



UPSTATE  
MEDICAL UNIVERSITY  
COLLEGE OF MEDICINE

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COURSE  
SELECTION  
BOOK

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WEISKOTTEN HALL

1930



# 2025-26 Course Selection Book

2025-26 Period Dates			
01	05/27/2025	to	06/20/2025
02	06/23/2025	to	07/18/2025
03	07/21/2025	to	08/15/2025
04	08/18/2025	to	09/12/2025
05	09/15/2025	to	10/10/2025
06	10/14/2025	to	11/07/2025
07	11/10/2025	to	12/05/2025
08	01/05/2026	to	01/30/2026
09	02/02/2026	to	02/27/2026
10	03/02/2026	to	03/27/2026
11	03/30/2026	to	04/24/2026
12	04/27/2026	to	05/22/2026

2025-26 Clerkship Dates			
A	05/27/2025	to	06/27/2025
B	06/30/2025	to	08/01/2025
C	08/04/2025	to	09/05/2025
D	09/08/2025	to	10/10/2025
E	10/14/2025	to	11/14/2025
F	11/17/2025	to	12/19/2025
G	01/05/2026	to	02/06/2026
H	02/09/2026	to	03/13/2026
I	03/16/2026	to	04/17/2026
J	04/20/2026	to	05/22/2026

The SUNY Upstate Medical University College of Medicine Course Selection Book is published annually. Please be aware that there may be changes to the College of Medicine course offerings throughout the year, so the most up-to-date, accurate information on course offerings for the College of Medicine is available in MyUpstate.

# SYRACUSE

## ANESTHESIOLOGY

### Anesthesiology & Basic Life Support - Upstate

**ANES0801**

Dr. Matthew Dabski  
AUSTINC@upstate.edu

(Cannot accept students in July or August). The elective is designed to be both flexible and educational. In order to fully explore what the exciting field of anesthesia has to offer to all medical students, emphasis will be placed on practical clinical activities according to the student's individual interests and motivation. Students will participate in patient care directly, with an attending as an acting resident (AI). Knowledge and clinical skills gained will be useful in virtually any field the student pursues. Procedures such as mask ventilation, endotracheal intubation and IVs will be available daily. Patient selection will be tailored to each student. Preoperative evaluation for those interested in family practice, internal medicine, or surgery will be available. Skills and knowledge of emergency care or intensive care, such as airway management and invasive hemodynamic monitoring will also be available. Students interested in pediatrics or OB/GYN will also find clinical experiences and interesting patients available. Since the subject of anesthesia encompasses a large subject area, any student will find a topic of interest in this course. Advanced areas of interest include cardiovascular and thoracic anesthesia, intensive care and acute and chronic pain treatment. Some of these advanced areas of interest take the anesthesiologist out of the operating room.

4 Credits  
Prerequisites: SURG8200  
Maximum Number Of Students: 3  
Periods Offered: 001, 005-012

### Applied Clinical Anesthesiology

**ANES0808**

Dr. Pathman Selvarajah  
SELVARAP@upstate.edu

The student will have the opportunity to observe how patients are assessed and prepared for surgery, and will also understand why particular anesthetic techniques are chosen in clinical practice. The elective will give the student the opportunity to participate in patient care on a one to one basis with an attending anesthesiologist. From a point of view of motor skills, the student will be expected to be able to maintain an airway, to intubate and to fully understand what is involved in the care of the unconscious patient. For two weeks students may rotate to main operating room, surgical outpatient centers, or childbirth center, depending on interest.

4 Credits  
Crouse Hospital  
Prerequisites: SURG8200  
Maximum Number Of Students: 2  
Periods Offered: 001-012

### Pain Medicine

**ANES0810**

Dr. Vandana Sharma  
AUSTINC@upstate.edu

Pain medicine is fast becoming a field of its own. This is due to the complexities of the pain syndromes and the subsequent management of all aspects of pain. During their rotation, medical students will be introduced to the different fields of pain medicine including acute pain, chronic pain, cancer pain, pain psychiatry and addiction psychiatry. Students will gain clinical experience in diagnosis of pain syndromes and appropriate techniques involved in treating these syndromes. Students will learn anatomy related to pain medicine. They will develop basic skills in the use of fluoroscopy, CT guidance and ultrasound for therapeutic pain interventions. Students will also be introduced to a multimodal and multidisciplinary approach to the treatment of pain. Weekly activities will include lectures, observation and participation in intervention pain techniques. Note: After registering, and at least one month prior to the rotation, contact Dr. Vandana Sharma to make arrangements.

4 Credits  
Prerequisites: MDCN2000,  
SURG8200, OBGY3600,  
PEDS5600, FAMP1600, PSYCH6800  
Maximum Number Of Students: 2  
Periods Offered: 001-012

This course is not available in the  
elective lottery.

## BIOETHICS AND HUMANITIES

### Intro to Medical Creative Writing

**CBHX2404**

Dr. Deirdre Neilen  
SZCZECHK@upstate.edu

Students will read other physician writers' works and then begin an extended piece of their own. Patient narratives, narrative competence, and medical humanities are all terms increasingly used when talking about ways to improve physician-patient interactions and satisfaction. In this introductory course, we will explore how and why writing can enhance medicine and increase physicians' observations, making them more aware of patient needs.

1 Credit  
Prerequisites: None  
Maximum Number Of Students: 8  
Periods Offered: 011

### Individual Study in Bioethics

**CBHX2405**

Dr. L Syd Johnson  
JOHNSOLS@upstate.edu

The purpose of this elective is to provide students the opportunity to explore, in a careful and supervised way, important issues in bioethics. Students will work with their preceptor to develop an individualized plan of study. Students may explore a particular topic or area (for example, issues in one specialty of medicine), design a small study (for example, a chart review of advance directives), or learn more about the work of clinical consultation (by discussing cases with consultants and attending meetings of the ethics committee). This elective may be taken full-time or Concurrently with other courses.

1 TO 6 Credits  
Prerequisites: None  
Maximum Number Of Students: 10  
Periods Offered: Concurrent,  
Concurrent

This course is not available in the  
elective lottery.

## Physicians and Social Responsibility I

CBHX2408

Dr. Rachel Fabi  
FABIR@upstate.edu

This is the first of the three elective sequence that establishes a critical, analytic component that lays the groundwork for future service activities, to provide a robust, service-learning experience for medical students to develop their understanding of and commitment to physician's social responsibility. PSR1 lays a foundation of knowledge on the effects of social and political determinants of health and addresses a variety of topics, such as structural racism; reproductive justice; immigration and health; disability and health; and LGBTQ+ health. Exact topics are modified from year to year.

1 Credit  
Concurrent Elective  
Prerequisites: None  
Maximum Number Of Students: 15  
Periods Offered: Concurrent

This course is not available in the elective lottery.

## Physicians and Social Responsibility II

CBHX2410

Dr. Rachel Fabi  
FABIR@upstate.edu

The responsibility of a physician is not only to deliver excellent care, but also to work to change systems when they conspire to make it difficult to do the right thing. This elective, a follow-up to the introductory Physicians and Social Responsibility (PSR) 1, gives medical students tools to identify areas within health care that need change and to work effectively to make that change happen. PSR2 builds on students' experiences to equip them to identify and address the policies, systems, and assumptions underlying the health care system's inadequacies and injustices.

2 Credits  
Concurrent Elective  
Prerequisites: CBHX2408  
Maximum Number Of Students: 15  
Periods Offered: Concurrent

## Physicians and Social Responsibility III

CBHX2411

Dr. Rachel Fabi  
FABIR@upstate.edu

This longitudinal year-long course will allow students who have completed Physicians and Social Responsibility I and II to continue working on their advocacy skills, this time in the clinical setting during their MS3 year. Students will meet as a class approximately once per month to discuss systemic barriers to just and compassionate care that they have observed on clinical rotations and potential advocacy strategies for addressing those barriers.

1 Credit  
Concurrent Elective  
Prerequisites: CBHX2408,  
CBHX2410  
Maximum Number Of Students: 15  
Periods Offered: Concurrent

This course is not available in the elective lottery.

## Health Care Access for Justice

CBHX2412

Sarah Reckess  
RECKESS@upstate.edu

This one-week course will challenge students to explore the social determinants of health experienced by patients who are justice system-involved. Students will attend local court on three days with the faculty instructor, and will have the opportunity to talk with judges, case workers, attorneys, and probation officers about how and why health care and the legal system intersect. Students will observe many different types of court proceedings, including specialty courts specifically focused on diverting defendants with substance use disorders and mental health conditions. Students will explore legal vulnerabilities, including unsafe housing, unemployment, and poverty, and how these impact health care access.

1 Credit  
Prerequisites: None  
Maximum Number Of Students: 5  
Periods Offered: 008-09

This course is not available in the elective lottery.

## CELL AND DEVELOPMENTAL BIOLOGY

### Teaching in Human Anatomy

ANAT0405

Dr. Robert Zajdel  
ZAJDEL@upstate.edu

Students are expected to assist in teaching gross anatomy to first year medical students. Emphasis is placed upon laboratory activities, including helping with daily dissections, working with students in small group sessions to facilitate an understanding of sectional and radiographic anatomy, and providing an opportunity to appreciate the application of gross anatomy to clinical medicine. Students may be asked to assist in the laboratory outside of designated class time and to offer individualized instruction to students experiencing difficulty in the course. Teaching assistants will be required to provide a log of their contact hours to the course director. Credit for the elective will be awarded on a basis of time spent teaching in the laboratory, tutoring, or preparing teaching specimens. Student feedback, direct faculty observation of interactions with students and correct answers to student and faculty questions will be used for assessment.

1 TO 5 Credits  
Basic Science Selective, Concurrent  
Elective, Pass/Fail Grading  
Prerequisites: None  
Maximum Number Of Students: 20  
Periods Offered: Concurrent

This course is not available in the elective lottery.



## Teaching in Neuroanatomy

ANAT0409

Dr. Dana Mihaila  
MIHAILDA@upstate.edu

1 TO 5 Credits  
Basic Science Selective, Concurrent  
Elective  
Prerequisites: NEUR3000  
Maximum Number Of Students: 20  
Periods Offered: Concurrent

This course is not available in the  
elective lottery.

To review, master, and teach functional neuroanatomy to first year medical students using case studies to focus learning. Teaching a discipline is one of the best ways of learning and reinforcing this material. Moreover, returning to the neuroanatomy laboratory portion of the Neuroscience course after the Neuroscience clerkship reinforces the clinical experience and prepares the student for residency. Almost any clinical discipline will benefit from this review. Moreover, the student is able to reinforce the basic science education of the 1st year student by expanding on the more advanced student's clinical experience. Activities will include review of the neuroanatomy syllabus and brain and cross sectional anatomy, meeting with all faculty, neurosurgery residents, and other graduate and medical student assistants to review clinical case and laboratory material prior to each of the 10 laboratory units, teaching and giving chalk talks in the laboratory with a faculty mentor, and tutoring students in difficulty outside scheduled laboratory hours. This elective takes place during time the neuroanatomy laboratory is taught during the Neuroscience course, usually beginning at the end of the first week in April and continuing through the laboratory examination seven weeks later. It may be taken for 3-5 credit hours, depending on the beginning and end of elective time. Introductory brain anatomy is especially heavy during the first 2 weeks, and review and case study analysis is especially heavy during the last week of the course. Elective time should include one of these periods. Time requirements are dependent on student participation in laboratory and pre-lab conferences. Close faculty interaction allows careful assessment of student's knowledge and teaching abilities.

## Teaching in Human Anatomy

ANAT0410

Dr. Robert Zajdel  
ZAJDELR@upstate.edu

1 TO 8 Credits  
Pass/Fail Grading  
Prerequisites: None  
Maximum Number Of Students: 5  
Periods Offered: Concurrent

This course is not available in the  
elective lottery.

This elective is designed to provide medical students, especially those with an interest in the musculoskeletal system, with an opportunity to actively participate in teaching gross anatomy to first year students in the Doctor of Physical Therapy (DPT) program. Emphasis is placed upon demonstrating prosected specimens to the students, assisting students with their dissections, preparing content for teaching, and conducting small group laboratory peer teaching. Weekly activities will include involvement in laboratory teaching, laboratory problem solving sessions, and review and student sessions. Students will also help grade quizzes and exams. Performance will be evaluated upon knowledge of gross anatomy, interest in teaching, and active engagement in course activities by engaging in the following activities: assisting students with their dissections, coordinating small group laboratory problem solving sessions and content knowledge.

## Introduction to Teaching Neuroanatomy

ANAT0412

Dr. Dana Mihaila  
MIHAILDA@upstate.edu

1 Credit  
Concurrent Elective  
Prerequisites: None  
Maximum Number Of Students: 10  
Periods Offered: Concurrent

This course is not available in the  
elective lottery.

The goal of this course is for second-year students to delve into education/instruction through creating new activities for Neuroanatomy students. Firstly, the students will be expected to develop an educational activity for MSIs by November, which will be presented to faculty. The activity should include the following components: 1) session learning objectives linked to course learning objectives, 2) proposed teaching mode, 3) evaluation plan, and 4) formative post session quiz for learner/s. The proposal will be reviewed by Dr. Mihaila and students will receive feedback. Secondly, in December the students will conduct a teaching session utilizing their proposal. After completion of the session, students will review feedback from learners and course faculty and write a brief reflection including what went well and their lessons for future teaching. Students will save the session proposal, learner and faculty feedback, and reflection in their Educator's portfolio.

## Introduction to Teaching Clinical Anatomy

ANAT0413

Dr. Jennette Ball  
BALLJ@upstate.edu

1 Credit  
Concurrent Elective  
Prerequisites: None  
Maximum Number Of Students: 5  
Periods Offered: Concurrent

This course is not available in the  
elective lottery.

The second year Clinical Anatomy Instruction Micro-credential students will be joining a new elective "Intro to Teaching Clinical Anatomy." The goal of this course is for second-year students to delve into educational instruction through creating new activities for MS1 students. The students will be expected to develop an educational activity for MSIs, which will be presented to faculty. The activity should include the following components: 1) session learning objectives linked to course learning objectives, 2) proposed teaching mode, 3) evaluation plan, and 4) formative post session quiz for learner/s. The proposal will be reviewed by Dr. Ball and students will receive feedback. Then, the students will conduct a teaching session utilizing their proposal. After completion of the session, students will review feedback from learners and course faculty and write a brief reflection including what went well and their possible improvements for future teaching. Students will save the session proposal, learner and faculty feedback, and reflection in their Educator's portfolio.

## Summer TA for Physician Assist

ANAT0414

Dr. Marius Ifrim  
IFRIMM@upstate.edu

1 TO 4 Credits  
Prerequisites: None  
Maximum Number Of Students: 10  
Periods Offered: 001

This course is not available in the  
elective lottery.

This elective is designed to provide MS1-MS2 students (particularly those interested in pursuing surgical specialties) with an opportunity to participate in teaching gross anatomy to first year students in the Physician Assistant (PA) program. Emphasis is placed upon assisting students with their dissection and preparing content for teaching and conducting small group laboratory teaching. Weekly activities include involvement in teaching, including helping out with dissections, review sessions. Students could also be involved in helping setting up, proctoring and grading the quizzes and exams. TA performance will be evaluated upon the knowledge in gross anatomy demonstrated during labs( by assisting student with their dissections) and during review sessions, and their engagement in course activities

# EMERGENCY MEDICINE

## Acting Internship in Emergency Medicine

EMED1302

Dr. Jennifer Campoli  
DEXTERD@upstate.edu

The student will function as an acting intern in the Emergency Department working under the direct supervision of Emergency Department attending physician or third year emergency medicine resident. The student will have the opportunity to make the initial patient contact and formulate a diagnostic and therapeutic plan which will then be discussed with and reviewed by the attending physician. During the elective the student will be exposed to the entire range of Adult Emergency Department problems. This experience will give the student an understanding of what the practice of Emergency Medicine entails and provide exposure to a wide range of patient population.

4 Credits  
Acting Internship Selective  
Prerequisites: MDCN2000,  
SURG8200  
Maximum Number Of Students: 6  
Periods Offered: 001-008, 010-012

## Emergency Medicine in a Community Hospital

EMED1307

Dr. David Wirtz  
DWIRTZ@usacs.com

This rotation is an introduction to emergency medicine in a community hospital setting. Guthrie Cortland Medical Center is a 166 bed hospital with approximately 30,000 ED visits per year. There is a diverse mix of pathology seen in the ED and all patients are seen by the ED medical staff. The medical student will always be supervised by a board certified residency trained emergency medicine specialist. They will examine, diagnose and treat pathology in all major disciplines of medicine. If there are any particular interests or needs of a student, every effort will be made to meet them. There will be approximately 36 hours per week clinical responsibility and varying amounts of supplemental bedside teaching and rounds. Self study with a standard emergency text is encouraged, and reference materials are available in the department.

4 Credits  
Preceptor's Site  
Prerequisites: MDCN2000,  
SURG8200, OBGY3600,  
PEDS5600, FAMP1600, PSYCH6800  
Maximum Number Of Students: 1  
Periods Offered: 001-009

This course is not available in the elective lottery.

## Emergency Medicine Research

EMED1308

Dr. Susan Wojcik  
DEXTERD@upstate.edu

A student relevant research project will be designed and completed. Students will work with the elective director and at least 1 other clinical member of the department of emergency medicine to design and complete a relevant emergency medicine research project. The focus of this elective is to gain an understanding of how to develop a good clinical research question, complete a literature review, write a study protocol, submit for IRB approval, collect data, assist with data analysis and interpretation, and write a research abstract. Elective director approval is required at least 6 weeks prior to period of desired enrollment. Completion of CITI human subjects research and responsible conduct of research online training required before registration approval granted.

4 Credits  
Prerequisites: None  
Maximum Number Of Students: 2  
Periods Offered: 001, 005-012

This course is not available in the elective lottery.

## Acting Internship in Pediatric Emergency Medicine

EMED1309

Dr. Erin Hanley  
DEXTERD@upstate.edu

The student will function as an acting intern within the Pediatric Emergency Room working under the direct supervision of a Pediatric Emergency Specialist. The student will provide patient contact and devise a management plan in concert with attending supervision. The overall experience will offer the student an understanding of the practice of Pediatric Emergency Medicine.

4 Credits  
Acting Internship Selective  
Prerequisites: PEDS5600,  
MDCN2000, SURG8200  
Maximum Number Of Students: 4  
Periods Offered: 001-008, 010-012

## Clinical Toxicology

EMED1321

Dr. Christine Stork-Medicis  
DEXTERD@upstate.edu

At the end of this rotation the student should have a comprehensive approach to the poisoned patient as defined by: 1) The ability to manage exposures when the specific toxin cannot be identified or when inadequate information is known regarding a specific toxin; 2) The ability to appropriately evaluate and initiate therapy for a number of commonly presenting toxins; 3) The ability to appropriately include toxins in the differential diagnosis of any patient. Students will round on inpatient toxicology cases at local hospitals and provide telephone follow-up consultation on hospitals in the Upstate New York Poison Centers service area. Daily case discussion, high fidelity patient simulations and weekly structured conferences will occur. The student will provide an oral or written project commensurate with their learning experience. This elective is for a minimum of 4 credits and cannot be altered.

4 Credits  
Basic Science Selective, Pass/Fail  
Grading  
Prerequisites: MDCN2000,  
PEDS5600, EMED1300  
Maximum Number Of Students: 3  
Periods Offered: 001, 004-012



## **Undersea and Hyperbaric Medicine**

**EMED1323**

Dr. Deepali Sharma  
DEXTERD@upstate.edu

The medical student will rotate for 2-4 weeks. The student will rotate in the Hyperbaric Medicine and Wound Care Center at SUNY Upstate University Hospital. Clinic hours are Monday-Friday, 8 am - 4 pm. The medical student will gain basic exposure to dive medicine, clinical hyperbaric medicine and problem wound management. They will be overseen by an attending physician and fellow in UHM (undersea and hyperbaric medicine). The student will participate in hyperbaric medicine consultations, wound care consultations, and ongoing wound care revisits. The student will oversee the daily hyperbaric oxygen treatments including assessment of any patient complications. The student will also have the option to take some home call for emergencies in hyperbaric medicine. Finally, the student will be expected to attend teaching rounds and UHM fellowship lectures as scheduled during the week and have the option to attend weekly Emergency Medicine didactics on Wednesdays. The Director of Hyperbaric Medicine and Wound Care will oversee the elective.

4 Credits  
Pass/Fail Grading  
Prerequisites: MDCN2000,  
SURG8200  
Maximum Number Of Students: 1  
Periods Offered: 008, 010-012

## **Emergency Ultrasound**

**EMED1324**

Dr. Hannah Charland, Dr. Jennalee Cizenski  
CHARLAHA@upstate.edu

4th-year medical students with an interest in emergency medicine are invited to spend a month with the emergency department ultrasound faculty. The goal of this rotation will be to learn to incorporate point-of-care ultrasound (POCUS) into clinical decision-making. The student will work one-on-one with ultrasound-trained faculty (9 shifts). The student will see and evaluate patients in the ED and learn to use POCUS clinically, focusing on half of the 11 modalities cited in the 2008 consensus guidelines (soft tissue, renal, eFAST, aorta, cardiac, and ultrasound physics). At weekly quality-assurance meetings, we will review interesting ultrasound cases of the week and a landmark journal article. On non-clinical days, the student will be assigned to ultrasound scanning shifts with the ultrasound team (5 shifts). This course meets the basic science requirement through a review of online educational modules and a written test at the end of the course. Of note, this elective cannot be shortened to less than 4 weeks.

4 Credits  
Basic Science Selective, Pass/Fail Grading  
Prerequisites: MDCN2000,  
SURG8200, OBGY3600,  
PEDS5600, FAMP1600, PSYCH6800  
Maximum Number Of Students: 1  
Periods Offered: 001-008, 010-012

This course is not available in the elective lottery.

## **Emergency Medicine Advanced Simulation: Teaching and Learning with Simulation**

**EMED1325**

Dr. Elliot Rodriguez  
DEXTERD@upstate.edu

The goal of this elective experience is to provide senior level medical students an opportunity to learn the fundamentals of teaching with simulation. The student will have the opportunity to practice applying these concepts by teaching various learners under the supervision of experienced faculty educators. The student will learn to program and use the high fidelity simulation mannequins. During the elective, the student will develop a simulation scenario of sufficient quality to be submitted for publication. The scenario will be a shared work product and used to teach future learners. The elective will be based at the department's EMSTAT Center, a state of the art immersive simulation-learning environment. NOTE: Availability dependent on activity schedule.

4 Credits  
Prerequisites: EMED1302  
Maximum Number Of Students: 1  
Periods Offered: 001, 003-012

This course is not available in the elective lottery.

## **Emergency Medicine at Upstate Community Hospital**

**EMED1326**

Dr. Jennifer Campoli  
DEXTERD@upstate.edu

This rotation is an introduction to emergency medicine in a community hospital setting. Upstate Community Hospital is a 306-bed hospital. There is a diverse mix of pathology seen in the ED and all patients are seen by the ED medical staff. The medical student will always be supervised by a board-certified residency-trained emergency medicine specialist. They will examine, diagnose and treat pathology in all major disciplines of medicine. There will be a total of 7-14 shifts assigned to the student, depending on the length of the elective (7 shifts for two weeks to 14 shifts for four weeks) who will be invited to attend lectures given to students enrolled in the Acting Internship (AI) in Emergency Medicine, as well as Emergency Medicine Resident Lectures (pending location capacity). Partial (two-week) periods may be possible. Contact the Course Director to inquire.

4 Credits  
Prerequisites: None  
Maximum Number Of Students: 1  
Periods Offered: 001-008, 010-012

## **Emergency Room - VAH**

**EMED1345**

Dr. Mary DiRubbo  
DEXTERD@upstate.edu

This elective is intended to provide the student with a clinical experience in an active emergency room. The student will be working with and directly reporting to an attending physician covering the ER. In addition, the student will be working with a first or second year ED resident. This rotation allows the student to learn emergency medical care in a setting that is committed to teaching. It is located in a fully integrated academic institution and directed by physicians with full academic appointments. The student can expect exposure to a wide variety of medical and surgical cases. Previous students have appreciated most the primary care experience involving dermatology, ophthalmology, ENT, GU and ambulatory internal medicine problems. Additionally, this rotation affords the student the initial evaluation of acutely ill patients before they are treated, stabilized and admitted to an inpatient service.

4 Credits  
Veteran's Administration Hosp  
Prerequisites: MDCN2000  
Maximum Number Of Students: 1  
Periods Offered: 001-012

This course is not available in the elective lottery.

## VA Emergency Ultrasound

EMED1346

Dr. Kevin Gaskin  
KEVIN.GASKIN@va.gov

4 Credits  
Pass/Fail Grading  
Prerequisites: None  
Maximum Number Of Students: 2  
Periods Offered: 001-012

This course is not available in the elective lottery.

Experience one-on-one mentorship with the VA POCUS Director in this personalized four-week rotation. Students gain expertise in all 11 core POCUS modalities established by ACEP's current (2016) consensus guidelines: trauma, intrauterine pregnancy, aortic assessment, cardiac, biliary, renal, soft tissue, lung, ocular, deep vein thrombosis, and comprehensive procedural guidance including ultrasound-guided vascular access (peripheral IV placement and central line insertion). This immersive mentorship builds expertise through a structured progression: •Hands-on scanning sessions to master the art of image acquisition. •Weekly image review conferences to develop expert pattern recognition. •Clinical shifts to integrate POCUS directly into patient care decisions, including supervised practice in ultrasound-guided procedures. •Critical analysis of landmark POCUS literature. •Advanced online learning modules. •Simulation Center final assessment with unknown case challenges. This rotation satisfies the Basic Science requirement through comprehensive coverage of ultrasound physics principles. Full four-week commitment required. You must contact the VA course director, Kevin Gaskin, kevin.gaskin@va.gov, for course approval.

## FAMILY MEDICINE

### Acting Internship in Family Medicine - Residency Based Family Medicine

FAMP1612

Dr. Stephen Hoag  
RACHAEL.JONES@sjhsyr.org

4 Credits  
Acting Internship Selective  
Prerequisites: MDCN2000,  
PEDS5600  
Maximum Number Of Students: 2  
Periods Offered: 001-012

This elective is intended to achieve several goals: 1) provide an in-depth exposure to both in-patient and outpatient family medicine, 2) increase basic medical interviewing skills and medical facts, 3) allow the students to work closely with family medicine residents at all levels of training, and 4) give students who are interested in this residency an opportunity to demonstrate their interest and skills to our faculty. Mornings will encompass morning report, bedside rounds with the PGY3 and PGY1 residents, attending rounds with the faculty attending of the week and didactic conferences as provided by the PGY3 or attending. Noon-times are devoted to various didactic conferences. Afternoons are divided between floor coverage and outpatient either at the residents' own clinic or the faculty practice. Students will also have the opportunity to spend time on labor and delivery for an OB experience. The student will see the breadth of inpatient and outpatient family medicine. Four weeks prior to the elective, the student must contact the Medical Education Department at 315-448-5536 for instructions.

### Family Medicine Preceptorship

FAMP1615

Dr. Heather Finn  
MICCIOA@upstate.edu

4 Credits  
Preceptor's Site  
Prerequisites: FAMP1600  
Maximum Number Of Students: 2  
Periods Offered: 001-012

The goal of the course is to gain more advanced knowledge and skills in outpatient Family Medicine and to experience the day-to-day life of a family physician. Students will work directly with a preceptor or preceptors primarily in an outpatient Family Medicine setting. Students will evaluate patients and assist in documentation of patient encounters. Students may assist in entering orders, coordinating care, following up on results, and learning billing/coding, with the supervision of their preceptor. Rate of progression and participation, assignment of short literature reviews of patient problems, and call are at the discretion of the individual preceptors. Students should take initiative and seek out learning opportunities pertinent to their interests. This course is primarily completed at the Upstate Family Medicine Residency clinic at Community Campus. Each half day student will be assigned to a preceptor and will have the opportunity to work with multiple faculty members and residents, with flexibility to participate in procedures or other interesting cases, as opportunities arise. Students will also attend residency didactics once weekly, as residency schedule permits. If a student prefers, they may instead work with an individual preceptor at urban, suburban, and rural sites throughout New York State with approved voluntary faculty. Students will work with course coordinator to find a preceptor for this rotation.

### Integrative Medicine

FAMP1635

Dr. Kaushal Nanavati  
NANAVATK@upstate.edu

4 Credits  
Prerequisites: FAMP1600  
Maximum Number Of Students: 1  
Periods Offered: 001-012

To gain an understanding of "Integrative" or "Complementary and Alternative Medicine" through precepting with providers, readings and conferences. The instructor will discuss individualized goals, learning objectives and course setup with the student prior to the elective period. Students will be encouraged to understand unfamiliar disciplines and concepts of health within their cultural and philosophical traditions while assessing them from a scientific outcome based methodology. Physician-patient communication regarding therapies and decision processes for utilization or discussion within the context of a medical practice will be considered. Weekly activities will include: Self directed reading, outpatient contact with practitioners and meetings with instructor. A reading list will be developed from a spectrum of evidence based materials to a sampling of "layperson" readings to get a both broad overview and the specifics of the chosen subject areas.

### Occupational Medicine

FAMP1636

Dr. Reza Hossein  
HOSSEINR@upstate.edu

4 Credits  
Preceptor's Site  
Prerequisites: MDCN2000,  
SURG8200, OBGY3600,  
PEDS5600, FAMP1600, PSYCH6800  
Maximum Number Of Students: 1  
Periods Offered: 001-012

This course is not available in the elective lottery.

This elective will familiarize students with the evaluation and follow-up of patients with suspected work-related illnesses. Students may participate in any or all of the activities of the Occupational Health Clinical Center, a funded member of the NYS DOH Occupational Health Clinic Network. Students will interact with the clinical team to develop and implement treatment plans. Emphasis will be placed on students developing skills to accurately diagnose occupational illness and to recognize the physicians role in the prevention of occupational illness. This elective is flexible to allow the student to design an educational experience consistent with their interests and career goals. At the end of this elective, the student will have gained skills in the assessment and management of work-related medical conditions. Students considering a career in any adult medical or surgical discipline will find this elective useful.



**Literature and Medicine: Examining Issues in Primary Care****FAMP1642**

Dr. Ruth Hart  
HARTRH@upstate.edu

This elective will examine health issues in primary care, using the perspectives afforded by literature, film and theater. Hands-on literature and drama experiences will be part of the elective with attendance expected at live theater performances and at a local author lecture series. Topics to be included are: professionalism, resource allocation, physician-patient communication, quality of life, cultural diversity and research ethics. Class participation and discussion are the basis for assessment. The class meets late August to early December on Wednesday evenings, 6-9 pm, with occasional events on other weekday evenings. Cost for performances: \$35.00 total.

2 Credits  
Concurrent Elective  
Prerequisites: None  
Maximum Number Of Students: 99  
Periods Offered: Concurrent

**Introduction to Rural Health****FAMP1646**

Dr. Lauren Meyer  
MEYERL@upstate.edu

This elective is required for all first-year medical students admitted to SUNY Upstate College of Medicine through the Rural Medical Scholars Program. This elective introduces basic principles related to comprehensive rural health care. The format of the course is interactive, allowing students to learn about their roles as future physicians, and pass on enthusiasm for rural practice to a new generation of future small town practitioners. Students will be exposed to specific rural health issues through small group case discussions and learn about different rural communities across NYS.

1.5 Credits  
Concurrent Elective  
Prerequisites: None  
Maximum Number Of Students: 60  
Periods Offered: Concurrent

This course is not available in the elective lottery.

**Rural Medical Education Program****FAMP1650**

Dr. Lauren Meyer  
MEYERL@upstate.edu

This elective is suggested for students admitted to the College of Medicine through the Rural Medical Scholars Program. Students train in small town communities across NYS with local, board certified, clinical preceptors. An emphasis is placed on the continuous and comprehensive care of patients. Students develop skills in the diagnosis and management of a wide range of common ambulatory and secondary hospital problems of patients across the age spectrum. Students participate in patient care with small town, community-based preceptors, case presentations, and community engagement activities.

4 Credits  
Prerequisites: MDCN2000  
Maximum Number Of Students: 1  
Periods Offered: 001-012

This course is not available in the elective lottery.

**Rural Research Immersion****FAMP1651**

Dr. Lauren Meyer  
MEYERL@upstate.edu

This course involves either group or individual student research on issues relevant to rural health. Students will conduct research for up to 15 weeks in the Spring semester and early summer. The course culminates with 2-3 days in the summer, on-site in a rural community to allow primary data collection or in person consultation with providers/administrators. The on-site work will include a presentation to relevant stakeholders in the community. Projects may be done in conjunction with healthcare centers (FQHC) to aid with grant writing, quality improvement, etc.

2 Credits  
Concurrent Elective  
Prerequisites: None  
Maximum Number Of Students: 20  
Periods Offered: Concurrent

This course is not available in the elective lottery.

**Rural Medicine Community Health AI****FAMP1652**

Dr. Lauren Meyer  
MEYERL@upstate.edu

In this AI, students will care for patients across the lifespan in an ambulatory Family Medicine Clinic. Students will manage acute and chronic conditions, and provide wellness and prevention care. The AI will provide training in key components of outpatient primary care. The student will spend 8 half-days per week in the Family Medicine office, performing all aspects of Evaluation and Management visits. These aspects include, but are not limited to: taking a history, performing a physical examination, reviewing other health data relevant to the visit, formulating a differential diagnosis, assessing the status of chronic conditions, identifying gaps in guideline and/or evidence based wellness and prevention, formulating and ordering appropriate diagnostic tests, making appropriate referrals for ancillary services and consultations, formulating a treatment and follow-up plan incorporating shared decision making as appropriate, providing patient education and support, and creating a note for the visit.

4 Credits  
Acting Internship Selective  
Prerequisites: None  
Maximum Number Of Students: 15  
Periods Offered: 001-012

This course is not available in the elective lottery.

**MS1 RMED Summer Experience****FAMP1653**

Dr. Lauren Meyer  
MEYERL@upstate.edu

1 TO 6 Credits  
Pass/Fail Grading  
Prerequisites: None  
Maximum Number Of Students: 10  
Periods Offered: SUM

The goal of this course is to provide a rich community-based summer experience to enhance the students' clinical knowledge through hands-on practice and mentorship. Students are expected to: care for patients across the lifespan, manage acute and chronic conditions, as well as provide wellness and prevention care. Additionally, students will participate in in-direct patient care matters, office procedures, care coordination, coding, advanced primary care, and practice based learning. This experience will shed light on the expectations for RMED third year students and better prepare students for their clinical rotations and Standardized Patient Encounters. All patient care activities will be directly supervised by an attending physician

This course is not available in the elective lottery.

**Acting Internship Upstate Family Medicine Residency****FAMP1654**

Dr. Akifa Nazim  
MICCIOA@upstate.edu

4 Credits  
Acting Internship Selective  
Prerequisites: MDCN2000,  
SURG8200, FAMP1600,  
EMED1300, OBGY3600,  
PYCH6800, CBHX2400,  
NEUR3600, PEDS5600  
Maximum Number Of Students: 2  
Periods Offered: 001-012

The goal of this AI is to prepare the MS4 to assume the role of an intern both inpatient and outpatient in family medicine. They will continue to build on their FM clerkship to master patient communication skills for history taking, examination, appropriate documentation, differential diagnosis, and developing treatment plans. They will learn the basics of diagnosis codes and billing in the outpatient setting. Students will work directly with faculty and residents which will allow them to experience firsthand our very own Upstate Family Medicine Residency and it gives them an opportunity to demonstrate their skills and interest. Students will have 1 presentation during the block, noon conference 2-3 times a week, and weekly educational sessions.

**Rural Medicine Curriculum Design Elective****FAMP1656**

Dr. Lauren Meyer  
MEYERL@upstate.edu

1 TO 2 Credits  
Concurrent Elective, Pass/Fail  
Grading  
Prerequisites: None  
Maximum Number Of Students: 5  
Periods Offered: Concurrent,  
Concurrent

The teaching elective is a 1-2 credit concurrent course during MSI, MSII, and MSIV year designed to expose students with an interest in medical education and teaching. Students will work with RMSP Director to develop sessions for Intro to Rural Health and other rural health electives including, but not limited to: identifying unique session topics, recruiting speakers, facilitating case discussions, coaching high school students for our clinical case completion. Student will play a lead role in program evaluation and development. Students will have the opportunity to work on educational research including development, data collection, and analysis, manuscript writing and presenting at conferences. After completion of this elective, students should be more prepared to be medical educators in their fields and communities.

This course is not available in the elective lottery.

**Rural Medicine Clinical Training through Journey Mapping****FAMP1657**

Dr. Lauren Meyer  
MEYERL@upstate.edu

1.5 Credits  
Concurrent Elective, Pass/Fail  
Grading  
Prerequisites: None  
Maximum Number Of Students: 36  
Periods Offered: Concurrent

Groups of second-year medical students, with a fourth-year medical student mentor, will delve into patient care through interactions with a patient educator and community preceptor. Medical students come to know their patient, the patient's condition, and the patient's journey through illness, diagnosis, and treatment and how this impacted not only their health but also their family relationships, work, and finances. Students present their patient educator's journey through illness at a university wide forum. Students practice skills related to patient interviewing, notetaking, case review and discussion, physical exam and presentation.

This course is not available in the elective lottery.

**Rural Medicine Return to Basic Sciences through Journey Mapping and Teaching****FAMP1658**

Dr. Lauren Meyer  
MEYERL@upstate.edu

2 Credits  
Basic Science Selective, Concurrent  
Elective, Pass/Fail Grading  
Prerequisites: None  
Maximum Number Of Students: 15  
Periods Offered: Concurrent

For this elective fourth-year medical students, along with a community physician and patient educator, lead a group of second year medical students through the patient's case. Fourth year students will delve deeply into the anatomy and physiology of their patient's condition, using their basic science knowledge and research skills. Students are to teach their second-year students how the disease progression impacts the patient, focusing on the pertinent basic science units from phase I. Students also focus on the impact of the patient's condition on the family relationships, work, and finances as it has changed through the progression of their illness. Additionally, students present their cases at a university wide forum with their group.

This course is not available in the elective lottery.



## Targeted Rural Health Educ

FAMP1661

Dr. Lauren Meyer  
MEYERL@upstate.edu

The goal of TRHE is to produce a community-specific health education article written in plain language, suitable for publication in a newspaper or with another news source. Students enrolled in the RMED elective, or Rural AI will complete a brief community health needs assessment to identify a topic for the article, which serves the rural population. The topic will be researched using evidence-based resources with the guidance of the RMED community preceptor and RMSP Director. Students will work with the health education journalism specialist to edit the article for publication, which must be suitable for consumption by a wide audience.

1 Credit  
Prerequisites: None  
Maximum Number Of Students: 20  
Periods Offered: Concurrent,  
Concurrent

This course is not available in the  
elective lottery.

## INTERDEPARTMENTAL

### Third Year Career Exploration Elective

INTD9401

Dr. Matthew Mason, Dr. Leann  
Lesperance  
CCSTUAFF@upstate.edu

This is a 2-week Career exploration elective that runs during the first two weeks of the elective block and is designed to expose 3rd year students to a discipline not typically experienced during clerkships. After registering, students will be sent a specialty preference form to indicate areas of interest.

2 Credits  
Pass/Fail Grading  
Prerequisites: MMCM102,  
MMSK101, MNSY101, MCVR101,  
MURR101, MGSI101., MENR101,  
MFRM101, MPTP101, MPOM105,  
MFSK201, MHON201, MENR201,  
MCVR201, MNSY201, MGSI201,  
MPOM201, MFRM201  
Maximum Number Of Students: 20  
Periods Offered: A-1, B-1, C-1, D-1,  
E-1, F-1, G-1, H-1, I-1, J-1

### Third Year Career Exploration Elective

INTD9402

Dr. Matthew Mason, Dr. Leann  
Lesperance  
CCSTUAFF@upstate.edu

This is a 2-week Career exploration elective that runs during the third and fourth weeks of the elective block and is designed to expose 3rd year students to a discipline not typically experienced during clerkships. After registering, students will be sent a specialty preference form to indicate areas of interest.

2 Credits  
Pass/Fail Grading  
Prerequisites: MMCM102,  
MMSK101, MNSY101, MCVR101,  
MURR101, MGSI101, MENR101,  
MFRM101, MPTP101, MPOM105,  
MFSK201, MHON201, MENR201,  
MCVR201, MNSY201, MGSI201,  
MPOM201, MFRM201  
Maximum Number Of Students: 20  
Periods Offered: A-2, B-2, C-2, D-2,  
E-2, F-2, G-2, H-2, I-2, J-2

### Teaching Assistant for Practice of Medicine Course

INTD9423

Dr. Rachel Hopkins  
OLESCHD@upstate.edu

The elective provides fourth-year medical students the opportunity to participate in the Practice of Medicine course, providing assistance with: facilitating small groups alongside faculty or other teaching assistants, grading student assessment submissions in both written note form and oral presentations, leading review sessions in advance of student assessments, being trained on and subsequently leading simulation experiences with small groups of students, as well as other potential course components or quality improvement projects as they arise. This course is hybrid in nature for the teaching assistants; while there is work that can be performed remotely, it is expected teaching assistants are able to instruct in person, based on the session they are teaching. Students are able to sign up for courses according to their availability and presence on campus. The Practice of Medicine course is longitudinal and uses active, hands-on, small-group learning of taking histories and performing physical exams related to the chief complaint presented. The course integrates with the horizontally constructed systems-based units of first- and second-year courses, aligning with each block.

1 TO 2 Credits  
Basic Science Selective, Concurrent  
Elective  
Prerequisites: MDCN2000,  
SURG8200  
Maximum Number Of Students: 28  
Periods Offered: Concurrent

### Hospice Volunteering

INTD9425

Dr. Julie King  
MDEVLIN@hospicecny.org

Hospice volunteers are trained to help patients / families cope with issues at the end of life. Volunteers will learn how to assist with the physical, emotional, and spiritual struggles of this unique time. Once trained, volunteers will be matched with families based on interests, experience, and availability. Typical activities would be: Visit, watch TV, read to patients, grocery shopping, and sitting with patient's so family can run errands. This is a rich opportunity to assist those in your community who are living with dying, and to learn about the psych-social-spiritual aspects of the journey towards the end of life. Hospice Volunteer Training is required prior to volunteering with patients/families.

1 Credit  
Concurrent Elective, Preceptor's Site  
Prerequisites: None  
Maximum Number Of Students: 10  
Periods Offered: Concurrent

## Hospice and Palliative Medicine/Spirituality

INTD9426

Dr. Suman Swarnkar, Dr. Gabriela Palacio  
MULHOLLN@upstate.edu

In this course, the medical student will join the inpatient Adult Palliative Care consultation team. The student will learn the basics of both inpatient and outpatient Palliative Care for patients. This includes patients with chronic and/or severe illness. Patients with End of Life care are also included. Pain control, symptom management, goals of care, and advanced directives are all important topics included. Special attention will be paid to spiritual and emotional needs of patients and their families. Patients will include adult patients across all inpatient services. These include General Medicine, Oncology, Neurology, Intensive Care, and Surgery. Students will be asked to follow their own panel of patients and keep a journal of their experience.

2 Credits  
Preceptor's Site  
Prerequisites: MDCN2000,  
SURG8200, OBGY3600,  
PEDS5600, FAMP1600, PSYCH6800  
Maximum Number Of Students: 1  
Periods Offered: 001-012

This course is not available in the elective lottery.

## Peer Tutoring in Basic Science

INTD9427

Dr. Dana Mihaila, Mary Ann Grandinetta, Dr. Jennette Ball  
MIHAILDA@upstate.edu

Students in this elective will serve as peer tutors to students in basic science courses. Students and tutees will meet to review course material, study skills, test taking and time management strategies. Tutor training may be required. Third and fourth year medical students conduct group and one-on-one tutoring sessions for first and second year medical students in basic science coursework. Review of relevant basic science course material, tutoring methods, and topics in study strategies and time management are covered in the tutoring sessions.

1 Credit  
Basic Science Selective, Concurrent  
Elective, Pass/Fail Grading  
Prerequisites: MDCN2000,  
SURG8200, OBGY3600,  
PEDS5600, FAMP1600, PSYCH6800  
Maximum Number Of Students: 15  
Periods Offered: 007, Concurrent

This course is not available in the elective lottery.

## Fundamentals in Quality Improvement and Patient Safety through IHI Open School

INTD9434

Dr. Lynn Cleary  
GOODENPA@upstate.edu

This elective uses the online courses from the Institute for Healthcare Improvement (IHI) Open School to provide students with fundamental knowledge and skills in quality improvement, patient safety, and related content. The elective is self-paced and asynchronous. By the end of the course, students will qualify for an IHI Open School Basic Certificate of completion. The estimated time of completion of the online modules is 15 to 20 hours. In addition, students are required to submit two written case analyses, one based on the analysis of an opportunity to improve a process/outcome and the other on an analysis of a near miss or error, based on cases they have seen, and discuss the elective experience with the instructor. The knowledge and skills from this course will distinguish the individual who takes it as uniquely prepared for entering residency with advanced competency in Systems-based Practice, a required competency in all residencies.

1 Credit  
Concurrent Elective  
Prerequisites: None  
Maximum Number Of Students: 99  
Periods Offered: Concurrent

## Pathophysiology of Disease

INTD9437

Dr. Margaret Maimone  
MAIMONEM@upstate.edu

In this course, students will choose a disease of interest and conduct a thorough literature review of the pathophysiological mechanisms underlying the disease. Students will then synthesize this information into a learning module/product (oral presentation, conference poster, research paper, case report, Stat Pearls article, etc.) that reviews the current state of knowledge of the pathophysiology of this disease. This information must then be disseminated to an appropriate audience through oral presentation, regional/national conference presentation or submission for publication. For students choosing to do an oral presentation, the course director can arrange a date and time to give the oral presentation to clerkship students; dates must be arranged well in advance of the desired date, and the date/time of the presentation will be subject to the clerkship schedule. All students are also required to write a reflection about their experience in the elective after they have completed the other requirements. After registering for the course, students will be given access to the course in Brightspace where they will find further details and instructions needed to successfully complete the elective. Students taking the course at any time after completing their clerkships should enroll in the Fall version of the course. Students who want to complete the course during their clerkship year, should contact the course director for approval.

2 Credits  
Basic Science Selective, Concurrent  
Elective  
Prerequisites: None  
Maximum Number Of Students: 20  
Periods Offered: Concurrent,  
Concurrent

This course is not available in the elective lottery.

## TA in Basic Science

INTD9438

Dr. Margaret Maimone  
MAIMONEM@upstate.edu

Teaching assistants will assist course directors of one or more of the required basic science courses in MS1 or MS2. Teaching assistants will prepare review materials and conduct regular review sessions as well as hold regular office hours to assist students with course material. They will interact regularly with the course directors to discuss review materials and topic areas with which students are struggling. Teaching assistants will be required to provide a log of their preparation hours and contact time to the course director. At the conclusion of the elective, teaching assistants will write a short reflection on their teaching experience. Students may sign up to assist with more than one course as their schedule permits.

1 TO 4 Credits  
Basic Science Selective, Concurrent  
Elective  
Prerequisites: MDCN2000,  
SURG8200, OBGY3600,  
PEDS5600, FAMP1600, PSYCH6800  
Maximum Number Of Students: 30  
Periods Offered: Concurrent

## Foundations of Reasoning in Medicine

INTD9439

Dr. Matthew Thornton  
GRAYAM@upstate.edu

0 TO 2 Credits  
Basic Science Selective, Concurrent  
Elective  
Prerequisites: MDCN2000,  
SURG8200, OBGY3600,  
PEDS5600, FAMP1600, PYCH6800  
Maximum Number Of Students: 40  
Periods Offered: Concurrent

The elective provides fourth year medical students the opportunity to participate in the facilitation of small groups within the Foundations of Reasoning in Medicine (FRM) course, encompassing both the FRM I-style and FRM II-style sessions. It may also provide fourth year students an opportunity to complete other quality improvement projects needed within the course. The Foundations of Reasoning in Medicine course is longitudinal and uses an active, case-based learning approach. The course integrates with the horizontally constructed systems-based units of first- and second-year courses, aligning with each block. These interactive sessions take place in a small group format which will allow first- and second-year students to apply the thought processes that practicing physicians bring to their patients every day. Small group cases will be held in all three semesters of FRM. Elective students will choose which sessions to participate in based on their availability. FRM I-style sessions consist of a given diagnosis, with participants learning the basic science/pathophysiology of the disease being studied. FRM II-style case objectives include clinical reasoning, development of a differential diagnosis, and disease management.

## Leadership in Medicine

INTD9440

Dr. Lynn Cleary  
GOODENPA@upstate.edu

2 Credits  
Concurrent Elective  
Prerequisites: None  
Maximum Number Of Students: 20  
Periods Offered: Concurrent

This elective will provide students with fundamental knowledge and skills to enhance their effectiveness as leaders, an expected competency for physicians in many professional roles. The course is offered in hybrid form, with some required in-person activity, some virtual sessions, and some independent work. Content includes leadership styles; strengths, weaknesses and vulnerabilities in leaders; ethical and professional aspects of leadership; diversity and inclusion in leadership; emotional intelligence, self-awareness and improvement; effective verbal and written communication; conflict resolution and negotiation; teamwork; vision and motivation; mentorship; management vs. leadership; and other topics. Educational activities include reading, review of online material, oral presentations, self-awareness exercises, working with faculty and student partners, written assignments, participation in online discussions), and self- and peer assessment and feedback.

This course is not available in the  
elective lottery.

## Introduction to Medical Spanish

INTD9442

MariaLourdes Fallace  
FALLACEM@upstate.edu

2 Credits  
Concurrent Elective  
Prerequisites: None  
Maximum Number Of Students: 24  
Periods Offered: Concurrent

The Introduction to Medical Spanish course builds on the strong foundation of the Basic Spanish level and expands knowledge of medical terminology to continue learning correct sentence construction for effective communication. Students do role play with classmates imitating situations at a doctor's office, hospital or emergency rooms. Students learn communication at a higher level with patients and the public in general. They are able to have dialogues asking more relevant questions related to the patient's complaint in grammatically correct sentences using regular and irregular verbs in the present, past tense and future tenses. A minimum of 8 students are required for the elective to take place.

This course is not available in the  
elective lottery.

## Intermediate Medical Spanish

INTD9443

MariaLourdes Fallace  
FALLACEM@upstate.edu

2 Credits  
Concurrent Elective  
Prerequisites: None  
Maximum Number Of Students: 24  
Periods Offered: Concurrent

Intermediate Medical Spanish is a conversations level. It builds on knowledge acquired on previous levels and prepares medical students to communicate effectively with patients with limited English proficiency. Students at this level speak only Spanish in class and are able to volunteer at a local clinic, shadow a health care provider and assist him/her in communicating to the patient the nature of the problem/condition, necessary tests required, the results, as well as treatment and prognosis. They are able to inform the patient about follow up appointments and convey any other information. A minimum of 8 students are required for the elective to take place.

This course is not available in the  
elective lottery.

## Advanced Medical Spanish

INTD9444

MariaLourdes Fallace  
FALLACEM@upstate.edu

2 Credits  
Concurrent Elective  
Prerequisites: None  
Maximum Number Of Students: 20  
Periods Offered: Concurrent

Advanced Medical Spanish is service learning elective that prepares medical students to communicate effectively with patients with limited English proficiency. Students at this level are able to shadow a health care provider and assist him/her in obtaining accurate history of the patient, performing a physical examination and communicating to the patient the condition, necessary tests and results, as well as treatment and prognosis at a proficiency level. A minimum of 8 students are required for the elective to take place.

This course is not available in the  
elective lottery.

## Curriculum Reform (Basic Science)

INTD9446

Dr. Lauren Germain  
GERMAINL@upstate.edu

This is an elective course in medical education with a focus on the foundations of basic science curricular development and design for students who are interested in exploring new and innovative curricular ideas. Students will identify an area of interest and work with the course director to identify a project mentor prior to being enrolled in the elective. After a meeting with the course director, the student will be enrolled. The outcomes of the project must be in the form of an abstract prepared for submission to a national meeting, a presentation to a target audience, and/or creation of approved learning module with assessment; other final outcomes will be considered on an ad hoc basis.

1 TO 6 Credits  
Basic Science Selective, Concurrent  
Elective  
Prerequisites: None  
Maximum Number Of Students: 5  
Periods Offered: Concurrent

This course is not available in the  
elective lottery.

## Medical Education (Regular)

INTD9447

Dr. Lauren Germain  
GERMAINL@upstate.edu

This is an elective course in medical education, curricular development and design for students who are interested in exploring new and innovative curricular ideas. Students will identify an area of interest and work with the course director to identify a project mentor prior to being enrolled in the elective. After a meeting with the course director, the student will be enrolled. The outcomes of the project must be in the form of an abstract prepared for submission to a national meeting, a presentation to a target audience, and/or creation of approved learning module with assessment; other final outcomes will be considered. on and ad hoc basis.

1 TO 6 Credits  
Concurrent Elective  
Prerequisites: None  
Maximum Number Of Students: 5  
Periods Offered: Concurrent

This course is not available in the  
elective lottery.

## Complex Care Clinic

INTD9448

Dr. Jessica Mayer  
MAYERJ@upstate.edu

Complex Care Clinics are emerging primary care centers, the majority run by Internal Medicine-Pediatrics providers, for patients of all ages with challenging chronic disease. The clinic provides preservation of quality care, support, and resources for these patients that is often lost during the transition of care from childhood to adulthood. The student will learn the unique needs of these patients by directly participating in patient care and via assigned readings/videos, which will expand student knowledge of community resources available. At the end, the student will write an essay about a type of patient they were previously unfamiliar or less-practiced with and how the clinical elective has furthered their ability to care for this patient.

4 Credits  
Prerequisites: None  
Maximum Number Of Students: 2  
Periods Offered: 001-012

## Clinical Pedagogical Knowledge

INTD9450

Dr. Dana Mihaila, Dr. Jennette Ball  
MIHAILDA@upstate.edu

This elective is for MS3s that are enrolled in the Clinical Anatomy Instruction or the Neuroanatomy Instruction Micro-credential. It is an online asynchronous course containing three modules. -Module 1 Teaching: provides an introduction to the role of the clinical educator and how learning theories are used in clinical teaching practice. -Module 2 Learner Assessment: reviews strategies for learner assessment in clinical practice settings that are evidence-based and grounded in learning theory. -Module 3 Mentoring and Advising: explores mentoring and advising learners in clinical practice settings.

1 Credit  
Concurrent Elective  
Prerequisites: None  
Maximum Number Of Students: 5  
Periods Offered: Concurrent

This course is not available in the  
elective lottery.

INTD9451

Dr. Jennette Ball, Dr. Dana Mihaila  
BALLJ@upstate.edu

This elective is for MS4s that are enrolled in the Clinical Anatomy Instruction or the Neuroanatomy Instruction Micro-credential. Students will prepare an integrated educational project of their own design specific to the student's interest with faculty guidance. This project could include advanced dissection, preparation of educational material that will incorporate clinical anatomy as well as clinical skills, and presentation of educational material to anatomy faculty and clinical faculty.

1 TO 5 Credits  
Prerequisites: None  
Maximum Number Of Students: 20  
Periods Offered: Concurrent



**MD/PhD Grand Rounds****MDPH0602**

Dr. Amit Dhamoon  
DHAMOONA@upstate.edu

0 TO 2 Credits  
Concurrent Elective, Didactic  
Prerequisites: None  
Maximum Number Of Students: 35  
Periods Offered: Concurrent

This course is a required course for students in the MD/PhD program. Interested parties are welcome to attend the bi-weekly seminar component of the course. Student participation varies depending on the stage of training: MSI and MSII students attend Grand Rounds, read assigned papers, and participate in discussion. Students in the PhD years will spend eight clinical hours per month. From each month's clinical experience the student will write up, in detail, a clinical case, reviewing the clinical scenarios, pathophysiology, pharmacology, etc. and also summarize recent advances or gaps in our knowledge with respect to clinical and translation research related to the specific disease and case report. The clinical mentor will review each month's write-up. Once per year, each student will present one of their clinical cases and discuss the chosen case within the context of the basic, clinical and translational research issues discussed in the relevant case report. The student presenter is also responsible for assigning relevant background papers of the Grand Rounds seminar and facilitating discussion. Students will be required to arrange a clinical mentor for each semester of their PhD training. To ensure a breadth of exposure, students will be required to select a minimum of two different clinical areas of experience during the course of their PhD training. MSIII and MSIV student participation is the same as students in the PhD years. Cases will be chosen from their clerkships. Course grading and credit hours depending on the stage of training for the student.

**MEDICINE****Geriatric Medicine****GERI1801**

Dr. Sharon Brangman  
WHEELEKE@upstate.edu

4 Credits  
Prerequisites: MDCN2000,  
SURG8200, OBGY3600,  
PEDS5600, FAMP1600, PSYCH6800  
Maximum Number Of Students: 2  
Periods Offered: 001-012

This elective offers an educational experience along the continuum of care in Geriatric Medicine in an interdisciplinary setting; allowing the student to experience interactions with physical therapy, social work, pharmacists, nursing, neuropsychologists, research and clinical trials. Students can select a 2 or 4 week elective and will participate in many of the clinical activities within the Department of Geriatrics including: 1. Ambulatory practice at University Geriatricians which is also the clinical site of the Center of Excellence. 2. Acute Care of the Elderly (ACE) Team at University Hospital both the Main/Downtown Campus and the Community Campus. 3. Skilled Nursing Home Care at St. Camillus Center for Nursing and Rehabilitation. At the end of this elective, the student will have new skills in the assessment and management of medical conditions frequently encountered in older adults across a variety of care settings. Students considering a career in any adult medical or surgical discipline will find this elective to be very helpful.

This course is not available in the elective lottery.

**Clinical Nephrology****MDCN2002**

Dr. Danielle Kochen  
OLIVERL@upstate.edu

4 Credits  
Prerequisites: MDCN2000,  
FAMP1600, EMED1300,  
SURG8200, NEUR3000,  
OBGY3600, PEDS5600, PSYCH6800  
Maximum Number Of Students: 1  
Periods Offered: 001-012

Teaching is oriented around detailed discussion of the pathophysiology and management of renal disease. The consult team includes an attending, fellow, residents, and medical students. Consultations cover chronic kidney disease, fluid and electrolyte disorders, and end stage renal disease to include dialysis and transportation. Inpatients are seen on observation status, inpatient beds, and in several ICUs at UH and the VA. There are three weekly scheduled conferences and three weekly renal clinics at which students are encouraged to participate. Basic textbook reading and an attempt at evidence based medicine and critical assessment of the literature is required. The student should gain knowledge related to the pathophysiology and treatment of a variety of renal diseases such as glomerulonephritis, kidney stones, fluid and electrolyte disorders, and acute and chronic renal failure. A basic understanding of urinalysis and dialysis will be taught. This rotation provides a true clinical opportunity to integrate physiology, pharmacology, pathology, and molecular biology in disease ranging from chronic outpatient states to critically ill patients in the surgical and medical ICUs. The elective is based at University Hospital with consultations at the VA Hospital and Crouse Hospital. An outpatient transplant clinic and nearby dialysis unit offer optional exposure to chronic management of ESRD.

**Clinical Pulmonary Disease****MDCN2004**

Dr. Danielle Kochen  
OLIVERL@upstate.edu

4 Credits  
Prerequisites: MDCN2000,  
FAMP1600, EMED1300,  
SURG8200, NEUR3000,  
OBGY3600, PEDS5600, PSYCH6800  
Maximum Number Of Students: 1  
Periods Offered: 001-012

The major emphasis of the elective is on the diagnosis and management of pulmonary disease and on applied pulmonary physiology. The student will participate in the care of patients on the Pulmonary Service and will see, with the attending physician, all pulmonary consults requested by other services. The student can anticipate seeing problems such as solitary pulmonary nodules, difficult pneumonias, pulmonary infiltrates in immunocompromised patients, pleural effusions, post-operative pulmonary complications, and pre-operative pulmonary evaluations, chronic obstructive lung disease and asthma. The student will learn the indications for special diagnostic procedures such as CT scans, pleural biopsy, needle aspiration and biopsy, and fiberoptic bronchoscopy. The student will have the opportunity to observe a fiberoptic bronchoscopy. The student will learn to interpret the results of pulmonary function tests and arterial blood gas analysis.

**Clinical Endocrinology, Diabetes & Metabolism****MDCN2005**

Dr. Danielle Kochen  
OLIVERL@upstate.edu

4 Credits  
Preceptor's Site  
Prerequisites: MDCN2000,  
FAMP1600, EMED1300,  
SURG8200, NEUR3000,  
OBGY3600, PEDS5600, PSYCH6800  
Maximum Number Of Students: 1  
Periods Offered: 001-002, 005-012

The goal of this elective is for the student to demonstrate competency in applying the principles of evaluation and management of adults with general endocrine disorders and diabetes mellitus. Objectives include: 1) Teaching specialized history taking and physical examination, clinical procedures and laboratory testing of patients with endocrine and metabolic abnormalities of all categories; 2) Demonstration of testing procedures and their applications to the known physiology of each endocrine system in an evaluation of that system; 3) Teach the evaluation and management of adults with diabetes mellitus, working with the multidisciplinary Joslin Center team of endocrinologists, educators, nutritionists, exercise specialist, podiatrists and other consultants for diabetes-related complications; 4) Demonstrate how endocrine malfunction can be diagnosed and treated both in specific endocrinopathies of the pituitary, thyroid, parathyroid, pancreas, adrenal cortex and gonads and in other endocrine and metabolic disorders (e.g., lipid disorders, metabolic bone disease, growth disorders, water and electrolyte abnormalities). Ambulatory patient care sessions will be at the Joslin Center for Diabetes, University Endocrinologists and Osteoporosis Center of the SUNY Upstate Medical University and at the Diabetes and Endocrine clinics at the VA Medical Center.

**Clinical Infectious Disease****MDCN2014**

Dr. Danielle Kochen  
OLIVERL@upstate.edu

An advanced undergraduate course in diagnosis and management of patients with Infectious Diseases. The student, working closely with a Resident or Fellow, will do the initial evaluation of patients referred to our service for consultation, will present his/her patients to the Attending Physician on daily ward rounds and will subsequently be responsible for following his/her patients through their hospital course. He/she will be asked periodically to review certain subjects and to make brief presentations at daily rounds, the weekly Infectious Diseases Conference or the weekly Clinical Case Conference. The student is expected to take advantage of the opportunity to explore clinical microbiology.

4 Credits  
Prerequisites: MDCN2000,  
FAMP1600, EMED1300,  
SURG8200, NEUR3000,  
OBGY3600, PEDS5600, PSYCH6800  
Maximum Number Of Students: 1  
Periods Offered: 001-012

**Gastroenterology****MDCN2017**

Dr. Danielle Kochen  
OLIVERL@upstate.edu

During this experience, the student will function as the acting intern for patients admitted to the Gastroenterology and Hepatology services, will learn to provide consultative services in Gastroenterology and will participate in three outpatient sessions weekly. The student will join other members of the section in case-management, journal club, pathology, radiology and clinical conferences. As learning objectives, the student will interpret and integrate data from the clinical record, laboratory, radiology, endoscopic, histopathologic and manometric studies to develop clinical management strategies.

4 Credits  
Prerequisites: MDCN2000,  
SURG8200, FAMP1600,  
EMED1300, NEUR3000,  
OBGY3600, PEDS5600, PSYCH6800  
Maximum Number Of Students: 1  
Periods Offered: 001, 003-012

**Hematology/Oncology****MDCN2040**

Dr. Danielle Kochen  
OLIVERL@upstate.edu

This experience will be designed to provide an exposure to the problems encountered in diagnosis and treatment of ambulatory patients with a broad variety of solid tumors and hematologic disorders in the outpatient setting. Training is provided in blood cell identification and the diagnosis and treatment of hematologic disorders. Knowledge of the mechanisms of action, pharmacology, toxicities and the therapeutic indication for various classes of anti-tumor compounds will be obtained. The relationships between the principles derived from experimental tumor systems and human cancer will be emphasized. Additionally, the interdisciplinary nature of oncology practice will be stressed. Emphasis will also be placed upon the various phases of clinical investigation, and experimental design which relates to the development of properly conceived and executed clinical trials. Nine interdisciplinary Clinic sessions will be attended weekly. The student will be expected to accept primary patient responsibility and become intimately involved not only in the medical but also the psychosocial implications of malignant/ hematologic disease.

4 Credits  
Prerequisites: MDCN2000,  
FAMP1600, EMED1300,  
SURG8200, NEUR3000,  
OBGY3600, PEDS5600, PSYCH6800  
Maximum Number Of Students: 1  
Periods Offered: 001-012

**Clinical Cardiology****MDCN2044**

Dr. Danielle Kochen  
OLIVERL@upstate.edu

This course is designed to provide a basic background in clinical cardiology. Students should improve their skills in the physical examination of the heart and gain experiences with pathophysiology, diagnosis, and management of angina pectoris, myocardial infarction and congestive heart failure, hypertension, and valvular heart disease, among other cardiovascular diseases. They will also become familiar with the value of information obtained and the techniques involved in electrocardiographic stress testing, nuclear cardiology and echocardiography. There will be a one hour didactic electrocardiography session per week with supplemental self-assessed learning/computer assisted learning (American College of Cardiology ECG-SAP). Students should be able to understand the data generated from cardiac catheterization and percutaneous coronary interventions including PCTA and Stents. They will also be introduced to the morbidity, mortality and benefits of cardiac surgery. These improvements in clinical skills should lead to the ability to approach a patient with heart disease, along with its diagnosis, evaluation of its severity, and its treatment.

4 Credits  
Prerequisites: MDCN2000,  
FAMP1600, EMED1300,  
SURG8200, NEUR3000,  
OBGY3600, PEDS5600, PSYCH6800  
Maximum Number Of Students: 1  
Periods Offered: 001-012

**Critical Care****MDCN2058**

Dr. Danielle Kochen  
OLIVERL@upstate.edu

The students will be taught the theory and techniques used in the management of critically ill patients. After completion of the course a student will be able to understand the management of a patient with multiple system organ failure as well as be comfortable with advanced ventilatory and hemodynamic management. Students receive practical instruction in the performance of invasive procedures including but not limited to central lines, pulmonary artery catheters and arterial lines.

4 Credits  
Prerequisites: MDCN2000,  
SURG8200, FAMP1600,  
EMED1300, NEUR3000,  
OBGY3600, PEDS5600, PSYCH6800  
Maximum Number Of Students: 2  
Periods Offered: 001-011

**Clinical Internal Medicine & Infectious Diseases****MDCN2059**

Dr. Danielle Kochen  
OLIVERL@upstate.edu

Observation and participation in clinical infectious diseases will include inpatient care at Community General Hospital as well as outpatient experience. Emphasis on diagnosis and treatment of common problems in unusual infectious disease problems and travel medicine. Emphasis is also placed on care of patients with HIV disease both in the outpatient and inpatient setting. After completing the course, the student should have good ability to diagnose and treat inpatient and outpatient medical problems as well as a thorough understanding of the principles and practice of antibiotic use, HIV therapy and travel medicine.

2 Credits  
Community General Hospital  
Prerequisites: MDCN2000,  
SURG8200, FAMP1600,  
EMED1300, NEUR3000,  
OBYG3600, PEDS5600, PSYCH6800  
Maximum Number Of Students: 1  
Periods Offered: 01A, 01B, 02A,  
02B, 03A, 03B, 04A, 04B, 05A, 05B,  
06A, 06B, 07A, 07B, 08A, 08B, 09A,  
09B, 10A, 10B, 11A, 11B, 12A, 12B

**Clinical Dermatology****MDCN2066**

Dr. Ramsay Farah  
FALISEK@upstate.edu

Dermatology will be the focus. Students will see patients on an outpatient basis. Basic dermatologic conditions and procedures will be emphasized. Students will learn skin examination techniques. Emphasis will be placed on recognizing skin lesion morphology and distribution leading to differential diagnosis. Students are expected to be on time and attend all clinics. Case reports and write ups are encouraged. THIS IS A 4 WEEK ELECTIVE

2 Credits  
Prerequisites: MDCN2000  
Maximum Number Of Students: 1  
Periods Offered: 001-012

**Clinical Rheumatology****MDCN2075**

Dr. Danielle Kochen  
OLIVERL@upstate.edu

This is a clinical care experience elective that focuses on the diagnosis, treatment, and management of rheumatological disorders utilizing direct patient contact and case-based teaching. Elective participants will be exposed to rare and common rheumatological conditions through our inpatient consultations and outpatient Adult clinic. Under the supervision of the attending the student will develop skills in musculoskeletal examination and clinical evaluation, interpretation of laboratory tests (including joint fluid examination and x-ray and MRI imaging studies) and the management of rheumatic diseases commonly seen by generalists. Participation in regularly scheduled rounds, clinic and other conferences are expected as they provide a more formal training for the students. The course will culminate in the student's presentation at our Friday didactic session. For those interested in clinical or basic science research, please contact the department prior to the start of the elective for arrangements.

4 Credits  
Prerequisites: MDCN2000,  
FAMP1600, EMED1300,  
SURG8200, NEUR3000,  
OBYG3600, PEDS5600, PSYCH6800  
Maximum Number Of Students: 1  
Periods Offered: 001-012

**The Scientific Basis of Critical Care****MDCN2214**

Dr. Dana Savici  
EDWARSHA@upstate.edu

The intensive care unit is the setting for dramatic manifestations of organ failure (lung, heart, kidney, liver, etc) and systemic derangements of normal physiology. The basic sciences of physiology, pharmacology, microbiology, anatomy and pathology are utilized on a daily basis to learn and understand each of our critically ill patients. Students will be imbedded in the Medical Intensive Care Unit for a 2 week elective. Students will participate in daily rounds, participate in the care of selected patients, and meet with the course instructor daily for 1 hour (4-5 days per week). The focus of these meetings will be to review the basic science aspects of assigned patients.

2 Credits  
Basic Science Selective  
Prerequisites: MDCN2000,  
SURG8200, OBYG3600,  
PEDS5600, FAMP1600, PSYCH6800  
Maximum Number Of Students: 1  
Periods Offered: 003, 006, 07B, 08B

This course is not available in the elective lottery.

**The Clinical Experience****MDCN2215**

Dr. Danielle Kochen  
OLIVERL@upstate.edu

You have come to medical school to become a doctor but doctoring is scant during your MSI year. While you have Practice of Medicine (POM), it only allows you glimpses of the real world of medicine. A 6-week Internal Medicine experience will be much different as you will have an extended stay in the clinical world working with members of the Internal Medicine team. You will gain insight and skills that will serve you well during the remaining three years of medical school. Students will participate in three 2-week blocks in which they will work with faculty, house staff, and, perhaps, clerkship students, in a variety of venues including the following: Outpatient Clinics (General Medicine and Subspecialty) (1.) Intensive Care Unit (2.) Coronary Care Unit (3.) General Medicine Inpatient (4.) Hematology/Oncology Inpatient. Additionally, the student will participate in a weekly small-group session with a member of the faculty to tackle a variety of topics such as clinical case review or physical exam skills.

6 Credits  
Concurrent Elective, Pass/Fail  
Grading  
Prerequisites: None  
Maximum Number Of Students: 12  
Periods Offered: Concurrent

This course is not available in the elective lottery.

**Acting Internship in Internal Medicine - UH/CGH General Medicine****MDCN2217**

Dr. Danielle Kochen  
OLIVERL@upstate.edu

This experience allows a medical student, who must have successfully completed the Internal Medicine clerkship, to further develop along the RIME (Reporter, Interpreter, Manager, Educator) pathway. Whereas a clerkship student should have demonstrated proficiency as a Reporter, and hopefully, shown promise as an Interpreter, the Acting Intern is expected to master the Reporter function, demonstrate level-appropriate Interpreter function, and display abilities as Manager and Educator. In this four week rotation, you will function just as an intern would (short of authority to sign orders) on an inpatient service and be supervised by an attending and/or senior resident. This course must be taken for 4 credits.

4 Credits  
Acting Internship Selective  
Prerequisites: MDCN2000,  
FAMP1600, EMED1300,  
SURG8200, NEUR3000,  
OBYG3600, PEDS5600, PSYCH6800  
Maximum Number Of Students: 7  
Periods Offered: 001-012

**Acting Internship in Internal Medicine - UH Hematology/Oncology****MDCN2219**

Dr. Danielle Kochen  
OLIVERL@upstate.edu

This experience allows a medical student, who must have successfully completed the Internal Medicine clerkship, to further develop along the RIME (Reporter, Interpreter, Manager, Educator) pathway. Whereas a clerkship student should have demonstrated proficiency as a Reporter, and hopefully, shown promise as an Interpreter, the Acting Intern is expected to master the Reporter function, demonstrate level-appropriate Interpreter function, and display abilities as Manager and Educator. In this four week rotation, you will function just as an intern would (short of authority to sign orders) on an inpatient service and be supervised by an attending and/or senior resident. This course must be taken for 4 credits.

4 Credits  
Acting Internship Selective  
Prerequisites: MDCN2000,  
FAMP1600, EMED1300,  
SURG8200, NEUR3000,  
OBYG3600, PEDS5600, PSYCH6800  
Maximum Number Of Students: 1  
Periods Offered: 001-012

**Acting Internship in Internal Medicine - VA General Medicine****MDCN2220**

Dr. Danielle Kochen  
OLIVERL@upstate.edu

This experience allows a medical student, who must have successfully completed the Internal Medicine clerkship, to further develop along the RIME (Reporter, Interpreter, Manager, Educator) pathway. Whereas a clerkship student should have demonstrated proficiency as a Reporter, and hopefully, shown promise as an Interpreter, the Acting Intern is expected to master the Reporter function, demonstrate level-appropriate Interpreter function, and display abilities as Manager and Educator. In this four week rotation, you will function just as an intern would (short of authority to sign orders) on an inpatient service and be supervised by an attending and/or senior resident. This course must be taken for 4 credits.

4 Credits  
Acting Internship Selective,  
Veteran's Administration Hosp  
Prerequisites: MDCN2000,  
FAMP1600, EMED1300,  
SURG8200, NEUR3000,  
OBYG3600, PEDS5600, PSYCH6800  
Maximum Number Of Students: 4  
Periods Offered: 001-012

**Internal Medicine Outpatient Advanced Internship****MDCN2221**

Dr. Danielle Kochen  
OLIVERL@upstate.edu

This elective will provide students with ambulatory care experience and education. Students will attend clinic at UHCC five days a week. Mornings and afternoons will be spent seeing patients independently in the outpatient setting, working closely with clinic faculty. Students will be responsible for the care of their patients. Students will attend academic sessions as scheduled by the clinic. Beyond primary care, evidence based medicine, students will learn how to complete a formal chart review, learn about outpatient billing and administrative practices, and organize/attend a house-call.

4 Credits  
Prerequisites: MDCN2000,  
FAMP1600, EMED1300,  
SURG8200, NEUR3000,  
OBYG3600, PEDS5600, PSYCH3600  
Maximum Number Of Students: 1  
Periods Offered: 001, 003-012

This course is not available in the elective lottery.

**Crouse ICU Elective****MDCN2222**

Dr. Danielle Kochen  
OLIVERL@upstate.edu

This elective will provide students with critical care experience and education. The elective runs from Monday - Friday; there is no evening or weekend call. Students will pre-round with their patients, attend morning rounds, engage with the team regarding patient diagnosis, assessment and treatment, assist in procedures and aid in coordination/management of patient care. This elective will take place in the Crouse Intensive Care Unit. Students will be expected to carry two to three patients per day and attend the daily intensivist conference at Upstate; this conference is attended by the Upstate MICU team, the Upstate SICU team, and the Crouse ICU team.

4 Credits  
Crouse Hospital  
Prerequisites: MDCN2000,  
SURG8200, FAMP1600,  
EMED1300, NEUR3000,  
OBYG3600, PEDS5600, PSYCH6800  
Maximum Number Of Students: 1  
Periods Offered: 001-012



## Second Year Clinical Elective

MDCN2223

Dr. Danielle Kochen  
OLIVERL@upstate.edu

This course, for second year students, will integrate the basic sciences with the clinical setting and prepare students to enter into their third year. Students will participate in two half day clinical sessions per unit, one in pharmacology and one in clinical internal medicine. Clinical sessions will correlate with the organ system being studied in the second year. Students will also attend one small group session per unit to learn the basic sciences of clinical medicine; these small group sessions will include third year IM clerkship students and be facilitated by fourth year students. There will be no preparatory time required for the clinical, pathology, and small group sessions. The required assessments will be the completion of pre- and post-survey.

1 Credit  
Concurrent Elective  
Prerequisites: MDCN2215  
Maximum Number Of Students: 12  
Periods Offered: Concurrent

This course is not available in the elective lottery.

## Clinical and Basic Science Integrative Experience Teaching Assistant

MDCN2224

Dr. Danielle Kochen  
OLIVERL@upstate.edu

The teaching assistant position will provide education experience and a platform integrating basic science and clinical material covered in the first three years of medical school. The TA will prepare three one-hour lectures and help facilitate three more that cover common clinical scenarios in the third year, while integrating basic science material from the second year. Lectures will be given to a cohort of a second year medical students and third year students on their Internal Medicine rotation. TAs will be expected to facilitate discussion among students. This elective runs during the duration of the school year. A majority of the TAs time will be spend independently preparing lectures.

2 Credits  
Basic Science Selective, Concurrent Elective  
Prerequisites: MDCN2000, SURG8200, OBGY3600, PEDS5600, FAMP1600, PSYCH6800  
Maximum Number Of Students: 6  
Periods Offered: Concurrent

This course is not available in the elective lottery.

## Internal Medicine Intern Bridge Elective

MDCN2225

Dr. Danielle Kochen  
OLIVERL@upstate.edu

This is a week long elective held in the Spring semester of the fourth year. The elective is designed as a 'boot camp' program for those entering a categorical medicine intern year. Students will spend one week sampling shifts on an admitting service, ICU nights, and Night float. Students will also be expected to attend orientation lectures that include dosing, Coding/billing, death/DNR/declaring, time management and medical hand-offs.

1 Credit  
Prerequisites: MDCN2000, SURG8200, EMED1300, NEUR3000, OBGY3600, PEDS5600, FAMP1600, PSYCH6800  
Maximum Number Of Students: 12  
Periods Offered: 008-009, 011-012

This course is not available in the elective lottery.

## Academic Teaching Elective

MDCN2227

Dr. Danielle Kochen  
OLIVERL@upstate.edu

In this concurrent elective, students will participate in designing and presenting at least four case-based discussion PowerPoints and delivering four of them to MS3 clerkship student over the course of their MS4 year. The creation of the cases will consume the majority of their time as they are labor intensive due to the amount of research that goes into each case, including the pathology, the pathophysiology and the pharmacology. As well as stating and reviews clinical pearls, and helpful mnemonics. Finally, each presentation ends with two shelf-style questions that the students must create or tweak from an existing shelf/Step 2 question. Requirements are: the creation of three, high-yield and in-depth case PowerPoint case discussions, and the delivery of at least four of them over two separate, one-hour sessions to MS3 IM clerkship students. This course is a self-directed course that requires students to read and analyze scientific literature/data and to synthesize this information into a coherent learning module that will be delivered to an appropriate audience.

2 Credits  
Basic Science Selective, Concurrent Elective, Pass/Fail Grading  
Prerequisites: EMED1300, MDCN2000, FAMP1600, SURG8200, PSYCH6800, OBGY3600, PEDS5600, CBHX2400, PRVM6400, NEUR2800  
Maximum Number Of Students: 25  
Periods Offered: Concurrent

This course is not available in the elective lottery.

## Food as Medicine

MDCN2230

Dr. Barbara Feuerstein  
FEUERSTB@upstate.edu

Lifestyle modification, including eating healthy food, is an important component in the quest to prevent and treat many of the medical problems that are challenging our country. The goals of this elective are to teach students about the practical implications of nutrition, how to cook tasty, nutritious, and affordable meals, and how to better counsel patients on their eating habits. The course consists of a combination of online modules that provide foundational information about nutrition and how it pertains to certain diseases (e.g. diabetes and heart disease) and social issues (food insecurity), as well as hands on activities such as cooking classes and practicing motivational interviewing skills. The course runs from September through December. There are 9 online modules ranging from 30-60 minutes in length. The modules can be completed on your own time during the elective block. There are also five scheduled group activities that are about 90 minutes in length and one required volunteer/shadowing experience- many fun options! There is a final project to design a recipe that will be compiled into a course cookbook. The first thirty student who sign up are the lucky ones! The course is only offered in the fall semester.

2 Credits  
Pass/Fail Grading  
Prerequisites: None  
Maximum Number Of Students: 35  
Periods Offered: Concurrent

## Rahma Free Clinic Outpatient Medicine Elective

MDCN2231

Dr. Mustafa Awayda  
AWAYDAM@upstate.edu

This elective allows students to join the Rahma Free Clinic team for their MSIV year. Elective students will perform all aspects of patient care, from initial encounter to follow up, under the supervision of rotating preceptors. MSIV students will also mentor MSI/II students shadowing at the clinic. Each student in the elective will attend at least 10 clinic days, and they will collectively ensure one MSIV student is present at all Saturday clinics. Outside of clinic, elective students will also devote at least 40 hours to one quality improvement project in collaboration with the clinic staff and MSI/II volunteers.

2 Credits  
Concurrent Elective  
Prerequisites: None  
Maximum Number Of Students: 5  
Periods Offered: Concurrent

This course is not available in the elective lottery.

## NEUROLOGY

### Acting Internship in Adult Clinical Neurology

NEUR2801

Dr. Michael Vertino  
PERETSM@upstate.edu

The Adult Neurology Acting Internship will help students broaden their knowledge of neurology, enhance their clinical acumen, localization and examination skills, and competence. Each AI will serve as an integral part of the team, either on the inpatient service or the consultation service. The AI will be responsible, under the supervision of housestaff and attending physicians, for the evaluation of and management of patients assigned to them. Students will take night calls and make work rounds with their supervising resident. Acting interns will participate in all scheduled conferences for the housestaff, including morning report, EEG/EMG conference, neuro-Ophthalmology and the resident review course sessions. Outpatient experiences may be arranged depending on the time schedule and availability of faculty members. Evaluation of students is based on their oral presentations, written documentation, interactions with housestaff and attendings and other educational assignments.

4 Credits  
Acting Internship Selective  
Prerequisites: MDCN2000,  
SURG8200, OBGY3600,  
PEDS5600, FAMP1600, PSYCH6800  
Maximum Number Of Students: 1  
Periods Offered: 001-012

### Clinical Pediatric Neurology

NEUR2804

Dr. Ai Sakonju  
PERETSM@upstate.edu

This elective will give students the opportunities to participate in the care and consultations of acute inpatient and outpatient pediatric neurology. They will gain familiarity with the essentials of the pediatric neurologic examination at various developmental stages. The student may further elect to concentrate on specific areas of interest with the help of faculty and resident physicians.

4 Credits  
Prerequisites: PEDS5600,  
NEUR3000  
Maximum Number Of Students: 1  
Periods Offered: 002-012

This course is not available in the elective lottery.

### Elective in Outpatient Neurology

NEUR2808

Dr. Michael Vertino  
PERETSM@upstate.edu

This elective will provide an outpatient experience for students interested in neurology. Students help arrange their own schedule over the 4-week period to include working with neurologist from the following specialties: Neuromuscular disease/EMG, epilepsy/EEG/evoked potentials, neuroophthalmology/headache, Cerebrovascular disease, General neurology, Pediatric neurology, Movement disorders, Cognitive neurology, Multiple sclerosis. The month will be scheduled according to the student's interests and the availability of attending physicians. Students will have the opportunity to participate in patient care within the above areas.

4 Credits  
Prerequisites: NEUR3000  
Maximum Number Of Students: 2  
Periods Offered: 001-012

This course is not available in the elective lottery.

### Neuro-Ophthalmology

NEUR2814

Dr. Luis Mejico  
PERETSM@upstate.edu

Neuro-ophthalmology interfaces Neurology, Ophthalmology, Neurosurgery, and Medicine to evaluate patients who have non-ophthalmic problems of the visual system. Students will learn to use the basic principles of the neurological history and examination, coupled with techniques of the ophthalmological examination to investigate various neuro-ophthalmic problems. Major areas of emphasis include optic nerve disorders, visual field defects, ocular motility problems, neuroophthalmic manifestations of systemic diseases, familiarity with various neuro-diagnostic tests, and therapeutics. Some experience in evaluation of neurological patients is included. Students will participate in weekly Neuro-ophthalmology conference and will be assigned responsibility for the preparation of one session during their rotation. Most of the experience will be with outpatients, and some inpatient consultations.

4 Credits  
Prerequisites: NEUR3000  
Maximum Number Of Students: 1  
Periods Offered: 001-012

This course is not available in the elective lottery.

## Neuro Critical Care

NEUR2816

Dr. Timothy Beutler  
PERETSM@upstate.edu

4 Credits  
Prerequisites: None  
Maximum Number Of Students: 2  
Periods Offered: 001-009, 011

Student will have the opportunity to identify and implement best medical practices for acute neurological disorders including acute ischemic and hemorrhagic strokes, status epilepticus, traumatic brain and spine injuries, neuroinfectious diseases, and metabolic/hypoxic/ischemic encephalopathies. On completion of the rotation, the student will have participated in Neuro Critical Care didactics, be introduced to decision making and patient care for critically ill neurologic patients. During the rotation, they will understand the basic principles of hemodynamic monitoring, as well as signs and symptoms associated with life threatening neurological conditions. They will receive an introduction to mechanical ventilation and management of respiratory diseases of the neuro patients. They will have opportunities to participate in the evaluation of coma and brain death testing. They will be introduced to multimodality neuromonitoring targeted to patient-specific pathophysiology, including ICP, PbtO2, EEG. Students will learn to assimilate relevant information regarding anticoagulation/antiplatelet indications and reversals, sedation/analgesia management, and other medical treatments/procedures unique to a Neuro Critical Care unit. They will learn to integrate current research data from the medical literature to the clinical setting.

## NEUROSURGERY

### Neurosurgery Acting Internship

NSUG3201

Dr. Grahame Gould  
COMINS@upstate.edu

4 Credits  
Acting Internship Selective  
Prerequisites: NEUR3000  
Maximum Number Of Students: 2  
Periods Offered: 001-012

The goal of the Neurosurgery Acting Internship will be to increase the ability of the student to carry out a thorough evaluation of a patient with neurologic disease and to understand the principles of surgical treatment of neurologic disease. The Acting Internship will provide the student with direct responsibility for patient care under supervision of the neurosurgical attending and house staff. Emphasis will be placed on the evaluation of neurological problems by history and neurologic examinations, and participation in the surgical treatment of diseases of the nervous system. In addition, the student will be instructed in the interpretation of standard imaging examinations used in neurologic diagnosis. Full participation in the conferences, seminars, and clinics of the Neurosurgery Service will be part of this program. At the end of this course we would expect that the student would be able to evaluate a patient with a neurological problem, make a reasonable differential diagnosis, outline a course of laboratory studies and diagnostic procedures designed to provide a firm diagnosis, and recommend specific operative or non-operative treatment. Further, we would expect the student to be able to carry out basic pre and post-operative care of neurosurgical patients and perform basic surgical techniques including planning and performing incisions, assisting in the performance of cranial and spinal surgery, suturing, and knot-tying in the operating room.

## OBSTETRICS AND GYNECOLOGY

### High Risk Obstetrics Acting Internship

OBGY3604

John Nosovitch  
ANDERLES@upstate.edu

4 Credits  
Acting Internship Selective, Crouse Hospital  
Prerequisites: OBGY3600  
Maximum Number Of Students: 2  
Periods Offered: 001-012

This represents an intensive experience with the clinical management of High Risk Obstetrical patients being seen in the obstetrical unit of Crouse hospital and in the outpatient area of the Regional Perinatal Center. Special attention is given to identification of high risk patients, intensified perinatal care, experience with tests of fetal well being (amniocentesis, NST, BPP, ultrasound) during the prenatal period as well as intrapartum period (fetal heart rate monitoring, scalp PH, etc.). The student will gain an insight into maternal-fetal medicine at the clinical level. Specific goals are: 1) Clear knowledge of and an ability to apply the high risk scoring system; 2) Ability to interpret tests of fetal welfare. A review and presentation of a topic in high risk obstetrics will be required to be completed within the elective period.

### AI in Reproductive Health

OBGY3619

Dr. Renee Mestad  
MESTADR@upstate.edu

4 Credits  
Acting Internship Selective  
Prerequisites: OBGY3600  
Maximum Number Of Students: 2  
Periods Offered: 001-012

The goal of this course is to familiarize medical students with specific women's health care issues, including sexuality, pregnancy, contraception, abortion, preventive health matters, also including peri-menopausal issues, domestic violence and STD prevention. Students will be responsible to produce a research paper on a related area of their choice, with preceptor's concurrence. They will participate in a variety of outpatient facilities, as well as operating room sessions. Patient counseling issues will be strongly emphasized. Reading assignments will be tailored to the student's particular area of interest.

### AI in Gynecologic Oncology

OBGY3624

Dr. W. Douglas Bunn  
BUNNW@upstate.edu

4 Credits  
Acting Internship Selective,  
Preceptor's Site  
Prerequisites: OBGY3600  
Maximum Number Of Students: 1  
Periods Offered: 001-012

This is a subinternship experience in the outpatient and inpatient management of patients with gynecological malignancies. Students will participate in all aspects of patient care under the direction and supervision of the attending and resident physician staff. Students will participate in surgical procedures, become familiar with anatomy of the abdomen and pelvis and begin to develop surgical skills. Students will take histories, perform physical examinations, write notes, and present patients on rounds and in the office. A presentation on a topic of the student's choice is required at the end of the rotation.

## Breast Health & Disease

OBGY3631

Dr. Jayne Charlamb  
CHARLAMJ@upstate.edu

4 Credits  
Prerequisites: OBGY3600  
Maximum Number Of Students: 1  
Periods Offered: 003, 005-006

This course is not available in the elective lottery.

The goal of the course is for the student to gain in-depth exposure to the diagnosis and management of both benign and malignant breast disease from a multi-disciplinary perspective, as well as for the student to become familiar with normal breast function (lactation) and the support of breastfeeding in the medical setting. Primary focus is on participation in the evaluation and treatment of outpatients seen by various attending physicians at the Breast Care Center at 550 Harrison Center and at the Breast Care Center at POB South at the Community Campus. Additionally, participation in the OR is strongly encouraged, and the student will attend the Multidisciplinary Breast Cancer Program held at the Cancer Center each Friday afternoon. The course will also include experience in lactation consult (in both the outpatient and inpatient settings), breast imaging, and genetic consult. Independent, self-directed learning is imperative, with reading assignments tailored to the student's interests. The student is expected to deliver a presentation on a breast-related topic of choice (approved by course director) at the end of the rotation. Alternative periods and partial (two-week) periods may be possible. Contact the Course Director to inquire.

## OPHTHALMOLOGY

### Ophthalmology

OPTH4001

Dr. Robert Fechtner  
KAMMERR@upstate.edu

4 Credits  
Prerequisites: MDCN2000,  
SURG8200  
Maximum Number Of Students: 2  
Periods Offered: 001-012

Weekly Activities: Lectures and conferences, daily clinics, inpatient and outpatient consults, and limited OR experience. Elective Description: In this course, the student is given an understanding of the eye, its function, its abnormalities and diseases, and its relation to the body as a whole. Students are taught history taking skills and examination techniques. They are taught to intelligently approach a patient with eye problems, ask the proper questions to obtain a valuable history, and examine a patient to accurately identify pathology if it exists. The main focus of the elective is to be able to recognize the more serious problems that threaten vision and require treatment, and to have a basic understanding of therapy, thus most of the elective time is spent in the eye clinic examining patients. As students develop a working knowledge of the slit lamp and indirect ophthalmoscope they will become familiar with eye findings in both local and systemic disease. Students will also attend surgery and learn about surgical techniques as part of the curriculum. Students will round with the inpatient residents and attendings on patients admitted to the hospital. If interested, students have the opportunity to see consults with the residents to get exposure to the management of acute ophthalmic issues. Students can then present patients at Monday morning conference to practice presentation skills and demonstrate their understanding of ophthalmic pathology. They are also encouraged to participate in case presentations and literature reviews, attend morning lectures, conferences, grand rounds, journal clubs, and special programs on the Departmental schedule. Ample resources are available in the Departmental library to provide a background for clinical exposure and patient care. Students taking the elective for 4 credits are required to give a 30-minute presentation on an interesting patient or ophthalmic topic. No attempt is made to teach students to refract in the short time allowed. Reading: Practical Ophthalmology: A Manual for Beginning Residents -published by the American Academy of Ophthalmology. Criteria for Evaluation of Performance: Patient work-ups, personal observation by the residents/attendings, the staff, and quality of student presentation. Is Performance Discussed with Students: Yes, when deemed necessary. Links: •Excellent practical guide to ophthalmology as a career choice: <http://www.aao.org/medical-students> •Ophthalmology residency application information can be found at [sfmatch.org](http://sfmatch.org)

### Ophthalmology

OPTH4003

Dr. Robert Fechtner  
KAMMERR@upstate.edu

4 Credits  
Prerequisites: SURG8200  
Maximum Number Of Students: 2  
Periods Offered: 001-011

This course is not available in the elective lottery.

Student will spend majority of his/her time in the private office of a practicing ophthalmologist, learning the routine of office practice. The student will also observe in the operating room when the attending physician is operating and spend time in the clinics on the attending's clinic days. Students are expected to attend departmental lectures, seminars, etc. A 30-minute presentation in the Department at the end of the elective is part of the Course curriculum for all students taking the elective for at least 4 credits.

### Ocular Inflammatory Disease

OPTH4009

Dr. Robert Swan  
KAMMERR@upstate.edu

4 Credits  
Pass/Fail Grading  
Prerequisites: None  
Maximum Number Of Students: 1  
Periods Offered: 001-012

Ocular Inflammatory Disease (often shortened to "uveitis") encompasses the medical and surgical management of a broad range of inflammatory conditions of the orbit, cornea, uvea, vitreous, retina, choroid, and optic nerve. Common conditions include uveitis, scleritis, and ocular cicatricial pemphigoid. Many patients require systemic immunosuppression for disease control. There is a frequent collaboration with Rheumatology, Pulmonology, Infectious Disease, and Pathology. At the end of the rotation the student will be able to: examine an inflamed eye, understand the value of common ancillary eye clinical testing, be familiar with common serological testing, know commonly prescribed immunosuppression modalities as well as required safety monitoring. Most of the experience will be with outpatients at 550 Harrison.

### Pediatric Ophthalmology

OPTH4010

Dr. Katharine Liegel, Dr. Stephen Merriam  
KAMMERR@upstate.edu

4 Credits  
Prerequisites: None  
Maximum Number Of Students: 1  
Periods Offered: 001-012

Pediatric Ophthalmology encompasses the medical and surgical management of a broad range of eye conditions that affect children. Common conditions include amblyopia, strabismus, and retinopathy of prematurity. Many patients have underlying systemic conditions requiring collaboration with pediatrics, rheumatology, and genetics. At the end of the rotation the student will be able to: do an initial workup of a pediatric patient (vision/motility examination); understand the use of glasses, patching, and surgery in the correction of amblyopia and strabismus; understand the value of screening and early intervention for retinopathy of prematurity; be familiar with common childhood ocular pathology; know commonly prescribed medications. Most of the experience will be with outpatients at 550 Harrison.



## ORTHOPEDIC SURGERY

### Orthopedic Acting Internship - Upstate Medical University

ORTH4401

Dr. Matthew Sullivan  
OCONNJES@upstate.edu

This Acting Internship is designed for the student interested in an orthopedic surgery residency program. The acting internship is an attempt to allow the student to put into practice those skills and concepts gained in the third year clerkship. Students are expected to participate throughout the range of activities within the department on both an inpatient and outpatient basis, from ER to the OR. The student will assume as much responsibility for the management and care of their patients as their skill and interest allow.

4 Credits  
Acting Internship Selective  
Prerequisites: SURG8200  
Maximum Number Of Students: 4  
Periods Offered: 001-012

### Pediatrics Orthopedics

ORTH4405

Dr. Rajin Shahriar  
OCONNJES@upstate.edu

A wide variety of children's musculoskeletal problems will be presented to the student utilizing clinics, the Emergency Department, and elective and emergent surgery. Approaches to evaluating and treating both common and more complex problems will be carried out under the supervision of the resident and attending staffs. The student will be encouraged to become actively involved with care of the patients; responsibility in each area will be increased as the student's skills develop and will depend upon his/her availability and initiative. At the conclusion of the elective, the student should be more at ease with pediatric patients and their parents and more adept at appropriately recognizing and dealing with common pediatric orthopedic problems.

4 Credits  
Prerequisites: SURG8200,  
PEDS5600  
Maximum Number Of Students: 1  
Periods Offered: 001-012

### Orthopedic Acting Internship in Sports Medicine

ORTH4406

Zachary Vredenburgh  
OCONNJES@upstate.edu

The student will be part of the Sports Medicine team, managing athletic injuries with the three members of the faculty and Sports Orthopedic Resident. The student will be expected to assist in the Operating Room and the surgical care of injured athletes. A mini-research project can be developed with the faculty. At the completion of this acting internship, the student should have a general knowledge of musculoskeletal athletic injury and an exposure to some of the responsibilities of a team physician. The non-operative approach to most athletic injuries should be appreciated as well as the thought process involved in surgical care.

4 Credits  
Prerequisites: SURG8200  
Maximum Number Of Students: 1  
Periods Offered: 001-012

### Hand, Shoulder, Elbow Surgery

ORTH4412

Kevin Albanese  
OCONNJES@upstate.edu

Students will become proficient in the diagnosis, pathophysiology, and non-operative and operative treatments for common hand, elbow, and shoulder disorders. Students will gain a fundamental knowledge and understanding of anatomy about the upper extremity. Students will actively participate in clinic outpatient care and actively assist in the operating room during surgical cases. Experience will be gained in general orthopedic and soft tissue surgical techniques, including tendon repair, neurovascular repairs, and bony orthopedic procedures. A close association exists between the students and hand Residents and Fellows to allow for a strong opportunity to develop these skills.

4 Credits  
Prerequisites: SURG8200  
Maximum Number Of Students: 1  
Periods Offered: 001-012

## OTOLARYNGOLOGY

### Otolaryngology Acting Internship

OTOL4801

Dr. Mark Arnold  
BROZAKR@upstate.edu

In-depth care of both inpatients and outpatients on Otolaryngology Service. Increasing patient care responsibilities and supervised minor surgical techniques are emphasized. Management of head and neck trauma along with reconstructive care of patients with malignancies are also taught to the student. Extensive exposure to facial plastic surgery including clefts is available. Moreover, the student participates in all judgments regarding patients seen with communicative disorders such as hearing loss, dysphonia, etc.

4 Credits  
Acting Internship Selective  
Prerequisites: MDCN2000,  
SURG8200, OBGY3600,  
PEDS5600, FAMP1600, PSYCH6800  
Maximum Number Of Students: 2  
Periods Offered: 001-012

## **PATHOLOGY**

### **Surgical Pathology**

**PATH5202**

Dr. Christopher Curtiss  
KELLYKC@upstate.edu

This is an experience exposing the student to all aspects of Surgical Pathology that can be taken for either 2 or 4 weeks. The student works with a pathology resident under the direct supervision of an attending pathologist. Intensity of expectations varies with interest, level of student effort or experience and length of rotation. For students pursuing a career in pathology, expectations can be modified to reflect a subinternship experience, which can include gross examination of specimens, taking tissue sections, reviewing microscopic slides, and signing out cases with an attending pathologist. Students may also participate in frozen section preparation and analysis with a resident and attending pathologist. The student is expected to attend and participate in pathology resident didactic conferences as well as other pertinent departmental conferences. NOTE: This elective is held at the downtown campus. This elective can also be taken for either 2 or 4 weeks. For this reason, instructor approval is required to arrange the number of weeks.

2 TO 4 Credits  
Prerequisites: MDCN2000,  
SURG8200, OBGY3600,  
PEDS5600, FAMP1600, PSYCH6800  
Maximum Number Of Students: 2  
Periods Offered: 001, 004-009, 011-012

This course is not available in the elective lottery.

### **Clinical Pathology**

**PATH5214**

Dr. Alexandria Smith-Hannah  
UNDERWOL@upstate.edu

The rotation is 2 or 4 weeks in duration. Each student will choose from a list of the following subspecialties which have specific time frames and include: Hematopathology/Bone Marrows, Blood Bank/Transfusion Medicine, Microbiology/Virology, Cytogenetics, Special Hematology/Special Chemistry, Immunology, and Flow Cytometry. Each requires permission of the respective lab director in order to fit lab schedules. The student will participate in the laboratory training program along with the resident(s) on service, review study sets, and participate in sign-outs with attendings or in the clinical evaluations appropriate to the service. The student will also be expected to attend all Pathology conferences that the residents attend while on CP rotation. They may, by prior arrangement in some services, receive instruction in laboratory techniques. Intensity of technical instruction will vary with interest, level of student effort and length of stay. These rotations will expose the student to the function of a Clinical Laboratory and the role of a Pathologist. NOTE: Prior arrangement and approval is necessary, for the best experience and coordination, contact Linda Underwood (underwol@upstate.edu) early in the academic year. This elective can be taken for either 2 or 4 weeks. For this reason, instructor approval is required to arrange the number of weeks.

4 Credits  
Prerequisites: MDCN2000,  
SURG8200, OBGY3600,  
PEDS5600, FAMP1600, PSYCH6800  
Maximum Number Of Students: 2  
Periods Offered: 001-002, 004-012

This course is not available in the elective lottery.

### **Forensic Pathology**

**PATH5223**

Katya Merkulova

Students will gain exposure to medicolegal death investigation and forensic pathology through observation and participation in death investigations and autopsies conducted at the Onondaga County Medical Examiner's Office (MEO). When opportunities are available, didactic conferences and observation of court testimony may be included. Daily rotation activities will include attendance at MEO daily briefings, autopsies, and death scenes.

2 Credits  
Basic Science Selective  
Prerequisites: MDCN2000,  
SURG8200, OBGY3600,  
PEDS5600, FAMP1600, PSYCH6800  
Maximum Number Of Students: 1  
Periods Offered: 001-012

This course is not available in the elective lottery.

## **PEDIATRICS**

### **Pediatric Acting Internship**

**PEDS5601**

Dr. Melissa Schafer, Dr. Elena Wolner  
SCHAFERM@upstate.edu

This elective is designed to provide the student with the opportunity to evaluate and manage ill children on the Pediatric Inpatient Service. The Acting Intern will gain experience with independently assessing and developing diagnostic and management plans for the inpatients. They will address both common and complex problems necessitating admission. Through rounds and patient care discussions, they will increase their fund of knowledge of pediatric medicine. The acting intern will refine clinical assessment skills and learn to set priorities, carry out management plans, perform necessary diagnostic and therapeutic procedures, and develop their communication skills with patients and families. The student will function as part of the Pediatric Medical Team, working with nursing, case management, and social workers in order to provide comprehensive care. They will communicate with the faculty, consults, community attendings and referring physicians to obtain clinical information and arrange follow-up care. The students' responsibilities will be comparable to the level of a pediatric intern.

4 Credits  
Acting Internship Selective  
Prerequisites: PEDS5600  
Maximum Number Of Students: 2  
Periods Offered: 001-012

### **Delivery of Outpatient Care in Pediatrics**

**PEDS5603**

Dr. Winter Berry  
BERRYW@upstate.edu

Instructional objectives: Students will be able to: 1) Perform complete examinations on children of all age groups in the Pediatric clinic; 2) Appraise the various reasons for seeking medical care; 3) Discriminate between "sick" and "well" children; 4) Interpret sequential growth charts; 5) Develop immunization schedules for children; 6) Organize an approach to the management of patient problems; 7) Develop an awareness of psychological reactions of the child to his illness, family, and environment.

4 Credits  
Prerequisites: PEDS5600  
Maximum Number Of Students: 1  
Periods Offered: 005-012

**Pediatric Hematology-Oncology Acting Internship****PEDS5604**

Dr. Andrea Dvorak  
DVORAKA@upstate.edu

This course is designed to cover the entire area of Pediatric Hematology Oncology in depth by exposure to a wide variety of clinical disorders and by participation in all existing conferences. Students will be expected to participate in patient care, ie following patients, daily exams and written notes. Disorders of red cells, white cells, platelets, basic coagulation abnormalities, malignancies and principles of use of chemotherapeutic agents will be learned from both theoretical and practical viewpoints. Students will also be exposed to research that the faculty are presently pursuing. No required night call.

4 Credits  
Acting Internship Selective  
Prerequisites: PEDS5600  
Maximum Number Of Students: 1  
Periods Offered: 001-012

**Pediatric Infectious Disease****PEDS5606**

Dr. Leonard Weiner  
WEINERL@upstate.edu

Clinical experience is provided in both the prevention, control, diagnosis and management of infectious diseases on the outpatient and inpatient services. The student is expected to be actively involved in the consultative role of the pediatric infectious disease division. The student may also participate in epidemiologic investigations or pursue special interests in the area of pediatric infectious diseases.

4 Credits  
Prerequisites: MDCN2000,  
PEDS5600  
Maximum Number Of Students: 2  
Periods Offered: 001-012

**Pediatric Cardiology****PEDS5607**

Dr. Frank Smith  
CUNNINGK@pcacny.com

Our elective introduces students to a wide variety of cardiac diagnoses in the fetus, infant, child, and adolescent, as well as the adult with congenital heart disease. Students learn to evaluate children with known or suspected heart disease in a busy outpatient setting. Emphasis is placed upon learning to perform a thorough, focussed cardiac history and physical examination. During the elective students review many electrocardiograms and echocardiograms with attendings in clinic and they are also invited to attend at least one invasive procedure (e.g. cardiac catheterization, catheter-based intervention, electrophysiological study with or without radiofrequency ablation, or a cardiac operation). Students should attend all conferences of the Division and each student is also expected to make a final presentation to the members of the Division at the end of the elective. After completion of our elective, students should have a clearer overview of heart disease in children and a greater ability to differentiate murmurs, chest pain, syncope and palpitations that are benign from those that are caused by significant cardiac disease.

4 Credits  
Preceptor's Site  
Prerequisites: MDCN2000,  
PEDS5600  
Maximum Number Of Students: 2  
Periods Offered: 001-012

**Pediatric Pulmonology****PEDS5617**

Dr. Zafer Soultan  
SOULTANZ@upstate.edu

The student will learn about and participate in the management of pediatric patients with pulmonary disorders. Specific emphasis will be placed on asthma, bronchopulmonary dysplasia, cystic fibrosis, hypnotherapy and patients with tracheostomies or requiring ventilatory support. The student will be expected to present a specific topic at a Divisional seminar. Opportunities exist for participation in Divisional research activities.

4 Credits  
Prerequisites: PEDS5600  
Maximum Number Of Students: 1  
Periods Offered: 001-012

**Continuity of Pediatric Ambulatory Care****PEDS5627**

Dr. Winter Berry  
BERRYW@upstate.edu

This is a year long elective from June to April. Students will have the opportunity to care for the needs of children in a weekly continuity clinic in the Outpatient Department of Pediatrics (OPD). Each student will attend one clinic session (afternoon) per week as part of a continuity program organized for residents. Students will be assigned a number of families of young children who will be followed throughout the year. Students will have the opportunity to observe the growth and development of well infants as well as participate in the management of a variety of patient problems which face the practicing pediatrician.

4 TO 6 Credits  
Concurrent Elective  
Prerequisites: PEDS5600,  
FAMP1600, OBGY3600  
Maximum Number Of Students: 2  
Periods Offered: Concurrent

This course is not available in the elective lottery.

**Adolescent Medicine****PEDS5628**

Dr. Karen Teelin  
TEELINK@upstate.edu

The goal of the adolescent medicine elective for medical students is to help them become competent, confident, and comfortable performing comprehensive medical evaluations on adolescent patients. During this rotation the medical student will be exposed to a range of adolescent health problems, for example: adolescent gynecology and STIs, contraceptive counseling, psychiatric concerns, endocrine problems including transgender patients, eating disorders, and drug and alcohol related problems. The medical student will also be exposed to the general health care of adolescent patients in the ambulatory setting. This elective includes opportunities for community involvement if desired, based on the student's interest.

4 Credits  
Concurrent Elective  
Prerequisites: PEDS5600  
Maximum Number Of Students: 1  
Periods Offered: 001-009, 011-012

## **Pediatric Gastroenterology & Nutrition**

**PEDS5638**

Dr. Galen Hartman  
HARTMAGA@upstate.edu

This elective introduces the fourth-year medical student to Pediatric Gastroenterology, Hepatology, and Nutrition in a primarily outpatient setting with no night call or weekend duties. Students will observe and participate in the evaluation and treatment of patients with a wide variety of gastrointestinal diseases and nutritional deficiencies. Students will also observe endoscopies and colonoscopies in addition to other GI procedures as available including Pillcam analysis, polypectomy, esophageal dilatation, pH/impedance probe placement and interpretation, Bravo pH probe analysis, and Fibroscan.

4 Credits  
Prerequisites: MDCN2000,  
SURG8200, OBGY3600,  
PEDS5600, FAMP1600, PSYCH6800  
Maximum Number Of Students: 1  
Periods Offered: 001-012

## **Genetics**

**PEDS5640**

Dr. Ria Garg  
GARGRI@upstate.edu

This selective has been developed to reinforce the principles of genetics presented in the first year of medical school and to show medical students that an understanding of genetics is a critical skill in medicine today. The selective will take the student from a clinical evaluation, through the thought process of establishing a diagnosis including literature review and interpretation of test results. The clinical observations will include general developmental genetics (with Dr. Lebel), inborn errors of metabolism (with Dr. Pellegrino), cancer predispositions (at the Cancer Center), and prenatal evaluations (at the Perinatal Center), and will provide opportunities to collaborate with board certified genetic counselors at the various venues. In addition, the students will spend time in the Cytogenetics and Molecular Diagnostics Laboratories to gain a better appreciation of how laboratory tests are developed, implemented, and utilized to aid in diagnostics. For those interested and apt, there will be opportunities to undertake reporting of genetics cases at professional genetics meetings and/or in manuscripts submitted for publication in peer reviewed journals.

4 Credits  
Basic Science Selective  
Prerequisites: None  
Maximum Number Of Students: 1  
Periods Offered: 001-012

This course is not available in the elective lottery.

## **Pediatric Nephrology**

**PEDS5641**

Dr. Scott Schurman  
SCHURMAS@upstate.edu

The student will be trained in basic renal physiology in newborns through adulthood. There will also be exposure to common renal diseases of children as well as more unusual conditions by participation in out patient and in patient care. By completion of the course there should be a basic understanding of how renal diseases affect the well-being of children.

4 Credits  
Prerequisites: MDCN2000,  
PEDS5600  
Maximum Number Of Students: 1  
Periods Offered: 001-012

## **Developmental Pediatrics**

**PEDS5644**

Dr. Louis Pellegrino  
PELLEGRIL@upstate.edu

The student will learn about normal development through reading and participate in the diagnosis and management of pediatric patients with developmental disorders in several different clinics and programs. They will attend the following clinics and programs: Child Development Program, Physical Disabilities Program, Family Behavioral Analysis Program, Inpatient Psychology Consultation, and Spina Bifida Clinic. Specific emphasis will be placed on the diagnosis, management, and services available for children with ADHD, autism, cerebral palsy, Down syndrome, speech and language disorders, learning disability, intellectual disability, and spina bifida. They will write short reviews on topics in child development at the end of the elective and provide an informal presentation on these topics.

4 Credits  
Prerequisites: PEDS5600  
Maximum Number Of Students: 1  
Periods Offered: 002-005, 009-011

## **Peds International Health Clinic**

**PEDS5645**

Dr. Andrea Shaw  
SHAWAN@upstate.edu

Upstate's Center for International Health is a refugee clinic that serves newly arrived refugee families from all over the world. Most recently, we have been welcoming many families from Sudan, Somalia, Syria, Afghanistan, Columbia, Burma, and Congo. These patients present with endemic disease risks from their home and host countries including tuberculosis, malaria, schistosomiasis, strongyloidiasis, as well as other chronic infectious diseases with longer latency Hepatitis B, Hepatitis C, HIV, and chronic H pylori gastritis. Refugees face a lifetime of chronic stress that places them at greater risk for chronic disease and social determinants of health that set them up for greater disparities in health outcomes. Students rotating with us in clinic will also have the opportunity to engage in community-clinic partnership where we extend our advocacy work into the community to work alongside resettlement partners in health promotion and community health.

1 TO 4 Credits  
Concurrent Elective  
Prerequisites: PEDS5600  
Maximum Number Of Students: 2  
Periods Offered: Concurrent

This course is not available in the elective lottery.

## **PICU Acting Internship**

**PEDS5647**

Dr. Angela Wratney  
WRATNEYA@upstate.edu

**ELECTIVE DESCRIPTION:** The PICU is a 15 bed medical/surgical ICU providing comprehensive care to critically ill pediatric patients. Under the direction of the critical care faculty and with the support of the pediatric residents, the student will provide care, interprofessional team rounding, and participate in the communication and coordination of care. This student will participate in shadowing experiences with other team members (critical care nurse, case manager, pharmacist, respiratory therapist, SWAT team member) to get a close look at critical care for children. The PICU manages pediatric critical care illness including respiratory failure, cardiovascular failure, neurologic disorders, hematology/oncology disease, and major orthopedic, neurosurgical, burn injuries, trauma, cardiovascular and ENT surgery.

4 Credits  
Acting Internship Selective  
Prerequisites: MDCN2000,  
SURG8200, PEDS5600, FAMP1600  
Maximum Number Of Students: 1  
Periods Offered: 001-012



**Pediatric Hematology-Oncology Ambulatory Rotation****PEDS5648**

Dr. Kathryn Scott  
SCOTTKAT@upstate.edu

In this outpatient elective, the rotation provides the opportunity for the student to see the management of both pediatric hematologic and pediatric oncologic disorders. The students will have the chance to interact with multiple pediatric providers in the care of these patients. The outpatient rotation allows the student to see both the chronic long term patients as well as the acute consults that present in the clinic.

4 Credits  
Prerequisites: MDCN2000,  
SURG8200, OBGY3600,  
PEDS5600, FAMP1600, PSYCH6800  
Maximum Number Of Students: 1  
Periods Offered: 001-012

**Neonatology Acting Internship****PEDS5651**

Dr. Melissa Nelson  
MELISSANELSONMD@crouse.org

The Crouse NICU is a 57 bed Level IV Regional Perinatal Center that provides comprehensive care for critically ill neonates born in the Central New York Region. Students will be actively involved in the daily management of NICU patients as part of a multidisciplinary care team with frequent collaboration with colleagues from surgical and pediatric subspecialties. They will be expected to independently assess patients and develop and present management plans on daily rounds. They will be exposed to prenatal consults, delivery room resuscitations, neonatal transports, and all perinatal conferences. This elective will provide excellent preparation for pediatric reside3ncy and any career in pediatrics.

4 Credits  
Acting Internship Selective, Crouse  
Hospital  
Prerequisites: PEDS5600  
Maximum Number Of Students: 1  
Periods Offered: 001-012

**PEDS5654**

Dr. Anjali Sura  
SURAA@upstate.edu

This elective covers Pediatric Rheumatology by exposure to outpatient clinic and inpatient consults. Students will be exposed to common rheumatology problems including: juvenile arthritis, lupus, scleroderma, dermatomyositis, other causes of musculoskeletal pain, fever of unknown origin, etc. Students will also attend Adult Rheumatology Grand Rounds weekly and our monthly Pediatric Rheumatology / Radiology meeting. At the end of the elective, students will present a topic of interest to the faculty.

2 TO 4 Credits  
Prerequisites: PEDS5600  
Maximum Number Of Students: 1  
Periods Offered: 001-012

**PHARMACOLOGY****Cardiac Arrhythmias (Mechanisms, Diagnostics, Treatment)****PHAR6005**

Dr. Arkadii Perzov  
PERTSOVA@upstate.edu

This 3 credit course is intended for students considering a career in emergency medicine, cardiology, or interventional electrophysiology. Upon successful completion of the course the students will enhance their understanding of basic mechanisms of cardiac arrhythmias, their diagnostics and treatment. The course will run in a small discussion group format. The group will meet daily to discuss a set of 4-5 topics formulated by the moderator. The students are expected to study the material independently and be prepared to give a short presentation on any of the topics to the class as well as discuss it with other members of the group. At the end of the course, there will be a scientific conference where students will integrate the information learned during the course and apply knowledge gained during the course for reading and understanding of real scientific papers. The course is offered in an online format only.

3 Credits  
Basic Science Selective  
Prerequisites: None  
Maximum Number Of Students: 12  
Periods Offered: 005, 009

**PHYSICAL MEDICINE/REHAB****Physical Medicine And Rehab.****PMAR7605**

Dr. Margaret Turk  
HAYESMI@upstate.edu

Students will have the opportunity to experience the broad field of PM&R encompassing musculoskeletal medicine (neuromuscular evaluation and treatment), disability concepts (accessibility, diagnostic overshadowing, communication, resources), and medical/physical/cognitive rehabilitation (diagnosis, interventions, and outcomes). Electrodiagnosis (EMG), ultrasound, and injections will be discussed and observed, with opportunity to perform as appropriate. Besides typical medical diagnosis and treatment, the PM&R elective provides experiences with comprehensive evaluation of functional abilities, transitions of care, multidisciplinary team functioning, management of long-term disability, and quality of life issues. Typical patients encountered include those with stroke, spinal cord injury, concussion, brain injury, cerebral palsy, pain, arthritis, amputation, multiple trauma and other neuro-musculoskeletal disorders. The rotation is organized by weekly focused experiences within our Inpatient Rehabilitation Facility, various outpatient programs, and the VA inpatient and outpatient programs, including the Orthotics/Prosthetics Program and Spinal Cord Injury Service. The teaching is contemporaneous with clinical encounters and through the routine PM&R resident didactic program and student directed learning. Students are expected to develop a 10 minute presentation at the end of the rotation, based on an interesting observed case or concept, and mentored by a PM&R faculty member.

4 Credits  
Prerequisites: None  
Maximum Number Of Students: 2  
Periods Offered: 001-012

## PSYCHIATRY

### Psychiatry Acting Internship

PYCH6801

Dr. Rachael Kuch-Cecconi  
READC@upstate.edu

This is an individualized elective designed for students interested in obtaining specialized intensive experiences in psychiatry. The student is directly involved in planning the experience. Generally speaking, electives will include patient care, case conferences, grand rounds and attendance at seminars. Students may also acquire experience in community psychiatry programs. Electives can be built around the following areas: Addiction Psychiatry; Child and Adolescent Psychiatry; Consultation Liaison; Inpatient Psychiatry; Outpatient Psychiatry

4 Credits  
Acting Internship Selective  
Prerequisites: PYCH6800  
Maximum Number Of Students: 5  
Periods Offered: 001-012

### Psychiatry Elective

PYCH6835

Dr. Rachael Kuch-Cecconi  
READC@upstate.edu

The Psychiatry elective is offered to fourth year who meet with the Psychiatry Department Education Director/Coordinator. Depending on availability the elective may be clinical, research, or academic in nature.

4 Credits  
Prerequisites: PYCH6800  
Maximum Number Of Students: 8  
Periods Offered: 005

### Interventional Psychiatry

PYCH6838

Dr. Justin Meyer, Dr. Thomas  
Schwartz  
MEYERJ@upstate.edu

To learn about the different forms and treatments of interventional psychiatry. The medical student will be able to observe, assist and participate in selection of patients and treatment with Transcranial Magnetic Stimulation (TMS), Electroconvulsive Therapy (ECT) and Esketamine. This is a clinical rotation but also qualifies for a basic science elective simultaneously. Outside of clinical care in interventional psychiatry, students will be asked to research and present on the neuroanatomic pathways of one interventional strategy and complete a 1-2 page report outlying to theoretical neuroanatomic/physiologic pathways by which the intervention is felt to treat depressive disorder.

4 Credits  
Basic Science Selective  
Prerequisites: None  
Maximum Number Of Students: 2  
Periods Offered: 001-012

This course is not available in the  
elective lottery.

### Biomedical Informatics

RSCH6501

Dr. Yanli Zhang-James  
ZHANGY@upstate.edu

This course provides an overview of concepts, theories, and methods that form the foundations of medical informatics. Lectures will cover topics such as medical data coding systems, harmonization, compliance/privacy regulations, basic epidemiology, patient-centricity (i.e., a cohort), and real world evidence strategy and interpretation. Leveraging the TriNetx platform, students will learn to implement and practice methods covered in the lectures, recreate population studies and clinical trial protocols. The course will also cover research concepts related to hypothesis development, composition of research protocols, presenting research in oral and poster presentations; as well as preparing manuscript for publication in peer-reviewed journals.

1 Credit  
Prerequisites: None  
Maximum Number Of Students: 15  
Periods Offered: Concurrent,  
Concurrent

## PUBLIC HEALTH & PREV MEDICINE

### Public Health Ethics

CCFM429

Dr. Sandra Lane  
LANES@upstate.edu

This course addresses ethical issues in public health. Public health ethics is a new area of scholarship and practice that addresses population-level health issues, including issues such as food stamps and health insurance, immunizations, public health research, legal and policy responses to infectious diseases and epidemics, and the role of religious and social values in setting health policy

3 Credits  
Prerequisites: None  
Maximum Number Of Students: 5  
Periods Offered: 001

### Culture, Communication & Ethics in Health Care: Deaf & Disability Studies Approaches

CCFM431

Dr. Rebecca Garden  
OSIVZ@upstate.edu

Ethical, empathic, and effective health care involves good communication, reflection, and a social and cultural knowledge and skills. This course provides a model for collaborative and culturally sensitive and skilled communication in health care. Through the study of ethics cases, narratives, and literature, students will analyze disparities and discrimination in health care for people who are deaf and disabled. Students will explore solutions through deaf studies, disability studies, and narrative approaches to bioethics and health care. Guest speakers will include members of the deaf community, disability studies scholars and advocates, sign language interpreters, and health care professionals.

3 Credits  
Prerequisites: None  
Maximum Number Of Students: 5  
Periods Offered: BL1

**Public Health Ethics****CCFM6429**

Dr. Sandra Lane  
LANES@upstate.edu

This course addresses ethical issues in public health. Public health ethics is a new area of scholarship and practice that addresses population-level health issues, including issues such as food stamps and health insurance, immunizations, public health research, legal and policy responses to infectious diseases and epidemics, and the role of religious and social values in setting health policy

3 Credits  
Prerequisites: None  
Maximum Number Of Students: 5  
Periods Offered: 001

**Culture, Communication & Ethics in Health Care: Deaf & Disability Studies Approaches****CCFM6431**

Dr. Rebecca Garden  
OSIVZ@upstate.edu

Ethical, empathic, and effective health care involves good communication, reflection, and a social and cultural knowledge and skills. This course provides a model for collaborative and culturally sensitive and skilled communication in health care. Through the study of ethics cases, narratives, and literature, students will analyze disparities and discrimination in health care for people who are deaf and disabled. Students will explore solutions through deaf studies, disability studies, and narrative approaches to bioethics and health care. Guest speakers will include members of the deaf community, disability studies scholars and advocates, sign language interpreters, and health care professionals.

3 Credits  
Prerequisites: None  
Maximum Number Of Students: 5  
Periods Offered: BL1

**Street Medicine****PRVM6411**

Dr. David Lehmann  
RUIZSALM@upstate.edu

This elective course allows students to engage with the Syracuse population experiencing homelessness. Students will volunteer at least once a week at Housecalls to provide care and form connections with our population experiencing homelessness. Other non-Housecalls volunteer hours can be counted pending approval by the instructor. It is required that students perform a minimum of 40 volunteer hours during the semester. Online pre-recorded lectures and associated assignments provide insight into the unique struggles of those experiencing homelessness, as well as the approach physicians must take in the field. These will be posted the Friday before the week of the seminar. There is a required two hour weekly seminar (time and day) to be determined by the class's availability around the obligations of the current academic schedule. These will be discussion based or guest lectures for the first half, and advocacy project work for the second half. Students are required to attend all seminar sessions. At the end of the 12 week course, students will have created a poster presentation with their fellow students that completes their advocacy project requirement.

2 Credits  
Prerequisites: None  
Maximum Number Of Students: 6  
Periods Offered: Concurrent,  
Concurrent

This course is not available in the elective lottery.

**Climate Crisis & Clinical Medicine****PRVM6413**

Dr. Augusta Williams  
WILLIAAU@upstate.edu

Climate Crisis on Health and Clinical Medicine: Students will learn about the global impact that the climate crisis is having on health systems, health equity and justice, patient populations, and the incidence and prevalence of disease. Students will also learn about how healthcare professionals are addressing the climate crisis, the challenges that they face, and how climate change will impact the students in their future clinical practice. By the end of the course, students will be competent in informing action plans that will help mitigate the problems facing healthcare and local communities due to the climate crisis in their role as future physicians and healthcare professionals.

1 TO 3 Credits  
Prerequisites: None  
Maximum Number Of Students: 20  
Periods Offered: Concurrent

**Public Health****PRVM6420**

Dr. Travis Hobart  
OSIVZ@upstate.edu

This elective will allow the student to explore the implementation of public health and population-oriented prevention activities in actual community settings. The requirements for this elective can be met at a local agency that works in public health (e.g. the HIV education specialist employed by Upstate who works in the community). Students will be responsible for arranging the elective with the agency. The elective must be approved by Dr. Hobart. Students will complete a specific project based on their interests and current public health activities at the agency. Examples of student projects include: HIV treatment and prevention symposium, implementation of risk reduction strategies for IV drug use, vaccine shortage management, bioterrorism, and chronic disease prevention. A project summary report is required at the end of the elective to gain credit for the course.

4 Credits  
Basic Science Selective, Preceptor's Site  
Prerequisites: None  
Maximum Number Of Students: 2  
Periods Offered: 001-012

**Public Health Experience****PRVM6421**

Dr. Travis Hobart  
OSIVZ@upstate.edu

An independent study, community-based project, or international public health experience aimed at improving students understanding public health, determinants of health and possible interventions to prevent the public health issue the student is studying. Students enrolling in this elective generally have chosen a venue, focus of interest (research interest), and site supervisor (if off campus) prior to enrolling in the elective. Students will be assessed, if possible, by their site supervisor based agreed upon expectations of the project, active participation, and attendance. In addition, student must write a scholarly paper and give a presentation on their research project to an agreed upon audience in order to receive credit for the elective.

4 Credits  
Basic Science Selective  
Prerequisites: None  
Maximum Number Of Students: 5  
Periods Offered: 001-012

## Service Learning and Community Health

PRVM6423

Dr. Simone Seward  
SEWARDS@upstate.edu

This 2-credit service learning elective course integrates meaningful community service with instruction on basic principles of public health to improve the health status of the community. This course allows second year medical students to serve as Service Learning Leaders at specific service learning sites and develop skills in community engagement while affording community partners an avenue to address significant needs within their organization or programs. The course utilizes a reflective process to enrich the students' learning experience and explore civic responsibilities. The course meets once a month for 2 hours and runs from August through March. The course can accommodate a maximum of 30 MSII students. NOTE: Service learning application is required prior to enrolling in this elective.

2 Credits  
Concurrent Elective  
Prerequisites: None  
Maximum Number Of Students: 50  
Periods Offered: 003, Concurrent

This course is not available in the elective lottery.

## Global Health - AMOS Health and Hope Program

PRVM6425

Dr. Simone Seward  
SEWARDS@upstate.edu

The AMOS program focuses on rural health and cultural immersion in Nicaragua. AMOS Health and Hope seeks to take action to help address the problems of poverty, disease and preventable deaths by improving the health and well being. Programs are based on community-identified needs and build upon community strengths. The goal of this elective is to improve the health of impoverished communities by working alongside them in health, education, and development. While at Upstate, students will participate in pre-departure travel training and cultural competency training. Preparation includes submitting a detailed written explanation of the proposed project including a realistic time table and any special parameters unique to the international site. Once in country students will be placed with host families, attend an orientation, and then will travel to different community sites each day to work with local health care providers. Each work day will be 8 hours spent with local physicians, nurses, or public health workers in different communities. Under the supervision of the local physician, students will assist with procedures ranging from taking vital signs, maternal and child health visits, cancer screenings, chronic disease management, and other clinical tasks. They will also have the opportunity to be involved in public health initiatives such as building clean water systems and providing health education. Participants will join the AMOS supervision team physicians, public health workers and nurses to travel to hard to reach areas to support local health promoters. (Urban Clinical Rotation is 4.5 weeks; Rural Rotation is 5 weeks)

4 Credits  
Prerequisites: None  
Maximum Number Of Students: 5  
Periods Offered: 002

This course is not available in the elective lottery.

## Global Health Elective - Ecuador Medical Spanish Immersion

PRVM6426

Christina Campagna  
CAMPAGCH@upstate.edu

The Ecuador Centers for InterAmerican Studies Medical-Spanish Immersion program aims to promote language and cultural competence, and to enhance the skills of health service professionals and consequently improve overall health care. The program focuses on Medical Spanish, cultural, and public health system immersion training. While at Upstate students will participate in pre-departure and cultural competency training. Once in country, students are based in the city of Cuenca, Ecuador for two weeks of intensive medical Spanish language training and are placed with a local Ecuadorian homestay. In classroom training consists of 20 hours of grammar and 20 hours of conversational Spanish. Students are exposed to the public health and medical system in Ecuador through visits to local hospitals, medical schools, rural health programs, and traditional healers. Each work day will be 8 hours (4 hours in classroom and 4 hours spent with local doctors, nurses, or public health professionals in the community). Weekend trips will consist of cultural immersion trips (one trip per weekend). Upon return students will be expected to complete a reflective final project and reflection module. Application must be approved by Global Health office to participate. Additional tuition for the Medical-Spanish program is required.

2 Credits  
Prerequisites: None  
Maximum Number Of Students: 10  
Periods Offered: 001-007, 012

This course is not available in the elective lottery.

## Global Health Elective - Ecuador Medical Spanish Immersion and Research

PRVM6427

Christina Campagna  
CAMPAGCH@upstate.edu

The Ecuador Centers for InterAmerican Studies Medical-Spanish Immersion and Infectious Disease Research program aims to promote language, cultural competence, and infectious disease research skills of public health and medical professionals. The program focuses on Medical Spanish, cultural, and public health system immersion training. While at Upstate students will participate in pre-departure training and cultural competency training. The program begins with a two week Medical Spanish Immersion program through the Centers for InterAmerican Studies based in Cuenca, Ecuador, where students are placed in a homestay and participate in formal classroom medical Spanish (grammar and conversation) training and are exposed to the public health and medical system in Ecuador through visits to local hospitals, medical schools, rural health programs, and traditional healers. Each work day will be 8 hours (4 hours in classroom and 4 hours spent with local doctors, nurses, or public health professionals in the community). Once the two week Medical Spanish immersion program is completed, students will travel to Machala, Ecuador where they will integrate in to a team of investigators conducting research in the southern coastal city of Machala, Ecuador. Student projects will depend on the individual's skills and prior professional experience. Students will spend anywhere from 4 weeks to one year in the field. Upon return students will be expected to complete a reflective final project and work with the Institute for Global Health and Translational Science faculty to disseminate research results from field work. Application and research proposal must be approved by Global Health office to participate. Additional tuition for the Medical-Spanish program is required.

4 Credits  
Basic Science Selective  
Prerequisites: None  
Maximum Number Of Students: 5  
Periods Offered: 001-007, 012

This course is not available in the elective lottery.

## Global Health Elective - Ecuador Infectious Disease Research

PRVM6428

Christina Campagna  
CAMPAGCH@upstate.edu

Students will travel to Machala, Ecuador where they will integrate into a team of investigators conducting research on infectious disease, climate, and public health through Upstate's Institute for Global Health and Translational Science. Student projects will depend on the individual's skills and prior professional experience. Students will spend any where from four weeks to one year in the field. Upon return students will be expected to complete a reflective final project and work with the Institute for Global Health and Translational Science faculty to disseminate research results from field work. Students must have moderate to advanced Spanish speaking skills. Application and research proposal must be approved by Global Health Office to participate.

4 Credits  
Basic Science Selective  
Prerequisites: None  
Maximum Number Of Students: 5  
Periods Offered: 001-007, 012

This course is not available in the elective lottery.

## Global Health Elective - Kenya

PRVM6430

Christina Campagna  
CAMPAGCH@upstate.edu

Students will travel to Kisumu, Kenya where they will integrate into a team of Upstate clinicians providing care in the hospital at Maseno University School of Medicine and Obama Children's Hospital. Students may also have the opportunity to participate in educational projects such as quality improvement for hospital partners or case-studies. Student projects will depend on the individual's skills and prior professional experience. Students will spend anywhere from 4 weeks to 8 weeks in the field. Upon return students will be expected to complete a reflective final project, abstract, and/or publishable manuscript and work with the Institute for Global Health and Translational Science faculty to disseminate project results. Students must complete application process and have pre-approval of research proposal from instructor(s). Research can be made available in addition to the clinical experience on a case-by-case basis.

4 Credits  
Basic Science Selective  
Prerequisites: None  
Maximum Number Of Students: 1  
Periods Offered: 003, 003, 005,  
Concurrent

This course is not available in the elective lottery.

## RADIATION ONCOLOGY

### Radiation Oncology

RONC7401

Dr. Michael Mix  
ROYALANG@upstate.edu

Students will rotate with resident and attending physicians to develop a basic understanding of the practice and principles of radiation oncology. There will be broad exposure to both benign and malignant diagnoses warranting consideration of radiotherapy. The natural history of cancer is illustrated through seeing patients at the time of diagnosis, during treatment, and in follow up. The importance of collaborative oncologic care is emphasized by attending multi-disciplinary tumor board conference. There will be ample opportunity to participate in radiation treatment planning, to observe special procedures using radioactive sources, and to participate in educational conferences. Students will deliver a brief presentation on a topic pertinent to radiation oncology. At the conclusion of this elective, students will have gained a familiarity with the considerations that go into making clinical decisions regarding appropriate care for patients with cancer.

4 Credits  
Prerequisites: None  
Maximum Number Of Students: 1  
Periods Offered: 001-012

### Acting Internship in Radiation Oncology

RONC7403

Dr. Michael Mix  
ROYALANG@upstate.edu

During this Acting Internship, students will build upon their knowledge and experience gained during the preceding elective. Additional opportunities will be available to take a lead role in patient work-up, examination, presentation, and treatment planning. The acting intern has more responsibility in working with other members of the team (therapists, dosimetrists, physicists), and will hone additional skills with radiation plan assessment. This includes (but is not limited to) exposure to cross sectional imaging with an oncologic focus, guideline and evidence-based cancer care, and clinical research germane to radiation oncology. Case exposure will vary, but generally includes common solid tumor malignancies of the thorax, breast, gastrointestinal tract, upper aerodigestive tract, genitourinary system, and central nervous system. At the time of completion, students will be familiar with the necessary skillset to pursue residency in radiation oncology.

4 Credits  
Acting Internship Selective, Basic  
Science Selective  
Prerequisites: RONC7401  
Maximum Number Of Students: 1  
Periods Offered: 001-012

## RADIOLOGY

### Diagnostic Radiology

RADL7201

Dr. Andrzej Wojtowycz  
SNYDERCA@upstate.edu

This is an elective clerkship for 3rd and 4th year medical students. It is designed to expand the student's knowledge of the fundamentals of diagnostic radiology and the use of radiology in clinical diagnosis. Students will observe the daily performance and interpretation of radiographic procedures. Rotations are offered in chest, gastrointestinal, genitourinary, and bone imaging. The course includes assigned reading, online presentations, problem-based learning exercises, visual teaching files, and attendance at conferences. Educational material is available on our educational website (Brightspace Learning System); Upstate Library online access to a basic radiology textbook is provided. Students are required to prepare a ten-minute oral presentation of an interesting case at the end of the elective. Final grade is determined by resident evaluations, observation of classroom performance, presentation, and a final examination. Four-week clerkship rotations are offered; 2-week clerkship rotations are available upon request.

4 Credits  
Prerequisites: MDCN2000,  
SURG8200  
Maximum Number Of Students: 10  
Periods Offered: 001-012

### Neuroradiology

RADL7206

Dr. Markus Lammler  
LAMMLEM@upstate.edu

This elective offers the student an in-depth experience in all aspects of Neuroradiology. Emphasis is placed on the interpretation of computed tomography (CT) and magnetic resonance (MR) imaging of the head and spine, cerebral angiograms, and myelograms. The role of imaging studies in the diagnostic evaluation of the patients with suspected neurological or otolaryngological disease is emphasized. The student attends and participates in all neuroradiology teaching sessions and conferences. He/she is encouraged to undertake a special project during the elective, including research on and presentation of a topic of neuroradiologic interest.

4 Credits  
Prerequisites: NEUR3000  
Maximum Number Of Students: 1  
Periods Offered: 001-012

## Interventional Radiology

RADL7210

Dr. Katsuhiko Kobayashi  
SNYDERCA@upstate.edu

Interventional Radiologists (IR's) are Radiologists who use their expertise in medical imaging to guide small instruments such as catheters, and/or needles to diagnose and treat diseases percutaneously. The elective will familiarize the student with the dynamic practice of Interventional Radiology (IR) through hands on participation with the Attending Staff and Residents of the Division of Interventional Radiology. Activities include participation in pre-procedure patient work-up and planning, performance of procedures, and patient follow-up. Objectives: 1) Recognize patients that may benefit from diagnostic and/or therapeutic services offered by IR. 2) Evaluate and request appropriate procedures. 3) Be aware of necessary pre-procedural workup and post-procedural care. There is a participation in a weekly Multidisciplinary GI Oncology conference in which the student will learn about the exciting developing field of Interventional Oncology. The small faculty-to-student ratio maximizes the opportunity for one to one teaching.

4 Credits  
Prerequisites: MDCN2000,  
SURG8200  
Maximum Number Of Students: 1  
Periods Offered: 001-012

## Nuclear Medicine

RADL7217

Dr. David Feiglin  
SNYDERCA@upstate.edu

Expose student to Nuclear Medicine by correlation of clinical problems and diagnostic and therapeutic techniques. Methods include planar and tomographic imaging, computer image processing and quantitation, in vitro testing and radioiodine therapy of hyperthyroidism and thyroid cancer. Integration of various imaging modalities (nuclear, adialographic, CT, MR and ultrasound) with patient problem is stressed.

4 Credits  
Prerequisites: MDCN2000,  
SURG8200  
Maximum Number Of Students: 1  
Periods Offered: 001-012

## SURGERY

### Acting Internship in Hepatobiliary Surgery

SURG8001

Dr. Marshall Dhir  
BELLINIR@upstate.edu

This Acting Internship focuses on our "Surgery Oncology 1" pertaining to Hepatobiliary and Pancreatic Diseases including the gallbladder, liver, bile duct, and pancreas, both benign and malignant conditions. The course is designed for the student to develop a deeper understanding of the management and treatment of surgical patients. Emphasis is placed on the pathophysiology of the surgical problem and the principles required for excellence in the care of acute and chronically ill patients. Students will be offered opportunities to gain preoperative, intraoperative, and postoperative patient management experience. Note: The course is designed for students interested in choosing surgery as a career as well as those students interested in fields other than surgery.

4 Credits  
Acting Internship Selective  
Prerequisites: MDCN2000,  
SURG8200, OBGY3600,  
PEDS5600, FAMP1600, PSYCH6800  
Maximum Number Of Students: 1  
Periods Offered: 001-012

### Acting Internship Thoracic Surgery

SURG8005

Dr. Jason Wallen  
BELLINIR@upstate.edu

In this Acting Internship, students will be exposed the surgical management of pulmonary and thoracic disease. Treatment of lung cancer, esophageal problems, and inflammatory disease of the lungs and pleura will be presented. Students will be involved in a significant amount operating room cases. However, in order to experience the longitudinal care of the surgical patients and gain an understanding of the basic concepts behind each operative case, students will be expected to help the team on the floor and in the clinics.

4 Credits  
Acting Internship Selective  
Prerequisites: MDCN2000,  
SURG8200  
Maximum Number Of Students: 1  
Periods Offered: 001-012

## Burns

SURG8008

Dr. Joan Dolinak  
BELLINIR@upstate.edu

This elective course will provide students with an introduction to critical care patients presenting with exposure to thermal, electrical, chemical, or environmental burn injuries. We are the only verified adult and pediatric Burn Center in the region so students will have significant opportunities to participate in burn patient resuscitation, establish priorities of treatment, and organize therapeutic regimens pertaining to the surgical management of burns. Burn Management will include closing the wound and requisites for complex wound closure, skin grafts and skin substitutes, as well as techniques for controlling infection and maintaining nutritional balance. In addition, students will be exposed to the multifaceted nature of rehabilitation, the pathophysiology of major trauma and requirements for survival, the facts pertaining to the psychological adaptation to major stress as well as the epidemiology of burns and the prevention of thermal injury. There may also be the opportunity to see skin disorders such as TEN and SJS. Students will be expected to assist in operating room and during wound therapy procedures. (Visiting students may apply to this elective through the VSLO Program).

4 Credits  
Prerequisites: MDCN2000,  
SURG8200  
Maximum Number Of Students: 1  
Periods Offered: 001-012

## Pediatric Surgery

SURG8014

Dr. Kim Wallenstein  
BELLINIR@upstate.edu

This elective course will provide students with opportunities to participate in in-patient and out-patient care as a member of the Pediatric Surgery service. Students will assist in the assessment, diagnosis, pre-operative preparation, and post-operative management of children from newborn to adolescence. Students will have the ability to work with patients with common pediatric surgical problems, as well as neonatal congenital anomalies, and pediatric trauma. In addition, students will be exposed to fluid and electrolytes and nutritional management of patients with acute and chronic surgical disease as well as techniques for minor surgical procedures, including the surgical placement of intravenous catheters. Student participation in Pediatric Surgery includes attendance at formal teaching rounds, clinical rounds, Pediatric Surgical Clinic, and selected programs from the Department of Surgery. (Visiting students may apply to this elective through the VSLO Program).

4 Credits  
Prerequisites: SURG8200  
Maximum Number Of Students: 1  
Periods Offered: 001-012

## Critical Care for the Surgical Patient

**SURG8030**

Dr. Amie Lucia  
BELLINIR@upstate.edu

This elective course will cover clinical, pathophysiologic, legal, and ethical ramifications of the critically ill surgical patient admitted to the hospital with a wide variety of diseases. The focus will be on perioperative care and planning and will provide exposure to inotrope use, ventilator management, hemodynamic assessment, and emergent therapy. Exposure to procedures common to the intensive care unit will be provided. (Visiting students may apply to this elective through the VSLO Program).

4 Credits  
Prerequisites: MDCN2000,  
SURG8200  
Maximum Number Of Students: 1  
Periods Offered: 001-012

## Acting Internship in Vascular Surgery

**SURG8048**

Dr. Michael Costanza  
BELLINIR@upstate.edu

This Acting Internship focuses on topics such as advanced endovascular procedures, complicated surgeries, and critically ill patients. Students will gain valuable clinical and technical experience by directing the care of patients and scrubbing into a variety of surgical and endovascular OR cases on our busy vascular surgery service. Because this is an Acting Internship, student will be considered on the level of a junior resident and will be relied on as an important team member. After completing this course, the student will have an expanded vascular knowledge base and a solid foundation of surgical and endovascular technical skills.

4 Credits  
Acting Internship Selective  
Prerequisites: SURG8200  
Maximum Number Of Students: 0  
Periods Offered: 001-012

## Acting Internship Acute Care Surgery

**SURG8051**

Elizabeth Magowan  
BELLINIR@upstate.edu

This Acting Internship focuses on the fast paced and varied discipline of the Acute Care Service. The purpose of this course is to help students develop a more in-depth knowledge and understanding of surgical disease pathologies across multiple organ systems. It is designed to expose students to a wide variety of emergency surgical patients and procedures. Students will actively participate in the initial evaluation of acutely ill surgical patients, as well as in their pre, peri, and post-operative care. In addition, students will be expected to participate one to two weekends of night float.

4 Credits  
Acting Internship Selective  
Prerequisites: MDCN2000,  
SURG8200  
Maximum Number Of Students: 1  
Periods Offered: 001-012

## Acting Internship General Surgery Upstate Community General

**SURG8053**

Dr. MacKenzie Hall  
BELLINIR@upstate.edu

This Acting Internship is designed to give students a variety of surgery experiences related to Bariatric, Colorectal, Endocrine, General, and Minimally Invasive Surgery (MIS). Students will assist in the evaluation of patients pre-operatively, peri-operatively, and post-operatively, to further develop their diagnostic and management strategies. Bariatric Clinical exposure will focus on weight loss surgeries performed using MIS techniques such as laparoscopic surgery, as well as other common bariatric surgical procedures such as gastric bypass, sleeve gastrectomy, adjustable gastric band, and biliopancreatic diversion with duodenal switch. Colorectal Clinical exposure will focus on patients with problems of the small intestine, colon, rectum, and anus. Endocrine Clinical exposure will focus on thyroid, parathyroid, and adrenal surgery. The course may also offer opportunities for students to experience common General surgeries cases such as Hernia repair and Cholecystectomy. In addition, it should be noted that this AI takes place at a smaller hospital with less of an academic focus. However, our teams are committed to your education.

4 Credits  
Acting Internship Selective  
Prerequisites: MDCN2000,  
SURG8200, OBGY3600,  
PEDS5600, FAMP1600, PSYCH6800  
Maximum Number Of Students: 0  
Periods Offered: 001-012

## Acting Internship - Colorectal

**SURG8054**

Dr. Joseph Valentino  
BELLINIR@upstate.edu

This Acting Internship focuses on our Division of Surgical Oncology pertaining to colorectal diseases. It is designed to give students an in-depth exposure to the clinical management of a broad range of conditions and ailments to patients with colon and rectal diseases. Students will work closely with the attending and residents in the operating room, but also may find many opportunities to gain experience pre-operatively and post-operatively, under faculty/resident guidance.

4 Credits  
Acting Internship Selective  
Prerequisites: MDCN2000,  
SURG8200, OBGY3600,  
PEDS5600, FAMP1600, PSYCH6800  
Maximum Number Of Students: 1  
Periods Offered: 001-12

## Acting Internship in Trauma Surgery

**SURG8055**

Dr. Michael Luca  
BELLINIR@upstate.edu

In this Acting Internship, students will be considered an integral member of the Trauma Service and expected to take initiative in all phases of the injured or critically ill trauma patients' care, from the trauma bay to the ICU, in the OR, and on the floors, as well as follow up visits in our trauma clinic. The Trauma service is the busiest, with a lot of patient turnover, during the summer months. In addition, as students immerse themselves into Trauma elective experience, they will also gain an understanding of what the Trauma physicians' lifestyle is like.

4 Credits  
Acting Internship Selective  
Prerequisites: MDCN2000,  
SURG8200, OBGY3600,  
PEDS5600, FAMP1600, PSYCH6800  
Maximum Number Of Students: 1  
Periods Offered: 001-012



# UROLOGY

## Urology Acting Internship

**UROL8401**

Dr. Elizabeth Ferry  
SCHULZES@upstate.edu

4 Credits  
Acting Internship Selective  
Prerequisites: MDCN2000,  
SURG8200, OBGY3600,  
PEDS5600, FAMP1600, PSYCH6800  
Maximum Number Of Students: 5  
Periods Offered: 001-012

The acting internship is designed for clinical work. During this elective, the student will perform all the duties of a house officer in Urology and will be part of a team consisting of two Urology residents plus a small number of fourth year students. At frequent intervals, the student will be expected to meet with individual members and discuss assigned reading and problems. The purpose of this elective is to give the student in depth experience in the field of Urology. NOTE: Special requests may be accommodated for scheduling rotations during times that do not strictly align with the upstate block schedule.

This course is not available in the  
elective lottery.

# BINGHAMTON

## ANESTHESIOLOGY

### Introduction to Anesthesiology

**ANES0803**

2 Credits  
Preceptor's Site  
Prerequisites: MDCN2000,  
SURG8200  
Maximum Number Of Students: 1  
Periods Offered: 01A, 01B, 02A,  
02B, 03A, 03B, 04A, 04B, 05A, 05B,  
06A, 06B, 07A, 07B, 08A, 10A, 11A,  
11B, 12B, 9B

Binghamton Elective: This two-week elective course is designed to further explain aspects of anesthesiology which have relevance to all medical practice; to include physiology and pharmacological interaction of drugs with emphasis on basic technical maneuvers and airway management. At the conclusion of the two weeks, the student is expected to demonstrate basic anesthesia technical skills and knowledge of perioperative patient care. Weekly activities include inpatient contacts.

This course is not available in the elective lottery.

## FAMILY MEDICINE

### Family Med-Outpatient Clinic

**FAMP1607**

Dr. Daniel Young  
CCSTUAFF@upstate.edu

Binghamton Elective: Immersion in full spectrum family medicine care at the UHS Family Medicine Residency office. Daily work with residents and family medicine faculty including children, adults, geriatrics and infants. Experience includes weekly specialty clinics including dermatology, minor surgery, addiction medicine, geriatrics and sports medicine. Students will be encouraged to improve interviewing techniques, physical exam skills and analytical skills while caring for a diverse underserved community. Students will attend and participate in our weekly didactic sessions.

4 Credits  
Preceptor's Site  
Prerequisites: FAMP1600  
Maximum Number Of Students: 2  
Periods Offered: 01-012

This course is not available in the elective lottery.

### Palliative Care

**FAMP1647**

2 Credits  
Wilson Memorial Hospital  
Prerequisites: FAMP1600  
Maximum Number Of Students: 1  
Periods Offered: 01A, 01B, 02A,  
02B, 03A, 03B, 04A, 04B, 05A, 05B,  
06A, 06B, 07A, 07B, 08A, 08B, 09A,  
09B, 10A, 10B, 11A, 11B

Binghamton Elective: Students will work with palliative medicine physicians, advanced practice nurses and social workers as part of an interdisciplinary team. They will see inpatient consults, outpatient consults and participate in educational presentations as part of the palliative medicine team. In addition, they will attend and participate in weekly interdisciplinary team meetings. Educational goals include familiarization with approach to management of common issues in symptom control, discussions about goals of care and life sustaining treatment options, and how to conduct family meetings with patients and their loved ones.

This course is not available in the elective lottery.

### Acting Internship in Family Medicine – Wilson Family Medicine Residency Program Based

**FAMP1659**

Dr. Daniel Young  
CCSTUAFF@upstate.edu

LOCATED IN BINGHAMTON: Students in this acting internship elective will participate in inpatient and outpatient family medicine responsibilities to refine their medical interviewing skills, develop broad differential diagnoses, and practice constructing treatment plans. In addition, students will work with family medicine residents and attendings; allowing students an in depth look at the residency program and to demonstrate their skills. Over the 4 week rotation mornings will be spent inpatient with our continuity team and afternoons will be in the outpatient clinic or our weekly afternoon didactics. Students will be expected to present a topic to the inpatient team approximately once per week.

4 Credits  
Acting Internship Selective, Wilson  
Memorial Hospital  
Prerequisites: MDCN2000,  
SURG8200, OBGY3600,  
PEDS5600, FAMP1600, PSYCH6800  
Maximum Number Of Students: 1  
Periods Offered: 01-12

This course is not available in the elective lottery.

## MEDICINE

### Clinical Dermatology

**MDCN2150**

Marion Tamesis  
TAMESISM@upstate.edu

Binghamton Elective: The goals of this course are: 1) To learn to take an insightful Dermatology history; 2) To learn to examine the skin properly; 3) To learn how to evaluate skin diseases and tumors with the aim of making the correct diagnosis; 4) To learn management of common dermatoses; 5) To learn the basics of cutaneous surgery, cosmetic dermatology and laser surgery. Preceptor's Site

2 Credits  
Preceptor's Site  
Prerequisites: MDCN2000  
Maximum Number Of Students: 1  
Periods Offered: 01A, 01B, 02A, 02B, 03A, 03B, 04A, 04B, 05A, 05B, 06A, 06B, 07A, 07B, 08A, 08B, 09A, 09B, 10A, 10B, 11A, 11B, 12A, 12B

This course is not available in the elective lottery.

### A G.I. Experience

**MDCN2166**

4 Credits  
Preceptor's Site  
Prerequisites: MDCN2000, SURG8200, OBGY3600, PEDS5600, FAMP1600, PSYCH6800  
Maximum Number Of Students: 1  
Periods Offered: 001-011

Binghamton Elective: To expose 3rd and 4th year students to the intricacies of an Inpatient/Outpatient Gastroenterology Practice. To show and teach the students about all the modern technology available as related to G.I. Preceptor's Site: Binghamton Gastroenterology Assoc., 40 Mitchell Ave., Binghamton, NY.

This course is not available in the elective lottery.

### Cardiology

**MDCN2179**

Dr. Owais Ahmed  
CCSTUAFF@upstate.edu

Binghamton Elective: This elective is intended to provide the student with an understanding of the basics of general cardiology, the diagnosis and treatment options available, indications for various diagnostic cardiac procedures and the reading and interpretation of EKGs. Wilson Memorial Hospital.

4 Credits  
Wilson Memorial Hospital  
Prerequisites: MDCN2000  
Maximum Number Of Students: 1  
Periods Offered: 001-012

This course is not available in the elective lottery.

### Infectious Disease

**MDCN2180**

Zachary Jones, Vivek Kandanati  
CCSTUAFF@upstate.edu

BINGHAMTON ELECTIVE: The student will have the opportunity to have contact with a wide variety of infectious disease cases. They will also be able to learn the basic workings of the microbiology lab through hands-on training. Daily lectures and management rounds will allow the student to learn in both a clinical and didactic environment.

4 Credits  
Guthrie Clinic  
Prerequisites: None  
Maximum Number Of Students: 1  
Periods Offered: 001-012

This course is not available in the elective lottery.

## OPHTHALMOLOGY

### Ophthalmology and Ambulatory Surgery

OPTH4008

Dr. Daniel Sambursky  
CCSTUAFF@upstate.edu

Binghamton Elective: This elective will provide the student exposure in office problems and management in ophthalmology. Students will develop diagnostic and therapeutic skills and learn to recognize and manage acute medical and surgical emergencies.

2 Credits  
Prerequisites: MDCN2000,  
SURG8200, OBGY3600,  
PEDS5600, FAMP1600, PSYCH6800  
Maximum Number Of Students: 2  
Periods Offered: 01A, 01B, 02A,  
02B, 03A, 03B, 04A, 04B, 05A, 05B,  
06A, 06B, 07A, 07B, 08A, 08B, 09A,  
09B, 10A, 10B, 11A, 11B, 12A, 12B

This course is not available in the  
elective lottery.

## PATHOLOGY

### Hospital Based Pathology Practice

PATH5203

Dr. Michael Zur  
CCSTUAFF@upstate.edu

Binghamton Elective: The student will review histology, anatomy, toxicology and physiology in the context of surgical pathology, cytology and autopsy pathology, and observe a community hospital laboratory in action, including blood bank, chemistry, microbiology and hematology departments. Basic concepts in death investigation will include determination of the cause, mechanism and manner of death, and interactions of coroners, law enforcement and attorneys.

2 Credits  
Basic Science Selective, Our Lady of  
Lourdes Memorial  
Prerequisites: MDCN2000,  
SURG8200  
Maximum Number Of Students: 1  
Periods Offered: 001-012

This course is not available in the  
elective lottery.

### General and Special Pathology

PATH5219

Dr. Jagmohan Sidhu  
CCSTUAFF@upstate.edu

Binghamton Elective: This elective offers six options to students: dermatopathology, hematopathology, cytopathology, microbiology, transfusion services, or neuropathology. All options will include experiences in general pathology where students will rotate through all of the sections of pathology and laboratory medicine. Students will also attend autopsies and be involved in all steps of signing and diagnosis. During the special pathology or laboratory medicine rotation, the student will either follow the biopsy or the specimen from the patient to the pathology/lab medicine department or follow the result of the biopsy or special specimen from the pathology/laboratory medicine department to the patient. An opportunity will be available to create manuscripts of rare case reports and submit for publication.

4 Credits  
Basic Science Selective, Wilson  
Memorial Hospital  
Prerequisites: MDCN2000,  
SURG8200, OBGY3600,  
PEDS5600, FAMP1600, PSYCH6800  
Maximum Number Of Students: 1  
Periods Offered: 001-012

This course is not available in the  
elective lottery.

## PEDIATRICS

### Neonatal-Perinatal Acting Internship

PEDS5610

4 Credits  
Acting Internship Selective, Wilson  
Memorial Hospital  
Prerequisites: MDCN2000,  
SURG8200, OBGY3600,  
PEDS5600, FAMP1600, PSYCH6800  
Maximum Number Of Students: 1  
Periods Offered: 001-12

An elective at the level III NICU at Wilson Medical Center will provide multiple opportunities to students interested in a residency or career in Pediatrics or Family Medicine. Students will be actively involved in the daily management of patients as a part of multidisciplinary team. They will be expected to independently assess patients and develop and present management plans on daily rounds. They will get exposure to prenatal consults, procedures, delivery room resuscitations, neonatal transports, and all didactics. Primary goals include: To understand physiology and pathophysiology of newborn, term and pre-term infants. Understand resuscitation physiology and pathophysiology of asphyxia. Monitor and correlate perinatal period with outcome. Identify, manage and counsel for congenital anomalies/syndromes. Weekly activities: Conferences Textbook required: "Care of High-Risk Newborn", by Klaus and Faranoff. Performance evaluation based on patient workups, conference presentations and daily rounds presentation..

This course is not available in the  
elective lottery.

## PHYSICAL MEDICINE/REHAB

### Osteopathic Practice and Principles

PMAR7608

James Docherty  
CCSTUAFF@upstate.edu

Binghamton Elective: Hands-on medical treatment based on understanding the musculoskeletal, circulatory, lymphatic and nervous systems of the body. In-depth review of anatomy with emphasis on developing the student's palpatory skills to diagnose tissue texture changes, asymmetry, and restrictions of motion of musculoskeletal structures in the body that cause disease. The student will be taught specific techniques targeted to anatomically manipulate fascia, muscle and bone to improve circulation, joint mobility, restore normal range of motion and/or decrease pain caused by various musculoskeletal strain patterns and disease entities with an emphasis on neurology, orthopedics, and sports medicine.

4 Credits  
Prerequisites: None  
Maximum Number Of Students: 1  
Periods Offered: 0, 0-012

This course is not available in the elective lottery.

## PSYCHIATRY

### Addiction Medicine

PYCH6836

1 TO 4 Credits  
Prerequisites: MDCN2000,  
SURG8200, OBGY3600,  
PEDS5600, FAMP1600, PYCH6800  
Maximum Number Of Students: 0  
Periods Offered: 01-12

Binghamton Elective: Students will spend four weeks learning how to diagnose and treat substance use disorders. They will see patients on the inpatient alcohol withdrawal consultation service and in UHS's opioid treatment program (OTP) and office based opioid treatment program (OBOT). They will participate in treatment team meetings for New Horizon's inpatient, IOP, OTP, and OBOT programs and will observe both individual and group counseling across New Horizons' spectrum of services. They will receive training in treating special populations, including pregnant patients with opioid use disorder. Students will also attend the monthly Addiction Medicine journal club and will be expected to complete an assigned reading list.

This course is not available in the elective lottery.

## RADIOLOGY

### Diagnostic Radiology

RADL7214

Dr. Zafar Bajwa  
CCSTUAFF@upstate.edu

Binghamton Elective: A joint program at the two hospitals: Wilson and Binghamton General. The student will participate in daily interpretation of imaging studies in association with staff radiologists. They will be assigned on a half-day rotation basis to various subspecialties in Radiology. They will be expected to attend all radiological interdisciplinary conferences at the various hospitals when feasible.

2 Credits  
Wilson Memorial Hospital  
Prerequisites: MDCN2000,  
SURG8200  
Maximum Number Of Students: 1  
Periods Offered: 01A, 01B, 02A,  
02B, 03A, 03B, 04A, 04B, 05A, 05B,  
06A, 06B, 07A, 07B, 08A, 08B, 09A,  
09B, 10A, 10B, 11A, 11B, 12A, 12B

This course is not available in the elective lottery.





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