

Elective Rotations

The Cleveland Clinic offers elective rotations in many specialty areas to students who have completed their core clinical rotations and are in their final year of medical school. A maximum of (2) four week rotations may be scheduled up to three months in advance. We will not accept applications for the months of July and December. Please refer to the course description linked to the rotation of interest for more information.

Contact for the elective program is Pat Gasser, Program Education Coordinator, e-mail electiveprogram@ccf.org.

Case School of Medicine
Elective Rotation Confirmation and Application Form

Dear Faculty: Please fill out this form for a current or planned medical student elective rotation for (formerly referred to as “Type B” or “Year 4” Electives).

- Title of Elective: **PAIN MANAGEMENT**
- Contact Information: gasserp@ccf.org to schedule this rotation
 - Faculty Sponsor: **SAMER NAROUZE, MD**
 - Contact person to answer questions from students: gasserp@ccf.org
- Duration: ☐ 2 weeks ☒ 4 weeks
- Months that elective will be offered (e.g., all months except July; specific dates will be determined by the Case Academic Calendar):
- Number of students: 1 minimum 2 maximum
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible): **Basic Core 1 and 2; Advanced Core Perioperative and Pain Management**
- Eligible Students: ☐ Case students only ☒ Any medical student
- Location(s) where elective will be conducted: Walker Building, C25
- Learning objectives for elective:
 - Clinical **SEE ATTACHED**
 - Basic Science (including disciplines such as pathology, microbiology) **SEE ATTACHED**
 - Brief description of rotation and student activities: **SEE ATTACHED**
 - Student Assessment: **SEE ATTACHED**

****CLINICAL ****

PATIENT CARE: By the end of rotation, the student will demonstrate the basic knowledge, attitudes and skills necessary to provide patient care that is compassionate, appropriate and effective.

Objectives	Educational Method	Assessment Method
Gather essential and basic information about common neuropathic pain syndromes	Direct Patient Care Performance feedback	Global ratings (METS) Mini-CEX exams
Gather essential and basic information about common Musculoskeletal pain disorders	Direct Patient Care Performance feedback	Global ratings (METS) Mini-CEX exams
Summarize history and physical exam findings in a cogent presentation – both verbal and written	Direct Patient Care Performance feedback	Global ratings (METS) Mini-CEX exams Review of EMR documentation
Develop and carry out the initial patient management plans	Direct Patient Care Performance feedback	Global ratings (METS) Mini-CEX exams
Be familiar with basic pain procedures: <ul style="list-style-type: none"> • TPI • Peripheral nerve blocks • Epidural steroid injections (caudal and lumbar) • Facet and MBNB (lumbar) 	Procedures	Procedure log evaluation

****BASIC SCIENCE****

MEDICAL KNOWLEDGE: By the end to the rotation, the student will acquire a basic working knowledge of the common acute and chronic pain conditions.

Objectives	Educational Method	Assessment Method
Demonstrate understanding of the basic principles of neuropathic pain management	Patient Care Self directed learning	Global ratings (METS) Mini-CEX exams
Demonstrate understanding of the basic principles of musculoskeletal pain management	Direct Patient Care Self directed learning	Global ratings (METS) Mini-CEX exams
Demonstrate understanding of the principles of cancer pain management – WHO guidelines	Direct Patient Care Self directed learning	Global ratings (METS) Mini-CEX exams
Identification and indications of basic interventional pain management procedures	Direct Patient Care Self directed learning	Global ratings (METS) Mini-CEX exams
Demonstrate an understanding of the diagnosis and management of the common complications associated with such procedures	Direct Patient Care Self directed learning	Global ratings (METS) Mini-CEX exams

Description of Rotation

This is a 4 week rotation for the fourth year medical students. It includes both outpatient and inpatient settings. The outpatient setting will be in the Pain Management Center (C-25) and the inpatient setting will be in the main campus.

During this rotation, students are expected to work with an assigned physician.

The student will be responsible for the initial evaluation of the patient and the development of an initial management plan. The H & P are then presented to the attending physician and feedback is provided to the student.

The student will have exposure and will help in simple interventional pain management procedures e.g. TPI, peripheral nerve blocks, caudal and lumbar epidural injections and lumbar facet blocks.

Assessment/Evaluation

By the end of the rotation, the student will receive and/or complete the following:

1. Verbal feedback from preceptors.
2. Complete teaching evaluation in METS (Medical Education Tracking System).
3. Complete listing of patient logs in CAS (Clinical Assessment System) to send to preceptor for assessment (CWRU/CCLCM students).
4. A Within and End of Rotation assessment will be completed by preceptor (CWRU/CCLCM students).
5. School evaluation completed for visiting medical students.

Anesthesiology Acting Internship

Objectives

At the end of the four week Anesthesiology acting internship, the medical student will be to:

1. Administer a general anesthetic on an ASA performance status I or II patient which includes:
 - a. comprehensive pre-anesthetic evaluation
 - b. appropriate preparation of the general anesthetic site
 - c. induction of general anesthesia
 - d. maintenance of general anesthesia
 - e. emergence of general anesthesia
 - f. transport to the post anesthesia care unit
 - g. report to the post anesthesia care unit nurse
2. Evaluate a patient for the necessity of endotracheal intubation while in respiratory distress.
3. Recognize and prepare for management of a patient with a potential difficult airway.
4. Gather the appropriate supplies and place a central venous line.
5. Gather the appropriate supplies and place an arterial line.
6. Evaluate a patient for conscious sedation for painful procedures and use the appropriate drugs.
7. Evaluate a patient to perform a nerve block for intraoperative and/or postoperative pain management.
8. Evaluate a patient to perform a subarachnoid block for intraoperative management.

Workload

The medical student will prepare the Anesthetizing locations and 1-3 patients per day under the auspices of an Anesthesiology resident and staff (depending on the length of the procedures). The medical student will perform a chart review and if possible perform history and physical of the patients for the following day.

The medical student will contact the Anesthesiologist or Anesthesiology resident to present the data and anesthetic plan for the following day.

When assigned to non-operating room areas the medical student will care for 1-3 patients per day.

Overnight call is not expected but can be arranged.

Duty hours will not exceed ACGME duty hour requirements.

The student will participate in the weekly Anesthesiology intern educational activities.

Assessment

The medical student will submit 2-4 names of patients to Staff Anesthesiologists for evaluation of clinical care, knowledge and skills.

The medical student will submit 3 modified pre-operative evaluation forms at mid and end of rotation.

The medical student will meet with the course director or designate at mid and end of rotation to discuss the student's progress.

Obstetrical Anesthesiology Acting Internship

Prerequisite: Four week Anesthesiology Rotation

Objectives

At the end of the four week acting internship in obstetrical anesthesiology the senior medical student will be able to:

1. Administer a spinal anesthetic for a ASA performance status I or II parturient during a cesarean section which includes:
 - a. Comprehensive pre-anesthetic evaluation,
 - b. Appropriate preparation of the anesthetizing location,
 - c. Performance of a spinal anesthetic under supervision,
 - d. Management of the patient during the surgery,
 - e. Transport to the post-anesthesia care unit,
 - f. Report to the post-anesthesia care nurse,
 - g. Management of the post-operative pain, and
 - h. Post-operative evaluation for complications and satisfaction.
2. Administer epidural analgesia for an ASA performance status I or II laboring parturient which includes:
 - a. Comprehensive pre-anesthetic evaluation,
 - b. Appropriate preparation of the anesthetizing location,
 - c. Placement of the epidural catheter under supervision,
 - d. Management of the patient during labor and delivery, and
 - e. Removal of the epidural catheter, and
 - f. Post-operative evaluation for complications and satisfaction.
3. Administer an epidural anesthetic for an ASA performance status I or II parturient during a cesarean section which includes:
 - a. Comprehensive pre-anesthetic evaluation,
 - b. Appropriate preparation of the anesthetizing location,
 - c. Management of the patient during the surgery,
 - d. Transport to the post-anesthesia care unit,
 - e. Report to the post-anesthesia care nurse,
 - f. Management of the post-operative pain, and
 - g. Post-operative evaluation for complications and satisfaction.
4. Continue epidural analgesia for an ASA performance status I or II laboring parturient which includes:
 - a. Comprehensive pre-anesthetic evaluation,
 - b. Management of the patient during labor and delivery,
 - c. Removal of the epidural catheter, and
 - d. Post-operative evaluation for complications and satisfaction.
5. Correlate the physiology of labor and delivery with the effects of
 - a. Epidural analgesia and
 - b. Intravenous pain medicine
6. Correlate the physiology of cesarean section with the effects of
 - a. Epidural anesthesia
 - b. Spinal anesthesia
7. Correlate the fetal effects of
 - a. Succinylcholine,
 - b. Sodium thiopental,
 - c. Fentanyl,
 - d. Rocuronium, and
 - e. Magnesium

8. Correlate the perinatal fetal and uterine monitoring with the physiology and pathophysiology including
 - a. Early decelerations
 - b. Variable decelerations
 - c. Late decelerations
 - d. Beat-to-beat variability
 - e. Tachycardia
 - f. Bradycardia
9. Contrast the physiologic changes of the parturient during the first, second and third trimesters including:
 - a. Cardiovascular
 - b. Respiratory,
 - c. Gastrointestinal,
 - d. Renal and
 - e. Neuromuscular
10. List the criteria for mild, moderate and severe pre-eclampsia.
11. Contrast the evaluation and management of the parturient with:
 - a. Placental abruption,
 - b. Uterine rupture,
 - c. Placenta previa, and
 - d. Multiple gestation.
12. Describe the mechanism of post-dural puncture headache.

Workload

The medical student will prepare the anesthetizing location and evaluate 1-3 patients per day under the auspices of an Anesthesiology resident and staff. The medical student will round daily on patients that were under his/her care until discharge.

The medical student will be expected to perform epidural analgesia and spinal anesthesia under the direct supervision of Anesthesiology Staff. The medical student will not manage the airway of a parturient for a STAT or emergent cesarean section. The medical student will observe 4-6 newborn assessments immediately after birth during the newborn resuscitation in the delivery room.

Overnight call is not expected but can be arranged.

Duty hours will not exceed ACGME duty hour requirements.

The acting intern will participate in the Wednesday Morning Conference, weekly intern conference and all obstetric anesthesia conferences.

Assessment

The medical student will submit 3-5 names of patients to Dr. Barsoum for evaluation of clinical care, knowledge and skills.

The medical student will submit 3 modified pre-operative evaluation forms at mid and end of rotation.

The medical student will meet with the course director at mid and end of rotation to discuss the student's progress.

- Title of Elective: Cardiovascular and Thoracic Critical Care
- Contact Information to Schedule: Pat Gasser gasserp@ccf.org
 - Faculty Sponsor:
 1. Name: C. Allen Bashour, M. D.
 2. Email: bashoua@ccf.org
 3. Telephone: 216-445-7417
- Duration: ☐ 2 weeks ☒ 4 weeks
- Months that elective will be offered (e.g., all months except July; specific dates will be determined by the Case Academic Calendar): all months
- Number of students: 0 minimum 2 maximum
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible):
- Eligible Students: ☐ Case students only ☒ Any medical student
- Location(s) where elective will be conducted: Cardiovascular ICU (G50 – 54)
- Learning objectives for elective:
 - Clinical
 1. Understand and participate in all aspects of the management of routine postoperative cardiac and non-cardiac surgery patients (includes transplant patients) including neurologic, hemodynamic (includes IABP and other cardiac assist devices, pacemakers), pulmonary (includes ventilator management and management of ARDS), renal (includes renal replacement therapy), GI/hepatic, infectious disease, hematologic, nutritional support (enteral and parenteral).
 2. Understand and participate in all aspects (same as above) of the management of postoperative cardiac and non-cardiac surgery patients with prolonged ICU lengths of stay.
 3. Increase experience in tracheal intubation, central line placement, arterial line placement, access for renal replacement therapy, bronchoscopy, and DC cardioversion procedures for atrial fibrillation/flutter
 - Basic Science (including disciplines such as pathology, microbiology)
 1. neurology – mental status exam, treatment of postoperative seizure activity
 2. cardiopulmonary physiology
 3. cardiac pharmacology
 4. renal physiology
 5. GI/hepatic physiology

6. hematology – blood component therapy, heparin induced thrombocytopenia, postoperative bleeding (coagulation)
7. nutritional support (writing TPN)

- Brief description of rotation and student activities: The medical student is assigned to a team typically comprised of one upper level (CA3) resident or fellow (cardiothoracic anesthesia or surgical ICU) and an intern. This team is supervised by one CVICU staff. The team rounds on all patients in the unit they are assigned to (10 – 12 beds) and the patient assignments are made by the CA3 or fellow. The medical student follows their assigned patients and carries out supervised procedures based on experience level. The student is an integral part of the team and typically able to meet most if not all clinical and basic science objectives listed above.
- Student Assessment: One summary medical student evaluation is written from the four or five medical student evaluation forms (typically provided by the medical school) distributed to each staff that the student worked with during the 4-week rotation.

- Title of Elective: Surgical Intensive Care
- Contact Information to Schedule: Pat Gasser gasserp@ccf.org
 - Faculty Sponsor:
 1. Name: Marc J. Popovich, MD
 2. Email: popovim@ccf.org
 3. Telephone: 216-444-3877
- Duration: 4 weeks
- Months that elective will be offered (e.g., all months except July; specific dates will be determined by the Case Academic Calendar):
- Number of students: 1 minimum 2 maximum
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible): Core medicine and surgery clerkships
- Eligible Students: ♦ Any medical student
- Location(s) where elective will be conducted: SICU (G-61) = main site
- Learning objectives for elective:
 - Clinical
 1. Basic understanding of resuscitation of the critically ill post-surgical patient
 2. Basic understanding of hemodynamic monitoring
 3. Basic understanding of mechanical ventilation for respiratory failure
 4. Basic understanding of analgesia and sedation for the critically ill surgical patient
 - Basic Science (including disciplines such as pathology, microbiology)
 1. Cardiovascular physiologic and pathophysiologic changes especially as related to shock states
 2. Pulmonary physiologic and pathophysiologic states as related to mechanical ventilation
 3. Metabolic effects of sepsis and shock
- Brief description of rotation and student activities:

The Surgical Intensive Care rotation affords 4th year medical students the opportunity to develop an understanding of the management of the critically ill or injured surgical patient in an educational environment administered by full-time surgical intensivists. Students are part of a team consisting of attending intensivist, critical care fellow and anesthesiology and surgery residents. Students are assigned patients, participate on rounds and conferences, and are introduced to procedural skills (airway management, invasive monitoring, etc.), all with progressively increasing complexity and responsibility. Students attend didactic sessions and journal clubs.
- Student Assessment:

Students are given feedback as needed throughout the rotation followed by a formal evaluation at the end of the rotation.

- Title of Elective: Pathology – Anatomic and Clinical
- Contact Information to Schedule: Pat Gasser gasserp@ccf.org
 - Faculty Sponsor:
 1. Name: Karl Theil, M.D.
- Duration: 4 weeks
- Months that elective will be offered (e.g., all months except July; specific dates will be determined by the Case Academic Calendar):
- Number of students: _1_ minimum _2_ maximum
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible):
- Eligible Students: Any medical student
- Location(s) where elective will be conducted: Cleveland Clinic
- Learning objectives for elective:
 - Clinical
 1. To provide a broad based and flexible exposure to anatomic pathology (surgical pathology, autopsy pathology, cytology) and clinical pathology (blood bank, chemistry, laboratory hematology, microbiology and immunopathology).
- Brief description of rotation and student activities: This rotation will offer a varied, flexible, and individually tailored exposure to the many parts of Pathology and Laboratory Medicine.

The student can observe and assist residents in the performance of post mortem, surgical pathology, frozen section and cytopathology examinations. The student will be exposed to a wide variety of procedures, equipment, and techniques that make up the modern pathology laboratory and will develop an understanding of the pathologist's role in diagnosis, consultation and patient management.

Student Assessment: Evaluation forms are given to the staff members to whom the student is assigned. A report will be given to deans upon request.

- Title of Elective: Transfusion Medicine
- Contact Information to Schedule: Pat Gasser gasserp@ccf.org
 - Faculty Sponsors/Contact persons: Gerald A. Hoeltge MD [hoeltgg@ccf.org, 216-444-2830]
- Duration: 2 weeks or 4 weeks
- Months offered: all year
- Number of students: 1 to 3
- Prerequisites: Core clerkships
- Eligible students: Any medical student
- Location: CCF main campus (Desk L20)
- Learning objectives
 - Clinical
 1. To understand the appropriate use, risks, benefits of and alternatives to blood component therapy
 2. To recognize the signs and symptoms of adverse reactions to blood transfusion
 3. To be aware of the alternatives to standard blood transfusion including perioperative autotransfusion
 - Basic Science
 1. To be able to list the clinically relevant red blood cell antigen groups
 2. To know the serological principles behind standard laboratory tests for red cell antigens and antibodies
 3. To understand the necessity of good laboratory practice in the preparation of safe and efficacious blood component therapy
- Brief description: Transfusion Medicine is that specialty devoted to optimizing the available options for patients with anemia, thrombocytopenia, and plasma factor deficiencies. It begins with proper selection of blood donors, the testing and preparation of the components of their blood, and extends to selection of therapy for specific clinical goals. The student learns both the clinical need for transfusion therapy as well as the laboratory requirements for successful treatment. Through observation and clinical rounds, the student learns the typing and crossmatching of blood, the detection and identification of atypical antibodies, and the tests necessary to provide safe blood. Through a review of the various adverse effects of blood transfusion, the student will be able to correlate various aspects of pathophysiology with their clinical manifestations. For those students opting for the 4-week rotation, observational experience in stem-cell procurement and intraoperative autotransfusion are available. This elective is especially recommended for students intending to specialize in surgery, internal medicine, and anesthesiology.
- Student assessment: Evaluation forms are completed by attending staff in the Cleveland Clinic Section of Transfusion Medicine. A report will be given to deans and phase coordinators upon request.

- Title of Elective: Immunopathology
- Contact Information to Schedule: Pat Gasser gasserp@ccf.org
 - Faculty Sponsor:
 1. Name: Sihe Wang, Ph.D.
- Duration: 4 weeks
- Months that elective will be offered (e.g., all months except July; specific dates will be determined by the Case Academic Calendar):
- Number of students: _1_ minimum _1_ maximum
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible):
- Eligible Students: Any medical student
- Location(s) where elective will be conducted: Cleveland Clinic
- Learning objectives for elective:
 - Clinical
 1. To provide the student with basic understanding of the laboratory analysis of the molecular and immune mechanisms of disease and their clinicopathological correlation.
- Brief description of rotation and student activities: The medical student is exposed to the various molecular and immunologic techniques currently in use both on routine and research levels. Daily participation in interpretation of lymph node and renal biopsies is a major part of the elective. The student is given the opportunity to work in various areas.

This practical experience is integrated with formal teaching sessions and with formal and informal conferences.

Student Assessment: Evaluation forms are given to the staff members to whom the student is assigned. A report will be given to deans upon request.

- Title of Elective: Hematopathology
- Contact Information to Schedule: Pat Gasser gasserp@ccf.org
 - Faculty Sponsor:
 1. Name: Eric Hsi, M.D.
- Duration: 4 weeks
- Months that elective will be offered (e.g., all months except July; specific dates will be determined by the Case Academic Calendar):
- Number of students: _1_ minimum _1_ maximum
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible):
- Eligible Students: Any medical student
- Location(s) where elective will be conducted: Cleveland Clinic
- Learning objectives for elective:
 - Clinical
 1. To provide the student with basic experience in the laboratory evaluation of anemia, white cell disorders, including Leukemia and Lymphoma, and hemorrhagic problems.
- Brief description of rotation and student activities: The medical student spends most of the time with the resident and staff pathologist. Emphasis is placed upon the morphologic aspects of hematology and their relationship to clinical problems. The medical student will have the opportunity to see both patients and their laboratory work-ups. Teaching aids in the form of slides and written material are provided for study.

Student Assessment: Evaluation forms are given to the staff members to whom the student is assigned. A report will be given to deans upon request.

- Title of Elective: Clinical Microbiology
- Contact Information to Schedule: Pat Gasser gasserp@ccf.org
 - Faculty Sponsor:
 1. Name: Gerri S. Hall, PhD
 2. Email: hallg@ccf.org
 3. Telephone: 45990
- Duration: X 4 weeks
- Months that elective will be offered (e.g., all months except July; specific dates will be determined by the Case Academic Calendar): any months
- Number of students: _1_ minimum _1_ maximum
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible): Pathology and/or Infectious Diseases would be good, but are not necessarily prerequisites
- Eligible Students: X Any medical student
- Location(s) where elective will be conducted: L-40/Lab medicine 4th floor
- Learning objectives for elective:
 - Clinical
 1. To develop protocols specimen collection, transportation, and processing for microbiologic requests
 2. To learn about common etiologies of infectious disease syndromes including UTI, URI, Bacteremia, Meningitis and Diarrhea
 3. Obtain an understanding of various antibiotics and their appropriate use for various infectious disease syndromes
 - Basic Science (including disciplines such as pathology, microbiology)
 1. To learn virulence factors associated with microbes and the diseases they might cause
 2. To perform common biochemical tests to differentiate common bacteria, fungi, and viruses
 3. To understand the mechanisms of action of a variety of more common antibiotics.
- Brief description of rotation and student activities: Students will be given a mini-course in Microbiology; then be given a rotational schedule on the benches in Bacteriology, Mycology, Parasitology, and Virology, during which time they will observe work done by medical technologists in the various areas of the lab. Everyday, they will participate in laboratory rounds, which last 1- 1 ½ hrs and are moderated by one of the Clinical Microbiology staff. These are educational and afford discussions of interesting laboratory and clinical microbes and the diseases they cause, molecular and biochemical identification methods, and susceptibility testing principles and methods.
- Student Assessment: evaluations are provided in written form at the end of the rotation for each student.

- Title of Elective: Molecular Pathology
- Contact Information to Schedule: Pat Gasser gasserp@ccf.org
 - Faculty Sponsor:
 1. Name: Ilka Warshawsky, M.D.
- Duration: 4 weeks
- Months that elective will be offered (e.g., all months except July; specific dates will be determined by the Case Academic Calendar):
- Number of students: _1_ minimum _1_ maximum
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible):
- Eligible Students: Any medical student
- Location(s) where elective will be conducted: Cleveland Clinic
- Learning objectives for elective:
 - Clinical
 1. To provide the student with a basic understanding of the laboratory analysis of the molecular and immune mechanisms of disease and their clinicopathological correlation.
- Brief description of rotation and student activities: The medical student is exposed to the various molecular and immunologic techniques currently in use both on routine and research levels. Daily participation in interpretation of lymph node and renal biopsies is a major part of the elective. The student is given the opportunity to work in various areas.

This practical experience is integrated with formal teaching sessions and with formal and informal conferences.

Student Assessment: Evaluation forms are given to the staff members to whom the student is assigned. A report will be given to deans upon request.

- Title of Elective: Allergy Immunology
- Contact Information to Schedule: Pat Gasser gasserp@ccf.org
 - Faculty Sponsor:
 1. Name: David Lang, M.D.
- Duration: 4 weeks
- Months that elective will be offered (e.g., all months except July; specific dates will be determined by the Case Academic Calendar):
- Number of students: _1_ minimum _1_ maximum
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible):
- Eligible Students: Any medical student
- Location(s) where elective will be conducted: Cleveland Clinic
- Learning objectives for elective:
 - Clinical
 1. To provide the student with an opportunity to learn the fundamentals of eliciting the history of allergic problems, to perform physical examinations, and to observe the methods of laboratory evaluation and the plan of comprehensive management.
- Brief description of rotation and student activities: Both adult and pediatric patients with allergic and immunologic disorders are evaluated and managed in this clinic. The student will also have the opportunity to make hospital rounds with staff physicians and observe the rendering of consultation on inpatients with allergic and immunologic problems.

The student attends the departmental teaching conferences and actively participates in selected ones.

Student Assessment: Evaluation forms are given to the staff members to whom the student is assigned. A report will be given to deans on request.

- Title of Elective: Internal Medicine Acting Internship
- Contact Information to Schedule: Pat Gasser gasserp@ccf.org
 - Faculty Sponsor:
 1. Name: Craig Nielsen, M.D.
- Duration: 4 weeks
- Months that elective will be offered (e.g., all months except July; specific dates will be determined by the Case Academic Calendar):
- Number of students: _1_ minimum _1_ maximum
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible): All Core Clerkships
- Eligible Students: Any medical student (Preapproved)
- Location(s) where elective will be conducted: Cleveland Clinic
- Learning objectives for elective:
 - Clinical
 1. To offer the senior medical student an opportunity to strengthen and develop clinical skills relevant to general internal medicine and inpatient medical care.
- Brief description of rotation and student activities: The student will work on one of the two ward teams which comprise the Department of General Internal Medicine inpatient service. The student will participate in the evaluation and treatment of patients on the service, working closely with the residents and attending physicians.

Students will attend and participate in daily work rounds, formal teaching rounds, and departmental teaching conferences. The student will function as an intern but carry a reduced patient load.

Student Assessment: Evaluation forms are given to the staff members to whom the student is assigned. A report will be given to deans upon request.

- Title of Elective: Cardiology Consults
- Contact Information to Schedule: Pat Gasser gasserp@ccf.org
 - Faculty Sponsor:
 1. Name: Michael Faulx, M.D.
 2. Email:
 3. Telephone:
- Duration: 4 weeks
- Months that elective will be offered (e.g., all months except July; specific dates will be determined by the Case Academic Calendar):
- Number of students: 3 minimum 3 maximum
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible):
- Eligible Students: Any medical student
- Location(s) where elective will be conducted: Cleveland Clinic
- Learning objectives for elective:
 - Clinical
 1. Further student's skill in obtaining a history
 2. Performing a physical examination
 3. Interpreting laboratory data pertaining to the cardiovascular system
- Brief description of rotation and student activities: The student actively participates in the evaluation of patients with a wide range of cardiovascular disorders. The student will work closely with a staff cardiologist as part of the clinical cardiology consult service.

Regular teaching seminars will be conducted by the students and internal medicine house staff rotating on the consult service. Attendance at the cardiology conferences is encouraged where students will have the opportunity to observe special procedures in the cardiac cath lab, noninvasive echo lab, and the nuclear cardiology lab.

- Student Assessment: Evaluation forms are given to staff members to whom the student is assigned. A report will be given to deans on request.

Cardiothoracic Intensive Care Unit

Program Coordinator	Jean-Pierre Yared, M.D.
Duration	4 weeks
Number of Students	1
Available	Year around
Time	Full time
Objectives	To introduce the interested student of the many facets of cardiothoracic intensive care.
Description	<p>This rotation is offered in a 55-bed unit specializing in the postoperative care of cardiothoracic patients. Over 3000 coronary artery bypass and valve procedures, 900 thoracic surgery procedures, and 60 to 80 heart and lung transplants are seen each year. The medical student works under the Department of Cardiothoracic Anesthesia, and training is provided in routine postoperative, respiratory and hemodynamic care, and global care of long-term ventilator dependent patients, including pain relief, neurologic evaluation, and weaning from prolonged ventilation.</p> <p>Clinical exposure includes arterial and pulmonary artery line placement, intubation, bronchoscopy, high frequency ventilation, operative procedures in the unit, and care of patients with acute and chronic renal failure, nutritional deficiencies, low cardiac output states and other CICU problems.</p> <p>Ongoing research in the unit includes further refinement of a predictive model for morbidity and mortality, various regimens of sedation and neuromuscular blockade, new ventilatory modes, continuous dialysis and ultrafiltration, and ventricular assist devices.</p> <p>Teaching rounds, lectures and case discussions provide daily exposure to in depth analysis of critical care issues.</p> <p>Evaluation forms are given to the staff members to whom the student is assigned. A report will be given to deans and phase coordinators on request.</p>

- Title of Elective: Coronary Intensive Care Unit
- Contact Information to Schedule: Pat Gasser gasserp@ccf.org
 - Faculty Sponsor:
 1. Name: Marc Penn, M.D.
 2. Email:
 3. Telephone:
- Duration: 4 weeks
- Months that elective will be offered (e.g., all months except July; specific dates will be determined by the Case Academic Calendar): **No July or December**
- Number of students: 1 minimum 1 maximum
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible):
- Eligible Students: Any medical student
- Location(s) where elective will be conducted: Cleveland Clinic
- Learning objectives for elective:
 - Clinical
 1. To expose the medical student to the clinical and educational activities of the CICU under the supervision of Cardiology fellows and the staff cardiologist of the CICU
- Brief description of rotation and student activities: The student will be exposed to the critically ill cardiac patients. The student will observe and participate in collection of information and data in these patients.

Students will participate in the teaching sessions and rounds on the CICU. The student will observe the invasive techniques used in a Cardiac ICU such as Swan-Ganz catheterization, temporary pacemaker insertion, intra-aortic balloon pulsation insertion. The student will also be exposed to the plan of management of the acutely ill cardiac patient.

This rotation is designed for the student interested in pursuing education in Internal Medicine and Cardiology.

- Student Assessment: Evaluation forms are completed by the staff cardiologist of the CICU. A report will be given to deans on request.

Critical Care Medicine Acting Internship

Objectives

At the end of the Critical Care Medicine Acting Internship the medical student will be able to:

1. Coordinate the care of critically ill patients in the context of a critical care team including:
 - a. Comprehensive admission history and physical
 - b. Appropriate initial care plan
 - c. Communication and consulting teams
 - d. Daily management
 - e. Long term management
 - f. Discharge planning
2. Participate in communication with family and patient.
3. Suggest the use of the following classes of drugs:
 - a. antiarrhythmics
 - b. anti hypertensives
 - c. inotropes
 - d. vasoactive pressors
 - e. anti microbials
 - f. anti thrombotics/anti coagulants
 - g. sedative/pain management
4. Interpret and change management based on results from:
 - a. radiographic tests
 - b. blood gases
 - c. electrolyte profiles
 - d. hemodynamic profiles
 - e. bedside central pressure monitoring
 - f. noninvasive techniques for assessing oxygenation and gas exchange.
 - g. pulmonary artery catheter hemodynamic data.
5. Based on patient data manage and change:
 - a. mechanical ventilation
 - b. nutrition
 - c. techniques for separation from mechanical ventilation
6. Diagnose shock and other common respiratory, cardiac, renal, hepatic and metabolic disease states.
7. Independently, but supervised place a
 - a. Central venous catheter
 - b. Pulmonary artery catheter, and
 - c. Invasive arterial catheter.

Workload

The acting intern will care for 1-2 patients simultaneously on the service.

- Title of Elective: Vasculitis: Rheumatology
- Contact Information to Schedule: Pat Gasser gasserp@ccf.org
 - Faculty Sponsor:
 1. Name: Gary Hoffman, M.D.
 2. Email: hoffmag@ccf.org
 3. Telephone: 216/445-6996
- Duration: 4 weeks
- Months that elective will be offered (e.g., all months except July; specific dates will be determined by the Case Academic Calendar): No students **September** and **October**
- Number of students: _1_ minimum _1_ maximum
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible): Core Clerkships
- Eligible Students: Any medical student
- Location(s) where elective will be conducted: Cleveland Clinic
- Learning objectives for elective:
 - Clinical
 1. Become familiar with variety of disease phenotypes in vasculitis
 2. Approaches to different diagnoses
 3. Basis for Treatment selection, assessment of prognosis
 - Basic Science (including disciplines such as pathology, microbiology)
 1. Develop an understanding of vessel targeting in vasculitis
 2. Understand the rule of ANCA in diagnosis and pathogenesis
- Brief description of rotation and student activities: Accompany faculty in patient assessment. Participate in select aspects of examination
- Student Assessment: Based on post-clinic discussions; Ability to relate provided literature to cases seen

- Title of Elective: General Rheumatology
- Contact Information to Schedule: Pat Gasser gasserp@ccf.org
 - Faculty Sponsor:
 1. Name: Matthew Bunyard, M.D.
 2. Email: bunyarm@ccf.org
 3. Telephone: 216/445-3460
- Duration: 4 weeks
- Months that elective will be offered (e.g., all months except July; specific dates will be determined by the Case Academic Calendar):
- Number of students: _1_ minimum _1_ maximum
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible): Core Clerkships
- Eligible Students: Any medical student
- Location(s) where elective will be conducted: Cleveland Clinic
- Learning objectives for elective:
 - Clinical
 1. Know the signs and symptoms of the disease
 2. Generate a differential diagnosis for a patient presentation
 3. Define a treatment plan
 - Basic Science (including disciplines such as pathology, microbiology)
 1. Basic/general pathophysiology mechanism of disease
- Brief description of rotation and student activities: Accompany faculty in patient assessment. Participation in physical examination in inpatient/outpatient setting.
- Student Assessment: No written exam. Based on post-patient clinic discussions.

- Title of Elective: Osteoporosis and Metabolic Bone Disease
- Contact Information to Schedule: Pat Gasser gasserp@ccf.org
 - Faculty Sponsor:
 1. Name: Abby Abelson, M.D.
 2. Email: abelsoa@ccf.org
 3. Telephone: 216/444-3876
- Duration: 4 weeks
- Months that elective will be offered (e.g., all months except July; specific dates will be determined by the Case Academic Calendar): **January – May only and October**
- Number of students: _1_ minimum _1_ maximum
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible): Core Clerkships
- Eligible Students: Any medical student
- Location(s) where elective will be conducted: Cleveland Clinic
- Learning objectives for elective:
 - Clinical
 1. Learn the principles involved of the disease
 2. Evaluation and Management of osteoporosis
 3. Gain an understanding of the secondary cause of osteoporosis
 4. Learn to recognize the common metabolic diseases of bone
 - Basic Science (including disciplines such as pathology, microbiology)
 1. Learn the bone remodeling cycle; systemic control of bone mass
 2. Learn the principles of bone mass evaluation
 3. Understand the mechanisms of anabolic therapy for metabolic bone disease
- Brief description of rotation and student activities: See patients in clinic with staff, complete inpatient and outpatient consultations
- Student Assessment: Written evaluation. Verbal feedback.

- Title of Elective: Pediatric Rheumatology
- Contact Information to Schedule: Pat Gasser gasserp@ccf.org
 - Faculty Sponsor:
 1. Name: Philip Hashkes, M.D.
 2. Email: hashkep@ccf.org
 3. Telephone: 216/445-8525
- Duration: 4 weeks
- Months that elective will be offered (e.g., all months except July; specific dates will be determined by the Case Academic Calendar): Begin September **no** December or April
- Number of students: _1_ minimum _1_ maximum
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible): Core Clerkships
- Eligible Students: Any medical student
- Location(s) where elective will be conducted: Cleveland Clinic
- Learning objectives for elective:
 - Clinical
 1. To become familiar with the pediatric rheumatology history and physical examination
 2. To know the variety of pediatric rheumatology conditions
 3. To understand the lab tests, medications and other treatment used for these conditions
- Brief description of rotation and student activities: Accompany faculty in patient assessment. Participate in select aspects of examination and discussion of patients.
- Student Assessment: Based on clinic/post clinic discussions; discussion of provided literature in relation to cases seen.

Title of Elective: Dermatology

- Contact Information to Schedule: Pat Gasser gasserp@ccf.org
 - Faculty Sponsor:
 1. Name: Melissa Piliang, MD
- Duration: 2 or 4 weeks (Dates must coincide with academic calendar)
- Months that elective will be offered: All months except July and December
- Number of students: 2 maximum
- Prerequisites: Rotators should have completed at least four required third year core rotations. Preference will be granted to 4th year medical students and students pursuing dermatology residency.
- Eligible Students: Any medical student that meets above criteria.
- Location(s) where elective will be conducted: Main Campus (A61)
with joint didactic sessions at University Hospital and MetroHealth Hospital
- Learning objectives for elective:
 1. Develop the vocabulary to describe skin lesions and learn to generate a differential diagnosis based on pattern recognition
 2. Recognize clinical and histologic features of the most common dermatoses and neoplasms: (i.e. acne, seborrheic dermatitis, psoriasis, common skin cancers)
 3. Describe 1st and 2nd lines of therapy for the diseases listed above.
 4. Demonstrate familiarity with common diagnostic and therapeutic procedures used in dermatology, including cryotherapy, shave and punch skin biopsy, standard surgical excisions, Mohs surgery, potassium hydroxide mounts, scabies oil mounts, and dermoscopy.
 5. Demonstrate knowledge of basic pharmacology and administration of medications commonly used for treatment of skin disease, particularly topical and anti-inflammatory agents including steroids, topical and oral retinoids, topical and oral antimicrobial agents, and emollients.
 6. Gain exposure to the evaluation and treatment of patients with complex medical and/or surgical dermatologic issues, such as cutaneous lymphomas and connective tissue diseases.
- Brief description of rotation and student activities:
 1. The rotation is largely observational but students will be given more autonomy based on knowledge base and performance.
 2. AM clinics begin at 8 AM, except for Thursday (10:00 AM following Grand Rounds).
 3. PM clinics begin at 1:00 PM.
 4. Attend all Resident Conferences.
 - Lunchtime conferences begin at 12:00 PM in the Dermatology Conference Room.
 - Grand Rounds at Cleveland Clinic: first Thursday of the month.
 - Grand Rounds at University Hospitals: second and fourth Thursdays of each month; Metro Hospital: third Thursday of the month. Free Clinic (optional but encouraged) – once per month.

- Chief Rounds - Thursday afternoons
5. Periodicals and books are available in the Derm Library (conf. room) and the Residents Room.
6. You will rotate with the inpatient consult team, view procedures in Dermatologic Surgery, and attend sign-out in Dermatopathology. There are also opportunities to work in pediatric dermatology, patch test clinic, and phototherapy if desired.
- Recommended resources include:
 - **Principles in Dermatology.** Lookingbill and Marks, WB Saunders.
*You will be provided with a copy of this text to borrow during your rotation. Please return at the end of your rotation.
 - **Fitzpatrick's Color Atlas and Synopsis of Clinical Dermatology.** Wolff, Klaus, Richard. A. Johnson, and Richard Suurmond.
 - **American Academy of Dermatology Clinical dermatological core curriculum for medical students:**
<http://www.aad.org/education-and-quality-care/medical-student-core-curriculum>
 - **Cleveland Clinic Website:**
<http://www.clevelandclinicmeded.com/medicalpubs/diseasemanagement/dermatology/>
 - Methods:
 1. Reading in advance and during your rotation is recommended.
 2. Conferences: DAILY: 12:00 - 1:00 in Dermatology Conference room
WED: 7- 8 AM- Dermatopathology (in Pathology conf room)
THURS: 7:30- 9:30 AM Grand Rounds (Clinics begin at 10:00, except following Grand Rounds at CCF, then 9:30).
THURS: 1:30 - 5PM Chief Rounds
 3. There are no required written or oral presentations but this is encouraged.
 4. Rotators interested in writing up a case or topic that was investigated while they were here are encouraged to speak with the relevant resident and/or staff (attending) physician.
 5. Clinical Activity: Largely observation of staff and dermatology residents/ fellows in outpatient clinics. They may be asked to work-up and present selected patients.
 6. Free Clinic occurs once per month and you are encouraged to attend if it falls on a day during your rotation.
 - Student Assessment:
Standard Cleveland Clinic evaluation forms will be completed and reviewed by the chief resident and program director. Special forms required by your medical school will also be completed through the Office of Medical Student Education.

5. Describe the indications for obtaining diagnostic testing, including laboratories, radiographs, computer tomography, ultrasound, and procedural testing within an evidence based medicine framework.
6. Recognize and manage common emergency room presentations
7. Become familiar with common emergency procedures
8. Describe and/or demonstrate the appropriate use of consultants
9. Develop and carry out a management plan, based on the patient's current physical condition.
10. Determine appropriate disposition for patients based on the patient's response to therapy and the availability of social support systems.
11. Communicate appropriately with the patient, family, nurses, and consultants.
12. Describe resources and options for disposition within the community and the health care system
13. Develop an understanding of factors that influence patient flow through the Emergency Department in the broader context of hospital care.
14. Describe health insurance coverage options, the costs of emergency care, and the impact of emergency care on health care systems

- Brief description of rotation and student activities:

The focus of this 4-week advanced core curriculum in Emergency and Undifferentiated Care is to provide each student with the knowledge, skills, and attitudes that are necessary for any physician to evaluate patients presenting with acute medical and surgical conditions, develop differential diagnoses, develop management plans, and demonstrate the ability to carry them out.

Each student will spend four weeks in the Emergency Department working 8-12 hour shifts that cover day, evening, and night shifts. Shifts will take place at both the Cleveland Clinic - Main Campus and Hillcrest Hospital. They will occur in the main Emergency Department, the Fast Track / Pediatrics area, or in the Pediatric Emergency Department at Hillcrest Hospital. Hillcrest Hospital will also offer Level II trauma experience as part of their shifts. The number of clinical shifts will vary by clinical site, depending on the length of the shift.

Elective Rotation Confirmation and Application Form

- Title of Elective: Endocrinology
- Contact to Schedule: Pat Gasser gasserp@ccf.org
 - Faculty Sponsor:
Name: Robert Zimmerman
Email: Zimmerr@ccf.org
Telephone: 216-444-9428
- Duration: ☐ 2 weeks ☒ **4 weeks**
- Months that elective will be offered (e.g., all months **except July**; specific dates will be determined by the Case Academic Calendar):
- Number of students: 1 minimum 2 maximum
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible): **Core Clerkships**
- Eligible Students: ☐ Case students only ☒ **Any medical student**
- Location(s) where elective will be conducted:
Cleveland Clinic Hospital and Cleveland Clinic A53
- Learning objectives for elective:
 - Clinical
 1. Provide diabetes management for in and out patients with type 1 and type 2 diabetes
 2. Evaluate and treat patients with thyroid disorders and observe thyroid fine needle aspiration and ultrasound.
 3. Assess patient with pituitary disease and determine appropriate management
- Brief description of rotation and student activities:

Students spend 2 weeks on the inpatient service and 2 weeks in the outpatient clinics. During the hospital service they will receive 2-3 consults/d. They will follow around 10 patients. Consults will center around complex diabetics, hypoglycemia, hyponatremia, hypercalcemia, thyroid and pituitary disease. Students will be on call during one weekend day per week while on the hospital service. During the 2 week outpatient experience, students will be assigned a different attending each half day. They may participate in the thyroid clinic, endocrine clinic, pituitary clinic, bone clinic, pediatric transition clinic and/or women's clinic as part of this rotation. 1 hour lectures will be given on Tuesday and Thursday. Endocrine Grand Rounds is Friday 7-9 am. Students may be asked to present a case at Grand Rounds.
- Student Assessment:

Assessment is made by the hospital attending at the end of the rotation. Feedback is given after each case presentation to faculty.

- Title of Elective: Gastroenterology
- Contact Information to Schedule: Pat Gasser gasserp@ccf.org
 - Faculty Sponsor:
 1. Name: Dr. Bret Lashner
 2. Email:
 3. Telephone:
- Duration: 4 weeks
- Months that elective will be offered (e.g., all months except July; specific dates will be determined by the Case Academic Calendar):
- Number of students: 1 minimum 1 maximum
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible):
- Eligible Students: Any medical student
- Location(s) where elective will be conducted: Cleveland Clinic
- Learning objectives for elective:
 - Clinical
 1. To offer an opportunity to observe the group practice of internal medicine and gastroenterology. The program is designed to expose the student to many of the challenging problems seen in the subspecialty of gastroenterology.
- Brief description of rotation and student activities: The student is assigned to the consult team and works directly with the general internal medicine residents, a supervising gastroenterology fellow, and one of the gastroenterology staff members. The student is assigned patients, performs a complete history, thorough physical examination, and takes the lead in writing progress notes, performing pertinent procedures, and writing orders all under the supervision of the gastroenterology fellow.

The student will have the opportunity to observe various specialized gastrointestinal diagnostic techniques. The student will participate in the departmental teaching program which consists of two didactic lectures.

Student Assessment: Evaluation forms are given to the staff members to whom the student is assigned. A report will be given to deans on request.

- Title of Elective: Geriatric Medicine
- Contact Information to Schedule: Pat Gasser gasserp@ccf.org
 - Faculty Sponsor:
 1. Robert M. Palmer, M.D.
 2. Email: palmerr@ccf.org
 3. Telephone: 216-444-8091
- Duration: 4 weeks
- Months that elective will be offered (e.g., all months except July; specific dates will be determined by the Case Academic Calendar):
- Number of students: 1 minimum 1 maximum
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible): Basic and Advanced Clinical Cores
- Eligible Students: Any medical student
- Location(s) where elective will be conducted: A91, Cleveland Clinic
- Learning objectives for elective:
 - Clinical
 1. Develop the ability to deliver competent, respectful and compassionate care of older people in all health care systems, utilizing appropriate technology while encompassing an awareness of the limits of intervention in the light of individual patient's values.
 2. Develop skills in working effectively with other health care professionals in a multidisciplinary team dedicated to the care of older patients in all settings.
 3. Achieve a working knowledge of aging physiology and pharmacology, and explicit knowledge of geriatric syndromes and common geriatric problems.
- Brief description of rotation and student activities:

During the two or four week Geriatric Medicine elective medical students will examine elderly patients under the direct supervision of faculty and fellows in Geriatrics. Clinical experiences include outpatient geriatric assessment (interdisciplinary care) clinic and consult services, long-term care facilities, home care; and specialty clinics (Geriatric-Oncology, Aging Brain Center); and students will participate in the numerous didactic activities (including case presentations, evidence-based journal club, research topic review conferences) and teaching rounds of the Section.

- Student Assessment:

Students are evaluated on the basis of the following strategies:

 1. Direct observations by staff of students during their interaction with patients, their presentation of cases and their participation in team discussions and conferences.
 2. Chart reviews of their patients seen in clinic, and the nursing home.
 3. Feedback from the geriatric team and staff physicians.
 4. Meetings with Dr. Palmer at least weekly to receive feedback regarding their performance and to give feedback to him regarding the quality of their experience.
 5. Evaluation emphasizes performance of standards for the following competencies: health systems; medical knowledge, communication, professionalism, clinical reasoning.

Hematology and Medical Oncology

Program Coordinator	Alan Lichtin, M.D.
Duration	4 weeks
Number of Students	1
Available	Year around
Time	Full time
Objectives	To provide the student with exposure to a busy referral service with a broad spectrum of diseases in the areas of hematology and medical oncology.
Description	<p>The student will be assigned to one of the inpatient hospital services. The student is paired with a senior staff member and is responsible for the initial diagnostic examination and plans for patient management. It is anticipated that one or two such examinations will be performed daily.</p> <p>The patient population is extensive and represents all facets of hematology and oncology. Depending on the interest of the student, greater emphasis may be placed on hematology or medical oncology.</p> <p>The scheduled conferences attended by all staff members include Grand Rounds, a Morphology Conference, a Research Conference, a Coagulation Conference, Tumor Board, Case Management Conference and Lymphoma Conference. In addition to the clinical activities, time may be arranged for study in the hematology laboratories.</p> <p>The Department is a member of the Southwest Oncology Group, and many patients are treated with experimental drugs. Other areas of major interest are bone marrow transplantation, biotherapy and palliative care. These activities are an important part of the department and the student is encouraged to work with the staff member in a particular area of interest.</p> <p>Evaluation forms are given to the staff members to whom the student is assigned. A report will be given to deans and phase coordinators on request.</p>

- Title of Elective: Infectious Disease
- Contact Information to Schedule: Pat Gasser gasserp@ccf.org
- Faculty Sponsor:
 1. Name: Kristin Englund, M.D.
 2. Email: englunk@ccf.org
 3. Telephone: (216) 445-9688
- Duration: 4 weeks
- Months that elective will be offered: Year long
- Number of students: 1 minimum 4 maximum
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible): Students are required to have completed their core clerkship in Medicine.
- Eligible Students: Any medical student
- Location(s) where elective will be conducted: Inpatient Infectious Disease consult service at CCF
- Learning objectives for elective:
 1. Acquires an approach to diagnose and manage infections commonly seen in hospitalized patients
 2. Learns risk factors and therapeutic options for drug-resistant pathogens
 3. Understands principles of commonly prescribed antimicrobial agents (mechanisms of action, clinical pharmacology)
- Brief description of rotation and student activities:
Medical students rotating on the inpatient Infectious Disease consult service will evaluate patients with a wide spectrum of infections. The students will be supervised by staff physicians, fellows and rotating CCF house officers. The students will assume a level of responsibility commensurate to their experience and ability.

In the course of evaluating patients on the consult service, the students' will be assessed in the following areas: knowledge of clinical medicine and infectious diseases; ability to effectively gather, organize, and communicate clinical information; ability to perform physical examinations; and ability to formulate appropriate diagnostic and therapeutic plans.

Students are expected to read about the disease entities and/or syndromes afflicting the patients that they follow. It is expected that students will develop evidenced-based diagnostic and therapeutic plans for their patients. At the conclusion of the rotation, the students will have developed effective strategies to diagnose and manage commonly seen infections in hospitalized patients. Other key goals for the rotation are: understanding the mechanism of action, spectrum of activity, and clinical pharmacology of commonly utilized antimicrobial agents and learning risk factors and therapeutic options for drug-resistant pathogens.

In addition to their independent reading, students will be exposed to various infectious disease topics during teaching rounds and at weekly infectious disease conferences.

- Student Assessment:
Evaluation forms are given to staff members who work with rotating students. A report will be given to deans/coordinators on request.

Elective Rotation Confirmation and Application Form

- Title of Elective: Medical and Surgical Management of Obesity

- Contact Information:

- o Faculty Sponsor:

Name: Tomasz Rogula, MD, PhD

Email: rogulat@ccf.org

Phone: 216-445-0255

Contact person to schedule students: Pat Gasser; gasserp@ccf.org

- Duration: 4 weeks
- Months that elective will be offered (e.g., all months except July; specific dates will be determined by the Case Academic Calendar: **all months except: December, June, July**)
- Number of students: 1 minimum 5 maximum
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible): **Completed Basic Core 1**
- Eligible Students: **CWRU/CCLCM medical students only**
- Location(s) where elective will be conducted: Cleveland Clinic Bariatric and Metabolic Institute
- Learning objectives for elective:
 - Clinical
 - Describe worldwide incidence, prevalence, demography and clinical and socioeconomic impact of obesity. Prophylaxis, life style modification, public education.
 - Define obesity and explain how to assess: obesity grading, measurements of body mass index, body composition, waist-hip ratio.
 - Explain the medical management of obesity: dietary and drugs, behavioral modifications, exercise; psychological and nutritional evaluation.
 - Explain the surgical management of obesity: National Institute of Health and American Society for Metabolic and Bariatric

- Surgery guidelines for bariatric surgery; patient selection, preoperative preparation, peri- and post operative care.
 - Compare and contrast bariatric surgical procedures and their outcomes, complications, metabolic consequences and effects on the absorption and disposition of nutrients and drugs.
 - Explain risk-benefit ratios of current approaches to obesity management, including behavior changes, pharmaceutical therapies, and surgery.
- Basic Science (including disciplines such as pathology, microbiology)
 - Explain the etiology, pathophysiology, pathology, energy metabolism and biochemistry of obesity
 - Describe the effects of recent research on the models of obesity causes, including genetic and biologic factors
 - Explain the physiologic effect of obesity on cardio-metabolic factors
 - Assess the impact of weight loss and hormonal changes from various therapies on comorbidities associated with obesity, primarily type II diabetes, hyperlipidemia, and heart disease.
- Brief description of rotation and student activities:

The student is paired with an attending physician and a bariatric fellow for a series of 5 day assignments. They will follow the attending bariatric surgeon, the bariatrician (weight loss medical doctor), dietitian and psychologist during their daily clinic, inpatient, outpatient routines, including taking history, physical exam and specific obesity evaluations and tests. Students can also attend patients' seminars, workshops and support groups. All students will scrub for surgeries and actively participate in laparoscopic bariatric procedures, gastric band adjustments, fluoroscopies and endoscopies.

Students will participate in didactic sessions with attendings and fellows, including weekly fellows' research and clinical conferences, journal clubs, M&M and minimally invasive and bariatric surgery international video-conferences. They can present on selected topics. Students will be invited to participate in the Bariatric and Metabolic Institute Obesity Summit and Obesity Research Day if they are able. They will be able to interact with the Cleveland Clinic obesity and bariatric surgery research group, being actively involved in ongoing projects as well as being able to submit new research ideas and grant proposal. They can attend metabolic and bariatric research and animal lab. They can participate in surgical simulation and have access to large video-library. Those interested in research can participate in full research rotation to complete their projects and present them in conferences and publications.

- Student Assessment:

CWRU/CCLCM students will be assessed using the Clinical Assessment System (CAS), recording patient encounters in which they have significant involvement. Students will request feedback from supervising faculty and residents/fellows through the CAS system. In addition, students will complete a survey to compare their knowledge about obesity before and after completion of the rotation using a multiple-choice, 10-item questionnaire. The questionnaire will assess students' ability to identify factors contributing to obesity, diagnose obesity, discuss environmental and behavioral factors that can exacerbate obesity, delineate medical risks and complications associated with obesity and identify modalities used in treating obesity and its comorbidities and their safety and efficacy.

- Title of Elective: Nephrology/Hypertension Consults
- Contact Information to Schedule: Pat Gasser gasserp@ccf.org
 - Faculty Sponsor:
 1. Name: Brian Stephany, M.D.
- Duration: 4 weeks
- Months that elective will be offered (e.g., all months except July; specific dates will be determined by the Case Academic Calendar):
- Number of students: 1 minimum 1 maximum
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible): Core Clerkships
- Eligible Students: Any medical student
- Location(s) where elective will be conducted: Cleveland Clinic
- Learning objectives for elective:
 - Clinical
 1. To introduce the student to the medical subspecialties of hypertension and nephrology and to provide an opportunity to gain knowledge and increase clinical skills in the evaluation and therapy of patients; to introduce the student to renal diseases, their evaluation and management.

Brief description of rotation and student activities: The student will work directly with and under the supervision of a staff physician for the 4 week period. The emphasis will be on hospitalized patients. The student will be expected to make daily work rounds with the department Fellow. A certain amount of outpatient clinic experience can be expected during the rotation. The student will accompany the staff physician and may be given the opportunity to do the initial interview and examination of selected consultations.

The student will be expected to attend and possibly participate in the departmental conferences.

Student Assessment: Evaluation forms are given to the staff members to whom the student is assigned. A report will be given to deans on request.

Internal Medicine Inpatient Subinternship

Program Coordinator	Mark Mayer, M.D.
Duration	4 weeks
Number of Students	1
Available	Prearranged
Time	Full time
Objectives	To offer the senior medical student an opportunity to strengthen and develop clinical skills relevant to general internal medicine and inpatient medical care.
Description	<p>The student will work on one of the two ward teams which comprise the Department of General Internal Medicine in-patient service. They will participate in the evaluation and treatment of patients on the service, working closely with the residents and attending physicians.</p> <p>In addition, they will attend and participate in daily work rounds, formal teaching rounds, and departmental teaching conferences. Many other teaching conferences also are available. The student will function as an intern, but carry a reduced patient load.</p> <p>Although this is a multispecialty tertiary care center, most of the patients seen by physicians in the Department of General Internal Medicine are not categorizable into a single sub-specialty area.</p> <p>Those patients who require hospitalization represent a remarkable array of diagnostic and therapeutic challenges, including many unusual diseases.</p> <p>Evaluation forms are given to the staff members to whom the student is assigned. A report will be given to deans and phase coordinators on request.</p>

Case School of Medicine
Elective Rotation Confirmation and Application Form

Dear Faculty: Please fill out this form for a current or planned medical student elective rotation

- Title of Elective: Neurology Acting Internship
- Contact Information:
 - Faculty Sponsor:
 1. Name: Jennifer S. Kriegler, MD
 2. Email: krieglj@ccf.org
 3. Telephone: 216-444-8256
 - Contact person to answer questions from students:
- Duration: ☐ 2 weeks X ☐ 4 weeks
- Months that elective will be offered (e.g., all months except July; specific dates will be determined by the Case Academic Calendar): All except July
- Number of students: __ minimum _1_ maximum
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible): Core Clerkships
- Eligible Students: ☐ Case students only X ☐ Any medical student
- Location(s) where elective will be conducted: Cleveland Clinic
- Learning objectives for elective:
 - Clinical
 1. To learn principles of Hospital Neurologic care
 2. To experience the role of the primary physician who cares for a variety of acutely ill Neurologic patients.
 3. To improve skills in history taking, physical exam, differential diagnosis, and formulating patient management care plans, including acute and chronic post hospital care.
 - Basic Science (including disciplines such as pathology, microbiology)
 1. To incorporate pathophysiology of disease into patient management.
 2. To learn to incorporate and apply evidenced based medicine into the acute management of hospitalized patients.

3. To learn to apply and interpret various laboratory/imaging studies as they apply to patient care

- Brief description of rotation and student activities:
Students will be part of the General Neurology Team. The student will be expected to take in-house night call. Duty hours will respect ACGME guidelines. Workload will be approximately ½ of the patient-care responsibilities assigned to interns. Students will be expected fully participate in all educational conferences that neurology residents/interns attend. Patient care is paramount and will take precedence over all medical school obligations including Friday conference, class meetings, etc.
- Student Assessment: On-line using the electronic assessment system. Twice a month face to face evaluation with preceptor.

Neurology

Program Coordinator	Richard J. Lederman, M.D., Ph.D.
Duration	4 weeks
Number of Students	1
Available	Year around
Time	Full time
Additional Requirements	A Neurology Textbook and suitable diagnostic instruments.
Objectives	To familiarize the student with the common presentation and natural history of patients with neurologic diseases; to offer the student the opportunity to establish proficiency in the neurological examination; to provide exposure to the diagnostic work-up and therapy of patients with neurological disease; and to be stimulated to pursue basic literature regarding the diseases of patients seen.
Description	<p>The student rotation in the Department of Neurology emphasizes a longitudinal experience on the inpatient neurology services.</p> <p>The student will have responsibility for obtaining admission histories, for performing complete general and neurologic examinations and for participating in decisions regarding diagnostic measures and therapy. It is expected that the student will be prepared to present these cases at daily rounds and will be able to provide up-to-date information at any subsequent time during the patients hospitalization. The student is further expected to read both basic and clinical material regarding the patients under his or her care.</p> <p>An individual student will usually be responsible for two or three patients on each day of the program. The student also will have the opportunity to examine patients in the outpatient department as schedules permit. Students will participate in all of the academic exercises of the department and in daily teaching rounds. Conferences include Grand Rounds, clinical and case management conferences, basic neuroscience seminars, neuropathology and neuroradiology conferences.</p> <p>Student evaluation is performed by the attending staff in consultation with the residents and fellow, based on various factors including fund of knowledge, level of interest, attention to patients, accuracy and completeness of chart notes, participation in rounds and contributions to discussions on diagnosis and management. The assessment is discussed with student whenever possible.</p> <p>A report will be given to deans and phase coordinators on request.</p>

- Title of Elective: Neurological/Neurosurgical Intensive Care Unit
- Contact Information to Schedule: Pat Gasser gasserp@ccf.org
 - Faculty Sponsor:
 1. Name: Javier Provencio, M.D.
- Duration: 4 weeks
- Months that elective will be offered (e.g., all months except July; specific dates will be determined by the Case Academic Calendar): **No April or November**
- Number of students: _1_ minimum _1_ maximum
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible):
- Eligible Students: Any medical student
- Location(s) where elective will be conducted: Cleveland Clinic
- Learning objectives for elective:
 - Clinical
 1. The student will be involved with consultations in other intensive care units and the emergency room. The student will join the medical team involved with management of acute neurological and neurosurgical problems.
- Brief description of rotation and student activities: The student will participate in daily multidisciplinary rounds in the NICU and will be responsible for the medical care for selected patients.

Daily rounds, teaching conferences, and required literature assignments will be the main source of formal education. The student will have the opportunity to participate in the many educational activities provided by the departments of Neurology and Neurosurgery.

Student Assessment: Evaluation will be made by the NICU director after receiving input from other staff who have substantial contact with the student. A report will be given to deans upon request.

Vascular Medicine Elective

Program Coordinator – Teresa L. Carman, M.D.

Duration - 4 weeks

Number of Students – 1

Available - Most months except June and July – availability ultimately depends on the number of rotating residents

Time – full time

Objectives:

To provide the student exposure to a wide variety of patients with vascular medicine problems including arterial, venous, and lymphatic disorders, cardiovascular risk factor stratification and modification, and thrombophilia. To acquire the skills necessary to evaluate, diagnose and treat these patients in both in the inpatient and outpatient setting. To understand the role of the vascular laboratory with respect to non-invasive testing and evaluation of vascular patients.

Description:

This rotation provides excellent exposure to Vascular Medicine. The Section of Vascular Medicine at Cleveland Clinic is part of the Department of Cardiovascular Medicine and is one of the most active Vascular Medicine practices in the United States. The wealth of clinical material provides a wide variety of vascular problems in both the inpatient and outpatient setting.

During the rotation the Medical Student will have a specific staff physician assigned as an advisor. However, he/she will work with many of the physicians within the section. The rotation will consist of 2 weeks of inpatient service and 2 weeks of outpatient clinic (unless otherwise requested). On the hospital service the student will participate as part of the hospital team. He/she will attend sign-out rounds, receive and present new patient consultations daily and be responsible for seeing previously assigned patients. In the outpatient setting he/she will be assigned to one physician daily and be responsible for evaluating new consults as well as participate in the care of previously established patients. The student will be required to participate in teaching rounds and conferences designed for the residents and fellows.

This rotation will allow the student to gain exposure to a typically under emphasized part of medical training. This is an opportunity to hone history taking and physical examination skills with attention to developing a good vascular exam. Emphasis is placed on understanding the pathophysiology of the vascular system. There will be additional opportunity to spend time in the non-invasive vascular laboratory as well as the lower extremity wound clinic.

- Title of Elective: Clinical Ophthalmology
- Contact Information to Schedule: Pat Gasser gasserp@ccf.org
 - Faculty Sponsor:
 1. Name: Bennie H. Jeng, MD
 2. Email: jengb@ccf.org
 3. Telephone: (216) 445-9519
- Duration: ☐ 2 weeks ☒ 4 weeks
- Months that elective will be offered (e.g., all months except July; specific dates will be determined by the Case Academic Calendar): All months except July
- Number of students: _0_ minimum _2_ maximum
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible): Core Clerkships
- Eligible Students: Case students only ☒ Any medical student
- Location(s) where elective will be conducted: Cole Eye Institute
- Learning objectives for elective:
 - Clinical
 1. Become familiar with all aspects of the basic eye examination
 2. Be able to interpret common visual symptoms and understand the possible causes of the symptoms
 3. Understand the basic anatomy and physiology of the eye, orbit, and visual pathways
- Brief description of rotation and student activities:

This clinical rotation is designed to expose the student to all of the various subspecialties of ophthalmology. The student's time will be split between the outpatient clinic and the operating room. The student will be expected to become proficient with all aspects of the basic eye examination and will learn to formulate appropriate differential diagnoses and management plans for patients. The student will also learn the fundamental concepts of ophthalmic surgery. Suggested readings will be provided, and participation in scholarly activities (research and writing) will be encouraged. The student will be expected to attend daily lectures with the ophthalmology residents.
- Student Assessment:

Faculty and housestaff evaluations
Final presentation

Pediatric and Adolescent Medicine Subinternship

Program Coordinator	Gary Williams, M.D.
Duration	4 weeks
Number of Students	1
Available	Prearranged
Time	Full time
Objectives	To experience pediatric and adolescent medicine in the hospital setting.
Description	<p>The subintern will have primary responsibility for his/her patients (5 to 6) and will write all orders under the supervision of a resident and the staff physician. Some of the daily activities that the subintern will be involved in are Morning Report, Radiology Rounds, and Walk Rounds.</p> <p>There are regularly scheduled noon conferences and Grand Rounds which the subintern is expected to attend. The subintern will participate in the call schedule with the other interns on an every fourth night basis.</p> <p>Evaluation forms are given to the staff members to whom the subintern is assigned. A report will be given to deans and phase coordinators on request.</p>

Case School of Medicine
Elective Rotation Confirmation and Application Form

- Title of Elective: Pediatric ICU Acting Internship
- Contact Information:
 - Faculty Sponsor: Dr. Elumalai Appachi

Contact person to answer questions from students:

Pat Gasser
Elective Program Coordinator
Email: gasserp@ccf.org

- Duration: 4 weeks
- Months that elective will be offered: All months as determined by the Case Academic Calendar.
- Number of students: ___ minimum 1 maximum
- Prerequisites: Completion of Basic Core Clerkships
- Eligible Students: Any medical student
- Learning objectives for elective:

To expose the medical student to the care of patients with critical illness.
To allow the student to function as a subintern in a pediatric intensive care setting. To teach the principles of ventilator management, invasive monitoring, and critical care.

- Brief description of rotation and student activities:

The medical student will be expected to perform as an intern on a team with an attending physician, pediatric critical care fellows and residents. The student will have primary responsibility for 1-2 patients. This includes initial evaluation, admission orders, H & P, selected procedures under supervision, daily progress notes and management/order writing with counter signature, daily presentations to attending staff, interaction with consulting services and discharge planning. **Students will be expected to take night call.** Students will also be expected to read relevant material from Textbook of Pediatric Intensive Care published by Williams and Wilkins. Extensive use will be made of the Journal of Critical Care Medicine. Students will be expected to attend the Pediatric Grand Rounds and other regularly scheduled conferences.

Evaluation forms are given to the staff member to whom the student is assigned.

- Title of Elective: Pediatric Surgery
- Contact Information To Schedule: Pat Gasser gasserp@ccf.org
 - Faculty Sponsor:
 1. Name: Anthony Stallion, MD
 2. Email: stallia@ccf.org
 3. Telephone: (216)445-1040
- Duration: 4 weeks
- Months that elective will be offered (e.g., all months except July; specific dates will be determined by the Case Academic Calendar):
- Number of students: _1_ minimum _2_ maximum
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible): N/A
- Eligible Students: Any medical student
- Location(s) where elective will be conducted: The Children's Hospital Cleveland Clinic
- Learning objectives for elective:
 - Clinical
 1. understand the care of the pediatric surgical patient
 2. understand the diagnosis of common problems in pediatric surgery
 3. learn the therapies for common problems in pediatric surgery
 - Basic Science (including disciplines such as pathology, microbiology)
 1. understand the embryology of common congenital anomalies
 2. understand the pathophysiology of common congenital anomalies
 3. identify the pathology associated with common congenital anomalies
- Brief description of rotation and student activities: The student will participate in both inpt and outpt care of the pediatric surgical patient. This will include inpt care as well as time in the operating room. The student will be assigned 2-4 pts that will be followed from outpt workup through surgical treatment and follow-up. There is weekly formal pediatric surgery didactic teaching for students and residents. The student will attend weekly general surgery M&M and grand rounds. Each student is required to make a formal presentation on a topic in pediatric surgery.
- Student Assessment: Performance will be assessed by the residents and staff based on participation in both inpt and outpt activities, formal pt write-ups, conference presentation, and meeting patient directed learning objectives developed in conjunction with the staff and/or chief resident. The student will have the opportunity to formally discuss their progress at the midway point with as staff member.

- Title of Elective: Pediatric Cardiology
- Contact Information to Schedule: Pat Gasser gasserp@ccf.org
 - Faculty Sponsor:
 1. Name: Geoffrey Rosenthal, M.D.
- Duration: 4 weeks
- Months that elective will be offered (e.g., all months except July; specific dates will be determined by the Case Academic Calendar):
- Number of students: _1_ minimum _1_ maximum
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible):
- Eligible Students: Any medical student
- Location(s) where elective will be conducted: Cleveland Clinic
- Learning objectives for elective:
 - Clinical
 1. To provide a well-rounded experience in the evaluation, diagnosis, and management of children with congenital heart disease.
- Brief description of rotation and student activities: Students will have the clinical tools used in Pediatric Cardiology such as Pediatric electrocardiograms, echocardiograms and cardiac catheterization techniques. The student is expected to make daily rounds. The student may be actively involved in the care of the postoperative cardiac patients in the ICU and will be welcomed in the operating room with patients they have evaluated either in clinic or hospital.

Major emphasis will be placed on physical findings in heart disease and evaluation of heart murmurs. Management of common cardiac problems will be covered in the outpatient clinic sessions. The student will see outpatients under the direction of the staff cardiologist and may be asked to present one congenital cardiac conference during the rotation.

Student Assessment: Evaluation forms are given to the staff members to whom the student is assigned. A report will be given to deans upon request.

- Title of Elective: Pediatric Endocrinology
- Contact Information to Schedule: Pat Gasser gasserp@ccf.org
 - Faculty Sponsor:
 1. Name: Anzar Haider, MD
 2. Email: haidera@ccf.org
 3. Telephone: 216-636-2107
 - 4.
- Duration: 2 or 4 weeks
- Months that elective will be offered (e.g., all months except July; specific dates will be determined by the Case Academic Calendar):
- Number of students: _1_ minimum _1_ maximum
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible): Must have completed Junior rotation in pediatrics.
- Eligible Students: Any medical student
- Location(s) where elective will be conducted: The Cleveland Clinic Children's Hospital
- Learning objectives for elective:
 - Clinical
 1. Understand basic principals of endocrinology.
 2. Be able to recognize children who may have a hormone problem.
 3. Know the pharmacokinetic properties of various insulin preparations, and use them appropriately to treat Type 1 diabetis.
- Brief description of rotation and student activities: Students will work mostly in the pediatric outpatient clinic. After a few days of orientation, they will be expected to see both new and established patients on their own, develop differential diagnoses, and suggest implementation or changes in therapy. Students will be given daily reading assignments, and three self assessment examinations during the rotation
- Student Assessment: verbal feedback throughout the rotation, written feedback at the end of the rotation.

- Title of Elective: Pediatric Gastroenterology
- Contact Information to Schedule: Pat Gasser gasserp@ccf.org
 - Faculty Sponsor:
 1. Name: Kadakkal Radhakrishnan, M.D.
- Duration: 4 weeks
- Months that elective will be offered (e.g., all months except July; specific dates will be determined by the Case Academic Calendar):
- Number of students: _1_ minimum _1_ maximum
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible): All Core Clerkships
- Eligible Students: Any medical student
- Location(s) where elective will be conducted: Cleveland Clinic
- Learning objectives for elective:
 - Clinical
 1. To provide the student exposure to the problems of gastroenterology as they relate to the pediatric and adolescent patient.
- Brief description of rotation and student activities: Both in an inpatient and outpatient environment, the student will have the opportunity to see new patients and follow-up patients presenting gastroenterological symptoms. Complete history and physical examinations will be performed and diagnostic plans formulated. The student will then have the opportunity to see these patients daily or at the time of follow-up when diagnostic tests are performed.

Weekly seminars concerning specific problems will be given. Attendance at selected pediatric and gastroenterology department conferences as well as the availability to attend general Pediatric grand rounds is also available.

Student Assessment: Evaluation forms are given to the staff members to whom the student is assigned. A report will be given to deans upon request.

- Title of Elective: Pediatric Hematology Oncology
- Contact Information to Schedule: Pat Gasser gasserp@ccf.org
 - Faculty Sponsor:
 1. Name: Kate Gowans, M.D.
- Duration: 4 weeks
- Months that elective will be offered (e.g., all months except July; specific dates will be determined by the Case Academic Calendar):
- Number of students: _1_ minimum _1_ maximum
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible): All Core Clerkships
- Eligible Students: Any medical student
- Location(s) where elective will be conducted: Cleveland Clinic
- Learning objectives for elective:
 - Clinical
 1. Become familiar with outpatient care of children with malignancies and hematologic disorders
 2. Learn the presentation of malignancies in children as pertains to general pediatric practice
 3. Become familiar with the evaluation of patients with newly diagnosed tumors/leukemias
 4. Learn the roles of chemotherapy, surgery, radiation therapy in cancer treatment
- Brief description of rotation and student activities: The student will work with the pediatric hematology oncology team, staff, neuro-oncologist and radiation therapist to learn an interdisciplinary approach to the management of patients. Time will be spent on rounds in the hospital and participating in the outpatient clinic.

Conferences include weekly team meeting, brain tumor conference, and cancer center conferences. The student will be introduced to the basics of chemotherapy trials and clinical studies.

Student Assessment: Evaluation forms are given to the staff members to whom the student is assigned. A report will be given to deans upon request.

- Title of Elective: Pediatric Infectious Diseases
- Contact Information to Schedule: Pat Gasser gasserp@ccf.org
 - Faculty Sponsor:
 1. Name: Camille Sabella, MD
 2. Email: sabellc@ccf.org
 3. Telephone: 445-6862
- Duration: 4 weeks
- Months that elective will be offered (e.g., all months except July; specific dates will be determined by the Case Academic Calendar): All months/modules
- Number of students: __ minimum _1_ maximum
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible): The student must have completed Basic Core II at CCLCM/CWRU or a core pediatric clerkship at their home institution.
- Eligible Students: Any medical student
- Location(s) where elective will be conducted: Cleveland Clinic Children's Hospital, Main Campus
- Learning objectives for elective:
 - Clinical

At the end of the rotation, the student should be able to:

 1. Obtain thorough histories and perform accurate physical examination of pediatric patients with a wide variety of infections.
 2. Synthesize the data gathered from history and physical examination into broad differential diagnosis and management plans.
 3. Perform oral presentations to the faculty on the patients that they evaluate.
 4. Develop a core basic knowledge of common pediatric infections.
 5. Provide written documentation of the history, physical examination, assessments and management plans on the patients that they evaluate.
 - Basic Science (including disciplines such as pathology, microbiology)
 1. Develop an understanding of the pharmacology of commonly used anti-microbial agents, including mechanism of action.
 2. Understand the diagnostic techniques commonly utilized to diagnose infections.
 3. Develop an understanding of the microbiology and pathophysiology involved with common pediatric infections.
 4. Understand the differences in pharmacology of anti-microbial agents between pediatric patients and adults.
- Brief description of rotation and student activities:

The student will be responsible for the work-up of inpatients seen by the pediatric infectious diseases team at the Cleveland Clinic Children's Hospital, and will work under the direct supervision of a pediatric infectious diseases staff. The student will follow patients on the consultation and primary pediatric infectious diseases team and will independently obtain a complete history and perform a physical examination on pediatric patients with a wide variety of infections. The student will be expected to develop a differential diagnosis, diagnostic plan, and management plan on their patients. The student will present each patient that they work-up to the attending staff during teaching rounds, and these patients will be discussed in detail. The student will be expected to follow their patients as long as needed and to discuss their care daily during work and teaching rounds.

At the beginning of the rotation, the student will be given a packet of journal articles/reviews dealing with commonly encountered pediatric infections. These articles will be discussed as part of didactic rounds as time allows during the rotation. The student will also be given journal articles relevant to the patients they are caring for.

The student will be expected to attend microbiology rounds at least twice weekly, and gather microbiologic data on their patients.

- Student Assessment:

Students will be assessed on their patient care skills, communication skills, knowledge base, professionalism, practice-based learning skills, and research skills. Students will be given verbal and written feedback of their skills throughout the rotation, and be given suggestions for improvements.

- Title of Elective: Pediatric Neurology
- Contact Information to Schedule: Pat Gasser gasserp@ccf.org
 - Faculty Sponsor:
 1. Name: Neil Frieman
 2. Email: friedmn@ccf.org
 3. Telephone: 216/444-6772
- Duration: ☐ 2 weeks ☒ 4 weeks
- Months that elective will be offered (e.g., all months except July; specific dates will be determined by the Case Academic Calendar): All months
- Number of students: 1 minimum 2 maximum
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible): None
- Eligible Students: ☐ Case students only ☒ Any medical student
- Location(s) where elective will be conducted: S71 pediatric neurology outpatients as well as inpatient in the Children's Hospital
- Learning objectives for elective:
 - Clinical
 1. Be able to obtain an appropriate neurological history in a child.
 2. Be able to perform a basic neurological examination in an infant and child, and understand the significance of abnormal findings
 3. Know the "ages" of major developmental milestones, and the clinical significance of their presence or absence.
 - Basic Science (including disciplines such as pathology, microbiology)
 1. Able to localize lesions within the neuroaxis
 2. Define features associated with central nervous system disease versus peripheral nervous system disease.
 - 3.
- Brief description of rotation and student activities: Students will join the hospital team in the morning and round in the Children's Hospital. Each student will be allocated 1-2 patients to follow throughout their hospital stay and be responsible, with residency supervision for the care of the patient
Each afternoon, the student will attend a child neurology outpatient clinic with a different child neurology attending to get exposure to common, as well as less common, pediatric neurological conditions affecting newborns, children and adolescents.
- Student Assessment: Feedback will be provided by the child neurology attending on the hospital service for the month, with supplementary feedback as to performance by other attendings they work with in the outpatient environment.

- Title of Elective: Pediatric and Adolescent Acting Internship
- Contact Information to Schedule: Pat Gasser gasserp@ccf.org
 - Faculty Sponsor:
 1. Name: Rita Pappas, M.D.
- Duration: 4 weeks
- Months that elective will be offered (e.g., all months except July; specific dates will be determined by the Case Academic Calendar):
- Number of students: _1_ minimum _1_ maximum
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible):
- Eligible Students: Any medical student
- Location(s) where elective will be conducted: Cleveland Clinic
- Learning objectives for elective:
 - Clinical
 1. To experience pediatric and adolescent medicine in the hospital setting.
- Brief description of rotation and student activities: The acting intern will have primary responsibility for his/her patients (5-6) and will write all orders under the supervision of the resident and staff physician. Some of the daily activities the acting intern will be involved are: Morning Report, Radiology Rounds and Walk Rounds.

There are regularly scheduled noon conferences and Grand Rounds which is acting intern is expected to attend. The acting intern will participate in the call schedule with the other interns on an every fourth night basis.

Student Assessment: Evaluation forms are given to the staff members to whom the student is assigned. A report will be given to deans upon request.

Pediatric Urology

Program Coordinator	Robert Kay, M.D., Jonathan Ross, M.D.
Duration	4 weeks
Number of Students	1
Available	Prearranged
Time	Full time
Objectives	To provide the student a wide exposure to the diagnostic problems and therapeutic management of patients in the Department of Pediatric Urology. This will aid the student in making an evaluation of patients with urologic disease in the pediatric age group.
Description	<p>This program will demonstrate a wide range of diagnostic problems and workup evaluation of pediatric patients with urologic problems. This will entail endoscopic as well as radiographic evaluation.</p> <p>The student will gain knowledge into the intricacies of pediatric urology and will be exposed to some of the many syndromes associated with pediatric urology.</p> <p>The student will also be involved with the surgical procedures as part of the program. There will also be several series of lectures a student may attend while working in this area that will include both adult and pediatric urology.</p> <p>Evaluation forms are given to the staff members to whom the student is assigned. A report will be given to deans and phase coordinators on request.</p>

- Title of Elective: Psychiatry - Adult Acting Internship
- Contact Information to Schedule: Pat Gasser gasserp@ccf.org
 - Faculty Sponsor:
 1. Name: Leo Pozuelo, M.D.
- Duration: 4 weeks
- Months that elective will be offered (e.g., all months except July; specific dates will be determined by the Case Academic Calendar):
- Number of students: _1_ minimum _1_ maximum
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible): Core Clerkships
- Eligible Students: Any medical student
- Location(s) where elective will be conducted: Cleveland Clinic
- Learning objectives for elective:
 - Clinical
 1. Interview a patient, competently eliciting pertinent medical and behavioral history and performing a mental status examination
 2. Identify and describe the major forms of mental illness and character pathology.
 3. Describe the indications and contraindications for specific pharmacological, physical and psychotherapies.
- Brief description of rotation and student activities: Working with an attending and psychiatric residents, the student will care for selected adult inpatients under supervision. One half day per week is devoted to formal didactics. The student will also participate in daily reports, team meetings, teaching rounds. The student will present patients to the treatment team, and report findings through regular notes in the medical record.

Student Assessment: Evaluation forms are given to the staff members to whom the student is assigned. A report will be given to deans upon request.

- Title of Elective: Chemical Dependence Diagnosis and Treatment
- Contact Information to Schedule: Pat Gasser gasserp@ccf.org
 - Faculty Sponsor: David W. Streem, M.D.
 1. Name: David W. Streem, M.D.
 2. Email: streemd@ccf.org
 3. Telephone: 216-444-5815
- Duration: ☐ 2 weeks ☒ 4 weeks
- Months that elective will be offered (e.g., all months except July; specific dates will be determined by the Case Academic Calendar): All months except October
- Number of students: ___ minimum 1 maximum
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible): Psychiatry Core Clerkship, Internal Medicine Core Clerkship
- Eligible Students: ☐ Case students only ☒ Any medical student
- Location(s) where elective will be conducted: P47/P48
- Learning objectives for elective:
 - Clinical
 1. Gain experience in the management of drug detoxification.
 2. Gain experience in the psychotherapy of chemical dependency.
 3. Gain experience in the assessment of other medical and psychiatric conditions from which CD patients commonly suffer.
 - Basic Science (including disciplines such as pathology, microbiology)
 1. Explain toxicology testing for drugs of abuse.
- Brief description of rotation and student activities: Students will become part of the physician staff/resident team doing intake admissions and follow-up visits with patients participating in observation, inpatient, and partial hospitalization levels of care. The student will participate in some of the group therapy activities of the unit. For at least one week, the student will observe patients farther along in treatment, in an Intensive Outpatient level of care. Readings are provided to students to discuss with Dr. Streem and the rotating resident.
- Student Assessment: Students will be expected to demonstrate the ability to perform a comprehensive CD assessment by the end of the rotation. Assessment will be based on the student's ability to identify signs of drug or alcohol withdrawal, and develop a treatment plan consistent with a medical student's level of training.

- Title of Elective: Child/Adolescent Psychiatry
- Contact Information to Schedule: Pat Gasser gasserp@ccf.org
 - Faculty Sponsor:
 1. Name: Kathleen Quinn, M.D.
 2. Email: quinnk@ccf.org
 3. Telephone: 216-444-5950
- Duration: 4 weeks
- Months that elective will be offered (e.g., all months except July; specific dates will be determined by the Case Academic Calendar): All months except July, August, and December
- Number of students: 1 minimum 1 maximum
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible): Psychiatry Clerkship
- Eligible Students: Any medical student
- Location(s) where elective will be conducted: Cleveland Clinic Main Campus
- Learning objectives for elective:
 - Clinical
 1. To acquire knowledge of behavioral health assessment of teens and children
 2. To acquire interviewing skills of minor patients and their families
 3. To learn the diagnostic criteria of common psychopathology in children and teens
- Brief description of rotation and student activities:

The Section of child and Adolescent Psychiatry offers students an opportunity to acquire knowledge and skill in evaluation of children and teens with neurobiological disorders as well as the emotional/behavioral impact of chronic medical illnesses on children and their families. Students will learn and perform psychiatric evaluations, will perfect differential diagnoses of psychiatric signs and symptoms in minors and strengthen skills in interviewing children and families in outpatient, inpatient and consult-liaison settings.

Each student will meet with Dr. Quinn or Dr. Glazer to review schedule. There is flexibility in the amount of time each student is assigned to either C-L/outpatient or inpatient. The first hour performed by the student, social worker or resident is based on history gathering from parents and child and as tolerated a brief individual interview of the child. The second hour is a succinct presentation of the case to the attending, an interview of the child and feedback to parents of preliminary diagnostic impressions and negotiation of a treatment plan.

Introductory readings will be provided.

Each medical student is also expected to select a subject related to child and adolescent psychiatry to read in depth and present to the Section in a one hour presentation on the last Friday of your rotation. Staff can assist you in directed readings.

- Student Assessment:
 - End of rotation rating clinical competence
 - End of rotation presentation

Psychiatry - Pain Management

Program Coordinator	Edward Covington, M.D.
Duration	4 weeks
Number of Students	1
Available	P rearranged
Time	Full time
Objectives	To introduce the students to methods of diagnosis and treatment of patients with chronic pain.
Description	<p>There are many patients who suffer from chronic pain that is not curable by traditional medical and surgical methods. The reasons for this are both psychological and physical.</p> <p>The Pain Management Unit consists of eight beds on the psychiatric unit in which patients are treated with methods which integrate physical and psychological approaches. Students will participate in the diagnosis and treatment of these patients.</p> <p>Treatment methods include group psychotherapy, physical therapy, marriage counseling, biofeedback training, detoxification and the use of psychotropic drugs. The team concept of treatment is stressed. Reading materials and case conferences are available to the student. If a student wishes brief exposure to other types of pain and pain management, they may also receive instruction from the Anesthesiology Department (nerve blocks, transcutaneous electrical stimulation) and liaison psychiatry (oncology patients).</p> <p>Evaluation forms are given to the staff members to whom the student is assigned. A report will be given to deans and phase coordinators on request.</p>

- Title of Elective: Psychiatry – Consultation/Liaison
- Contact Information to Schedule: Pat Gasser gasserp@ccf.org
 - Faculty Sponsor:
 1. Name: Leo Pozuelo, M.D.
- Duration: 4 weeks
- Months that elective will be offered (e.g., all months except July; specific dates will be determined by the Case Academic Calendar):
- Number of students: _1_ minimum _1_ maximum
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible): Core Clerkships
- Eligible Students: Any medical student
- Location(s) where elective will be conducted: Cleveland Clinic
- Learning objectives for elective:
 - Clinical
 1. To provide consultation to non-psychiatric medical personnel regarding psychiatric problems in the medically ill patient.
 2. To learn the appropriate use of psychotropic medications in the medical/surgical patient.
 3. To integrate biological, psychological, and social contributions to any consultation problem.
 4. Participate in liaison conferences with various medical surgical teams as needed.
- Brief description of rotation and student activities: To provide an opportunity to work closely with the consultation/liaison psychiatrist and psychiatry resident. Student will experience observations of bedside interviews, management of psychiatric problems in this population under close supervision, weekly case presentations, and journal club.

Major consulting services include primary care, cardiology, gastroenterology, intensive care units, oncology, nephrology, and neurology. Ample material is provided and opportunity for research.

Student Assessment: Evaluation forms are given to the staff members to whom the student is assigned. A report will be given to deans upon request.

- Title of Elective: Introduction to Diagnostic Radiology
- Contact Information:
 - Faculty Sponsor:
 1. Name: Carolyn VanDyke
 2. Email: vandykc@ccf.org
 3. Telephone: 445-7037
 - Contact person to answer questions from students:
- Duration: ☐ 2 weeks ☒ 4 weeks
- Months that elective will be offered (e.g., all months except July; specific dates will be determined by the Case Academic Calendar):
- Number of students: ___ minimum ___4_ maximum
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible): Generally students will be more successful following core clerkships, but the motivated student can do this elective without. Prefer 4th year (following clerkships). 3rd year with permission.
- Eligible Students: ☐ Case students only ☒ Any medical student
- Location(s) where elective will be conducted: Main Campus Radiology Dept
- Learning objectives for elective:
 - Clinical
 1. Identify Radiologic abnormalities
 2. Characterize abnormalities
 3. Synthesize radiographic information, clinical exam, lab data to reach differential diagnosis
 4. Develop appreciation of utility of various radiologic modalities, and when to employ them.
 - Basic Science (including disciplines such as pathology, microbiology)
 - 1.
 - 2.
 - 3.
- Brief description of rotation and student activities: Two week overview of Radiology, with 1 or 2 days in a variety of subspecialties. Two week in depth experience in one or two subspecialties of the student's choice. Daily conference attendance mandatory.

Small group teaching sessions, minimum of 2X/week, to learn process of film interpretation. Students expected to create one teaching file/ week of rotation (usu. 4/rotation) in PowerPoint format, and present one case at end of rotation.

- Student Assessment: Qualitative assessment of development of ability to identify and characterize radiographic abnormalities, and produce a logical differential diagnosis. Qualitative assessment of value of teaching cases.

- Title of Elective: Radiation Oncology
- Contact Information to Schedule: Pat Gasser gasserp@ccf.org
 - Faculty Sponsor: Gregory M. Videtic, M.D., Program Director
 1. Name: Gregory M. Videtic, M.D.
 2. Email: videtig@ccf.org
 3. Telephone: 216-444-9797
 - Contact person to answer questions from students: Mary Kathryn Poptic
216-445-4379 (email: popticm@ccf.org)
- Duration: 4 weeks
- Months that elective will be offered (e.g., all months except July; specific dates will be determined by the Case Academic Calendar): July through May
- Number of students: 1 minimum 2 maximum
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible): No prerequisites required
- Eligible Students: Any medical student
- Location(s) where elective will be conducted: Department of Radiation Oncology on CCF Main Campus at T-28
- Learning objectives for elective:
 - Clinical
 1. Introduction to principles and practice of Radiation Oncology
 2. Introduction to principles of cancer care
 3. Improving overall skills in assessing the patient, with an emphasis on the cancer diagnosis
- Brief description of rotation and student activities: During the rotation, the medical student is paired with an attending physician and a resident for 1-3 day assignments. They shadow the attending for that period and are asked to complete history and physical exams, then present their findings to their assigned attending. This is followed with discussions regarding work-up and management of disease. Students participate in daily didactic sessions with residents and attendings. Medical students are also involved in treatment simulation, planning, patient set-up, on-treatment monitoring, post-treatment follow-up visits. Medical students are encouraged to attend tumor board meetings and relevant conferences. At end of rotation they are asked to present a case for topic discussion and prepare a 2-page handout, this is followed by a brief overview of the chosen disease topic.
- Student Assessment: Assessment is done by the Program Director using feedback from other attendings and residents at the end of the rotation on the evaluation form provided by the medical school.

Colorectal Surgery

Program Coordinator	Ian Lavery, M.D.
Duration	4 weeks
Number of Students	1
Available	Year around
Time	Full time
Objectives	To provide the student with clinical and surgical exposure to the diagnosis and treatment of patients seen in the Department of Colorectal Surgery.
Description	<p>Pre-operative and post-operative patients are seen and diagnostic problems in this field are dealt with daily in the clinic.</p> <p>Instruction of inpatient management includes the value of history taking and proper selection of diagnostic tests and procedures. Participation in reviewing films of radiographic studies and in witnessing endoscopic examinations (including fiberoptic examinations) is available.</p> <p>Outpatient operative procedures also are carried out, and patients are evaluated for appropriate procedures daily. Instruction in the management of hospital patients by preoperative evaluation, operating room participation, and bedside care is offered. Association with enterostomal therapy personnel in the clinical care of stomal patients in the hospital and the clinic is encouraged.</p> <p>There are six staff surgeons in the Department of Colorectal Surgery, and the hospital work load is predominantly abdominal, dealing with a large number of patients with Crohn's Disease and Ulcerative Colitis, as well as large bowel cancer.</p> <p>We have a full staff of six enterostomal therapists who treat the large number of patients we see with ileostomies, colostomies, and ileal conduits. There are also a good number of more common problems of the anorectal region such as hemorrhoids, fissures, and fistulae, and these are dealt with by the members of the department in the outpatient clinic. There is an anal physiology laboratory in the outpatient clinic where manometric and EMG studies are performed. Endorectal ultrasound examinations also are conducted there.</p> <p>Extensive use of total parenteral nutrition is utilized within the department due to the large number of debilitated patients with inflammatory bowel disease. We are also closely related with the home Hyperalimentation Program for patients who have functional or anatomic short bowel syndrome and who survive on home hyperalimentation.</p>

General Surgery

Program Coordinator	R. Matthew Walsh, M.D.
Duration	4 weeks
Number of Students	2
Available	Year around
Time	Full time
Objectives	To provide an educational experience in selected surgical procedures in the Department of General Surgery or in specialty surgery including pre operative, intra operative, and post operative patient care.
Description	<p>The Medical Student Clerkship curriculum for the Department of General Surgery is flexible. Each student elects his/her own program with educational experience in general surgery and/or related surgical specialties such as colorectal surgery, plastic surgery, vascular surgery, or gynecological surgery. The student is under the direct supervision of the staff physician and the senior resident in each department. The student sees patients in the out patient clinic, both pre operatively and post operatively, makes rounds in the hospital, and assists during surgical procedures. The student is assimilated as a member of the Surgical Resident Team.</p> <p>Evaluation forms are given to the staff members to whom the student is assigned. A report will be given to deans and phase coordinators on request.</p>

Case School of Medicine
Elective Rotation Confirmation and Application Form

Dear Faculty: Please fill out this form for a current or planned medical student elective rotation

- **Title of Elective:** Endocrine Surgery Acting Internship
- **Contact Information:**
 - **Faculty Sponsor:**
 - **Name:** Eren Berber, M.D.
 - **Email:** berbere@ccf.org
 - **Telephone:** 216-445-0555
 - **Contact**
 - **Name:** Sharon Preztak
 - **Email:** preztas@ccf.org
 - **Telephone:** 216-445-0633
- **Duration:** ☐ 2 weeks ☐ 4 weeks
- **Months that elective will be offered (e.g., all months except July; specific dates will be determined by the Case Academic Calendar):** All except December
- **Number of Students:** 1 minimum 2 maximum
- **Prerequisites (what rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible):**
- **Eligible Students:** ☐ Case Students Only ☐ Any Medical Student
- **Location(s) where elective will be conducted:** CCF Main Campus
- **Learning objectives for elective:**
 - **Clinical**
 - Learn endocrine physiology
 - Get exposure to different endocrine disorders
 - Get exposure to different endocrine surgical procedures
 - **Basic Science (including disciplines such as pathology, microbiology)**
 - Will attend monthly pathology conference
 -
 -

- **Brief description of rotation and student activities:**
 - The students will be able to interact with the three endocrine surgeons. They will be able to attend and participate in the weekend endocrine conferences. They will be able to see patients in the clinic and then scrub into the surgical cases. The rotation will enable the student to be engaged in a variety of endocrine surgical procedures, including thyroid, parathyroid, adrenal, pancreatic, and hepatic cases.
- **Student Assessment:** Will be done by the staff supervisors at the end of the rotation

Case School of Medicine
Elective Rotation

- Title of Elective: Advanced Surgery and Surgical Anatomy
- Contact Information:
 - Faculty Sponsors:
R. Matthew Walsh, M.D.
Richard Drake, Ph.D.
- Duration: ☐ 2 weeks ☒ 4 weeks
- Months that elective will be offered): **August or September**
- Number of students: __ minimum 4 maximum
- Prerequisites: Completion of 3rd year Surgical Clerkship
- Eligible Students: ☒ Any medical student interested in a career in surgery
- Location(s) where elective will be conducted: Cleveland Clinic Main Campus
- Learning objectives for elective:
 - Clinical
 1. Demonstration of anatomic dissection
 2. Surgical dissection in anatomy lab
 3. Identification of complex surgical cases for pathophysiology, presentation and surgical management
- Brief description of rotation and student activities:

This is an advanced clinical rotation in surgery that is designed for students interested in a career in surgery. It is meant to allow students to perform surgical procedures on fresh cadavers to correspond with the clinical service the student is assigned. It is a group rotation with students rotating as leader of anatomy dissection based on their clinical rotation in one of five possible subspecialty areas: hepatobiliary surgery, GI surgery, thoracic/cardiovascular, colorectal surgery, and vascular surgery. One day a week will be spent in the anatomy lab. Depending on student interest it will only be available August and/or September.
- Student Assessment:
 - Clinical performance judged by staff
 - Surgical anatomy presentation judged by subspecialty preceptor
 - Clinical presentation at subspecialty conference based on clinical exposure

Case School of Medicine
Elective Rotation Confirmation and Application Form

Dear Faculty: Please fill out this form for a current or planned medical student elective rotation

- Title of Elective: Advanced Laparoscopy and Endoscopy
- Contact Information:
 - Faculty Sponsor: Bipan Chand
 - 1. Name: Bipan Chand
 - 2. Email: chandb@ccf.org
 - 3. Telephone: 216-444-6668
 - Contact person to answer questions from students:
 - 1. Sharon Preztak
 - 2. Email: preztas@ccf.org
 - 3. Telephone: 216-445-0633
- Duration: ☐ 2 weeks ☒ 4 weeks
- Months that elective will be offered (e.g., all months except July; specific dates will be determined by the Case Academic Calendar): all except July and Dec
- Number of students: __ minimum 1 maximum
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible):

Should have completed surgical rotation (core) and multiple prior clinical rotations.

- Eligible Students: ☐ Case students only ☒ Any medical student
- Location(s) where elective will be conducted: CCF main campus
- Learning objectives for elective:
 - Clinical
 - 1. Learn what types of advanced laparoscopic procedures are being done.
 - 2. Be able to identify abnormal endoscopic pathology
 - 3. Participate in conferences.
 - Basic Science (including disciplines such as pathology, microbiology)
 - 1. Able to attend animal workshops

Case School of Medicine
Elective Rotation Confirmation and Application Form

Dear Faculty: Please fill out this form for a current or planned medical student elective rotation

- Title of Elective: Surgery, Hepatobiliary Surgery
- Contact Information:
 - Faculty Sponsor:
 1. Name: R. Matthew Walsh, M.D.
 2. Email: walshm@ccf.org
 3. Telephone: 216-445-7576
 - Contact person to answer questions from students:
 1. Sharon Preztak
 2. Email: preztas@ccf.org
 3. Telephone: 216-445-0633
- Duration: ☐ 2 weeks ☒ 4 weeks
- Months that elective will be offered (e.g., all months except July; specific dates will be determined by the Case Academic Calendar): all months except July
- Number of students: ___ minimum 1 maximum
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible): Completion of 3rd year Surgical Clerkship
- Eligible Students: ☐ Case students only ☒ Any medical student
- Location(s) where elective will be conducted: Cleveland Clinic Main Campus
- Learning objectives for elective:
 - Clinical
 1. Understand surgical anatomy of liver, biliary tract, and pancreas
 2. Demonstrate pre- and post-op care of the hepatobiliary patient
 3. Apply pathophysiology of disease to patient presentation
 - Basic Science (including disciplines such as pathology, microbiology)
 1. Be able to present a topic applying to hepatobiliary disease and/or surgery.

HPB Elective

- Brief description of rotation and student activities:

Active student involvement in the evaluation of complex hepatobiliary and pancreatic disease, its operative management and postoperative care. Interact daily with surgical team that includes staff surgeons, fellow, residents and other medical students.

- Student Assessment:

Clinical performance judged by staff.
Quality of topic presentation.

Elective Rotation Confirmation and Application Form

Dear Faculty: Please fill out this form for a current or planned medical student elective rotation for (formerly referred to as “Type B” or “Year 4” Electives).

- Title of Elective: **NEUROSURGERY ACTING INTERNSHIP**
- Contact Information:
 - Faculty Sponsor: **Dr. Richard Schlenk**
 - Contact person to answer questions from students: Pat Gasser gasserp@ccf.org
- Duration: **■ 4 weeks**
- Months that elective will be offered (e.g., all months except July; specific dates will be determined by the Case Academic Calendar): **All months except July and December**
- Number of students: **Preapproval Required**
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible): **Neuroscience core curriculum. Students should have a strong interest in Neurosurgery through course work and electives.**
- Eligible Students: **■ Any medical student**
- Location(s) where elective will be conducted: **Main Campus/Cleveland Clinic**

Learning objectives for elective:

Obtain exposure to a wide range of diseases and conditions treated by neurosurgeons.

Increase the student's ability to perform a thorough evaluation of a neurosurgical patient.

Understand the roll and responsibilities of a junior neurosurgical resident and perform those duties to the extent possible.

Brief description of rotation and student activities:

The medical student is considered one of the neurosurgical team and participates in all the usual daily activities with the staff physicians and residents. The student rotates through several services, and works closely with the staff and residents.

The student sees new patients and referrals under the direction of the staff in the outpatient and inpatient setting.

The student participates as a member of the surgical team. The student is expected to participate in all service activities which include pre-rounding on assigned patients, writing daily notes and being present for both AM and PM rounds with the chief residents.

Students will be expected to communicate and collaborate with other services within the hospital regarding the care of patients.

Reading material will be recommended and will include an introductory text related to the pathological entities that the student encounters while on the service.

The student is required to take 2 day calls and 1 weekend overnight call during the rotation.

A neurosurgical reference text will be loaned to the student for his/her use throughout the rotation.

The student is required to do a 10-15 minute presentation on an assigned topic or present an article at the Resident Journal Club.

The student will be provided with a mentor during the Neurosurgical rotation.

Students are expected to attend scheduled conferences, as well as resident- and student-specific didactics and seminars that are held throughout the week.

The department works closely with a number of related departments (Neurology, Neuro-radiology, Neuropathology, Neuro-ophthalmology, etc.) and the student has the opportunity to share in consultations and communications between the various services. During the clerkship, the student will also have the opportunity to tour the Neurosurgery research facilities.

Student Assessment:

Minimum of 2 evaluations – one by the chief resident on the service and one by a faculty member chosen by the student. CWRU/CCLCM students will be assessed via the CAS system. Visiting students will provide a copy of their school evaluation form.

Orthopaedic Surgery

Program Coordinator	Thomas Kuivila, M.D.
Duration	4 weeks
Number of Students	4
Available	Year around
Time	Full time
Objectives	To provide an introduction to diagnosis and management of patients with musculoskeletal disease.
Description	<p>The Medical Student is instructed in the examination of the patients with Musculoskeletal Disease, assists in the operating room, and in the care of hospitalized patients. Opportunity for observation and participation in the outpatient care of patients with musculoskeletal disease also is given. Attendance at conferences of biomechanics, hand surgery, and orthopaedic etiology, anatomy, orthopaedic pathology, Journal Club, pediatric orthopaedics and orthopaedic Grand Rounds, basic science, and fractures is required. Students may also attend monthly visiting professor programs.</p> <p>Rotations are designed for concentrated study in one or two specific area. The areas available include adult reconstruction, hand, oncology, back, pediatrics, sports medicine, general orthopaedics, shoulder and tertiary trauma.</p> <p>Evaluation forms are given to the staff members to whom the student is assigned. A report will be given to deans and phase coordinators on request.</p>

Title of Elective: Otolaryngology Acting Internship

Contact Information to Schedule: Pat Gasser gasserp@ccf.org

Faculty Sponsor : Peter C. Weber MD

Name: Anne Monreal (Department Contact)
Email: Monreala@ccf.org
Phone: 216-444-4949

Duration: 4 weeks

Months that elective will be offered: all

Number of students: 1 minimum 4 maximum

Prerequisites: Completion of 3rd year

Eligible Students: Any Medical Student

Location(s) where elective will be conducted: Head & Neck Institute

Learning objectives for elective:

Clinical: Understand the history/examination/treatment for Head & Neck Cancer
Understand the history/examination/treatment for Sinus Disease
Understand the history/examination/treatment for Otologic Disorders

Brief description of rotation and student activities:

Student will rotate on 4-one week rotations consisting of Sinus, Head & Neck,
Otology, Peds or General

Student Assessment:

By how one performs on rotation and presentations

- Title of Elective: **Plastic and Reconstructive Surgery**
- Contact Information to Schedule: Pat Gasser gasserp@ccf.org
 - Faculty Sponsor:
 1. Name: Randall Yetman, M.D. Program Director
 2. Email: yetmanr@ccf.org
 3. Telephone: 216-444-6908
- Duration: ☐ 2 weeks ☒ **4 weeks**
- Months that elective will be offered (e.g., all months except July; specific dates will be determined by the Case Academic Calendar):
- Number of students: 1 minimum 2 maximum
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible):
- Eligible Students: ☐ Case students only ☒ Any medical student
- Location(s) where elective will be conducted: **A60-Plastic Surgery**
- Learning objectives for elective:
 - Clinical
 1. Suture technique
 2. Basic wound care
 3. Examination of the hand
 - Basic Science (including disciplines such as pathology, microbiology)
 1. Wound healing
 2. Melanoma pathology
- Brief description of rotation and student activities:

The department has a dynamic and active staff interested in teaching. The medical student is expected to join in the role of a junior resident and care for patients from the time of admission, assist intra-operatively and take post-operative responsibilities. Students are encouraged to participate fully in all the departmental activities that are offered:

 - Microsurgery Technique
 - Research Participation
 - Cadaver dissections for anatomical studies
 - Special clinics: a. *Cleft Lip and Palate Clinic*, b. *Hand Clinic*
 - Presentations
 - Teaching ward rounds
 - Journal
- Student Assessment: The current residents in the program are also encouraged to guide and assist in this learning experience. Evaluation forms are given to the Chief Resident and Program Director to complete.

- Title of Elective: Thoracic and Cardiovascular Surgery
- Contact Information to Schedule: Pat Gasser gasserp@ccf.org
 - Faculty Sponsor:
 1. Name: Eric Roselli, M.D.
- Duration: 4 weeks
- Months that elective will be offered (e.g., all months except July; specific dates will be determined by the Case Academic Calendar):
- Number of students: _1_ minimum _1_ maximum
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible): All Core Clerkships
- Eligible Students: Any medical student
- Location(s) where elective will be conducted: Cleveland Clinic
- Learning objectives for elective:
 - Clinical
 1. To give the medical student an opportunity to participate in thoracic and cardiovascular surgery
- Brief description of rotation and student activities: Qualified medical students in their final year and who have had surgical experience, may participate in selected procedures. Students are assigned to the general Thoracic and Cardiac services for two week intervals during the 4 week rotation.

Students also make daily rounds with the professional and resident staff at which time detailed discussions are held emphasizing management techniques for post-operative patients. Student rotators are also to attend the weekly medical teaching conferences.

Student Assessment: Evaluation forms are given to the staff members to whom the student is assigned. A report will be given to deans upon request.

- Title of Elective: Urologic Surgery
- Contact Information to Schedule: Pat Gasser gasserp@ccf.org
 - Faculty Sponsor:
 1. Name: Drogo K. Montague, M.D.
 2. Email: montagd@ccf.org
 3. Telephone: 216-444-5590
- Duration: 4 weeks
- Months that elective will be offered (e.g., all months except July; specific dates will be determined by the Case Academic Calendar): All months
- Number of students: __ minimum _4_ maximum
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible):
 -
- Eligible Students: Any medical student
- Location(s) where elective will be conducted: Main Campus Cleveland Clinic
- Learning objectives for elective:
 - Clinical
 1. basic evaluation of urologic patient
 2. fundamentals of pre and post operative care
 3. introduction to urologic surgical procedures
- Brief description of rotation and student activities: The student usually spends 1 week on each of 4 different subspecialty services where the student serves as a sub-intern.
- Student Assessment: At the end of the rotation the student will be assessed with the assessment being based on feed back from residents and staff.

·Title of Elective: Urology Acting Internship

Contact Information to Schedule: Pat Gasser gasserp@ccf.org

o Faculty Sponsor: Steven C. Campbell, M.D.

1. Name: Mary Ellen Nolder (contact)
2. Email: Nolderm@ccf.org
3. Telephone: 216/445-7242

Duration: 4 weeks

- Months that elective will be offered (e.g., all months except July; specific dates will be determined by the Case Academic Calendar):
- Number of students: 2 minimum 2 maximum
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible):
- Eligible Students: Any medical student
- Location(s) where elective will be conducted: CCF main campus
- Learning objectives for elective:
 - o Clinical
 1. Introduction to evaluation and treatment of common urologic disorders
- Brief description of rotation and student activities: Student serves as a subintern for 1 week on 4 different subspecialty rotations
- Student Assessment: Course director fills out student evaluation forms based on input from residents

- Title of Elective: [Vascular Surgery](#)
- Contact Information to Schedule: Pat Gasser gasserp@ccf.org
 - Faculty Sponsor: [Sean Lyden, M.D.](#)
 1. Name: [Sean Lyden, M.D.](#)
 2. Email: lydens@ccf.org
 3. Telephone: [216/444-3581](tel:216/444-3581)
 - Contact person to answer questions from students: [Nan Siebert](#)
siebern@ccf.org
[216/444-4766](tel:216/444-4766)
- Duration: ☐ 2 weeks ☒ 4 weeks
- Months that elective will be offered (e.g., all months except July; specific dates will be determined by the Case Academic Calendar): [All](#)
- Number of students: ___ minimum [2](#) maximum
- Prerequisites (What rotations are required to be completed prior to taking this elective [Core Clerkships, Sub-Internships, other courses or electives]. Please be as specific as possible): [Core Clerkships](#)
- Eligible Students: ☐ Case students only ☒ Any medical student
- Location(s) where elective will be conducted: [Main Campus](#)
- Learning objectives for elective:
 - Clinical
 1. [Active participation in preoperative, operative and postoperative care of patients at a level commensurate with the level of training and under the supervision of a more senior resident or attending staff.](#)
 2. [Formulation of plan for diagnostic evaluation and treatment options of vascular disease entities.](#)
 3. [Participation and direction of the preoperative assessment, operative management and postoperative care of patients on the assigned staff service in cooperation with the designated attending and independent of the special vascular trainees.](#)
 - Basic Science (including disciplines such as pathology, microbiology)
 1. [Study the vascular anatomy, physiology and pathology.](#)
 2. [Attend weekly Didactic, Vascular and M & M conferences](#)
- Brief description of rotation and student activities: [The student will be able to work with the staff on in/out patient situations. They will be exposed to evaluations and treatment of patients with vascular disease while collaborating with the resident team and staff.](#)