



# Senior Elective Catalogue

## Welcome to Summa Health!

It is our hope that this elective catalogue will provide you with all the information you need to choose the right medical student rotation for you. Our extensive array of elective offerings is designed to introduce students to the practice of medicine in an academic community hospital and strengthen skills in various areas, including physical diagnosis and problem-solving. Students also enjoy the benefit of hands-on experience with a diverse patient population offering extensive pathology

Summa Health – headquartered in Akron, Ohio – is one of the largest integrated healthcare delivery systems in the state. We are the largest employer in Summit County and a leading economic engine for the region. Providing superior, multi-specialty patient care, medical research and continuing medical education, Summa is consistently ranked one of the best healthcare providers in the country. Many of our hospitals, service lines, joint ventures and affiliates are recognized by numerous organizations each year for our clinical excellence, superior quality and safety. Recognition like this doesn't come easily. But it should make your decision about where to get a quality medical education quite a bit easier.

Medical students from LCME or AOA accredited medical schools may apply for clinical electives.

To apply to our institution, please complete and submit an application through the Visiting Student Application Service (VSAS). For more information on our visiting student electives, please contact Medical Education at (330) 375-3107 or e-mail [medicaleducation@summahealth.org](mailto:medicaleducation@summahealth.org).

# Addiction Medicine

## Objectives:

1. To provide students with exposure to a range of addiction medicine issues, including detoxification strategies from major classes of addicting substances, as well as exposure to treatment from an inpatient and outpatient perspective.
2. To develop a knowledge of psychotherapeutic and psychopharmacologic approaches to contemporary treatment of addiction.

## Description:

1. Students will be assigned to Dr. Shein or Dr. Vellanki.
2. Students will have experiences in both inpatient and outpatient settings and in the residential program at Interval Brotherhood Home.

## Night Call/Special Requirements:

None

## Responsible Faculty/Rank:

1. Alan Shein, M.D., Addiction Medicine Medical Director, Clinical Assistant Professor of Psychiatry, NEOMED,
2. Suman Vellanki, M.D., Addiction Medicine Fellowship Program Director

# Adult Psychiatry

## Objectives:

1. To provide the student with a general and broad knowledge of psychiatry and a holistic (biological, psychological, social and cultural) approach to psychiatric problems and ailments.
2. To develop knowledge of psychotherapeutic modalities and skills in diagnosis, treatment and management of the patient.

## Description:

1. Student will be assigned to the Division of Psychiatry.
2. He/she may also be exposed to some patients in the private office practice of the preceptor.
3. The student will participate with the diagnosis and treatment of the adult psychiatric hospitalized patient and in the emergency room evaluation of patients with psychiatric problems and the disposition planning of these patients.
4. Student will participate on a limited basis in outpatient psychiatric clinic and seeing patients on the consult with the preceptor.

## Night Call/Special Requirements:

Yes, 1-3 on-call experiences working with a Psychiatry Resident

## Responsible Faculty/Rank:

1. David Deckert, M.D., Residency Program Director, Clinical Assistant Professor of Psychiatry, NEOMED
2. Erik Schepens, M.D., Inpatient/Outpatient Psychiatry, Clinical Assistant Professor of Psychiatry, NEOMED
3. Justin McCutcheon, M.D., Inpatient/Outpatient Psychiatry, Clinical Assistant Professor of Psychiatry, NEOMED
4. Thomas Gspandl, D.O., Inpatient Psychiatry, Clinical Instructor of Psychiatry, NEOMED
5. Todd Ivan, M.D., Consult Liaison Psychiatry Director, Clinical Associate Professor of Psychiatry, NEOMED
6. Michael Parish M.D., Elective and Clerkship Director of Psychiatry

# Emergency Psychiatry

## Objectives:

1. Develop rapport with patients in crisis, and their family/friends, and follow their cues while conducting a tailored interview.
2. Obtain sufficient data to develop a differential diagnosis and risk assessment.
3. Assist in the management of emergent situations as they arise.
4. Develop communication skills to facilitate working on an interprofessional team.

## Description:

1. The student will rotate for one month in a level 1 Trauma Center (Akron City Hospital Emergency Department), under the direct supervision of a faculty attending psychiatrist. As part of the experience, students will:
2. Gain experience in crisis intervention techniques including the evaluation, treatment, and disposition of patients who represent a danger to self or others.
3. Follow patients who present with co-morbid psychiatric and medical concerns from presentation in the emergency department, through admission to a medical/surgical service with psychiatric consultation, to transition to inpatient psychiatry if necessary.
4. Enhance their knowledge of psychopharmacology as it pertains to management of adult patients in acute crisis situations.
5. Become familiar with legal/forensic obligations as they relate to emergency psychiatry (e.g. child abuse, duty to warn, probate process, capacity vs. competency).

## Night Call/Special Requirements:

No night call or special requirements.

## Responsible Faculty/Rank:

1. Heather Wobbe, D.O., Assistant Professor, NEOMED
2. Michale Parish, M.D., Associate Clinical Faculty, NEOMED

# Anesthesiology

## Objectives:

1. To learn and develop airway management techniques that are clinically useful while assisting in anesthetizing patients.
2. To review and apply the basic sciences of physiology and pharmacology in the clinical setting.

## Description:

1. Preoperative visit, data collection, anesthesia plan-risk evaluation, choice of agents and techniques.
2. Operating room: maintaining anesthesia state, maintaining physiology, I.V.s, airway establishment, intubation, and ventilator use.
3. Recovery room and post anesthesia rounds - anesthesia complications.
4. Student to observe special problems in ICU-CCU, maternity, emergency room.
5. Daily discussion session on pertinent clinical topics.

## Responsible Faculty/Rank:

1. Robert Donahue, M.D., Assistant Professor of Anesthesiology, NEOMED
2. Kyle Tipton, M.D., Clinical Assistant Professor of Anesthesia, NEOMED
3. Selected CRNAs

# Outpatient Internal Medicine Clinic

## Objectives:

1. Grow knowledge in the identification and management of common medical conditions.
2. Increase familiarity with guidelines or literature review to help treat patients' problems.
3. Learn about barriers and social determinants of health (SDOH).
4. Present a short teaching session regarding an outpatient problem.

## Description:

1. This elective is a competency-based M4 experience hosted within our Internal Medicine residency clinic.
2. Students can expect to grow their outpatient skills by seeing patients with both attendings and residents.
3. Students will notice the rotation's focus is on quality over quantity. Students will gain exposure to medical problems not commonly seen, or not seen before, and will read up on medical problems common to outpatient care.

## Night Call/Special Requirements:

No night call or special requirements.

## Responsible Faculty/Rank:

1. Kamal Dayal, M.D., Elective Director

# Cardiology

## Objectives:

1. To provide the medical student with experience in the evaluation of the adult cardiac patient in the inpatient and outpatient setting.
2. To provide experience in the evaluation and management of critical cardiac patients.
3. To provide an understanding of and experience with pharmacologic therapy of acute and chronic cardiac disease.

## Description:

### *Option #1 - Cardiology*

1. Student will spend four (4) weeks seeing both inpatients and outpatients. This will be primarily a consultative rotation.
2. Student will have exposure to both invasive and noninvasive cardiac diagnostic studies. Student will participate in one-on-one EKG interpretation sessions.
3. Student will evaluate both inpatients and outpatients.
4. No call responsibility.

### *Option #2 - Coronary Care Unit*

1. Student will work closely with the Resident Team assigned to the Coronary Care Unit.
2. Student will assist in the work-up and ongoing management of acute cardiac emergencies.
3. Student will participate in daily Teaching Rounds conducted by a member of the Division of Cardiology.

## Responsible Faculty/Rank:

1. Kenneth Varian, M.D., Medical Director, Coronary Care Unit
2. Otto Costantini, M.D., Medical Director, Cardiovascular Education; Associate Cardiovascular Medicine Fellowship Director.

# Diagnostic Radiology

## Objectives:

Expand student knowledge regarding:

1. Radiologic diagnostic and interventional procedures
2. Anatomy and physiology of different organ systems through imaging
3. Pathologic anatomy and pathophysiology of disease processes as shown by imaging
4. Basic information on imaging physics, radiation safety, safe use of contrast materials
5. Ability to select radiologic procedures most appropriate in the solution of patient problems

## Description:

In this elective, the students are exposed to all major imaging modalities, including digital radiography, CT, US, MRI, nuclear medicine, and mammography. Students will rotate through all major sections and services of the Department, including emergency radiology, inpatient and outpatient radiology, interventional services, Breast Center services, nuclear medicine, and musculoskeletal radiology. We are flexible with the schedule and will tailor the elective to individual student's needs. Summa Akron City Hospital Department of Radiology is the elective site. In the elective, the student will:

1. Become familiar with equipment and performance of radiographic examinations from the viewpoint of patients, referring physicians and the radiologist.
2. Discuss and participate with the radiology faculty in interpretation of the full spectrum of examinations.
3. There will be designated time in interventional radiology services, observing in both image-guided and endovascular procedures.
4. Evaluation will be based on discussion and recommendations of participating radiology faculty during the elective.
5. Attendance is required during usual working hours.

## Night Call/Special Requirements:

None

## Responsible Faculty/Rank:

1. David Rosenblum, D.O. Akron Radiology Inc.



# Emergency Medicine

## Objectives:

1. Provide an opportunity for the medical student to witness the initial presentation of critically ill patients into the health care delivery system at a Level 1 Trauma Center.
2. Provide a knowledge base for identifying those patients with serious diseases that require immediate medical or surgical intervention.
3. Learn the diagnostic approaches to specific patient complaints as well as the management of specific emergencies.

## Description:

1. Students participating in this elective will create their own shift schedule at orientation.
2. The elective purpose is to introduce medical students to skills and concepts of the specialty of emergency medicine.
3. The student will learn the emergency medicine physician's approach to the care of patients with a variety of urgent problems.
4. The elective will emphasize the diagnostic capabilities of the student who will evaluate, diagnose, and treat the emergency patient under the direct supervision of the attending emergency physician.
5. The medical student will obtain clinical knowledge, and learn skills and procedures necessary to initiate treatment of patients with life or limb threatening disease.
6. The medical student will become familiar with the interactions between the emergency department and medical and surgical specialties in the management of emergent patients.
7. The medical student will become familiar with emergency medical services in the delivery of pre-hospital care.
8. The evaluation of emergent patients by the student physician during this rotation will encompass all medical specialties, with emphasis upon managing the most seriously ill patient first and managing several patients simultaneously.
9. The elective will provide a sense of confidence, professional maturity, and enhance the progressive development of the student into a capable physician.

## Responsible Faculty/Rank:

- Donald Norris, MD, FACEP – Clerkship Director, Emergency Medicine, Core Faculty
  - [Dnorris@usacs.com](mailto:Dnorris@usacs.com)
- Steven Haywood, MD – Core Faculty
  - [Haywoods@usacs.com](mailto:Haywoods@usacs.com)

# Family Medicine – Akron Campus

## Objectives:

To provide a well-rounded Family Medicine experience; this includes exposure to the wide variety of patient ages and conditions seen in our specialty. Included is care of obstetric patients, newborns (both outpatient and newborn nursery), children, adults and geriatric patients (in the outpatient, inpatient and nursing home settings).

## Description:

1. Exposure to outpatient care with residents and faculty in the Family Medicine Center
2. Inpatient care via participation in Family Medicine Inpatient Service clinical and teaching rounds with residents and faculty
3. Attendance (and opportunity to participate in) Morning Report clinical and didactic presentations
4. Underserved patient care experiences
5. Hands-on procedural (e.g. suturing) and Osteopathic Manipulation Therapy workshops
6. Optional opportunities to spend time on other services such as Addiction Medicine and Palliative Care, as available.

Electives are set up in two or four-week block rotations. By communicating your goals and objectives to us in advance, we have the flexibility to design an experience which is tailored to your individual interests.

## Responsible Faculty/Rank:

1. Brooke Babyak, M.D. Associate Program Director, M4 Elective Director
2. Verlaine Blaser, D.O., Assistant M4 Elective Director
3. Melanie K. Bortell, D.O. Program Director, Director of Osteopathic Medical Education
4. Anne Valeri, D.O. Associate Director, Family Medicine Residency

# Family Medicine – Barberton

## Objectives:

By the end of the rotation and to the satisfaction of the faculty, the student:

- 1) Recognizes patient education opportunities and responds appropriately.
- 2) Performs required technical and procedural skills.
- 3) Communicates clearly and respectfully in patient encounters.
- 4) Demonstrates logical organization of relevant data in oral presentations and legible written documentation.
- 5) Demonstrates sensitivity and responsiveness to diverse patient attributes.
- 6) Demonstrates a commitment to ethical principles including those pertaining to provision or withholding of care, confidentiality of patient information and informed consent.
- 7) Behaves reliably and with accountability in performing duties.
- 8) Behaves honestly and with integrity with regard to duties.
- 9) Presents appropriate appearance and demeanor.
- 10) Pursues self-directed learning.
- 11) Synthesizes data to formulate management plans reflecting an understanding of pathophysiology, pharmacology practices, and patient morbidity.
- 12) Demonstrates use of and interpretation of diagnostic procedures and laboratory data.

## Description:

1. Participate in outpatient continuity care
2. Attend didactics
3. Will spend some time with our continuity inpatient service
4. Attend/participate in morning report and related didactics
5. Improve presentation and documentation skills
6. Improve accuracy of physical exam skills
7. Improve patient education skills

## Night Call/Special Requirements:

Call Requirements: Negotiable.

## Responsible Faculty/Rank:

1. Nancy Flickinger, M.D. Associate Director, Summa Barberton Family Practice Residency

# Gastroenterology

## Objectives:

To provide the student with experience which will build a broader base in the field of gastroenterology and hepatology.

## Description:

1. Students will be assigned to the gastroenterologist and resident team of the month.
2. They will participate with the attending physician in consultative and floor rounds, and observe patients in the office setting.
3. Students will observe gastrointestinal endoscopy and other procedures as scheduled.
4. Students will perform selected patient evaluations by history and physical examination, write or suggest physician orders, and observe continuity of care.
5. They will learn diagnostic features of gastrointestinal radiology and review pathologic specimens.
6. Students will be required to do selective reading in the broad field of gastroenterology, guided by patients with whom they are involved. A syllabus will be available to augment reading selections.

## Night Call/Special Requirements:

None

## Responsible Faculty/Rank:

1. Amin O. Mahdi, M.D., Division of Gastroenterology & Hepatology, Advanced & Therapeutic Endoscopy

# General Surgery

## Objectives:

1. To gain appreciation of surgery as a body of knowledge that incorporates operative techniques, anatomy, biochemistry, physiology, pharmacology, pathology, bacteriology, medicine and psychology.
2. To increase knowledge in preoperative and postoperative care.
3. To expose student to surgical office practices.
4. Familiarity with endoscopic techniques.
5. To participate in acute critical care.
6. To expand manual skills of wound care and invasive body techniques.

## Description:

1. Participation in admission, preoperative, operative therapy, and postoperative care of the surgical patient. A. Elective and emergency patient. B. Admission history and physical examination. C. Planning and participation in diagnostic work-up. D. Participation in office patient evaluation and procedures.
2. Attendance and participation in surgical conferences.
3. Read appropriate current surgical literature.
4. The student may be required to submit an essay paper upon request.

## Night Call/Special Requirements:

None.

## Responsible Faculty/Rank:

1. Erica Laipply, MD, Clinical Assistant Professor of Surgery, NEOMED

# Gynecologic Oncology

## Objectives:

1. To acquire a basic understanding of gynecologic malignancies with regard to their pathophysiology, evaluation and treatment.
2. To improve surgical skills and the ability to care for critically ill patients.

## Description:

1. The student will participate in the in-hospital care of patients with gynecologic malignancies at Summa Health System.
2. Student will participate in daily workups, radical surgery, calculation and administration of anti-cancer chemotherapy and the intensive care required by these patients.
3. The student will have an opportunity to deal with the emotional aspects of serious and terminal disease through direct contact with the patient and her family.

## Night Call/Special Requirements:

Each student will take 2 call shifts per rotation.

## Responsible Faculty/Rank:

1. Stephen J. Andrews, M.D., Professor of Obstetrics/Gynecology, NEOMED
2. Robin Laskey, M.D., Professor of Obstetrics/Gynecology, NEOMED

# HIV Treatment and Prevention

## Objectives:

1. To develop an understanding of the chronic disease model of HIV care, including preventative health care for HIV patients.
2. To discuss various types of anti-retroviral treatments, including first-line regimens, common side effects, and long term toxicities.
3. To develop an understanding of the complex psycho-social issues facing HIV patients, including mental health and substance abuse issues.
4. To discuss prevention methods for HIV, including how to describe and monitor PrEP.

## Description:

This is an outpatient HIV elective set in an HIV clinic at Summa CARE Center. This clinic provides comprehensive HIV care to patients in Summit and surrounding counties. Experiences will include:

1. Chronic HIV patient follow-up care
2. New patient intakes with ACRN
3. New patient evaluations with physicians
4. Interaction with CARE Center psychologist and social workers

Students will also see patients for PrEP, or Pre-Exposure Prophylaxis. Students will see patients in both an observation role, but then progress towards seeing patients on their own if they are comfortable. Students will have self-directed learning on topics related to HIV management and prevention. Physicians will provide both bedside teaching and didactic type lectures related to HIV.

Students participating in this elective should have special interest in pursuing a career in infectious disease, HIV, or LGBT medicine.

## Night Call/Special Requirements:

None

## Responsible Faculty/Rank:

1. Amy A. Hite, M.D., Assistant Professor of NEOMED and Director of Summa CARE Center

# Palliative and Hospice Care

## Objectives:

To provide an introduction for medical students to palliative care and hospice patients in the inpatient setting. Accommodations can be made for students who specifically desire exposure to hospice patients in the home setting.

## Description:

1. The student will learn components of pain management, specific causes and treatments for nausea and vomiting, and management of anorexia, constipation, restlessness, delirium and psychological, social and spiritual distress in patients with chronic life limiting illness as well as terminally ill patients. Students will also be exposed to prognostication tools as well as illness trajectories for common chronic illnesses.
2. The student will participate as part of an interdisciplinary team (IDT), in the care of the patient and the family. Students are expected to participate in IDT; both hospice inpatient ID (Mon/Weds/Thurs) and palliative IDT (Tues/Fri) depending on which patients they are seeing.
3. The student will learn foundations of good communication skills such as how to develop rapport in the setting of complex illness, how to break bad news to a patient and family, and how to engage in therapeutic dialogue with patient and family members and between members of the treatment team and how to navigate conflict.
4. This is not an observership. Students are expected to round on patients independently and present to attendings on attending rounds. For two-week rotators, students will likely see 2-3 patients per day. For four week rotators, the expectation is to increase to 3-5 patients by the end of the month.
5. Students are expected to attend noon conferences held Tues/Thurs at noon in 75 Arch St., Geriatrics Conference Room A.

## Night Call/Special Requirements:

No night call or special requirements.

## Responsible Faculty/Rank:

1. Tamara Chandler, M.D., Associate Director, Hospice & Palliative Care Fellowship



# Infectious Disease

## Objectives:

Become familiar with the diagnosis and treatment of patients with Infectious Diseases and the appropriate use of antibiotics.

## Description:

The rotation is designed to be flexible according to the interests of the student. Each student may spend the entire four-week period on the infectious disease consult service or may spend one to two weeks in the Care Center and the remaining weeks on the consult service. Student time will include:

1. Patient work-ups with consideration of differential diagnosis and treatment. Literature review and reports. Time spent in the microbiology, virology and infectious disease laboratories.
2. Lecture three to four times a week.
3. Weekly city-wide conference.
4. Weekly interdisciplinary rounds.
5. Excluding time spent directly in the Care Center, it is anticipated that each student will receive at least four hours devoted to education on HIV/AIDS, other blood-borne diseases and infection control.

## Night Call/Special Requirements:

None

## Responsible Faculty/Rank:

1. Michael Tan, M.D., Professor of Internal Medicine, NEOMED
2. Thomas File, M.D., Professor of Internal Medicine, NEOMED
3. Joseph Myers, M.D., Professor of Internal Medicine, NEOMED
4. Stephen Francis, M.D., Assistant Professor of Clinical Internal Medicine, NEOMED

# Internal Medicine Subinternship

## Objectives:

To provide the student with an opportunity to function in the capacity similar to that of an intern, but under teaching supervision.

## Description:

1. The student will report directly to the resident with ward responsibilities and will participate in patient assignments, teaching rounds, work rounds and night call in the manner identical to an intern.
2. The student's histories and physicals, when countersigned, will be an official part of the patient record.
3. All procedures must be performed by the student under direct supervision.
4. All orders must be written and signed with the student and cosigned by a physician, either resident or attending. Verbal orders must not be given by the subintern.
5. All orders must be cosigned by a physician, either resident or attending, before they may be enacted by the nursing department.
6. While on call, the subintern may take the first call in the hospital in lieu of an intern or first-year resident when approved by the respective department.
7. Daily care of the patient and attendance at work rounds and teaching rounds will be expected.
8. The student will have at least 3 and not more than 7 patient evaluations per week which will cover the broad scope of general internal medicine.

## Night Call/Special Requirements:

Night call every fourth night.

## Responsible Faculty/Rank:

1. Katherine Tatar M.D., Clinical Associate Professor of Internal Medicine, NEOMED

# Clinical Geriatrics

## Prerequisite:

Completion of the sophomore year of medical school.

## Purpose and Overview:

Summa Health System offers the medical student exposure to an integrated continuous system of health care delivery for the older adult. Introduction to Clinical Geriatrics will provide opportunities to see medical care provided to older adults in multiple inpatient, outpatient, and long-term care settings.

## Objectives:

Upon completion of this rotation, the student will:

1. Have a working knowledge of "normal aging" and incorporate this knowledge in the care of geriatric patients.
2. Be able to discuss the importance of functional assessment and interdisciplinary team management of the complex frail elderly.
3. Be able to perform a comprehensive geriatric assessment.
4. Have an awareness of various community support resources for the older adult.
5. Recognize common geriatric syndromes including dementia, delirium, polypharmacy and impaired gait; and develop treatment plan.

## Description:

1. Comprehensive geriatric assessment and patient care in an outpatient assessment center, subacute rehabilitation unit, Acute Care of the Elderly (ACE) Unit, and nursing homes.
2. Site visits to community support services (Area Agency on Aging and Adult Day Care).
3. Presentation of a case study and treatment plan for a geriatric patient.
4. Selected reading and topic review with faculty.

## Night Call/Special Requirements:

None

## Responsible Faculty/Rank:

1. Natalie Kayani, M.D., Associated Professor of Internal Medicine, NEOMED/Senior Services
2. Gabrielle Ruff, M.D. M.P.H., Geriatric Education Medical Director
3. Jennifer Drost, D.O., Assistant Professor of Internal Medicine, Assistant Professor of Family & Community Medicine

# Maternal Fetal Medicine

## Objectives:

To introduce the student to the principles of maternal fetal medicine and increase comprehension in the management of complex obstetrical patients.

## Description:

1. The student will perform history and physical exams.
2. He/she will assist in vaginal deliveries and cesarean sections.
3. Interpret OB ultrasounds and FHR monitoring.
4. One presentation on a maternal fetal medicine topic to be assigned.
5. A written or oral exam will be given for feedback

## Night Call/Special Requirements:

Each student will take 2 call shifts per rotation.

## Responsible Faculty/Rank:

1. Jodi Regan, M.D., Division Director of Maternal Fetal Medicine

# Medical Intensive Care

## Objectives:

1. Introduce student to the emergency and continuing care of critically ill patients.
2. To teach diagnostic and therapeutic care of a major system illness with major emphasis on history and physical exam.
3. To increase skills in formulation of problem-oriented approach to critical illness.

## Description:

1. The student will fully participate in the teaching activities of the ICU rotation, including work rounds in the morning and attending rounds one hour each afternoon.
2. The student's duties will include a patient load approximately half that of the intern.
3. He/she will work directly with the supervisory resident and attending physician on assigned patients (all orders will be co-signed by the responsible resident or intern before being carried out).
4. The student will be expected to work up one new patient during the period on call and to follow his/her own patients throughout the shift.
5. A set of core lectures will be given as part of attending rounds.

## Night Call/Special Requirements:

All students must work one Saturday-Sunday weekend. Signups for weekend schedule will take place on the first day of the rotation. If there are fewer students than weekends, it is the student's choice which weekend will not have students working. Students working the weekend will then be scheduled off for the following Monday-Tuesday (unless otherwise arranged to take other consecutive days off that week which must be approved by the rotation director).

## Responsible Faculty/Rank:

1. **Matthew Chandler, M.D.**
2. **Nicholas Nackes, M.D., NEOMED**
3. **James A. Wilson, M.D., Associate Professor of Clinical Internal Medicine, NEOMED**

# Medical Simulation

## Objectives:

1. To develop a simulation case for medical students and oversee the use of that case in the sim lab for student training.
2. To become familiar with the evidence supporting simulation for medical education and patient safety.
3. To experience simulation from the perspective of a learner, a teacher, and an administrator.

## Description:

This rotation is designed to provide a dynamic, hands-on experience in every aspect of simulation training (learner, case writing, debriefing, planning, implementation, technology development, etc.). Through this experience, students will come to appreciate the effectiveness of simulation to develop medical knowledge, procedural skills, interpersonal communication skills, and teamwork.

## Night Call/Special Requirements:

None

## Responsible Faculty/Rank:

Michael Pallaci, D.O., FACEP, FACOEP  
Medical Director, Virtual Care Simulation Lab  
Core Faculty, Emergency Medicine Residency  
Professor of Emergency Medicine, NEOMED  
Adjunct Clinical Professor of Emergency Medicine, OUHCOM

# Nephrology

## Objectives:

To expose students to the scientific approach to clinical problems in nephrology with an emphasis on principles of basic science and their application for the logical management of renal disease.

## Description:

1. Students will see patients as they are referred for consultation and do initial assessments, including an appropriate history and physical examination.
2. Students may be given responsibility as primary house officer.
3. Using the urine specimen examination and other appropriate laboratory examination, the student will be expected to arrive at a reasonable assessment of clinical situation and offer plan for patient management.
4. Each case will be presented to the attending nephrologist and reviewed in detail before the consultation becomes official.
5. Appropriate literature references will serve to strengthen the background of the student answering the consult.
6. Typical daily schedule: Daily rounds on consulting service and didactic sessions.

## Night Call/Special Requirements:

None

## Responsible Faculty/Rank:

1. Charina Gayomali, M.D., Associate Professor of Clinical Internal Medicine, NEOMED
2. Joseph Zarconi, M.D., Professor of Clinical Internal Medicine, NEOMED
3. John F. Jacobs, Jr., M.D., Associate Professor of Clinical Internal Medicine, NEOMED
4. Karl D. Schwarze, M.D., Assistant Professor of Clinical Internal Medicine, NEOMED
5. Rose M. Seliga, M.D., Assistant Professor of Internal Medicine, NEOMED
6. Richard E. May, Jr., M.D., Assistant Professor of Clinical Internal Medicine, NEOMED
7. Christopher Boshkos, M.D., Associate Professor of Clinical Internal Medicine, NEOMED
8. Susan M. Ray, M.D., Associate Professor of Clinical Internal Medicine, NEOMED

# Neurology

## Objectives:

1. Obtain appropriate history and perform a neurological exam on patients presenting with neurologic problems or neurologic manifestations of system diseases.
2. Recommend appropriate neuro-diagnostic tests based on indications, contraindication and limitations of procedures and interpret results.
3. Formulate a differential diagnoses and therapeutic plan for patient presenting with neurologic disease.

## Description:

1. The rotation is structured so that each student will rotate through a variety of services throughout their four weeks. These services include:
  - Stroke
  - General Neurology Inpatient
  - Epilepsy
  - General Neurology Outpatient
2. Students will work up patients assigned by their attending neurology and participate in the neuro-diagnostic testing for each assigned patient.
3. Students will review the appropriate current literature of each disease evaluated and present case work ups on assigned patients.
4. Students will participate in attending and resident conferences.

## Night Call/Special Requirements:

None

## Responsible Faculty/Rank:

1. Susana Bowling, M.D. Elective Director



# Obstetrics/Gynecology

## Objectives:

1. The increased responsibility will enable the student to appreciate both the intellectual and technical challenges of Obstetrics/Gynecology.
2. To prepare the student interested in the specialty to function more effectively in an Obstetrics/Gynecology residency.

## Description:

1. Attend daily rounds, morning Ob/Gyn conferences, and Friday morning didactics.
2. Assist with deliveries and surgeries.
3. Assist with other interesting surgeries as assigned.
4. Work up assigned patients, and follow those patients postop and postpartum.
5. Prepare a brief literature review pertaining to a common clinical program for presentation at morning conference.
6. Perform obstetric ultrasound under supervision.
7. Assist in the teaching of M3 clerks.
8. Attend Ob/Gyn clinics as appropriate.
9. Minimally invasive surgery emphasis

## Night Call/Special Requirements:

Each student will take 2 call shifts per rotation.

## Responsible Faculty/Rank:

1. Cheryl J. Johnson, M.D., Clerkship Director of Obstetrics/Gynecology

# Orthopaedic Surgery

## Objectives:

Medical students will be expected to learn and demonstrate the ability to do:

1. A detailed pertinent history of a patient with an orthopaedic problem
2. A detailed pertinent physical exam of an orthopaedic patient
3. Formulate a basic treatment plan for a variety of orthopaedic problems (traumatic, neoplastic, degenerative, inflammatory, and infectious)

These goals will be achieved utilizing the following available orthopaedic resources:

1. Daily didactic lectures
2. Weekly junior resident/medical student case discussion conference
3. Outpatient clinic experience
4. Emergency room
5. Operating room
6. Every fourth night call
7. Orthopaedic textbooks in department library

## Description:

1. During this elective, students will spend time with the Program Director, Chairman and Traumatologist. He/she will also have an opportunity one week to choose which attendings/cases he/she would be interested in working with based on different specialties.
2. The student will attend resident conferences and also daily learning experiences specifically designed for him/her.
3. He/she will be expected to scrub in surgery at least once daily and also work up one patient daily.
4. The student will gain experience in the evaluation of patients in both the Emergency Room and private orthopaedic offices.
5. Subspecialty expertise is also available in hand, spine, foot and ankle, joints and trauma, and sports medicine and oncology.

## Night Call/Special Requirements:

Night call is required every fourth night in the emergency room with the resident on call.

## Responsible Faculty/Rank:

1. Scott D. Weiner, M.D., Chairman, Orthopaedic Surgery
2. Jeff Junko, M.D., Director, Orthopaedic Resident Education, NEOMED
3. Matthew Jaykel, M.D., Associate Program Director

# Otolaryngology

## Objectives:

1. Management of ear infections
2. Management of tonsillitis
3. Learning core competencies of ENT

## Description:

1. History and Physical Exams
2. Scholarly activity (case reports, review of literature, etc)
3. Self-directed learning study
4. Written exam for feedback
5. Interpretation of diagnostic studies
6. Presentations- informal and formal (general topics in ENT)
7. Patient case management
8. Documentation (H/P, SOAP Note)
9. Medical and surgical aspects of Otolaryngology
10. Medical aspects includes allergy and hearing testing
11. Management of all facets of otolaryngology
12. Community based office

## Responsible Faculty/Rank:

1. Mark Brigham, D.O.

# Pathology and Laboratory Medicine

## Objectives:

Allows student to become familiar with, observe and participate in daily activities of a hospital-based department of pathology. The experience is designed to include exposure to both anatomic pathology and clinical laboratory medicine.

## Description:

The student will:

1. Observe and participate in the gross examination of surgical specimens, as assigned, and review the surgical microscopic sections with the pathologist.
2. Review gynecologic and nongynecologic cytology specimens, as assigned, with the pathologist.
3. Observe interesting autopsy examinations including all clinical activities which lead to the generation of the final pathologic report.
4. Observe the performance of appropriate laboratory tests to gain an appreciation for test interpretation, quality control, and cost effectiveness. The laboratory medicine experience will include rotations through the various clinical laboratories, including clinical chemistry, microbiology, hematology, and immunohematology.
5. Be expected to attend and, where appropriate, participate in all pathology conferences during the elective.
6. Be required to be present during normal working hours Monday through Friday.
7. Give a presentation on an interesting case at the end of the rotation.

## Responsible Faculty/Rank:

1. S. Michael Thompson, M.D. Pathology Residency Program Director

# Plastic and Reconstructive Surgery

## Objectives:

1. To expose the student to basic principles of plastic and reconstructive surgery as they relate to congenital anomalies, trauma, head and neck cancer and aesthetic surgery.
2. To integrate the basic principles of plastic and reconstructive surgery with instruction in suturing.

## Description:

1. The elective will involve the three hospitals that are integrated into the Plastic Surgery Training Program: Summa Akron City Hospital, Children's Hospital Medical Center of Akron, and Crystal Clinic.
2. The student will be assigned to sequential attendings weekly so that office patients as well as outpatient surgery may be observed.
3. The student will attend all conferences and the clinic at the hospital where he/she is assigned.

## Night Call/Special Requirements:

No night call.

## Responsible Faculty/Rank:

1. Ananth Murthy, MD, Program Director, Plastic Surgery Fellowship Program

# Pulmonary Medicine

## Objectives:

1. To provide an exposure to the spectrum of pulmonary disease seen in a general hospital.
2. To gain a better understanding of bronchopulmonary anatomy and the physiological basis of pulmonary function testing.

## Description:

1. The student will attend daily pulmonary rounds with the attending physician and residents.
2. He/she will see inpatient consultations and review the diagnostic and therapeutic plans with the attending physician.
3. Pulmonary function tests will be reviewed with the attending assigned to the laboratory for the month.
4. The student will observe and assist with special procedures, including fiberoptic bronchoscopy and pleural biopsy.
5. Participation in a monthly pulmonary conference.

## Night Call/Special Requirements:

None

## Responsible Faculty/Rank:

1. Brian Bauman, M.D.

# Radiation Oncology

## Objectives:

To give the student an exposure to radiation oncology's role in treatment of patients and to the therapeutic uses of radiation in dealing with cancer patients.

## Description:

1. Designed to provide the student with a familiarity of the instrumentation and their therapeutic uses, as well as treatment planning procedures.
2. Emphasis will be placed on the procedures used in therapy and treatment as a part of solutions to patients' oncologic needs.
3. The student will be assigned to study under the supervision of a radiation therapist/oncologist at each hospital.
4. Emphasis will be placed on patient history, clinical findings, pathology, treatment and prognosis of new patients.
5. An extensive exposure to as many cancer cases as possible will take place, emphasizing the related problems involved in treatment.
6. A brief written report or presentation on an assigned subject may be required.

## Night Call/Special Requirements:

None

## Responsible Faculty/Rank:

1. Anand Desai, MD, Elective Director

# Sports Medicine

## Objectives:

1. Evaluate musculoskeletal injuries and their role in sports medicine.
2. Improve musculoskeletal examination skills.

## Description:

The student will:

1. Gain experience in the outpatient diagnosis and treatment of athletic injuries.
2. Accompany a team physician covering an athletic event (seasonal)
3. Gain experience in the diagnosis and treatment of musculoskeletal problems.
4. Gain experience in the diagnosis and treatment of concussion.
5. Observation of procedures pertinent to the care of musculoskeletal patients.
6. Typical daily schedule: Full day experiences related to sports medicine evaluation, treatment, and rehabilitation of injuries. After hour event coverage as available.

## Night Call/Special Requirements:

None

## Responsible Faculty/Rank:

1. Zachary Vallandingham, D.O., Clinical Assistant Professor of Family Medicine, NEOMED



# Surgical Intensive Care

## Objectives:

1. To recognize and understand the problems in management of critically ill patients.
2. To describe the application of management and monitoring various invasive techniques.

## Description:

1. The student will have direct patient contact and rotate with a surgical resident. The student will meet daily with faculty in anesthesia, intensive care, and cardiovascular surgery.
2. The student will be expected to: a) evaluate and write progress notes on assigned patients; b) attend applicable conferences and sign out rounds; c) participate in daily clinical and x-ray rounds; d) complete a research project or conduct a literature search at the discretion of the attending physician; and e) evaluate patients admitted from the Emergency Department to the Intensive Care Unit.

## Night Call/Special Requirements:

Each student will take 5 call shifts per rotation.

## Responsible Faculty/Rank:

1. Nathan Blecker, MD Clinical Assistant Professor of Surgery, NEOMED

# Thoracic/Cardiovascular Surgery

## Objectives:

1. In-depth experience in thoracic surgical disease.
2. Develop surgical skills particular to thoracic surgery.

## Description:

1. Primary patient care.
2. Operating room experience.
3. Conference presentation.
4. Laboratory experience: vascular, esophageal.
5. Intensive care and coronary care experience.

## Night Call/Special Requirements:

Each student will take 5 call shifts per rotation.

## Responsible Faculty/Rank:

1. Drazen Petrinec, MD, Clerkship Director, NEOMED

# Urogynecology

## Objectives:

To understand basic anatomy and physiology of urogynecologic disorders and familiarize oneself with treatment algorithms.

## Description:

1. History and Physical Exams
2. Scholarly activity (case reports, review of literature, etc)
3. Self-directed learning study
4. Presentations- informal and formal
5. Documentation (H/P, SOAP Note)
6. Attend daily rounds, morning Ob/Gyn conference, and Friday morning didactics.
7. Assist with surgery on the urogynecology service.

## Night Call/Special Requirements:

Each student will take 2 call shifts per rotation.

## Responsible Faculty/Rank:

1. Bogdan Orasanu, M.D.

# Urology

## Objectives:

To provide the student who has a serious interest in urology as a career with exposure to the breadth and scope of this discipline. This is not a general elective offered to students whose interests lie outside the surgical field.

1. Increase the student's understanding of the scope of urology.
2. Initiate the student into reading about specific urologic diseases and problems.
3. To achieve a deeper understanding of the anatomy, physiology and pathophysiology of urology disease.

## Description:

### **Clinic**

1. One day per week spent in resident clinic
2. One day spent in clinic with either Department Chairman
  - a) Kevin Spear, MD - Summa
  - b) Ray Bologna, MD - AGMC

### **Presentation**

1. Student will be required to present to the Urology Department at the end of the month during Wednesday conference
2. Student MUST discuss topic and review presentation parameters with chief resident(s)

### **Surgery**

1. Student will spend non-clinic days in surgery
2. With chief resident permission, student can move between institutions to view/participate in interesting case

## Night Call/Special Requirements:

Not applicable.