway management, central venous cannulation, arterial cannulation, swan ganz catheterization, invasive and noninvasive patient monitoring, and regional anesthesia and nerve blocks. During the elective interested students will have the opportunity to explore several of the anesthetic subspecialties (e.g. OB, cardiac, pediatrics, pain, neuroanesthesia).

### **Goals & Objectives:**

*By the end of this elective students will be able to:*

1. Perform pre-anesthetic evaluations of patients (including history-taking, physical examination, and analysis of common laboratory results) and present these findings in an organized fashion.
2. Understand the basic principles of administering regional and general anesthesia, IV sedation, and monitored care, as well as the side effects and complications of the various anesthetics and anesthetic interaction with surgery.
3. Develop a rational plan of anesthetic management.
4. Be able to assess a patient's respiratory status and develop basic airway management skills, including mask ventilation, tracheal intubation, and laryngeal mask airway insertion.
5. Develop an understanding of the physiologic effects of sedatives, analgesics, and muscle relaxants and be able to recommend appropriate choices of anesthetic therapy in uncomplicated normal patients undergoing non-complex surgeries.
6. Develop proficiency in establishing venous access.
7. Be able to assess a patient's fluid status and recommend appropriate fluid therapy.
8. Understand the principles of basic monitoring, as well as the indications for invasive monitoring. Be able to describe complications from invasive monitoring techniques.
9. List causes for changes in the hemodynamic status of patients and make appropriate recommendations for choices of corrective therapy.

10. Understand post-anesthetic requirements and be able to design a post anesthesia care unit plan for uncomplicated patients with regard to monitoring of vital signs, required testing, and fluid, oxygen, analgesic, and anti-emetic therapy.
11. Demonstrate a professional attitude in this clinical setting.
12. Explain concepts of acute post-operative pain management.

**Method of evaluation:** Students will be evaluated on the following competency domains: medical knowledge, interpersonal and communication skills, self-directed learning, and demonstrated professionalism.

## SECTION: EMERGENCY MEDICINE

<b>Department:</b>	<b>Emergency Medicine</b>
<b>Course Title:</b>	<b>EMERGENCY MEDICINE - EMGM5101</b>
<b>Prerequisites:</b>	<b>Successful completion of Year 3 of the MD Program</b>
<b>Periods Offered:</b>	<b>Throughout the academic year</b>
<b>Site(s):</b>	<b>MET, SJH, BRKDL</b>
<b>Clinical/Non-Clinical:</b>	<b>Clinical</b>
<b>Duration of Elective:</b>	<b>1 month</b>
<b>Where/When to report on first day:</b>	<b>Information about where to report on the first day of the elective will be available after you have been assigned to your elective and site. Please note that you may be required to participate in hospital orientation activities on the first day of the rotation if you have never rotated at the assigned site.</b>

**Course Description:** Students will have the opportunity to gain experience in the initial evaluation, stabilization and management of patients presenting to the emergency department for medical, surgical, and/ or psychiatric complaints. These include cardiac arrest, bronchial asthma, pulmonary edema, hypertensive emergencies, blunt and penetrating trauma, altered mental status, and wound care. Basic technical skills, including wound repair, casting and splinting will also be reviewed.

### **Goals & Objectives:**

**Goals:** The goals of the emergency medicine rotation is familiarize students with the evaluation and initial management of common emergencies, patient triage, and strengthen the student's ability to take a focused history and physical examination.

*By the end of this elective students should be able to:*

**Objectives:** By the end of this elective students should be able to:

1. Demonstrate the ability to evaluate the patient with an undifferentiated chief complaint by performing a complaint-directed H&PE
2. Develop a case specific differential diagnosis and management plan
3. Present patients in a clear and concise fashion
4. Demonstrating an understanding of the use and interpretation of commonly ordered diagnostic studies
5. Demonstrate proficiency with basic procedural skills

**Method of evaluation:** Students will be evaluated on the following competency domains: medical knowledge, interpersonal and communication skills, self-directed learning, and demonstrated professionalism.

**SECTION: MEDICINE**

<b>Department:</b>	<b>Medicine</b>
<b>Course Title:</b>	<b>CARDIOLOGY - CRDM5101</b>
<b>Prerequisites:</b>	<b>Successful completion of Year 3 of the MD Program</b>
<b>Periods Offered:</b>	<b>Throughout the academic year</b>
<b>Site(s):</b>	<b>WMC</b>
<b>Clinical/Non-Clinical:</b>	<b>Clinical</b>
<b>Duration of Elective:</b>	<b>1 month</b>
<b>Where/When to report on first day:</b>	<b>Information about where to report on the first day of the elective will be available after you have been assigned to your elective and site. Please note that you may be required to participate in hospital orientation activities on the first day of the rotation if you have never rotated at the assigned site.</b>

**Course Description:** General cardiology rotation remains part of the “bread and butter” core of internal medicine inpatient rotations. The cardiology service provides care for patients with a wide variety of disorders including acute coronary syndrome, hypertension, angina, atrial fibrillation, ventricular arrhythmias, congestive heart failure, and aortic dissection. During this elective students will gain knowledge about the care of patients with disorders of the heart, including the evaluation and management of disorders cared for by cardiologists. In addition to participating in a busy inpatient consultation service and outpatient clinics, students attend a weekly lecture series and participate in case conferences and journal club.

**Goals & Objectives:**

**Goals:** The goal of this elective is to provide students with an overview of the clinical practice of the subspecialty of cardiology.

**Objectives:**

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

- Demonstrate clinical skills of medical history and physical examination, with specific attention to acute and chronic cardiovascular diseases;
- Demonstrate an understanding of the risk factors, diagnosis, pathophysiology, and management of the common conditions encountered in the field cardiology, including acute coronary syndrome, hypertension, hyperlipidemia, valvular heart disease, angina, atrial fibrillation, ventricular arrhythmias, congestive heart failure, and aortic dissection;
- Demonstrate clinical skill in the diagnosis and management of the Non-ACS chest pain patients;
- Describe the general basis and performance of cardiac catheterization, coronary arteriography, angioplasty, coronary stenting, and cardiac transplant;
- Develop and demonstrate competence in effective and efficient communication with physician colleagues on Cardiology service, physicians from other services, nursing, other health care professionals (e.g. physical therapy, nutrition, social work) and support staff who participate in the management of patients with cardiovascular disease.

**Methods of Evaluation:** Students will be evaluated on the following competency domains: medical knowledge, clinical skills, professionalism, and interpersonal/ communication skills based upon the assessment of faculty and fellows in the department.

**SECTION: MEDICINE**

<b>Department:</b>	<b>Medicine</b>
<b>Course Title:</b>	<b>ENDOCRINOLOGY AND METABOLISM - ENDM5101</b>
<b>Prerequisites:</b>	<b>Successful completion of Year 3 of the MD Program</b>
<b>Periods Offered:</b>	<b>Throughout the academic year</b>
<b>Site(s):</b>	<b>WMC</b>
<b>Clinical/Non-Clinical:</b>	<b>Clinical</b>
<b>Duration of Elective:</b>	<b>1 month</b>
<b>Where/When to report on first day:</b>	<b>Information about where to report on the first day of the elective will be available after you have been assigned to your elective and site. Please note that you may be required to participate in hospital orientation activities on the first day of the rotation if you have never rotated at the assigned site.</b>

**Course Description:** The endocrinology service provides care for patients with a wide variety of disorders including diabetes mellitus, osteoporosis, disorders of the pituitary, thyroid, and adrenal, disorders of calcium metabolism, and disorders of male and female reproduction. During this elective students will gain knowledge of basic endocrinology and develop skills in the evaluation and treatment of these disorders. In addition to participating in a busy inpatient consultation service and outpatient clinics, students attend a weekly lecture series and participate in case conferences and journal club.

**Goals & Objectives:**

**Goals:** The goal of this elective is to provide students with an overview of the clinical practice of the subspecialty of endocrinology.

**Objectives:**

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

Demonstrate an understanding of the diagnosis, pathophysiology, and management of the common conditions encountered in the field endocrinology.

**Methods of Evaluation:** Students will be evaluated on the following competency domains: medical knowledge, clinical skills, professionalism, and interpersonal/ communication skills based upon the assessment of faculty and fellows in the department.

## SECTION: MEDICINE

<b>Department:</b>	<b>Medicine</b>
<b>Course Title:</b>	<b>GASTROENTEROLOGY/HEPATOBIILIARY DISEASE-GSTM5105</b>
<b>Prerequisites:</b>	<b>Successful completion of Year 3 of the MD Program</b>
<b>Periods Offered:</b>	<b>Throughout the academic year</b>
<b>Site(s):</b>	<b>WMC</b>
<b>Clinical/Non-Clinical:</b>	<b>Clinical</b>
<b>Duration of Elective:</b>	<b>1 month</b>
<b>Where/When to report on first day:</b>	<b>Information about where to report on the first day of the elective will be available after you have been assigned to your elective and site. Please note that you may be required to participate in hospital orientation activities on the first day of the rotation if you have never rotated at the assigned site.</b>

**Course Description:** Students will be assigned to the Gastroenterology Service where they will participate fully in the service activities including: work rounds and consultations supervised by GI fellows, daily teaching rounds with the GI Attending on service, weekly clinical conferences with in-depth presentation of difficult patient problems, weekly GI seminars with presentations on pathophysiology of the GI tract and liver, observation of GI endoscopic procedures, and additional conferences including Journal Club, radiology review and liver tumor board.

### **Goals & Objectives:**

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

1. Recognize common inpatient and outpatient gastrointestinal problems
2. Demonstrate knowledge of the principles of the diagnosis and treatment of gastrointestinal and liver disease in both the inpatient and outpatient settings
3. Perform a focused history and physical related to the gastrointestinal system
4. Identify major diagnostic and therapeutic procedures that are used in the field of Gastroenterology including: upper endoscopy, colonoscopy, ERCP, etc. and demonstrate an understanding of the indications, risks and benefits of each procedure

**Methods of Evaluation:** Students are evaluated by the full-time faculty of the Division of Gastroenterology, in conjunction with the Fellows in Gastroenterology based on his/ her active participation in teaching rounds, case presentations, and demonstrated professionalism during the rotation.

## SECTION: MEDICINE

<b>Department:</b>	<b>Medicine</b>
<b>Course Title:</b>	<b>HEMATOLOGY - HEMM5101</b>
<b>Prerequisites:</b>	<b>Successful completion of Year 3 of the MD Program</b>
<b>Periods Offered:</b>	<b>Throughout the academic year</b>
<b>Site(s):</b>	<b>WMC</b>
<b>Clinical/Non-Clinical:</b>	<b>Clinical</b>
<b>Duration of Elective:</b>	<b>1 month</b>
<b>Where/When to report on first day:</b>	<b>Information about where to report on the first day of the elective will be available after you have been assigned to your elective and site. Please note that you may be required to participate in hospital orientation activities on the first day of the rotation if you have never rotated at the assigned site.</b>

**Course Description:** During this elective students will be assigned to the Hematology Service at Westchester Medical Center where they will participate in the activities of the service. Their primary goal will be educational. They will be assigned direct responsibility for following patients assigned to the Hematology Service under the supervision of the Hematology Fellow and an attending Hematologist. They will be provided with computer resources for searching literature on their cases and for accessing the American Society of Hematology slide bank. They will also review pathology slides with an attending Hematologist and Hematopathologist. Students will also attend one hematology clinic session per week and take part in the weekly chemotherapy planning conference. In addition, they will also have an opportunity to perform bone marrow aspirations and biopsies and participate in their interpretation.

### **Goals & Objectives:**

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

1. Demonstrate an understanding of the clinical approach to patients with hematologic disorders.
2. Recognize the components of the evaluation and management of acute and chronic disorders of bleeding and thrombosis, various cytopenias and, assessment of hematologic neoplasias.
3. Acquire skills that include the basic interpretation of peripheral blood and bone marrow smears, and an array of specialized hematologic techniques.

**Methods of Evaluation:** Students are evaluated by the full-time faculty of the Division based on his/ her demonstrated medical knowledge, clinical skills, professionalism, and interpersonal/ communication skills.

## SECTION: MEDICINE

<b>Department:</b>	<b>Medicine</b>
<b>Course Title:</b>	<b>INFECTIOUS DISEASE - INFM5101</b>
<b>Prerequisites:</b>	<b>Successful completion of Year 3 of the MD Program</b>
<b>Periods Offered:</b>	<b>Throughout the academic year</b>
<b>Site(s):</b>	<b>WMC</b>
<b>Clinical/Non-Clinical:</b>	<b>Clinical</b>
<b>Duration of Elective:</b>	<b>1 month</b>
<b>Where/When to report on first day:</b>	<b>Information about where to report on the first day of the elective will be available after you have been assigned to your elective and site. Please note that you may be required to participate in hospital orientation activities on the first day of the rotation if you have never rotated at the assigned site.</b>

**Course Description:** The student will obtain firsthand knowledge and experience in the field of infectious disease through the assessment and management of a variety of acute and chronic infectious diseases in a variety of clinical settings including the hospital consultation service and outpatient clinics. The spectrum of clinical material discussed will include appropriate selection and use of antimicrobial agents for the treatment of common pathogens (Gram positive bacteria, Gram negative bacteria and Fungi), diagnosis and management of bacterial endocarditis, tuberculosis, osteomyelitis, skin and soft tissue infections, post-operative infections, healthcare associated infections, HIV infection, influenza and other viral illnesses, parasitic and fungal infections. The student will work with attending staff to assess and discuss the management of patients. Students will also be expected to present cases and participate in teaching conferences and journal clubs during the elective.

### **Goals & Objectives:**

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

1. Demonstrate the ability to obtain an appropriate history and physical examination of patients with complaints involving infection
2. Demonstrate the use of laboratory and other diagnostic resources in the diagnosis and management of infectious diseases
3. Demonstrate an ability to manage common infectious diseases, including the basic principles of therapy with regard to selection and monitoring of antibiotics and antiviral agents
4. Demonstrate knowledge pertaining to the selection of antimicrobial and use of antimicrobial agents for the treatment of common pathogens.

**Method of evaluation:** Students will be evaluated on the following competency domains: medical knowledge, interpersonal and communication skills, self-directed learning, and demonstrated professionalism.

## SECTION: MEDICINE

<b>Department:</b>	<b>Medicine</b>
<b>Course Title:</b>	<b>NEPHROLOGY - NEPM5101</b>
<b>Prerequisites:</b>	<b>Successful completion of Year 3 of the MD Program</b>
<b>Periods Offered:</b>	<b>Throughout the academic year</b>
<b>Site(s):</b>	<b>WMC</b>
<b>Clinical/Non-Clinical:</b>	<b>Clinical</b>
<b>Duration of Elective:</b>	<b>1 month</b>
<b>Where/When to report on first day:</b>	<b>Information about where to report on the first day of the elective will be available after you have been assigned to your elective and site. Please note that you may be required to participate in hospital orientation activities on the first day of the rotation if you have never rotated at the assigned site.</b>

**Course Description:** This elective affords a broad exposure to all aspects of clinical nephrology and hypertension (water and electrolyte problems, pH problems, acute and chronic renal failure and dialysis, and renal disease including glomerulonephritis). Specific patients are assigned to the students and their cases are reviewed during daily Renal Rounds with the Attending. Students also participate in the weekly Renal Clinics, weekly topic conferences, and weekly Renal Section conferences.

### **Goals & Objectives:**

**Goals:** The goals of this elective are to familiarize the student with the basic principles involved in recognition, diagnosis, and treatment of acute and chronic renal disease.

### **Objectives:**

*By the end of this elective students should be able to:*

1. Perform a proper history and clinical exam with special attention to renal-related issues
2. Diagnose and manage acute and chronic medical problems in patients with renal disease and renal failure
3. Understand, analyze and interpret the pathophysiology of renal-related issues, acid base and electrolyte problems.

**Method of Evaluation:** Students will be assessed in the following domains: medical knowledge, interpersonal and communication skills, self-directed learning, and demonstrated professionalism.

## SECTION: MEDICINE

<b>Department:</b>	<b>Medicine</b>
<b>Course Title:</b>	<b>PULMONARY - PULM5101</b>
<b>Prerequisites:</b>	<b>Successful completion of Year 3 of the MD Program</b>
<b>Periods Offered:</b>	<b>Throughout the academic year</b>
<b>Site(s):</b>	<b>WMC</b>
<b>Clinical/Non-Clinical:</b>	<b>Clinical</b>
<b>Duration of Elective:</b>	<b>1 month</b>
<b>Where/When to report on first day:</b>	<b>Information about where to report on the first day of the elective will be available after you have been assigned to your elective and site. Please note that you may be required to participate in hospital orientation activities on the first day of the rotation if you have never rotated at the assigned site.</b>

**Course Description:** The elective is intended to familiarize students in all aspects of pulmonary-critical care medicine, including respiratory intensive care, chronic obstruction pulmonary disease, tuberculosis, carcinoma of the lung, and interstitial disease. Students will attend case conferences, weekly clinics where ambulatory pulmonary problems, including long term follow-up of cases are seen. Students will also be exposed to pulmonary function testing and interpretation, and ventilator care. Special emphasis is given in interpretation and correlation of chest x-rays with clinical problems. In addition, students will assist in endoscopic examinations where direct correlation of gross pathology and microscopic sampling with clinical diagnosis will be made.

### **Goals & Objectives:**

**Goals:** The goals of this elective are to provide students with a basic understanding of pulmonary medicine, with an approach based on clinical symptomatology and diagnosis related to pathophysiology of disease. The course emphasizes the application of theory, pathophysiology and interpretation of x-ray and pulmonary function data to clinical pulmonary problems.

### **Objectives:**

*By the end of this elective the student be able to:*

apply rational principles of treatment to patients with both acute and chronic pulmonary problems.

**Method of Evaluation:** Students will be evaluated by the faculty on their daily activities including case presentations, delivery of prepared topics and overall performance. The evaluation will cover the following competency domains: medical knowledge, interpersonal and communication skills, self-directed learning, and demonstrated professionalism.

## SECTION: MEDICINE

<b>Department:</b>	<b>Medicine</b>
<b>Course Title:</b>	<b>RHEUMATOLOGY - RHUM5101</b>
<b>Prerequisites:</b>	<b>Successful completion of Year 3 of the MD Program</b>
<b>Periods Offered:</b>	<b>Throughout the academic year</b>
<b>Site(s):</b>	<b>WMC</b>
<b>Clinical/Non-Clinical:</b>	<b>Clinical</b>
<b>Duration of Elective:</b>	<b>1 month</b>
<b>Where/When to report on first day:</b>	<b>Information about where to report on the first day of the elective will be available after you have been assigned to your elective and site. Please note that you may be required to participate in hospital orientation activities on the first day of the rotation if you have never rotated at the assigned site.</b>

**Course Description:** Students will see patients of all ages with a wide variety of arthritic and connective tissue diseases. Rheumatoid arthritis, systemic lupus erythematosus, and Lyme arthritis are just some of the diseases covered. Patients will be evaluated in a variety of settings including hospital consultations, clinics, and faculty office practice. Students will participate in x-ray rounds, clinical conferences and journal clubs, and will acquire an understanding of immunological testing in rheumatic diseases.

Students will increasingly understand that rheumatology is not only a resource for those interested in Internal Medicine, but instructive to all medical and surgical specialties.

### **Goals & Objectives:**

**Goals:** The goal of this elective is to familiarize the student with the clinical approach to a spectrum of rheumatic disease problems, and the scientific and clinical foundation of rheumatology.

### **Objectives:**

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

demonstrate the ability to diagnose and manage patients with diseases of the bones and joints.

**Method of Evaluation:** Students will be evaluated by the faculty on their daily activities including case presentations, delivery of prepared topics and overall performance. The domains assessed will include fund of knowledge, interpersonal/communication skills, and demonstrated professionalism.

## SECTION: NEUROLOGY

<b>Department:</b>	<b>Neurology</b>
<b>Course Title:</b>	<b>NEUROVASCULAR DISEASE - NROM5104</b>
<b>Prerequisites:</b>	<b>Successful completion of Year 3 of the MD Program</b>
<b>Periods Offered:</b>	<b>September through June</b>
<b>Site(s):</b>	<b>WMC</b>
<b>Clinical/Non-Clinical:</b>	<b>Clinical</b>
<b>Duration of Elective:</b>	<b>1 month</b>
<b>Where/When to report on first day:</b>	<b>Information about where to report on the first day of the elective will be available after you have been assigned to your elective and site. Please note that you may be required to participate in hospital orientation activities on the first day of the rotation if you have never rotated at the assigned site.</b>

**Course Description:** The student will be assigned to the Neurovascular Fellow and /or resident on service with whom he or she will make daily rounds on patients with cerebrovascular diseases on the Neurology in-patient and consultation services. The clinical aspects of cerebrovascular disease will be correlated with other studies when possible such as: cervical duplex, transcranial ultrasound, CT scans, MRI and 4-vessel angiography. The student will independently examine patients and formulate a diagnostic impression and plan of management and will be closely supervised by the resident/fellow. The cases will be reviewed and discussed in detail with the attending neurologist. The student will be allowed to attend various departmental conferences and teaching sessions. Special emphasis will be placed on reading and the review of the literature pertinent to cerebrovascular disease. The opportunity to engage in clinical research may be available.

### **Goals & Objectives:**

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

demonstrate skills in obtaining histories, examining patients, and formulating differential diagnoses and plans for evaluation of patients with cerebrovascular disease.

**Methods of Evaluation:** The student will be evaluated by the faculty on their interpersonal/communication skills, demonstrated patient care, and professionalism

## SECTION: PEDIATRICS

<b>Department:</b>	<b>Pediatrics</b>
<b>Course Title:</b>	<b>CHILD ABUSE PEDIATRICS - PEDM5103</b>
<b>Prerequisites:</b>	<b>Successful completion of Year 3 of the MD Program</b>
<b>Periods Offered:</b>	<b>Throughout the academic year</b>
<b>Site(s):</b>	<b>MFCH</b>
<b>Clinical/Non-Clinical:</b>	<b>Clinical</b>
<b>Duration of Elective:</b>	<b>1 month</b>
<b>Where/When to report on first day:</b>	<b>Information about where to report on the first day of the elective will be available after you have been assigned to your elective and site. Please note that you may be required to participate in hospital orientation activities on the first day of the rotation if you have never rotated at the assigned site. Paperwork for the elective must be completed and submitted to the coordinator 1 month prior to the start of the elective. Forms can be found on LCMS+ /SOM Year 4/ Electives page.</b>

**Course Description:** During this elective, the medical student will participate in activities with Child Abuse Pediatrics both at the Maria Fareri Children's Hospital and the Children's Advocacy Center (CAC) at the Westchester Institute for Human Development, which is located in Cedarwood Hall on the NYMC Campus. Multi-disciplinary assessments of children and adolescents with concerns for abuse are conducted at the CAC using state-of-the-art forensic medical and interviewing techniques. Further, the student will participate in educationally relevant and valuable off-site activities, including multi-disciplinary team meetings, grand jury and trial testimony, autopsies, and inpatient consults at the Maria Fareri Children's Hospital. Finally, the medical student will be required to participate in ongoing research at the center on the topic of disclosures of sexual abuse, which will involve chart review and data collection.

### **Goals & Objectives:**

**Goals:** The goal of this elective is to allow students to gain an awareness of the multi-disciplinary evaluation of the child or adolescent suspected of being abused including the forensic interview, medical examination, and the roles of law enforcement, prosecution and child protective services.

### **Objectives:**

*By the end of the elective the students should be able to:*

1. Understand basic principles of child abuse pediatrics research.
2. Understand basic medical issues related to child abuse pediatrics.
3. Demonstrate an understanding of the dynamics of forensic interviewing techniques and the multidisciplinary team format.
4. Formulate a differential diagnosis of suspected sexual abuse and physical abuse injuries and identify common sexual abuse imitators.
5. Review forensic genital examinations on male and female children using colposcopy with video/photo documentation.
6. Summarize the communication of medical findings of genital colposcopy to members of the multidisciplinary team in appropriate terms.

7. Employ appropriate documentation for abuse cases and understand basic genital anatomy in males and females.
8. Understand basic literature on head trauma, fractures, skin trauma and other aspects of physical abuse evaluations.
9. Understand and complete a literature review specific to issues in a physical abuse case.
10. Understand the role of a child fatality review team.
11. Describe the common presentations of child sexual abuse cases and the appropriate initial work-up in such cases.
12. Describe acute evidence collection examination protocols, including STD prophylaxis and the appropriate timing and methods for collection of a rape kit.
13. Demonstrate understanding of the reporting laws for child abuse, how to complete a mandated reporting form, and what happens once a report is made.
14. Describe the community services available for the investigation and treatment of child abuse cases.

**Methods of Evaluation:** Students will be assessed on their demonstrated clinical skills, medical knowledge, interpersonal communication skills and professional qualities as demonstrated through the following:

- Participation in CAC case reviews, and other departmental conferences, patient assessments.
- 15 minute presentation during the last week of rotation.
- Pre- and post-testing of basic child abuse knowledge using a questionnaire.
- Elective director/designee feedback mid-elective and evaluation after elective.

## SECTION: PEDIATRICS

<b>Department:</b>	<b>Pediatrics</b>
<b>Course Title:</b>	<b>PEDIATRIC CARDIOLOGY - PEDM5129</b>
<b>Prerequisites:</b>	<b>Successful completion of Year 3 of the MD Program</b>
<b>Periods Offered:</b>	<b>Throughout the academic year</b>
<b>Site(s):</b>	<b>MFCH</b>
<b>Clinical/Non-Clinical:</b>	<b>Clinical</b>
<b>Duration of Elective:</b>	<b>1 month</b>
<b>Where/When to report on first day:</b>	<b>Information about where to report on the first day of the elective will be available after you have been assigned to your elective and site. Please note that you may be required to participate in hospital orientation activities on the first day of the rotation if you have never rotated at the assigned site.</b>

**Course Description:** Pediatric cardiovascular problems offer a unique opportunity for the student to integrate an understanding of physiology with clinical medicine. During this elective, the student will have an opportunity to participate in outpatient and inpatient evaluation of cardiac problems and to follow patients through non-invasive diagnostic work-up and management. The student will also have an opportunity to observe cardiac catheterizations, cardiothoracic surgical procedures and to become involved in perioperative care as there is a close relationship between pediatric cardiology and cardiothoracic surgery. A full series of conferences and an opportunity for clinical research supplements this program.

### **Goals & Objectives:**

**Goals:** The goal of this elective is to expose the student to the spectrum of pediatric cardiovascular disease.

### **Objectives:**

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

1. Demonstrate insight into the evaluation and management of pediatric cardiovascular disorders.
2. Demonstrate the ability to do a thorough history of patients with a cardiovascular complaint and
3. Demonstrate the ability to perform cardiac auscultation
4. Understand the rationale for using noninvasive/ invasive diagnostic techniques in the evaluation and treatment of pediatric patients with cardiovascular issues including: echocardiography, cardiac catheterization, electrophysiology, cardiothoracic surgery
5. Understand the elements of the perioperative care of the infant and child with congenital heart disease.

**Methods of Evaluation:** Students are under the direct supervision of the attending staff and will be evaluated on the basis of clinical skills developed during the elective including communication skills, physical examination/ technical skills, professional behaviors and medical knowledge.

## **SECTION: PEDIATRICS**

<b>Department:</b>	<b>Pediatrics</b>
<b>Course Title:</b>	<b>DEVELOPMENTAL PEDIATRICS AND DISABILITIES - PEDM5108</b>
<b>Prerequisites:</b>	<b>Successful completion of Year 3 of the MD Program</b>
<b>Periods Offered:</b>	<b>Throughout the academic year</b>
<b>Site(s):</b>	<b>MFCH</b>
<b>Clinical/Non-Clinical:</b>	<b>Clinical</b>
<b>Duration of Elective:</b>	<b>1 month</b>
<b>Where/When to report on first day:</b>	<b>Information about where to report on the first day of the elective will be available after you have been assigned to your elective and site. Please note that you may be required to participate in hospital orientation activities on the first day of the rotation if you have never rotated at the assigned site.</b>

### **Course Description:**

The section of Developmental Pediatrics provides clinical services for children with known developmental disabilities and those who are at risk for developing disabilities. The clinical entities that students will have an opportunity to learn about include mental retardation, cerebral palsy, spina bifida, seizure disorders, learning disabilities, attention deficit disorder, lead intoxication, behavior disorders, and other developmental problems. This elective will give students an opportunity to participate in the interview and examination of patients under

supervision, and have the opportunity to observe patients during the different evaluations during the multidisciplinary assessment process. This includes outpatient evaluations and inpatient consultations. Through participation and observation, the student becomes familiar with developmental screening and testing, psychometric testing, speech and language testing, and hearing testing. Didactic opportunities available during the elective include scheduled lectures, grand rounds and conferences.

**Goals & Objectives:**

**Goals:** The goal of this elective is to familiarize students with the causes, diagnoses and treatment of developmental disabilities.

**Objectives:**

*By the end of this elective and be able to:*

2. Evaluate children exhibiting delays in their developmental progress, either in a specific area, such as motor skills or language skills, or global delays in all areas of development
3. Demonstrate an understanding of how to evaluate and treat children with attention problems and hyperactivity
4. Demonstrate an understanding of how to evaluate and remediate learning difficulties;
5. Recognize the scope of diagnosis and treatment of children with Physical Rehabilitation (Physiatry) needs
6. List the scope of related services available for the disabled in the following areas: Audiology, Early Intervention, Occupational Therapy, Physical Therapy, Psychiatry, Psychology, Social Work, Speech and Language.

**Methods of Evaluation:** Students will be evaluated on the following competency domains: medical knowledge, interpersonal and communication skills, self-directed learning, and demonstrated professionalism.

**SECTION: PEDIATRICS**

<b>Department:</b>	<b>Pediatrics</b>
<b>Course Title:</b>	<b>PEDIATRIC ENDOCRINOLOGY - PEDM5123</b>
<b>Prerequisites:</b>	<b>Successful completion of Year 3 of the MD Program</b>
<b>Periods Offered:</b>	<b>Throughout the academic year</b>
<b>Site(s):</b>	<b>MFCH</b>
<b>Clinical/Non-Clinical:</b>	<b>Clinical</b>
<b>Duration of Elective:</b>	<b>1 month</b>
<b>Where/When to report on first day:</b>	<b>Information about where to report on the first day of the elective will be available after you have been assigned to your elective and site. Please note that you may be required to participate in hospital orientation activities on the first day of the rotation if you have never rotated at the assigned site.</b>

**Course Description:** The pediatric endocrinology service provides care for patients with a wide variety of disorders including diabetes, and disorders of the pituitary, thyroid, and adrenal glands.

During this elective students will gain knowledge of basic endocrinology and develop skills in the evaluation and treatment of these disorders.

**Goals & Objectives:**

**Goals:** The goal of this elective is to provide students with an overview of the clinical practice of the subspecialty of endocrinology.

**Objectives:**

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

Demonstrate an understanding of the diagnosis, pathophysiology, and management of the common conditions encountered in the field endocrinology.

**Methods of Evaluation:** Students are under the direct supervision of the faculty and will be evaluated on the basis of clinical skills developed during the elective including communication skills, physical examination/ technical skills, professional behaviors and medical knowledge.

**SECTION: PEDIATRICS**

<b>Department:</b>	<b>Pediatrics</b>
<b>Course Title:</b>	<b>PEDIATRIC GI &amp; HEPATOBILIARY DISEASE - PEDM5130</b>
<b>Prerequisites:</b>	<b>Successful completion of Year 3 of the MD Program</b>
<b>Periods Offered:</b>	<b>Throughout the academic year</b>
<b>Site(s):</b>	<b>MFCH</b>
<b>Clinical/Non-Clinical:</b>	<b>Clinical</b>
<b>Duration of Elective:</b>	<b>1 month</b>
<b>Where/When to report on first day:</b>	<b>Information about where to report on the first day of the elective will be available after you have been assigned to your elective and site. Please note that you may be required to participate in hospital orientation activities on the first day of the rotation if you have never rotated at the assigned site.</b>

**Course Description:** The elective program in gastroenterology and nutrition will provide a clinical experience in through the evaluation of patients on the inpatient and outpatient services of the MFCH. Students will be expected to participate in the assessment of patients in the outpatient practice as well as participate in ward rounds with the Attending and function as an integral part of the patient care team as well.

Students are expected to attend clinical conferences, grand rounds and encouraged to view endoscopic procedures and to be involved with the Ambulatory admission of these patients.

**Goals & Objectives:**

**Goals:** The goal of this elective is to familiarize the student with the structure and function of the gastrointestinal tract, liver and pancreas and to recognize the pathological disorders and pathophysiology of common gastrointestinal disorders effecting children.

**Objectives:**

*By the end of the elective the students should be able to:*

1. Demonstrate an understanding of the structure and function of the gastrointestinal tract, liver and pancreas.
2. Recognize pathological functional disorders
3. Demonstrate an understanding of the pathophysiology of common gastrointestinal disorders.
4. Demonstrate the assessment and management of common gastrointestinal disorders
5. Recognize the indications, contraindications and risks of diagnostic procedures used in pediatric gastroenterology.
6. Recognize the components of diet and adequate nutrition, how to evaluate nutritional status, and alternative routes of nutrition used in clinical practice.

**Methods of Evaluation:**

Faculty will assess students based on demonstrated clinical performance, interpersonal/communication skills, medical knowledge, and professionalism.

**SECTION: PEDIATRICS**

<b>Department:</b>	<b>Pediatrics</b>
<b>Course Title:</b>	<b>PEDIATRIC HEMATOLOGY/ONCOLOGY - PEDM5131</b>
<b>Prerequisites:</b>	<b>Successful completion of Year 3 of the MD Program</b>
<b>Periods Offered:</b>	<b>Throughout the academic year</b>
<b>Site(s):</b>	<b>MFCH</b>
<b>Clinical/Non-Clinical:</b>	<b>Clinical</b>
<b>Duration of Elective:</b>	<b>1 month</b>
<b>Where/When to report on first day:</b>	<b>Information about where to report on the first day of the elective will be available after you have been assigned to your elective and site. Please note that you may be required to participate in hospital orientation activities on the first day of the rotation if you have never rotated at the assigned site.</b>

**Course Description:** The elective program in pediatric hematology/oncology will provide a clinical experience in through the evaluation of patients on the inpatient and outpatient services of the MFCH with diseases of the blood and cancer. During this experience students will be expected to:

1. Round with the inpatient team on assigned days, choose 3-4 patients per week that you will be responsible for following up on their care, writing notes, communicating with resident team, etc.
2. Assist in the evaluation and follow up of oncology patients in the infusion center. This means follow up history and physical with documentation of the medical decision plan to be done in conjunction with the infusion center nurses and physicians.
3. Choose any two hematology, oncology or BMT topics that are of interest to you and prepare a short 10-15 min oral teaching session with the resident team during Friday morning Heme/Onc rounds. The attending on service will be available to help expand any

teaching points that come up during your presentation and can help direct you to any good literature on the subject. It is probably more useful if the topic relates to a patient currently in the hospital; however this is not a requirement. It can be broad (i.e. work up of pediatric anemias, principles of bone marrow transplant) or specific (i.e. Acute lymphoblastic leukemia, Sickle cell crisis). This should not be a formal presentation but you may give handouts if you'd like.

### **Goals & Objectives:**

**Goals:** The goals of this elective are to:

1. Familiarize the student with the wide variety of illness the subspecialty encompasses from benign anemia to aggressive malignancy and to recognize the pathological disorders and pathophysiology of common hematologic and oncologic disorders effecting children.
2. Understand the diversity of treatment settings – specifically acute care in the hospital setting, long term chronic care, chemotherapy infusions and monitoring, and consultation visits.
3. Appreciate the differences in inpatient acute care and management vs. outpatient follow up and treatment

### **Objectives:**

*By the end of the elective the students should be able to:*

#### *Hematology Specific*

1. Demonstrate a basic understanding of sickle cell disease and its long term complications vs. acute sickle cell crises and their management.
2. Describe the basic work up of anemia in the pediatric patient.
3. Describe the basic work up of coagulopathies and thrombotic disease.

#### *Oncology Specific*

1. Demonstrate a basic understanding of the types of cancers that we most commonly see in pediatrics (Leukemia, Lymphoma, CNS tumors, Common solid tumors)
2. Describe the basic concepts of chemotherapy classes and how treatment protocols are designed to provide Induction, Consolidation and Maintenance phases.
3. Define the monitoring that is required during chemotherapy treatment (both inpatient and outpatient) as well as common long term side effects.
4. Demonstrate an understanding about the management principles behind fever and neutropenia in the immunocompromised patient.

#### *Bone Marrow and Stem Cell Specific*

1. Demonstrate a basic knowledge of which types of diseases can currently be cured with bone marrow transplant – both malignant and non-malignant.
2. Describe the implications for bone marrow transplant in malignant disease (up front vs. relapse disease, autologous SCT vs. allogeneic) and non-malignant disease.
3. Demonstrate an understanding about the basic concepts of bone marrow and stem cell transplant – types of stem cell sources, types of conditioning regimens, what supportive care is needed and why, what are the most common and toxic complications of transplant.

**Methods of Evaluation:** Faculty will assess students based on demonstrated clinical performance, interpersonal/ communication skills, medical knowledge, and professionalism.

## SECTION: PEDIATRICS

<b>Department:</b>	<b>Pediatrics</b>
<b>Course Title:</b>	<b>PEDIATRIC INFECTIOUS DISEASES - PEDM5124</b>
<b>Prerequisites:</b>	<b>Successful completion of Year 3 of the MD Program</b>
<b>Periods Offered:</b>	<b>Throughout the academic year</b>
<b>Site(s):</b>	<b>MFCH</b>
<b>Clinical/Non-Clinical:</b>	<b>Clinical</b>
<b>Duration of Elective:</b>	<b>1 month</b>
<b>Where/When to report on first day:</b>	<b>Information about where to report on the first day of the elective will be available after you have been assigned to your elective and site. Please note that you may be required to participate in hospital orientation activities on the first day of the rotation if you have never rotated at the assigned site.</b>

**Course Description:** During the pediatric infectious diseases elective, students will have the opportunity to round with the Pediatric Infectious Diseases attending and resident on patients admitted to the Maria Fareri Children’s Hospital and attend outpatient subspecialty clinics. The student will be expected to follow the daily course of patients on the Pediatric Infectious Diseases service, to present daily to the attending and to write progress notes. Emphasis will be on a “problem-focused” approach to patient care. The student will be expected to assess at least two new patients per week and to review two to three topics during the rotation and present it to the members of the ID team. Introductory texts and review articles will be provided for use during the rotation.

### **Goals & Objectives:**

**Goals:** The goal of this elective is to provide students with an appreciation of the approach and management of pediatric patients with infectious diseases.

### **Objectives:**

*By the end of the elective, the students should be able to:*

1. Demonstrate the ability to perform an infectious disease history, physical examination and interpret laboratory tests related to infectious diseases.
2. Recognize the elements of a Pediatric Infectious Diseases consult, including how to organize the case for presentation to the attending.
3. Recognize the signs and symptoms, most common organisms, most appropriate diagnostic testing methods associated with specific pediatric infectious diseases including but not limited to pneumonia, urinary tract infections, skin and soft tissue infections, bone and joint infections, meningitis, sepsis, HIV, tuberculosis
4. Demonstrate knowledge about the appropriate use of antibiotics.
5. Understand the rationale behind common infection control practices for specific infectious diseases.
6. List examples of key pediatric infectious diseases resources for the general practitioner.

**Methods of Evaluation:** The student will be evaluated by the faculty based on their clinical presentations, clinical skills and growth in their basic knowledge of infectious diseases as evidenced in their write-ups and discussions during rounds. A take-home test is provided at the beginning of the rotation to allow the student to take a problem based approach to the relevant material and provide information for discussion during the rotation with the team.

## SECTION: PEDIATRICS

<b>Department:</b>	<b>Pediatrics</b>
<b>Course Title:</b>	<b>PEDIATRIC NEPHROLOGY - PEDM5111</b>
<b>Prerequisites:</b>	<b>Successful completion of Year 3 of the MD Program</b>
<b>Periods Offered:</b>	<b>Throughout the academic year</b>
<b>Site(s):</b>	<b>MFCH</b>
<b>Clinical/Non-Clinical:</b>	<b>Clinical</b>
<b>Duration of Elective:</b>	<b>1 month</b>
<b>Where/When to report on first day:</b>	<b>Information about where to report on the first day of the elective will be available after you have been assigned to your elective and site. Please note that you may be required to participate in hospital orientation activities on the first day of the rotation if you have never rotated at the assigned site.</b>

**Course Description:** During the elective the student will participate fully in the activities of this subspecialty department in both the inpatient and outpatient setting. The student will round with Nephrology attending on admitted patients at Maria Fareri Children’s Hospital and follow the patients daily. The student will also participate in outpatient clinic under supervision of Nephrology attending 2-3 times a week, weekly pediatric nephrology clinical conference, monthly journal club and monthly renal pathology conference.

Basic reading and seminars are assigned to cover developmental nephrology, renal physiology and pathology. The interpretation of laboratory and other diagnostic data in the clinical setting of disorders of electrolytes, acid base balance and various renal diseases in children and neonates is stressed.

### **Goals & Objectives:**

**Goals:** The goal of the pediatric nephrology elective is to provide students with an exposure to acute and chronic pediatric renal disorders, including the care of children on dialysis and post-kidney transplant.

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

1. Demonstrate an understanding of the basic principles of renal physiology and pediatric nephrology.
2. Demonstrate an understanding of common nephrology syndromes and diseases, approaches do to differential diagnosis and treatment.

**Methods Of Evaluation:** Direct observation by the Program Director or attending nephrologist, based on clinical performance/ demonstrated patient care, fund of knowledge, interpersonal/ communication skills, case presentations/ seminar topics, and professionalism.

## SECTION: PEDIATRICS

<b>Department:</b>	<b>Pediatrics</b>
<b>Course Title:</b>	<b>PEDIATRIC PULMONARY DISEASE - PEDM5113</b>
<b>Prerequisites:</b>	<b>Successful completion of Year 3 of the MD Program</b>
<b>Periods Offered:</b>	<b>Throughout the academic year</b>
<b>Site(s):</b>	<b>MFCH</b>
<b>Clinical/Non-Clinical:</b>	<b>Clinical</b>
<b>Duration of Elective:</b>	<b>1 month</b>
<b>Where/When to report on first day:</b>	<b>Information about where to report on the first day of the elective will be available after you have been assigned to your elective and site. Please note that you may be required to participate in hospital orientation activities on the first day of the rotation if you have never rotated at the assigned site.</b>

**Course Description:** On day 1, the student will meet with a faculty member for orientation, during which they will be given an individualized schedule assuring a well-rounded experience in both outpatient and inpatient settings.

***Inpatient:*** During their inpatient experience, students will assist and augment the work of the pediatric pulmonology fellows and attendings on work rounds, teaching rounds; including completing new consultations in all areas of the Maria Fareri Children's Hospital (emergency department, pediatric ICU, neonatal ICU, and medical/surgical units); and managing inpatients on the pediatric pulmonology service. Students will be expected to participate in family-centered rounds with the floor teams. If possible, students will also join the pediatric pulmonology inpatient team in the performance of flexible bronchoscopy when required.

***Outpatient:*** The bulk of the experience will be in the outpatient setting, where students will participate in the office care of children with a wide spectrum of respiratory disorders. The Pediatric Pulmonology division has a very busy outpatient program, with over 150 children seen per week in their suite at 19 Bradhurst Avenue, across the Sprain from Westchester Medical Center. Students will have the opportunity to work one-on-one with a large group of pediatric pulmonologists during their consultative hours. During this experience, students will focus on applying respiratory physiologic principles to the diagnosis and management of children with respiratory disorders, and become comfortable with the integration of pulmonary function tests into the management of asthma and other conditions. Additionally, students will attend the Chest Clinic once a week where they will have the opportunity to interview, examine and present patients to the Clinic Attending. Students will be encouraged to observe the performance of full PFTs in the PFT laboratory as well as observe the performance of a sweat test.

***Didactic:*** The pediatric pulmonology division has 4 hours of conferences per week, and the students on elective are expected to attend and participate in all of them. These include a wide range of both basic science and clinical science topics as part of the curriculum for our fellowship in pediatric pulmonology. This also includes sessions given by both pediatric pulmonology fellows and faculty. At the beginning of their elective, each student will be given the opportunity to prepare and present a short topic of their choice in pediatric pulmonology towards the end of their elective.

**Research:** The division participates in several clinical trials throughout the year. The research offices are in the same clinical suite as our outpatient program. Students will be expected to learn about these research projects, usually involving patients with asthma or cystic fibrosis. Though not required, many students choose to assist our physicians and research coordinators during study visits, really learning what it is like to complete clinical trials in children.

**Goals & Objectives:**

**Goals:** The goal of this elective is to familiarize students with the spectrum of lung disorders effecting pediatric patients.

**Objectives:**

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

1. Demonstrate an understanding of the diagnosis and management of childhood respiratory diseases, including croup, bronchiolitis, asthma, pneumonia, cystic fibrosis, bronchopulmonary dysplasia, and respiratory illness in neurologically impaired children.
2. Perform and to interpret pulmonary function tests, and how to use such tests in clinical practice in children of all ages.
3. Apply respiratory physiological principles to the management of children with respiratory disease.
4. Demonstrate the ability to obtain an environmental history and how to incorporate that into clinical practice.
5. Appreciate the importance of clinical trials research in children with respiratory disease.

**Methods of Evaluation:** Individual evaluation by the faculty on both inpatient service and in the outpatient setting based upon the student’s medical knowledge, communication skills, demonstrated patient care, and professional qualities.

**SECTION: PSYCHIATRY**

<b>Department:</b>	<b>Psychiatry</b>
<b>Course Title:</b>	<b>ADULT INPATIENT PSYCHIATRY -PSYM5102</b>
<b>Prerequisites:</b>	<b>Successful completion of Year 3 of the MD Program</b>
<b>Periods Offered:</b>	<b>Throughout the academic year</b>
<b>Site(s):</b>	<b>WMC</b>
<b>Clinical/Non-Clinical:</b>	<b>Clinical</b>
<b>Duration of Elective:</b>	<b>1 month</b>
<b>Where/When to report on first day:</b>	<b>Information about where to report on the first day of the elective will be available after you have been assigned to your elective and site. Please note that you may be required to participate in hospital orientation activities on the first day of the rotation if you have never rotated at the assigned site.</b>

**Course Description:** During this elective the student functions as an integral member of the treatment team. Clinical responsibilities include psychiatric intake, evaluation, management and disposition planning of specifically assigned patients under the close supervision of an attending psychiatrist. The student gains skills in psychiatric examination and evaluation, interviewing

techniques, psychopharmacology and is offered some beginning experience in psychotherapeutic techniques.

Students will experience firsthand the daily roles of an inpatient psychiatrist. Through patient interactions, students will have exposure to a wide variety of psychiatric illnesses. Students will have the opportunity to observe the longitudinal course of chronic psychiatric illnesses and participate in patient treatment from acute management to long-term care.

There are many learning opportunities for students including lectures and weekly Grand Rounds. In addition, students have opportunities to be involved with teaching, including supervising third year students, giving lectures, and participating in the education day that will prepare third year students for their psychiatry shelf examination.

**Goals and Objectives:**

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

1. Demonstrate the ability to assess and manage a patient presenting with an acute psychiatric complaint
2. List the components of discharge planning involved with psychiatric patients after discharge from an inpatient hospitalization
3. Demonstrate an understanding of the major classes of medications used in the treatment of psychiatric conditions

**Method of Evaluation:** Students will be evaluated on the following competency domains: medical knowledge, interpersonal and communication skills, self-directed learning, and demonstrated professionalism.

**SECTION: PSYCHIATRY**

<b>Department:</b>	<b>Psychiatry</b>
<b>Course Title:</b>	<b>CONSULTATION/LIAISON PSYCHIATRY - PSYM5105</b>
<b>Prerequisites:</b>	<b>Successful completion of Year 3 of the MD Program</b>
<b>Periods Offered:</b>	<b>Throughout the academic year</b>
<b>Site(s):</b>	<b>WMC</b>
<b>Clinical/Non-Clinical:</b>	<b>Clinical</b>
<b>Duration of Elective:</b>	<b>1 month</b>
<b>Where/When to report on first day:</b>	<b>Information about where to report on the first day of the elective will be available after you have been assigned to your elective and site. Please note that you may be required to participate in hospital orientation activities on the first day of the rotation if you have never rotated at the assigned site.</b>

**Course Description:** The student is responsible for responding to psychiatric consultations from medical, surgical, critical care, and other services. Duties include psychiatric examination and evaluation of patients, consultation with staff of various medical services and attendance at conferences and rounds. Students will have the opportunity to work one on one with a board certified consultation/liaison psychiatrist.

Students will have the opportunity to observe psychiatric manifestations in an acute medical setting. Students will gain knowledge of basic principles of psychosomatic medicine and learn to integrate psychiatric and medical care. Students will be exposed to a wide variety of cases and will gain clinical reasoning skills in assessing and treating psychiatric components of medical illnesses.

**Goals and Objectives:**

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

1. Demonstrate the ability to assess and manage a patient presenting with an acute psychiatric complaint on a medical, surgical or critical care service
2. Demonstrate an understanding of the major classes of medications used in the treatment of psychiatric conditions

**Method of Evaluation:** Students will be evaluated on the following competency domains: medical knowledge, interpersonal and communication skills, self-directed learning, and demonstrated professionalism.

**SECTION: PSYCHIATRY**

<b>Department:</b>	<b>Psychiatry</b>
<b>Course Title:</b>	<b>PSYCHIATRIC EMERGENCY ROOM - PSYM5112</b>
<b>Prerequisites:</b>	<b>Successful completion of Year 3 of the MD Program</b>
<b>Periods Offered:</b>	<b>Throughout the academic year</b>
<b>Site(s):</b>	<b>WMC</b>
<b>Clinical/Non-Clinical:</b>	<b>Clinical</b>
<b>Duration of Elective:</b>	<b>1 month</b>
<b>Where/When to report on first day:</b>	<b>Information about where to report on the first day of the elective will be available after you have been assigned to your elective and site. Please note that you may be required to participate in hospital orientation activities on the first day of the rotation if you have never rotated at the assigned site.</b>

**Course Description:** During this elective the student will participate in the initial evaluation at the emergency room and be a part of the decision of psychiatric admission including mental status examination, physical examination, review of laboratory data, be familiar with the legal documents (voluntary vs. involuntary admission) and will also learn how to place the initial orders when a patient is admitted to the floor including psychopharmacology and the level of monitoring (constant observation vs. Q15 minute checks). Student will also be familiar with the detoxification protocols in the treatment of substance withdrawal.

The student will also be familiar with clinical steps made when patients are not admitted and are referred back to the community which involves, besides the psychiatric evaluation of the patient, contact with the families and friends to gather collateral information and make proper referral for the outpatient follow-up.

**Goals and Objectives:**

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

1. Demonstrate the ability to assess and manage a patient presenting with an acute psychiatric complaint
2. Demonstrate an understanding of the major classes of medications used in the treatment of psychiatric conditions
3. Understand to components of hospitalization of psychiatric patients
4. List the components of a detoxification protocol for patients admitted with substance abuse

**Method of Evaluation:** Students will be evaluated on the following competency domains: medical knowledge, interpersonal and communication skills, self-directed learning, and demonstrated professionalism.

**SECTION: RADIOLOGY**

<b>Department:</b>	<b>Radiology</b>
<b>Course Title:</b>	<b>ADVANCED CLINICAL RADIOLOGY - RADM5105</b>
<b>Prerequisites:</b>	<b>Successful completion of Year 3 of the MD Program</b>
<b>Periods Offered:</b>	<b>Throughout the academic year</b>
<b>Site(s):</b>	<b>WMC</b>
<b>Clinical/Non-Clinical:</b>	<b>Clinical</b>
<b>Duration of Elective:</b>	<b>1 month</b>
<b>Where/When to report on first day:</b>	<b>Information about where to report on the first day of the elective will be available after you have been assigned to your elective and site. Please note that you may be required to participate in hospital orientation activities on the first day of the rotation if you have never rotated at the assigned site.</b>

**Course Description:** Multimodality rotation through radiology department that will introduce the student to plain film, ultrasound (US), computed tomography (CT), magnetic resonance imaging (MRI) and interventional radiology (IR). Students will rotate through the diagnostic imaging services covering thoracic and abdominal imaging, neuroimaging, musculoskeletal, and pediatric radiology. Student will spend time on the interventional radiology service in procedures and performing pre- and post-procedure patient care and evaluation.

**Goals and Objectives:**

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

1. Be conversant with different imaging modalities and assessment of test appropriateness as it relates to commonly encountered diseases or symptoms
2. Understand basic appearance of normal and abnormal imaging on plain film radiography, CT, MRI, and ultrasound
3. Have greater understanding of medical imaging as it relates to anatomy and physiology of normal processes and disease states

4. Understand the cost-benefit ratio regarding diagnostic, screening and surveillance imaging for benign and malignant disease
5. Student schedule and Responsibilities: Monday-Friday 8:30am-5 pm

**Teaching Modalities:** Radiology readout sessions, daily noon conference lecture series, daily interdisciplinary conferences

**Method of evaluation:** Formal end of rotation summative evaluation based on observership from department faculty.

## SECTION: SURGERY

<b>Department:</b>	<b>Surgery</b>
<b>Course Title:</b>	<b>CARDIOTHORACIC SURGERY - SRGM5106</b>
<b>Prerequisites:</b>	<b>Successful completion of Year 3 of the MD Program</b>
<b>Periods Offered:</b>	<b>Throughout the academic year</b>
<b>Site(s):</b>	<b>WMC</b>
<b>Clinical/Non-Clinical:</b>	<b>Clinical</b>
<b>Duration of Elective:</b>	<b>1 month</b>
<b>Where/When to report on first day:</b>	<b>Information about where to report on the first day of the elective will be available after you have been assigned to your elective and site. Please note that you may be required to participate in hospital orientation activities on the first day of the rotation if you have never rotated at the assigned site.</b>

**Course Description:** Students will participate as sub-interns on the cardiothoracic surgery service. The student will gain exposure to coronary artery disease, valvular heart disease, arrhythmia surgery, diseases of the lung and esophagus and diseases of the great vessels, including aneurysms and aortic dissections. During the elective, the student will be expected to complete histories and physical examinations, participate in the pre-operative evaluations of patients, round in the cardiothoracic ICU and participate in the operating room. In the ICU students will gain additional exposure to cardiac physiology, respiratory physiology, arrhythmias and surgical nutrition. During the elective, the student will be under the direct supervision of an attending physician, and expected to review pertinent literature for case discussions

### **Goals & Objectives:**

**Goals:** The goal of the cardiothoracic surgery elective is to provide students with an analytical approach to the surgical problems of the heart, lungs, mediastinum and esophagus.

**Objectives:** By the end of the elective the students should be able to:

1. Develop an analytical approach to assessment and management of diseases of the heart, lungs, mediastinum and esophagus
2. Incorporate knowledge of cardiovascular and respiratory physiology into medical decision-making.

**Methods of Evaluation:** Students will be evaluated on demonstrated patient care, interpersonal/ communication skills, medical knowledge and professionalism.

## SECTION: SURGERY

<b>Department:</b>	<b>Surgery</b>
<b>Course Title:</b>	<b>NEUROSURGERY - NSGM5101</b>
<b>Prerequisites:</b>	<b>Successful completion of Year 3 of the MD Program</b>
<b>Periods Offered:</b>	<b>Throughout the academic year</b>
<b>Site(s):</b>	<b>WMC</b>
<b>Clinical/Non-Clinical:</b>	<b>Clinical</b>
<b>Duration of Elective:</b>	<b>1 month</b>
<b>Where/When to report on first day:</b>	<b>Information about where to report on the first day of the elective will be available after you have been assigned to your elective and site. Please note that you may be required to participate in hospital orientation activities on the first day of the rotation if you have never rotated at the assigned site.</b>

**Course Description:** During this elective, students will participate in the inpatient and outpatient evaluation of patients who present with neurosurgical complaints in pediatric, vascular, endocrine, neuro-oncology, and spinal categories. Students will also have the opportunity to participate in the management of patients who required neurosurgical intervention in the operating room. Through these experiences, students will have a better appreciation of the field of neurosurgery as a career option for residency training. Students who are considering a career in any of the neurosciences are encouraged to participate.

**Goals & Objectives:** By the end of this elective students should be able to:

1. Demonstrate an understanding of the anatomy, physiology, pathophysiology, and presentation of disorders of the brain and spine
2. Demonstrate the ability to evaluate a patient who presents with a neurosurgical complaint
3. Develop proper diagnostic plan in patients with neurosurgical complaints

**Method of evaluation:** Students will be evaluated on the following competency domains: medical knowledge, interpersonal and communication skills, self-directed learning, and demonstrated professionalism.

## SECTION: SURGERY

<b>Department:</b>	<b>Surgery</b>
<b>Course Title:</b>	<b>OPHTHALMOLOGY - OPTM5101</b>
<b>Prerequisites:</b>	<b>Successful completion of Year 3 of the MD Program</b>
<b>Periods Offered:</b>	<b>Dependent on Site (see below)</b>
<b>Site(s):</b>	<b>MET</b>
<b>Clinical/Non-Clinical:</b>	<b>Clinical</b>
<b>Duration of Elective:</b>	<b>1 month</b>
<b>Where/When to report on first day:</b>	<b>Information about where to report on the first day of the elective will be available after you have been assigned to your elective and site. Please note that you may be required to participate in hospital orientation activities on the first day of the rotation if you have never rotated at the assigned site.</b>

**Course Description:** Following instruction in the use of the specialized ophthalmic equipment employed in the examination of patients, the extern may be permitted to examine patients under general supervision in the clinic. Students attend clinics in the morning and afternoon. The exposure is predominantly clinical. Students work-up both clinic patients and inpatients and are supervised by attendings and residents. They participate in all teaching sessions, rounds and conferences. Operating room exposure is commensurate with the student's ability and interest.

Upon completion of this rotation, a competency is achieved in the examination and diagnosis of basic ophthalmologic problems, as well as familiarity with the equipment. Instruction will be personalized.

### **Goals & Objectives:**

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

1. Appreciate the breath of practice of the field of ophthalmology
2. Demonstrate the ability to perform a focused history and examination of a patient presenting with a complaint of the eye/ vision.
3. Demonstrate an understanding of the most common clinical conditions that present to a physician for evaluation and know when to refer these patients to an ophthalmologist.

**Methods of Evaluation:** Students will be evaluated by attending physicians on the basis of their demonstrated clinical skills, professionalism, interpersonal/ communication skills and medical knowledge.

## SECTION: SURGERY

<b>Department:</b>	<b>Surgery</b>
<b>Course Title:</b>	<b>ORTHOPEDIC SURGERY - SRGM5121</b>
<b>Prerequisites:</b>	<b>Successful completion of Year 3 of the MD Program</b>
<b>Periods Offered:</b>	<b>Throughout the academic year</b>
<b>Site(s):</b>	<b>WMC</b>
<b>Clinical/Non-Clinical:</b>	<b>Clinical</b>
<b>Duration of Elective:</b>	<b>1 month</b>
<b>Where/When to report on first day:</b>	<b>Information about where to report on the first day of the elective will be available after you have been assigned to your elective and site. Please note that you may be required to participate in hospital orientation activities on the first day of the rotation if you have never rotated at the assigned site.</b>

**Course Description:** During the course of the elective the student is exposed to a broad range of orthopedics in the inpatient and outpatient settings. The program should be considered ideal for the medical student planning to enter the field of orthopedics OR a field other than orthopedics, but wishing to be capable of diagnosing and treating simple orthopedic conditions and knowing when to triage or suspect more complex conditions.

The student is expected to attend grand rounds, educational conferences, and ward rounds. At the conclusion of the rotation the student will be expected to give a 15 to 20 minute presentation on the orthopedic condition of his or her choice.

### **Goals & Objectives:**

*By the end of the elective the students should be able to:*

1. Demonstrate an evaluation of the musculoskeletal system including history taking, physical examination of the spine and extremities, and interpretation of basic diagnostic tests.
2. Utilize the history, physical examination and simple diagnostic tests in formulating a treatment plan (i.e. physical therapy, pharmacological treatment, further diagnostic study, or surgical intervention).
3. Understand the approach to the assessment of the multiplied injured patient and the assessment of those pathologic conditions considered orthopedic emergencies e.g. open fractures, pelvic ring injuries, dislocations, various soft tissue injuries, peripheral neurovascular injuries and spinal injuries.
4. Appreciate the breadth of the field of orthopedics, including the variety of subspecialty divisions of orthopedic surgery including adult reconstruction (e.g. total joint replacement), sports medicine (e.g. arthroscopic surgery of the knee and shoulder), hand surgery, spine surgery, pediatric orthopedics, musculoskeletal oncology and trauma surgery.

**Method of Evaluation:** Students will be evaluated on the following competency domains: medical knowledge, interpersonal and communication skills, self-directed learning, and demonstrated professionalism.

- Demonstrate sensitivity and responsiveness to the culture, age, gender and disabilities of patients and their caregivers / family
- Arrive on time and complete assigned duties
- Develop the learning skills necessary for a life-long career in plastic surgery or related specialties through the combination of the application of the basic sciences in the critical care domain and the critical reading and thinking skills emphasized on rounds through the rotation
- Demonstrate respect, compassion, integrity, and kindness in relationships with patients, families, and colleagues
- Understand the modern incarnation of both patient confidentiality and informed consent
- Develop the ability to formulate constructive feedback in response to problems encountered in the workplace

**Method of Evaluation:** Attending composite evaluation based upon feedback and input from the Plastic Surgery Service Team (attending faculty, residents, nurse practitioners, and physician assistants) assessing the student’s demonstrated medical knowledge, clinical skills, interpersonal/ communication skills, interprofessional collaboration, and professional qualities. Students will also be required to present a case conference to the plastic surgery service at the end of their rotation based on a patient seen during their rotation demonstrating their comprehension and interest in plastic surgery conditions, treatment, and literature.

**SECTION: SURGERY**

<b>Department:</b>	<b>Surgery</b>
<b>Course Title:</b>	<b>UROLOGY - URLM5104</b>
<b>Prerequisites:</b>	<b>Successful completion of Year 3 of the MD Program</b>
<b>Periods Offered:</b>	<b>Throughout the academic year</b>
<b>Site(s):</b>	<b>WMC</b>
<b>Clinical/Non-Clinical:</b>	<b>Clinical</b>
<b>Duration of Elective:</b>	<b>1 month</b>
<b>Where/When to report on first day:</b>	<b>Information about where to report on the first day of the elective will be available after you have been assigned to your elective and site. Please note that you may be required to participate in hospital orientation activities on the first day of the rotation if you have never rotated at the assigned site.</b>

*\*Fourth year students who are participating in the Urology Match in January should do their electives before November.*

**Course Description:** The four-week Urology elective is offered to medical students who are considering Urology as a career. During the elective, the student is expected to work as part of the ‘team’ with the attendings, Chief Resident, Urology Fellow, and 2-3 urology residents and the Nurse Practitioner. The student will participate in all activities including resident rounds in the morning, attending rounds, scrub in the Operating Room cases, see patients on consultation on the floor and the E.R. with the residents, and evening sign-out rounds. All activities of the student during the rotation are directly supervised by the residents and attendings.

The student is expected to read the latest edition of the Smith’s Textbook of Urology, and attend

Grand Rounds Conferences as scheduled. All students are expected to make a Grand Rounds style presentation during the elective on a topic assigned by the Chief Resident or the attending.

**Goals & Objectives:** By the end of the elective the student should be able to:

1. Recognize the approach to the preoperative, intraoperative and postoperative care of patients with urologic disorders
2. Correlate underlying pathophysiology of urologic with direct patient management.

**Methods of Evaluation:** Students are closely supervised by attendings and residents, attend rounds, clinics, do inpatient consultations and participate in conferences and evaluated on his/her demonstrated medical knowledge, clinical skills, interpersonal/communication skills, and professionalism.