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.
ELECTIVE DESCRIPTION: 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.

Teaching in Neuroanatomy ....... ANAT0409 1 TO 5 Credits Basic Science Selective, Concurrent Elective

ELECTIVE DIRECTOR: Dr. Dana Mihaila
CONTACT: MIHAILDA@UPSTATE.EDU
PREREQUISITES: NEUR3000
MAXIMUM NUMBER OF STUDENTS: 999
PERIODS OFFERED: Concurrent
This course is not available in the elective lottery.

ELECTIVE DESCRIPTION: 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 1 TO 8 Credits Pass/Fail Grading

ELECTIVE DIRECTOR: Dr. Robert Zajdel
CONTACT: ZAJDELR@UPSTATE.EDU
PREREQUISITES: MDCN2000 SURG8200 OBGY3600 PEDS5600 FAMP1600 PYCH6800
MAXIMUM NUMBER OF STUDENTS: 1
PERIODS OFFERED: Concurrent
This course is not available in the elective lottery.

ELECTIVE DESCRIPTION: 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 and 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 1 Credits Concurrent Elective

ELECTIVE DIRECTOR: Dr. Dana Mihaila
CONTACT: MIHAILDA@UPSTATE.EDU
PREREQUISITES: None
MAXIMUM NUMBER OF STUDENTS: 4
PERIODS OFFERED: Concurrent
This course is not available in the elective lottery.

ELECTIVE DESCRIPTION: 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.

**Anesthesiology**

**Anesthesiology & Basic Life Support - Upstate** ........................................ ANES0801

4 Credits

**ELECTIVE DIRECTOR:** Matthew Dabski

**CONTACT:** christel@upstate.edu

**PREREQUISITES:** SURG8200

**MAXIMUM NUMBER OF STUDENTS:** 3

**PERIODS OFFERED:** 001, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012

**ELECTIVE DESCRIPTION:** (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.

**Applied Clinical Anesthesiology. ANES0808**

4 Credits

**Crouse Hospital**

**ELECTIVE DIRECTOR:** Dr. Pathman Selvarajah

**CONTACT:** DMartin@napaanesthesia.com

**PREREQUISITES:** SURG8200

**MAXIMUM NUMBER OF STUDENTS:** 2

**PERIODS OFFERED:** 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012

**ELECTIVE DESCRIPTION:** 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.

**Pain Medicine ........................................ ANES0810**

4 Credits

**ELECTIVE DIRECTOR:** Dr. Parakulam Thomas

**CONTACT:** ChristEl@upstate.edu

**PREREQUISITES:** MDN2000 SURG8200 OBGY3600 PEDS5600 FAMP1600 PYCH6800

**MAXIMUM NUMBER OF STUDENTS:** 2

**PERIODS OFFERED:** 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012

This course is not available in the elective lottery.

**ELECTIVE DESCRIPTION:** Pain medicine is fast becoming a filed 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. PS Thomas to make arrangements.

**Clinical Bioethics**

**Intro to Medical Creative WritingCBHX2404**

1 Credits

**ELECTIVE DIRECTOR:** Dr. Deirdre Neilen

**CONTACT:** szczeczhk@upstate.edu

**PREREQUISITES:** None

**MAXIMUM NUMBER OF STUDENTS:** 8

**PERIODS OFFERED:** 11

**ELECTIVE DESCRIPTION:** 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 illuminate medicine and increase a physician's observations, making him/her more aware of the patient's needs.

**Individual Study in Bioethics .... CBHX2405**

2 TO 6 Credits

**ELECTIVE DIRECTOR:** Dr. James Dwyer

**CONTACT:** DWYERJA@UPSTATE.EDU

**PREREQUISITES:** None

**MAXIMUM NUMBER OF STUDENTS:** 4

**PERIODS OFFERED:** 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012, CCR

This course is not available in the elective lottery.
ELECTIVE DESCRIPTION: 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. This plan will usually involve extensive reading, attendance at some lectures and seminars, frequent discussions with the preceptor, attendance at meetings of the ethics committee, and a written paper. Students may explore a particular topic or area (for example, issues in one specialty of medicine), design a small study (for example, a chart of 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.

Physicians and Social Responsibility I
.................................................................CBHX2408
1 Credits Concurrent Elective
ELECTIVE DIRECTOR: Dr. Rachel Fabi
CONTACT: FABIR@UPSTATE.EDU
PREREQUISITES: None
MAXIMUM NUMBER OF STUDENTS: 16
PERIODS OFFERED: Concurrent
This course is not available in the elective lottery.

ELECTIVE DESCRIPTION: This is the first of a two-elective sequence that establishes a critical, analytic component in conjunction with selected health-related service activities, to provide a robust, service-learning experience for medical students to develop their understanding of and commitment to physician’s social responsibility. Course content addresses a variety of topics, such as fundamentals of health systems and financing; impacts of socioeconomic disparities in health and illness; cultural diversity in clinical practice; health outcomes; advocacy skills; structure and effectiveness of the safety net; global health inequities; environmental issues in health. Exact topics are modified from year to year.

Physicians and Social Responsibility II
.................................................................CBHX2410
2 Credits Concurrent Elective
ELECTIVE DIRECTOR: Dr. Rachel Fabi
CONTACT: FABIR@UPSTATE.EDU
PREREQUISITES: CBHX2408
MAXIMUM NUMBER OF STUDENTS: 16
PERIODS OFFERED: Concurrent
This course is not available in the elective lottery.

ELECTIVE DESCRIPTION: Physicians and Social Responsibility II is the second part of an elective sequence that establishes a critical, analytic component in conjunction with selected health-related advocacy activities to provide a robust learning experience for medical students to develop their understanding of and commitment to physicians’ social responsibility. Students will critically analyze their advocacy experiences in light of the fundamental concepts discussed in PSRI. Students will learn how responsibilities as physicians extend from caring for individual patients to caring about institutional, social, and global contexts. This course will teach the skills necessary to bring about meaningful change at each of these levels. A substantial portion of the seminar time will be spent with students presenting their critical analyses of their advocacy experiences.

Emergency Medicine
Acting Internship in Emergency Medicine
.......................................................EMED1302
4 Credits Acting Internship Selective
ELECTIVE DIRECTOR: Dr. Matthew Sarsfield
CONTACT: ButterJo@upstate.edu
PREREQUISITES: MDCN2000 SURG8200
MAXIMUM NUMBER OF STUDENTS: 6
PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012

ELECTIVE DESCRIPTION: 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.

Emergency Medicine in a Community Hospital
.......................................................EMED1307
4 Credits Preceptor’s Site
ELECTIVE DIRECTOR: Dr. David Wirtz
CONTACT: dwirtz@usacs.com
PREREQUISITES: MDCN2000 SURG8200 OBGY3600 PDS5600 FAMP1600 PYCH6800
MAXIMUM NUMBER OF STUDENTS: 1
PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 008, 009
This course is not available in the elective lottery.

ELECTIVE DESCRIPTION: 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.

Emergency Medicine Research.. EMED1308
4 Credits
ELECTIVE DIRECTOR: Dr. Susan Wojcik
CONTACT: ButterJo@upstate.edu
PREREQUISITES: None
MAXIMUM NUMBER OF STUDENTS: 2
Some periods are offered for 4 weeks and 4 credits; others are offered for 2 weeks and 2 credits. Where listed the number of credits cannot be altered.

**Undersea and Hyperbaric Medicine**

........................................... **EMED1323**

4 Credits Pass/Fail Grading

ELECTIVE DIRECTOR: Dr. Deepali Sharma

CONTACT: ButterJo@upstate.edu

PREREQUISITES: MDCN2000 SURG8200

MAXIMUM NUMBER OF STUDENTS: 1

PERIODS OFFERED: 008, 009, 010, 011, 012

ELECTIVE DESCRIPTION: 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.

**Emergency Ultrasound**............. **EMED1324**

4 Credits Basic Science Selective, Pass/Fail Grading

ELECTIVE DIRECTOR: Kevin Gaskin, Dr. Elizabeth Nicholas

CONTACT: GASKINK@UPSTATE.EDU

PREREQUISITES: MDCN2000 SURG8200 OBGY3600 PEDS5600 FAMP1600 PYCH6800

MAXIMUM NUMBER OF STUDENTS: 1

PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012

This course is not available in the elective lottery.

ELECTIVE DESCRIPTION: 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...
Emergency Medicine Advanced Simulation: Teaching and Learning with Simulation ................................................. EMED1325
4 Credits
ELECTIVE DIRECTOR: Dr. Elliot Rodriguez
CONTACT: ButterJo@upstate.edu
PREREQUISITES: EMED1302
MAXIMUM NUMBER OF STUDENTS: 1
PERIODS OFFERED: 001, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012
This course is not available in the elective lottery.
ELECTIVE DESCRIPTION: 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.

Emergency Medicine at Upstate Community Hospital ................................................. EMED1326
4 Credits
ELECTIVE DIRECTOR: Dr. Matthew Sarsfield
CONTACT: ButterJo@upstate.edu
PREREQUISITES: None
MAXIMUM NUMBER OF STUDENTS: 1
PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012
ELECTIVE DESCRIPTION: 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).

Emergency Room - VAH .............. EMED1345
4 Credits
Veteran's Administration Hosp
ELECTIVE DIRECTOR: Dr. Mary DiRubbo
CONTACT: ButterJo@upstate.edu
PREREQUISITES: MDCN2000
MAXIMUM NUMBER OF STUDENTS: 1
PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012

Family Medicine
Acting Internship in Family Medicine - Residency Based Family Medicine ................................................. FAMP1612
4 Credits
Acting Internship Selective
ELECTIVE DIRECTOR: Dr. James Tucker
CONTACT: Rachael.jones@sjhsvyr.org
PREREQUISITES: MDCN2000 PEDS5600
MAXIMUM NUMBER OF STUDENTS: 2
PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012
ELECTIVE DESCRIPTION: This elective is intended to achieve several goals: 1) provide an in-depth exposure to both in-patient and out-patient 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 model office or the faculty practice. The student will work one weekend during the rotation. 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 315-448-5547 for instructions.

Family Medicine Preceptorship . FAMP1615
4 Credits
Preceptor's Site
ELECTIVE DIRECTOR: Dr. Heather Finn
CONTACT: osivz@upstate.edu
PREREQUISITES: FAMP1600
MAXIMUM NUMBER OF STUDENTS: 1
PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012
This course is not available in the elective lottery.

**ELECTIVE DESCRIPTION:** Students will work directly with a preceptor primarily in an outpatient Family Medicine setting. Students will understand the role of family physicians; will develop skills in the diagnosis and management of common medical problems; and will understand the nature of consultation with other medical specialists. Students progress from observation to initial patient contact with preceptor review. Rate of progression and participation, assignment of short literature reviews of patient problems, and night call are at the discretion of the individual preceptors. This course may be completed at urban, suburban, and rural sites throughout New York State with approved voluntary faculty. A number are within commuting distance of Syracuse and include managed care settings, community health centers, and private practices. Students will work with course coordinator to find a preceptor for this rotation. Preceptorships in other states may be arranged, but require significant advance planning.

**Integrative Medicine** ................. **FAMP1635 4 Credits**

**ELECTIVE DIRECTOR:** Dr. Kaushal Nanavati
**CONTACT:** NANAVATK@UPSTATE.EDU
**PREREQUISITES:** FAMP1600

**MAXIMUM NUMBER OF STUDENTS:** 1

**PERIODS OFFERED:** 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012

**ELECTIVE DESCRIPTION:** 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.

**Literature and Medicine:** Examining Issues in Primary Care ............... **FAMP1642 2 Credits**

**Concurrent Elective**

**ELECTIVE DIRECTOR:** Dr. Ruth Hart
**CONTACT:** HARTRH@UPSTATE.EDU
**PREREQUISITES:** None

**MAXIMUM NUMBER OF STUDENTS:** 25

**PERIODS OFFERED:** Concurrent

This course is not available in the elective lottery.

**ELECTIVE DESCRIPTION:** 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.

**Introduction to Rural Health**...... **FAMP1646 1.5 Credits Concurrent Elective, Preceptor's Site**

**ELECTIVE DIRECTOR:** Dr. Carrie Roseamelia
**CONTACT:** ROSEAMEC@UPSTATE.EDU
**PREREQUISITES:** None

**MAXIMUM NUMBER OF STUDENTS:** 60

**PERIODS OFFERED:** Concurrent

This course is not available in the elective lottery.

**ELECTIVE DESCRIPTION:** This elective is required for all medical students admitted to SUNY Upstate College of Medicine through the Rural Medical Scholars Program and runs concurrently over the MS1 and MS2 preclinical years. 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 health care professionals, 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. Students will extrapolate from their medical school knowledge to teach a clinical case to a team of high school students, preparing their teams for a case competition each Spring.

**Rural Medical Education Program** ............................... **FAMP1650 4 Credits**

**ELECTIVE DIRECTOR:** Dr. Carrie Roseamelia
**CONTACT:** ROSEAMEC@UPSTATE.EDU
**PREREQUISITES:** MDCN2000

**MAXIMUM NUMBER OF STUDENTS:** 20

**PERIODS OFFERED:** 005, 006

This course is not available in the elective lottery.

**ELECTIVE DESCRIPTION:** This elective is suggested for students admitted to the College of Medicine through the Rural Medical Scholars Program and runs period G-J for Syracuse campus students, and Period H-J for Binghamton students. 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 office hours with small town, community-based preceptors, conduct inpatient rounds, laboratory work, night call, and case presentations.
Rural Medicine Community Health AI ................................. FAMP1652
4 Credits  Acting Internship Selective
ELECTIVE DIRECTOR: Dr. Carrie Roseamelia, Dr. Robert Ostrander
CONTACT: ROSEAMEC@UPSTATE.EDU
PREREQUISITES: None
MAXIMUM NUMBER OF STUDENTS: 15
PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012
This course is not available in the elective lottery.
ELECTIVE DESCRIPTION: 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 care and prevention. This course 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.

Acting Internship Upstate Family Medicine Residency .......................... FAMP1654
4 Credits  Acting Internship Selective
ELECTIVE DIRECTOR: Dr. Rupali Singla
CONTACT: osivz@upstate.edu
PREREQUISITES: None
MAXIMUM NUMBER OF STUDENTS: 1
PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012
ELECTIVE DESCRIPTION: The goal of this AI is to prepare the MS4 to assume the role of an intern both inpatient and outpatient in Family Medicine. Students 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. Students will work directly with 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 per week, and weekly educational sessions.

Rural Medicine Curriculum Design Elective .................................... FAMP1656
1 TO 2 Credits  Concurrent Elective, Pass/Fail Grading
ELECTIVE DIRECTOR: Dr. Carrie Roseamelia
CONTACT: ROSEAMEC@UPSTATE.EDU
PREREQUISITES: None
MAXIMUM NUMBER OF STUDENTS: 5

PERIODS OFFERED: CCR
This course is not available in the elective lottery.
ELECTIVE DESCRIPTION: 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.

Rural Medicine Clinical Training through Journey Mapping ............... FAMP1657
1.5 Credits  Concurrent Elective, Pass/Fail Grading
ELECTIVE DIRECTOR: Dr. Carrie Roseamelia
CONTACT: ROSEAMEC@UPSTATE.EDU
PREREQUISITES: None
MAXIMUM NUMBER OF STUDENTS: 36
PERIODS OFFERED: Concurrent
This course is not available in the elective lottery.
ELECTIVE DESCRIPTION: For this elective second-year medical students delve into patient care through interactions with their patient educator and community preceptor. A small-town physician-patient team, alongside a fourth-year medical student, are matched with small groups of second-year students. Through guided sessions from August to January, the medical students come to know their patient and the patient’s condition, ultimately presenting their “case” at a university wide forum. Students practice skills related to: patient interviewing, notetaking, case review and discussion, physical exam and presentation.

Rural Medicine Return to Basic Sciences through Journey Mapping and Teaching ............................................. FAMP1658
2 Credits  Basic Science Selective, Concurrent Elective, Pass/Fail Grading
ELECTIVE DIRECTOR: Dr. Carrie Roseamelia
CONTACT: ROSEAMEC@UPSTATE.EDU
PREREQUISITES: None
MAXIMUM NUMBER OF STUDENTS: 15
PERIODS OFFERED: Concurrent
This course is not available in the elective lottery.
ELECTIVE DESCRIPTION: For this elective fourth-year medical students are paired with community physician-patient teams to 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 first- and second-year. Additionally, students present their cases via poster presentation at a university wide forum.
Geriatrics

Geriatric Medicine .......................... GERI1801
4 Credits

ELECTIVE DIRECTOR:  Dr. Sharon Brangman
CONTACT:  wheeleke@upstate.edu
PREREQUISITES:  MDCN2000 SURG8200 OBGY3600
PEDS5600 FAMP1600 PYSCH6800
MAXIMUM NUMBER OF STUDENTS:  2
PERIODS OFFERED:  001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012
This course is not available in the elective lottery.
ELECTIVE DESCRIPTION: This elective is flexible in terms of both content and length to allow the student to design an educational experience consistent with their interests and career goals. The student may participate in any or all of the clinical activities of the Division 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. 3. Geriatric consultations, palliative and hospice services at the VA Medical Center. 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.

Interdepartmental

Third Year Career Exploration Elective ........................... INTD9401
2 Credits  Pass/Fail Grading

ELECTIVE DIRECTOR:  Dr. Matthew Mason, Dr. Leann Lesperance
CONTACT:  hornh@upstate.edu
PREREQUISITES:  1st and 2nd year courses
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
ELECTIVE DESCRIPTION: This is a 2-week Career exploration elective designed to give the student exposure to a discipline of their interest.

Third Year Career Exploration Elective ........................... INTD9402
2 Credits  Pass/Fail Grading

ELECTIVE DIRECTOR:  Dr. Matthew Mason, Dr. Leann Lesperance
CONTACT:  hornh@upstate.edu
PREREQUISITES:  1st and 2nd year courses
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
ELECTIVE DESCRIPTION: This is a 2-week Career exploration elective designed to give the student exposure to a discipline of their interest.

Teaching Assistant for Practice of Medicine
Course ..................................... INTD9423
1 TO 2 Credits  Basic Science Selective, Concurrent Elective

ELECTIVE DIRECTOR:  Dr. Alison McCrone
CONTACT:  sullmary@upstate.edu
PREREQUISITES:  MDCN2000 SURG8200
PEDS5600 FAMP1600 PYSCH6800
MAXIMUM NUMBER OF STUDENTS:  28
PERIODS OFFERED:  Concurrent
This course is not available in the elective lottery.
ELECTIVE DESCRIPTION: Students will review materials in the physical diagnosis techniques, medical interviews and communication skills. Student Assistants will work one-to-one with faculty to teach MSIs and MSIIs. Students will participate in course evaluation and in methods of evaluating the skills taught in the course and act as a teaching assistant in the POM 1 and POM 2 courses. Activities might include: evaluating student performance on CCEs, helping in small group sessions, grading student write-ups and developing educational materials.

Hospice Volunteering .......................... INTD9425
1 Credits  Concurrent Elective, Preceptor’s Site

ELECTIVE DIRECTOR:  Dr. Judith Setla
CONTACT:  mdevlin@hospicecny.org
PREREQUISITES:  None
MAXIMUM NUMBER OF STUDENTS:  15
PERIODS OFFERED:  Concurrent
This course is not available in the elective lottery.
ELECTIVE DESCRIPTION: 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, mowing lawns, childcare, sitting with patient’s so family can run errands, driving patients or families to appointments or to visit loved ones. 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 and Palliative
Medicine/Spirituality .......................... INTD9426
4 Credits  Preceptor’s Site

ELECTIVE DIRECTOR:  Dr. Barbara Krenzer, Dr. Rupali Singla
CONTACT:  KRENZERB@UPSTATE.EDU
PREREQUISITES:  MDCN2000 SURG8200 OBGY3600
PEDS5600 FAMP1600 PYSCH6800
MAXIMUM NUMBER OF STUDENTS:  1
PERIODS OFFERED:  001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012
This course is not available in the elective lottery.
ELECTIVE DESCRIPTION: 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.

Peer Tutoring in Basic Science.. INTD9427
0.5 TO 6 Credits Basic Science Selective, Concurrent Elective, Pass/Fail Grading
ELECTIVE DIRECTOR: Mary Ann Grandinetta, Dr. Dana Mihaila
CONTACT: GRANDINM@UPSTATE.EDU
PREREQUISITES: MDCN2000 SURG8200 OBGY3600 PEDS5600 FAMP1600 PYCH6800
MAXIMUM NUMBER OF STUDENTS: 20
PERIODS OFFERED: CCR, SUM
This course is not available in the elective lottery.
ELECTIVE DESCRIPTION: 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.

Fundamentals in Quality Improvement and Patient Safety through IHI Open School INTD9434
1 Credits Concurrent Elective
ELECTIVE DIRECTOR: Dr. Lynn Cleary
CONTACT: CLEARYL@UPSTATE.EDU
PREREQUISITES: None
MAXIMUM NUMBER OF STUDENTS: 99
PERIODS OFFERED: Concurrent
This course is not available in the elective lottery.
ELECTIVE DESCRIPTION: 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. For the 2022-23 academic year (May 2022-April 2023) the course is listed in the Spring 2023 semester for registration.

Pathophysiology of Disease...........INTD9437
2 Credits Basic Science Selective, Concurrent Elective
ELECTIVE DIRECTOR: Dr. Margaret Maimone
CONTACT: MAIMONEM@UPSTATE.EDU
PREREQUISITES: None
MAXIMUM NUMBER OF STUDENTS: 20
PERIODS OFFERED: Concurrent
This course is not available in the elective lottery.
ELECTIVE DESCRIPTION: 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 availability of the clerkship students. 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 Blackboard site where they will find further details and instructions needed to successfully complete the elective.

TA in Basic Science..................INTD9438
1 TO 4 Credits Basic Science Selective, Concurrent Elective
ELECTIVE DIRECTOR: Thomas Duncan
CONTACT: DUNCANT@UPSTATE.EDU
PREREQUISITES: MDCN2000 SURG8200 OBGY3600 PEDS5600 FAMP1600 PYCH6800
MAXIMUM NUMBER OF STUDENTS: 30
PERIODS OFFERED: Concurrent
This course is not available in the elective lottery.
ELECTIVE DESCRIPTION: 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.
**Foundations of Reasoning in Medicine**

| ELECTIVE DESCRIPTION: | 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 either the FRMI or FRMII course. 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 both FRM I and FRM II. Elective students will choose which year of the FRM course they will like to participate in. FRM I will consist of a given diagnosis, with participants learning the basic science/patho-physiology of the disease being studied. FRM II objectives include clinical reasoning of the case and conclusion of a differential diagnosis. |
| ELECTIVE CREDITS: | 2 |
| ELECTIVE DIRECTOR: | Dr. Lynn Cleary |
| CONTACT: | CLEARYL@UPSTATE.EDU |
| PREREQUISITES: | None |
| MAXIMUM NUMBER OF STUDENTS: | 20 |
| PERIODS OFFERED: | Concurrent |

This course is not available in the elective lottery.

**Basic Spanish**

| ELECTIVE DESCRIPTION: | This elective provides fourth year medical students the opportunity to practice in the facilitation of small groups within the Foundations of Reasoning in Medicine (FRM) course, encompassing either the FRMI or FRMII course. 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 both FRM I and FRM II. Elective students will choose which year of the FRM course they will like to participate in. FRM I will consist of a given diagnosis, with participants learning the basic science/patho-physiology of the disease being studied. FRM II objectives include clinical reasoning of the case and conclusion of a differential diagnosis. |
| ELECTIVE CREDITS: | 2 |
| ELECTIVE DIRECTOR: | Dr. MariaLourdes Fallace |
| CONTACT: | FALLACEM@UPSTATE.EDU |
| PREREQUISITES: | None |
| MAXIMUM NUMBER OF STUDENTS: | 24 |
| PERIODS OFFERED: | Concurrent |

This course is not available in the elective lottery.

**Introduction to Medical Spanish**

| ELECTIVE DESCRIPTION: | 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. |
| ELECTIVE CREDITS: | 2 |
| ELECTIVE DIRECTOR: | Dr. MariaLourdes Fallace |
| CONTACT: | FALLACEM@UPSTATE.EDU |
| PREREQUISITES: | None |
| MAXIMUM NUMBER OF STUDENTS: | 24 |
| PERIODS OFFERED: | Concurrent |

This course is not available in the elective lottery.

**Intermediate Medical Spanish**

| ELECTIVE DESCRIPTION: | 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. |
| ELECTIVE CREDITS: | 2 |
| ELECTIVE DIRECTOR: | Dr. MariaLourdes Fallace |
| CONTACT: | FALLACEM@UPSTATE.EDU |
| PREREQUISITES: | None |
| MAXIMUM NUMBER OF STUDENTS: | 24 |
| PERIODS OFFERED: | Concurrent |

This course is not available in the elective lottery.

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**Leadership in Medicine**

| ELECTIVE DESCRIPTION: | 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 online only and will include a combination of synchronous and asynchronous learning activities. 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 video material, oral presentations, self-awareness exercises, working with faculty partners, written assignments, participation in online discussions (synchronous and asynchronous), and self- and peer- assessment and feedback. To be successful in this course, students must engage in honest self-assessment, be open to feedback from peers and engage in self-improvement planning. |
| ELECTIVE CREDITS: | 2 |
| ELECTIVE DIRECTOR: | Dr. Matthew Thornton |
| CONTACT: | nearym@upstate.edu |
| PREREQUISITES: | MDCN2000 SURG8200 OBGY3600 PEDSS5600 FAMP1600 PYCH6800 |
| MAXIMUM NUMBER OF STUDENTS: | 30 |
| PERIODS OFFERED: | Concurrent |

This course is not available in the elective lottery.

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**Basic Spanish**

| ELECTIVE DESCRIPTION: | Basic Spanish is a foundation course that gives students a strong base to be able to learn medical terminology in Spanish. Students learn parts of the human body, organs, systems symptoms of common illnesses along with basic communication such as greetings, numbers, dates, specific vocabulary for visits to a doctor and much more. They are able to have a basic dialog and develop sentences grammatically correct using regular and irregular verbs in conjunction with other parts of a sentence in concordance with gender and number. |
| ELECTIVE CREDITS: | 2 |
| ELECTIVE DIRECTOR: | Dr. MariaLourdes Fallace |
| CONTACT: | FALLACEM@UPSTATE.EDU |
| PREREQUISITES: | None |
| MAXIMUM NUMBER OF STUDENTS: | 30 |
| PERIODS OFFERED: | Concurrent |

This course is not available in the elective lottery.
Advanced Medical Spanish .......... INTD9444
2 Credits Concurrent Elective

ELECTIVE DIRECTOR: Dr. Maria Lourdes Fallace
CONTACT: FALLOCEM@UPSTATE.EDU
PREREQUISITES: None
MAXIMUM NUMBER OF STUDENTS: 20
PERIODS OFFERED: Concurrent

This course is not available in the elective lottery.

ELECTIVE DESCRIPTION: 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 physical examination and communicating to the patient the condition, necessary tests and results, as well as treatment and prognosis at a proficiency level.

Curriculum Reform (Basic Science) ............................................. INTD9446
1 TO 6 Credits Basic Science Selective, Concurrent Elective

ELECTIVE DIRECTOR: Dr. Lauren Germain
CONTACT: GERMAINL@UPSTATE.EDU
PREREQUISITES: None
MAXIMUM NUMBER OF STUDENTS: 5
PERIODS OFFERED: Concurrent

This course is not available in the elective lottery.

ELECTIVE DESCRIPTION: This is an elective course in medical education with a focus on the foundations of basic science curricular development and design for students that are interested in exploring new and innovative curricular ideas. Students will identify an area of interest, conduct a literature review and identify a mentor to work with prior to being enrolled in the elective. After meeting with course director the student will be enrolled. Outcome of the project must be in the form of an abstract prepared for submissions to a national meeting, a presentation to a target audience, creating of approval learning module. Other final outcome projects will be considered.

Medical Education (Regular) ..... INTD9447
1 TO 6 Credits Concurrent Elective

ELECTIVE DIRECTOR: Dr. Lauren Germain
CONTACT: GERMAINL@UPSTATE.EDU
PREREQUISITES: None
MAXIMUM NUMBER OF STUDENTS: 5
PERIODS OFFERED: Concurrent

This course is not available in the elective lottery.

ELECTIVE DESCRIPTION: This is an elective course in medical education, curricular development and design for students that are interested in exploring new and innovative curricular ideas. Students will identify an area of interest, begin a literature review and identify a mentor to work with prior to being enrolled in the elective. After meeting with course director the student will be enrolled. Outcome of the project must be in the form of an abstract prepared for submissions to a national meeting, a presentation to a target audience, creating of approval learning module. Other final outcome projects will be considered.

Complex Care Clinic ..................... INTD9448
4 Credits

ELECTIVE DIRECTOR: Jessica Mayer
CONTACT: MAYERJ@UPSTATE.EDU
PREREQUISITES: None
MAXIMUM NUMBER OF STUDENTS: 2
PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012

ELECTIVE DESCRIPTION: 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.

Western & Traditional Chinese Medicine in the People’s Republic of China... INTL9501
4 Credits

ELECTIVE DIRECTOR: Dr. Carrie Roseamelia
CONTACT: ROSEAMEC@UPSTATE.EDU
PREREQUISITES: None
MAXIMUM NUMBER OF STUDENTS: 0
PERIODS OFFERED: 001, 012

This course is not available in the elective lottery.

ELECTIVE DESCRIPTION: The China elective is a collaborative agreement between ZAST (Zhejiang Association for Science and Technology); its hospital partners, and the Upstate Medical University. The elective is designed to allow Upstate Medical University students to experience medical care, both traditional Chinese and western style provided at two general hospital in the Zhejiang province. The elective takes place at Xiaoshan No. 1 People’s Hospital and the Zhejiang Hospital. Both hospitals are located in Hangzhou, a large metropolitan city which is about a two hour drive from Shanghai. Depending upon students’ interests, they may spend the entire elective at one hospital or split their time between the two hospitals. At each hospital they will have the opportunity to see and participate in both western style medical care, and traditional Chinese medical care. Students will be precepted by identified physicians in both institutions throughout their elective time. The elective is offered as a four-week rotation and is generally offered from January 1st through June 30th in each year. Exact dates of the rotation are flexible and can be arranged through Dr. Paul Ko, the course director or Jennifer Abbott, course coordinator. NOTE: Students will be required to provide their own travel to and from Shanghai. Travel requires a tourist visa (see www.travisia.com for details). ZAST and the hospital
affiliates will provide accommodations for students during the elective. Accommodations are in Hangzhou. The hospitals will provide means for transportation between the apartment and the hospitals. Transportation is by public bus service and bicycle. Costs of transportation will be provided by the participating hospitals.

**Medicine**

**Clinical Nephrology .................. MDCN2002**

**4 Credits**

**ELECTIVE DIRECTOR:** Dr. Zachary Shepherd  
**CONTACT:** oliverl@upstate.edu  
**PREREQUISITES:** MDCN2000  
**MAXIMUM NUMBER OF STUDENTS:** 1  
**PERIODS OFFERED:** 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012  
**ELECTIVE DESCRIPTION:** 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**

**4 Credits**

**ELECTIVE DIRECTOR:** Dr. Zachary Shepherd  
**CONTACT:** oliverl@upstate.edu  
**PREREQUISITES:** MDCN2000  
**MAXIMUM NUMBER OF STUDENTS:** 1  
**PERIODS OFFERED:** 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012  
**ELECTIVE DESCRIPTION:** 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 immuno-compromised 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**

**4 Credits**

**Preceptor’s Site**

**ELECTIVE DIRECTOR:** Dr. Zachary Shepherd  
**CONTACT:** oliverl@upstate.edu  
**PREREQUISITES:** MDCN2000  
**MAXIMUM NUMBER OF STUDENTS:** 1  
**PERIODS OFFERED:** 001, 005, 006, 007, 008, 009, 010, 011, 012  
**ELECTIVE DESCRIPTION:** 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**

**4 Credits**

**ELECTIVE DIRECTOR:** Dr. Zachary Shepherd, Dr. Stephen Thomas  
**CONTACT:** oliverl@upstate.edu  
**PREREQUISITES:** MDCN2000  
**MAXIMUM NUMBER OF STUDENTS:** 1  
**PERIODS OFFERED:** 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012  
**ELECTIVE DESCRIPTION:** 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
Gastroenterology ................. MDCN2017
4 Credits
ELECTIVE DIRECTOR: Dr. Zachary Shepherd
CONTACT: oliverl@upstate.edu
PREREQUISITES: MDCN2000 SURG8200
MAXIMUM NUMBER OF STUDENTS: 1
PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012
ELECTIVE DESCRIPTION: 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.

Hematology/Oncology ............. MDCN2040
4 Credits
ELECTIVE DIRECTOR: Dr. Zachary Shepherd
CONTACT: oliverl@upstate.edu
PREREQUISITES: MDCN2000
MAXIMUM NUMBER OF STUDENTS: 1
PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012
ELECTIVE DESCRIPTION: 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 act ion, 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.

Clinical Cardiology .............. MDCN2044
4 Credits
ELECTIVE DIRECTOR: Dr. Zachary Shepherd
CONTACT: oliverl@upstate.edu
PREREQUISITES: MDCN2000
MAXIMUM NUMBER OF STUDENTS: 1
PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012
ELECTIVE DESCRIPTION: This course is designed to prove 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.

Critical Care.................. MDCN2058
4 Credits
ELECTIVE DIRECTOR: Dr. Zachary Shepherd
CONTACT: oliverl@upstate.edu
PREREQUISITES: MDCN2000 SURG8200
MAXIMUM NUMBER OF STUDENTS: 2
PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011
ELECTIVE DESCRIPTION: 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.

Clinical Internal Medicine & Infectious Diseases ................. MDCN2059
2 Credits Community General Hospital
ELECTIVE DIRECTOR: Dr. Zachary Shepherd
CONTACT: oliverl@upstate.edu
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
ELECTIVE DESCRIPTION: 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.

**Clinical Dermatology ............... MDCN2066**  
**2 Credits**

**ELECTIVE DIRECTOR:** Dr. Ramsay Farah  
**CONTACT:** falisek@upstate.edu  
**PREREQUISITES:** MDCN2000  
**MAXIMUM NUMBER OF STUDENTS:** 1  
**PERIODS OFFERED:** 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012

This course is not available in the elective lottery.

**ELECTIVE DESCRIPTION:** 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

**Clinical Rheumatology............... MDCN2075**  
**4 Credits**

**ELECTIVE DIRECTOR:** Dr. Zachary Shepherd  
**CONTACT:** oliverl@upstate.edu  
**PREREQUISITES:** MDCN2000  
**MAXIMUM NUMBER OF STUDENTS:** 1  
**PERIODS OFFERED:** 001, 002, 003, 004, 005, 006, 008, 009, 010, 011, 012

**ELECTIVE DESCRIPTION:** This is a clinical care 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.

**The Scientific Basis of Critical Care**  
.................................................. MDCN2214  
**2 Credits**  
**Basic Science Selective**

**ELECTIVE DIRECTOR:** Dr. Dana Savici  
**CONTACT:** SAVICID@UPSTATE.EDU  
**PREREQUISITES:** MDCN2000 SURG8200 OBGY3600 PEDS5600 FAMP1600 PYCH6800  
**MAXIMUM NUMBER OF STUDENTS:** 1  
**PERIODS OFFERED:** 006, 088

This course is not available in the elective lottery.

**ELECTIVE DESCRIPTION:** 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.

**Acting Internship in Internal Medicine - UH/CGH General Medicine ...............MDCN2217**  
**4 Credits**  
**Acting Internship Selective**

**ELECTIVE DIRECTOR:** Dr. Zachary Shepherd  
**CONTACT:** oliverl@upstate.edu  
**PREREQUISITES:** MDCN2000  
**MAXIMUM NUMBER OF STUDENTS:** 7  
**PERIODS OFFERED:** 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012

**ELECTIVE DESCRIPTION:** 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.

**Acting Internship in Internal Medicine - UH Hematology/Oncology ...............MDCN2219**  
**4 Credits**  
**Acting Internship Selective**

**ELECTIVE DIRECTOR:** Dr. Zachary Shepherd  
**CONTACT:** oliverl@upstate.edu  
**PREREQUISITES:** MDCN2000  
**MAXIMUM NUMBER OF STUDENTS:** 1  
**PERIODS OFFERED:** 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012

**ELECTIVE DESCRIPTION:** 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.
Acting Internship in Internal Medicine - VA General Medicine ......................... MDCN2220
4 Credits Acting Internship Selective, Veteran's Administration Hosp
ELECTIVE DIRECTOR: Dr. Zachary Shepherd
CONTACT: oliverl@upstate.edu
PREREQUISITES: MDCN2000
MAXIMUM NUMBER OF STUDENTS: 4
PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 008, 009, 011, 012
ELECTIVE DESCRIPTION: 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.

Internal Medicine Outpatient Advanced Internship ................................. MDCN2221
4 Credits
ELECTIVE DIRECTOR: Dr. Zachary Shepherd
CONTACT: oliverl@upstate.edu
PREREQUISITES: MDCN2000
MAXIMUM NUMBER OF STUDENTS: 4
PERIODS OFFERED: 001, 004, 005, 006, 007, 008, 009, 010, 011, 012
This course is not available in the elective lottery.
ELECTIVE DESCRIPTION: 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.

Crouse ICU Elective .................. MDCN2222
4 Credits Crouse Hospital
ELECTIVE DIRECTOR: Dr. Zachary Shepherd, Dr. David Landsberg
CONTACT: oliverl@upstate.edu
PREREQUISITES: MDCN2000 SURG8200
MAXIMUM NUMBER OF STUDENTS: 1
PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 009, 010, 011, 012
ELECTIVE DESCRIPTION: 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.

Second Year Clinical Elective .......MDCN2223
1 Credits Concurrent Elective
ELECTIVE DIRECTOR: Dr. Zachary Shepherd
CONTACT: oliverl@upstate.edu
PREREQUISITES: None
MAXIMUM NUMBER OF STUDENTS: 4
PERIODS OFFERED: Concurrent
This course is not available in the elective lottery.
ELECTIVE DESCRIPTION: 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.

Clinical and Basic Science Integrative Experience Teaching Assistant .MDCN2224
2 Credits Basic Science Selective, Concurrent Elective
ELECTIVE DIRECTOR: Dr. Zachary Shepherd
CONTACT: oliverl@upstate.edu
PREREQUISITES: MDCN2000 SURG8200 OBGY3600 PEDS5600 FAMP1600 PYCH6800
MAXIMUM NUMBER OF STUDENTS: 6
PERIODS OFFERED: Concurrent
This course is not available in the elective lottery.
ELECTIVE DESCRIPTION: 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.

Internal Medicine Intern Bridge Elective ..................................................MDCN2225
1 Credits
ELECTIVE DIRECTOR: Dr. Zachary Shepherd
Internal Medicine Code Team/Rapid Response ........................................  MDCN2226  1 Credits
ELECTIVE DIRECTOR: Dr. Zachary Shepherd
CONTACT: oliverl@upstate.edu
PREREQUISITES:  EMED1300  MDCN2000
MAXIMUM NUMBER OF STUDENTS:  4
PERIODS OFFERED:  001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012
ELECTIVE DESCRIPTION: The code team elective is a one week rotation where students will work closely with the rapid response team residents responding to all codes in the hospital. Students will learn the skills involved in rapid assessment, stabilization, early resuscitation intervention, as well as basic and advanced cardiac life support. Students will be exposed to situations which include, but are not limited to, respiratory distress, arrhythmias, cardiac arrest, hypotension, and altered mental states. By the end of this rotation, students should feel prepared to respond to and run codes in the hospital at the level of a first year intern and comprehend and execute the management of a deteriorating patient utilizing a multidisciplinary approach.

Academic Teaching Elective .....  MDCN2227  2 Credits  Basic Science Selective, Concurrent Elective, Pass/Fail Grading
ELECTIVE DIRECTOR: Dr. Zachary Shepherd
CONTACT: oliverl@upstate.edu
PREREQUISITES:  All 3rd year clerkships
MAXIMUM NUMBER OF STUDENTS:  30
PERIODS OFFERED:  Concurrent
This course is not available in the elective lottery.
ELECTIVE DESCRIPTION: 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 students 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.

Quality Improvement Elective .. MDCN2228  2 Credits  Concurrent Elective, Pass/Fail Grading
ELECTIVE DIRECTOR: Dr. Zachary Shepherd
CONTACT: oliverl@upstate.edu
PREREQUISITES:  All 3rd year clerkships
MAXIMUM NUMBER OF STUDENTS:  12
PERIODS OFFERED:  Concurrent
This course is not available in the elective lottery.
ELECTIVE DESCRIPTION: The quality improvement elective is a two credit concurrent course during 4th year designed to expose students to quality improvement and patient safety. In this elective students will work closely with the IM Quality Chief and the Vice-Chair for Quality as well as other faculty members to design and complete a quality improvement/patient safety project during 4th year; completion will be determined by the IM Quality Chief on a case by case basis. Completion of a project may include, but is not limited to, an abstract, poster presentation, or publication. Students will also attend resident quality council meetings, monthly student-run quality meeting and monthly M&M meetings, perform at least one morbidity and mortality review, and complete a selection of IHI modules. With completion of this elective, students will graduate with a Distinction in Quality.

Diabetes SPECIAL Elective (Students Providing Education on Chronic Illness and Lifestyle) ...............................  MDCN2229  2 Credits  Concurrent Elective
ELECTIVE DIRECTOR: Dr. Barbara Feuerstein
CONTACT: FEUERSTB@UPSTATE.EDU
PREREQUISITES:  None
MAXIMUM NUMBER OF STUDENTS:  10
PERIODS OFFERED:  Concurrent
This course is not available in the elective lottery.
ELECTIVE DESCRIPTION: The diabetes SPECIAL elective is designed to promote the formation of a nurturing relationship between a medical student, an attending physician, and a patient with diabetes mellitus. Throughout the duration of the course, medical students will attend office visits and routinely communicate with the assigned patient and their attending. The goals are 1) to help improve patient self-management skills and glycemic control and 2) students will understand the importance of empathy and support in a patient-provider relationship and 3) the impact of a chronic illness on all aspects of a patient’s life. There will be 5-6 group sessions each with a different person involved in the Joslin multidisciplinary approach to caring for people with diabetes.
**COURSE SELECTION BOOK 2022-2023 SYRACUSE CAMPUS ELECTIVES**

**Food as Medicine.................. MDCN2230**
2 Credits Pass/Fail Grading

**ELECTIVE DIRECTOR:** Dr. Barbara Feuerstein
**CONTACT:** FEUERSTB@UPSTATE.EDU

**PREREQUISITES:** None
**MAXIMUM NUMBER OF STUDENTS:** 25
**PERIODS OFFERED:** Concurrent

This course is not available in the elective lottery.

**ELECTIVE DESCRIPTION:** 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.

**Rahma Free Clinic Outpatient Medicine Elective ..................... MDCN2231**
2 Credits Concurrent Elective

**ELECTIVE DIRECTOR:** Dr. Mustafa Awayda
**CONTACT:** AWAYDAM@UPSTATE.EDU

**PREREQUISITES:** None
**MAXIMUM NUMBER OF STUDENTS:** 5
**PERIODS OFFERED:** Concurrent

This course is not available in the elective lottery.

**ELECTIVE DESCRIPTION:** 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.

**Neurology**

**Acting Internship in Adult Clinical Neurology ......................... NEUR2801**
4 Credits Acting Internship Selective

**ELECTIVE DIRECTOR:** Dr. Michael Vertino
**CONTACT:** reidyj@upstate.edu

**PREREQUISITES:** MDCN2000 SURG8200 OBGY3600

**EDS5600 FAMP1600 PYCH6800**

**MAXIMUM NUMBER OF STUDENTS:** 1

**PERIODS OFFERED:** 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012

**ELECTIVE DESCRIPTION:** 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.

**Clinical Pediatric Neurology ...... NEUR2804**
4 Credits

**ELECTIVE DIRECTOR:** Dr. Ai Sakonju
**CONTACT:** reidyj@upstate.edu

**PREREQUISITES:** PEDS5600 A NEUR3000

**MAXIMUM NUMBER OF STUDENTS:** 1

**PERIODS OFFERED:** 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012

This course is not available in the elective lottery.

**ELECTIVE DESCRIPTION:** 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.

**Elective in Outpatient Neurology NEUR2808**
4 Credits

**ELECTIVE DIRECTOR:** Dr. Michael Vertino
**CONTACT:** reidyj@upstate.edu

**PREREQUISITES:** NEUR3000

**MAXIMUM NUMBER OF STUDENTS:** 2

**PERIODS OFFERED:** 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012

This course is not available in the elective lottery.

**ELECTIVE DESCRIPTION:** 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, neuro-ophthalmology/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
Neuro-Ophthalmology ............... NEUR2814
4 Credits
ELECTIVE DIRECTOR: Dr. Luis Mejico
CONTACT: ReidyJ@upstate.edu
PREREQUISITES: NEUR3000
MAXIMUM NUMBER OF STUDENTS: 1
PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012
This course is not available in the elective lottery.
ELECTIVE DESCRIPTION: 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. Majors 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.

Neurosurgery
Neurosurgery Acting Internship NSUG3201
4 Credits Acting Internship Selective
ELECTIVE DIRECTOR: Michael Galgano
CONTACT: ryanke@upstate.edu
PREREQUISITES: NEUR3000
MAXIMUM NUMBER OF STUDENTS: 2
PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012
ELECTIVE DESCRIPTION: 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. 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. In addition, the student will be instructed in the interpretation of standard x-ray procedures 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, and be able to outline a course of laboratory studies and diagnostic procedures designed to provide a firm diagnosis. Further, we would expect the student to be able to carry out basic pre-and post-operative care of neurosurgical patients.

Obstetrics & Gynecology
High Risk Obstetrics Acting Internship
.............................................. OBGY3604
4 Credits Acting Internship Selective,
Crouse Hospital
ELECTIVE DIRECTOR: John Nosovitch
CONTACT: AnderLes@upstate.edu
PREREQUISITES: OBGY3600
MAXIMUM NUMBER OF STUDENTS: 2
PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012
ELECTIVE DESCRIPTION: 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
4 Credits Acting Internship Selective
ELECTIVE DIRECTOR: Safiyah Hosein
CONTACT: HOSEINS@UPSTATE.EDU
PREREQUISITES: OBGY3600
MAXIMUM NUMBER OF STUDENTS: 2
PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012
ELECTIVE DESCRIPTION: 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
4 Credits Acting Internship Selective,
Preceptor's Site
ELECTIVE DIRECTOR: Dr. W. Douglas Bunn
CONTACT: BUNNW@UPSTATE.EDU
PREREQUISITES: OBGY3600
MAXIMUM NUMBER OF STUDENTS: 1
PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012
ELECTIVE DESCRIPTION: This is a subinternship experience in the outpatient and inpatient management of patients with gynecological
Breast Health & Disease.......... OBGY3631
4 Credits
ELECTIVE DIRECTOR: Dr. Jayne Charlam
CONTACT: CHARLAMJ@UPSTATE.EDU
PREREQUISITES: OBGY3600
MAXIMUM NUMBER OF STUDENTS: 1
PERIODS OFFERED: 004, 006, 008

This course is not available in the elective lottery.

ELECTIVE DESCRIPTION: The goal of the course is for the student to gain in-depth exposure to the diagnosis and treatment 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. 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 (in Women’s Imaging at 550 Harrison), and genetic consult (at the Cancer Center). 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.

Ophthalmology

Ophthalmology..................... OPTH4001
4 Credits
ELECTIVE DIRECTOR: Dr. Robert Fechtner
CONTACT: kammerr@upstate.edu
PREREQUISITES: MDCN2000 SURG8200
MAXIMUM NUMBER OF STUDENTS: 2
PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012

ELECTIVE DESCRIPTION: 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 changes 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. A 30-minute presentation by students taking the elective for at least 4 credits is part of the Course curriculum. 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, 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

Ophthalmology .................... OPTH4003
4 Credits
ELECTIVE DIRECTOR: Dr. Robert Fechtner
CONTACT: kammerr@upstate.edu
PREREQUISITES: SURG8200
MAXIMUM NUMBER OF STUDENTS: 2
PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011

This course is not available in the elective lottery.

ELECTIVE DESCRIPTION: 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 20-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
4 Credits  Pass/Fail Grading
ELECTIVE DIRECTOR: Dr. Robert Swan
CONTACT: SWANRO@UPSTATE.EDU
PREREQUISITES: None
MAXIMUM NUMBER OF STUDENTS: 1
Orthopedics

Orthopedic Acting Internship - Upstate Medical University..................ORTH4401 4 Credits  Acting Internship Selective

ELECTIVE DIRECTOR:  Dr. Matthew Sullivan
CONTACT:  hyerk@upstate.edu

MAXIMUM NUMBER OF STUDENTS:  4

PERIODS OFFERED:  001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012

ELECTIVE DESCRIPTION:  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 cicatrical 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 monitory. Most of the experience will be with outpatients at 550 Harrison.

Pediatrics Orthopedics .........ORTH4405 4 Credits

ELECTIVE DIRECTOR:  Rajin Shahriar
CONTACT:  SHAHRIAR@UPSTATE.EDU

MAXIMUM NUMBER OF STUDENTS:  1

PERIODS OFFERED:  001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012

ELECTIVE DESCRIPTION:  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.

Orthopedic Acting Internship in Sports Medicine ...................... ORTH4406 4 Credits

ELECTIVE DIRECTOR:  Dr. John Cannizzaro
CONTACT:  hyerk@upstate.edu

MAXIMUM NUMBER OF STUDENTS:  1

PERIODS OFFERED:  001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012

ELECTIVE DESCRIPTION:  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.

Hand, Shoulder, Elbow Surgery ORTH4412 4 Credits

ELECTIVE DIRECTOR:  Dr. Kevin Setter
CONTACT:  Hyerk@upstate.edu

PREREQUISITES:  SURG8200

MAXIMUM NUMBER OF STUDENTS:  1

PERIODS OFFERED:  001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012

ELECTIVE DESCRIPTION:  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.

Otolaryngology

Otolaryngology Acting Internship

........................................... OTOL4801 4 Credits  Acting Internship Selective

ELECTIVE DIRECTOR:  Dr. Sherard Tatum
CONTACT:  AMEELEG@UPSTATE.EDU

PREREQUISITES:  MDCN2000 SURG8200 OBGY3600 PEDS5600 FAMP1600 PYCH6800

MAXIMUM NUMBER OF STUDENTS:  2

PERIODS OFFERED:  001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012

ELECTIVE DESCRIPTION:  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.

Pathology

**Surgical Pathology...............PATH5202**

2 TO 4 Credits

**ELECTIVE DIRECTOR:** Dr. Christopher Curtiss

**CONTACT:** kellykc@upstate.edu

**PREREQUISITES:** MDCN2000 SURG8200 OBGY3600 PED55600 FAMP1600 PYCH6800

**MAXIMUM NUMBER OF STUDENTS:** 2

**PERIODS OFFERED:** 001, 004, 005, 006, 007, 008, 009, 011, 012

This course is not available in the elective lottery.

**ELECTIVE DESCRIPTION:** This is a subinternship 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. He/she is expected to examine specimens grossly, take sections, review microscopic slides, make diagnoses, and sign out cases with an attending pathologist. The student also participates in frozen section diagnoses with a resident and attending pathologist. He/she is expected to attend and participate in the Monday morning, Thursday morning, and Friday noon Anatomic Pathology conferences as well as other pertinent departmental conferences.

**NOTE:** This elective can be taken for either 2 or 4 weeks. For this reason, instructor approval is required to arrange the number of weeks.

Clinical Pathology .................. PATH5214

4 Credits

**ELECTIVE DIRECTOR:** Alexandria Smith-Hannah

**CONTACT:** Underwol@upstate.edu

**PREREQUISITES:** MDCN2000 SURG8200 OBGY3600 PED55600 FAMP1600 PYCH6800

**MAXIMUM NUMBER OF STUDENTS:** 2

**PERIODS OFFERED:** 001, 002, 003, 007, 008, 009, 010, 011, 012

This course is not available in the elective lottery.

**ELECTIVE DESCRIPTION:** 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.

Andrology ............................PATH5222

1 Credits

**ELECTIVE DIRECTOR:** Dr. Kazim Chohan

**CONTACT:** CHOHANK@UPSTATE.EDU

**PREREQUISITES:** MDCN2000 SURG8200 OBGY3600 PED55600 FAMP1600 PYCH6800

**MAXIMUM NUMBER OF STUDENTS:** 1

**PERIODS OFFERED:** 01A, 01B, 02A, 02B, 03A, 03B, 04A, 04B, 05A, 05B, 06A, 06B, 08A, 08B, 09A, 09B, 10A, 10B, 11A, 11B

This course is not available in the elective lottery.

**ELECTIVE DESCRIPTION:** Through this elective students will gain knowledge about male reproductive physiology, male factor infertility, semen analysis and application of results, sperm function tests, sperm preparations for assisted reproduction and become familiar with the latest techniques in evaluating male infertility. Students will also learn clinical laboratory management. This course is highly recommended for students interested in Pathology, Urology, Endocrinology, Obstetrics and Gynecology, Internal and Family Medicine specialties. The Course is open all year and offered to one student per one week rotation.

Pediatrics

**Pediatric Acting Internship.........PEDS5601**

4 Credits

**Acting Internship Selective**

**ELECTIVE DIRECTOR:** Matthew Mittiga

**CONTACT:** MITTIGAM@UPSTATE.EDU

**PREREQUISITES:** PED55600

**MAXIMUM NUMBER OF STUDENTS:** 2

**PERIODS OFFERED:** 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012

**ELECTIVE DESCRIPTION:** 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
COURSE SELECTION BOOK 2022-2023 SYRACUSE CAMPUS ELECTIVES

Delivery of Outpatient Care in Pediatrics ............................................................ PEDS5603
4 Credits
ELECTIVE DIRECTOR: Dr. Winter Berry
CONTACT: BERRYW@UPSTATE.EDU
PREREQUISITES: PEDS5600
MAXIMUM NUMBER OF STUDENTS: 1
PERIODS OFFERED: 001, 004, 005, 006, 007, 008, 009, 010, 011, 012

ELECTIVE DESCRIPTION: 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.

Pediatric Hematology-Oncology Acting Internship............................................. PEDS5604
4 Credits
Acting Internship Selective
ELECTIVE DIRECTOR: Dr. Philip Monteleone
CONTACT: MONTELEP@UPSTATE.EDU
PREREQUISITES: PEDS5600
MAXIMUM NUMBER OF STUDENTS: 1
PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012

ELECTIVE DESCRIPTION: 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.

Pediatric Infectious Disease...... PEDS5606
4 Credits
ELECTIVE DIRECTOR: Dr. Leonard Weiner
CONTACT: WEINERL@UPSTATE.EDU
PREREQUISITES: MDCN2000 A PEDS5600
MAXIMUM NUMBER OF STUDENTS: 2
PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012

ELECTIVE DESCRIPTION: 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.

Pediatric Cardiology .................. PEDS5607
4 Credits
Preceptor's Site
ELECTIVE DIRECTOR: Dr. Frank Smith, Dr. Muhammad Arif
CONTACT: cunningk@pcacny.com
PREREQUISITES: MDCN2000 A PEDS5600
MAXIMUM NUMBER OF STUDENTS: 2
PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012

ELECTIVE DESCRIPTION: 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 we 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.

Pediatric Pulmonology .............. PEDS5617
4 Credits
ELECTIVE DIRECTOR: Dr. Zafer Soultan
CONTACT: SOULTANZ@UPSTATE.EDU
PREREQUISITES: PEDS5600
MAXIMUM NUMBER OF STUDENTS: 1
PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012

ELECTIVE DESCRIPTION: 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, hypothermia 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.

Continuity of Pediatric Ambulatory Care ......................................................... PEDS5627
4 TO 6 Credits
Concurrent Elective
ELECTIVE DIRECTOR: Dr. Winter Berry
CONTACT: BERRYW@UPSTATE.EDU
PREREQUISITES: PEDS5600 A FAMP1600 A OBGY3600
MAXIMUM NUMBER OF STUDENTS: 1
PERIODS OFFERED: Concurrent

This course is not available in the elective lottery.
ELECTIVE DESCRIPTION: 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.

Adolescent Medicine ............... PEDS5628 4 Credits
ELECTIVE DIRECTOR: Dr. Karen Teelin
CONTACT: TEELINK@UPSTATE.EDU
PREREQUISITES: PEDS5600
MAXIMUM NUMBER OF STUDENTS: 2
PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012

ELECTIVE DESCRIPTION: 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.

Pediatric Gastroenterology & Nutrition .......................... PEDS5638 4 Credits
ELECTIVE DIRECTOR: Dr. Prateek Wali
CONTACT: carlosdj@upstate.edu
PREREQUISITES: MDCN2000 SURG8200 OBGY3600
PEDS5600 FAMP1600 PYCH6800
MAXIMUM NUMBER OF STUDENTS: 1
PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012

ELECTIVE DESCRIPTION: The purpose of this elective is to introduce the fourth year medical student to the Pediatric Gastroenterology and Nutrition in a primarily out patient setting with no night call or weekend duties. Students will observe our approach in evaluation and management of patients with gastrointestinal diseases and nutritional deficiencies. They will actively participate in patient assessment and treatment recommendations. The student will first assess the patient through history, physical exam and discussion with the parents/patient regarding current symptoms. The student then will present the patient to the GI provider who goes over laboratory tests, procedures or treatment. Student will also participate in operating room to observe endoscopy, colonoscopy, polypectomy, esophageal dilatation, pH probe, impedance study, Bravo pH analysis and endoscopic placement of gastrostomy tube. There will also be daily teaching and discussion. Each student should present one power point topic during this elective. The reading materials will be given and suggested to student.

Genetics .............................................. PEDS5640
4 Credits  Basic Science Selective
ELECTIVE DIRECTOR: Dr. Robert Lebel
CONTACT: LEBELR@UPSTATE.EDU
PREREQUISITES: None
MAXIMUM NUMBER OF STUDENTS: 1
PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012

This course is not available in the elective lottery.

ELECTIVE DESCRIPTION: 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.

Pediatric Nephrology ................................ PEDS5641
4 Credits
ELECTIVE DIRECTOR: Dr. Scott Schurman
CONTACT: SCHURMAS@UPSTATE.EDU
PREREQUISITES: MDCN2000 A PEDS5600
MAXIMUM NUMBER OF STUDENTS: 1
PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012

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

Developmental Pediatrics .......... PEDS5644
4 Credits
ELECTIVE DIRECTOR: Dr. Louis Pellegrino
CONTACT: PELLEGLRL@UPSTATE.EDU
PREREQUISITES: PEDS5600
MAXIMUM NUMBER OF STUDENTS: 1
PERIODS OFFERED: 003, 004, 006, 008, 010
ELECTIVE DESCRIPTION: 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.

**Peds International Health Clinic PEDS5645 1 TO 4 Credits**  
Concurrent Elective  
ELECTIVE DIRECTOR: Dr. Andrea Shaw  
CONTACT: SHAWAN@UPSTATE.EDU  
PREREQUISITES: PEDS5600  
MAXIMUM NUMBER OF STUDENTS: 2  
PERIODS OFFERED: Concurrent  
This course is not available in the elective lottery.

ELECTIVE DESCRIPTION: This is a year long elective from August to April. The Pediatric Internation Health Clinic is a refugee clinic that serves primarily African (Sudan, Somalia & Liberia), South East Asian (Thailand and Burma) and Middle Eastern refugees. These patients present a unique spectrum of tropical diseases including: active tuberculosis, malaria, schistosomiasis, giardiasis and helminthiasis. Students will attend one clinic session (morning) per week where they will care for newly arrived refugee children during their first year in the United States. They will have the unique opportunity to work one on one with a pediatric faculty member dedicated to serving this unique population.

**PICU Acting Internship .......... PEDS5647 4 Credits**  
Acting Internship Selective  
ELECTIVE DIRECTOR: Dr. Angela Wratney  
CONTACT: WRATNEYA@UPSTATE.EDU  
PREREQUISITES: MDCN2000 SURG8200 OBGY3600 PEDS5600 FAMP1600 PYCH6800  
MAXIMUM NUMBER OF STUDENTS: 1  
PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012  
ELECTIVE DESCRIPTION: 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.

**Pediatric Hematology-Oncology Ambulatory Rotation ............... PEDS5648 4 Credits**  
ELECTIVE DIRECTOR: Dr. Andrea Dvorak, Kathryn Scott  
CONTACT: DVORAKA@UPSTATE.EDU  
PREREQUISITES: MDCN2000 SURG8200 OBGY3600 PEDS5600 FAMP1600 PYCH6800  
MAXIMUM NUMBER OF STUDENTS: 1  
PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012  
ELECTIVE DESCRIPTION: This 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.

**Neonatology Acting Internship.. PEDS5651 4 Credits**  
Acting Internship Selective, Crouse Hospital  
ELECTIVE DIRECTOR: Dr. Melissa Nelson  
CONTACT: melissanelsonmd@crouse.org  
PREREQUISITES: PEDS5600  
MAXIMUM NUMBER OF STUDENTS: 1  
PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012  
ELECTIVE DESCRIPTION: 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 residency and any career in pediatrics.

**Pharmacology**  
Cardiac Arrhythmias (Mechanisms, Diagnostics, Treatment) .......... PHAR6005 3 Credits  
Basic Science Selective  
ELECTIVE DIRECTOR: Dr. Arkadii Perzov  
CONTACT: PERTSOVA@UPSTATE.EDU  
PREREQUISITES: None  
MAXIMUM NUMBER OF STUDENTS: 12  
PERIODS OFFERED: 009, 05A  
ELECTIVE DESCRIPTION: 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.

Preventive Medicine

Public Health..........................PRVM6420
4 Credits Basic Science Selective,
Preceptor’s Site

ELECTIVE DIRECTOR: Dr. Travis Hobart
CONTACT: osivz@upstate.edu
PREREQUISITES: None
MAXIMUM NUMBER OF STUDENTS: 2
PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012

ELECTIVE DESCRIPTION: 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.

Public Health Experience..........PRVM6421
4 Credits Basic Science Selective

ELECTIVE DIRECTOR: Dr. Travis Hobart
CONTACT: osivz@upstate.edu
PREREQUISITES: None
MAXIMUM NUMBER OF STUDENTS: 2
PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012

ELECTIVE DESCRIPTION: 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.

Service Learning and Community Health

........................................PRVM6423
4 Credits Concurrent Elective

ELECTIVE DIRECTOR: Simone Seward, Nakeia Chambers
CONTACT: SEWARDS@UPSTATE.EDU
PREREQUISITES: None
MAXIMUM NUMBER OF STUDENTS: 50
PERIODS OFFERED: 002, 003

This course is not available in the elective lottery.

ELECTIVE DESCRIPTION: 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.

Global Health Elective - Enlace Program

........................................PRVM6424
4 Credits

ELECTIVE DIRECTOR: Simone Seward
CONTACT: SEWARDS@UPSTATE.EDU
PREREQUISITES: None
MAXIMUM NUMBER OF STUDENTS: 10
PERIODS OFFERED: 2

This course is not available in the elective lottery.

ELECTIVE DESCRIPTION: The Enlace program focuses
on rural health and cultural immersion in Nicaragua.
While at Upstate, students will participate in
pre-departure travel training which will include modules
on cultural competency, safety and logistics, ethical
decision making, social determinants of health, and
issues in global health. 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 healthcare providers. These
community sites are located in El Sauce, Ocotal, and
Leon. Each work day will be 9 hours (typically from
7am to 3 pm) spent with local doctors and nurses in
different communities. Translators are provided by
Enlace. 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. Evening and weekends will consist
of cultural immersion trips and cultural classes.
Students will also have the opportunity to participate in
teaching English classes on Tuesday and Thursday
afternoons. Upon return to the US, students will be
expected to complete a reflective final project.
Global Health - AMOS Health and Hope Program........................................PRVM6425
4 Credits
ELECTIVE DIRECTOR: Simone Seward
CONTACT: SEWARDS@UPSTATE.EDU
PREREQUISITES: None
MAXIMUM NUMBER OF STUDENTS: 5
PERIODS OFFERED: 2
This course is not available in the elective lottery.

ELECTIVE DESCRIPTION: 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 word 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)

Global Health Elective - Ecuador Medical Spanish Immersion ..........................PRVM6426
2 Credits
ELECTIVE DIRECTOR: Christina Lupone
CONTACT: LUPONEC@UPSTATE.EDU
PREREQUISITES: None
MAXIMUM NUMBER OF STUDENTS: 10
PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 012
This course is not available in the elective lottery.

ELECTIVE DESCRIPTION: The Ecuador Centers for InterAmerican Studies Medical-Spanish Immersion and 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 reflection module. Application must be approved by Global Health office to participate. Additional tuition for the Medical-Spanish program is required.
Global Health Elective - Ecuador Infectious Disease Research..................PRVM6428
4 Credits  Basic Science Selective
ELECTIVE DIRECTOR:  Christina Lupone
CONTACT:  LUPONEC@UPSTATE.EDU
PREREQUISITES:  None
MAXIMUM NUMBER OF STUDENTS:  5
PERIODS OFFERED:  001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012
This course is not available in the elective lottery.

ELECTIVE DESCRIPTION: 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 anywhere 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.

Global Health Elective - Kenya ..PRVM6430
4 Credits  Basic Science Selective
ELECTIVE DIRECTOR:  Christina Lupone
CONTACT:  LUPONEC@UPSTATE.EDU
PREREQUISITES:  None
MAXIMUM NUMBER OF STUDENTS:  1
PERIODS OFFERED:  005, CCR
This course is not available in the elective lottery.

ELECTIVE DESCRIPTION: Students will travel to Kisumu, Kenya where they will integrate into a team of investigators, community health workers, and clinicians conducting population health research 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 anywhere from 4 weeks to 8 weeks in the field. Upon return students will be expected to complete a reflective final project, abstract, and publishable manuscript and work with the Institute for Global Health and Translation Science faculty to disseminate research results from field work. Students must complete application process and have pre-approval of research proposal from instructor(s). Clinical shadowing can be made available in addition to the research project at a local hospital on a case-by-case basis.

Psychiatry
Psychiatry Acting Internship..... PYCH6801
4 Credits  Acting Internship Selective
ELECTIVE DIRECTOR:  Dr. Hilary Gamble
CONTACT:  readc@upstate.edu
PREREQUISITES:  PYCH6800
MAXIMUM NUMBER OF STUDENTS:  5
PERIODS OFFERED:  001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012

ELECTIVE DESCRIPTION: 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; Forensic Psychiatry; Inpatient Psychiatry; Outpatient Psychiatry

Psychiatry Elective .............. PYCH6835
4 Credits
ELECTIVE DIRECTOR:  Dr. Hilary Gamble
CONTACT:  readc@upstate.edu
PREREQUISITES:  PYCH6800
MAXIMUM NUMBER OF STUDENTS:  8
PERIODS OFFERED:  005, 007, 008, 009

ELECTIVE DESCRIPTION: 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.

Radiology
Diagnostic Radiology ..........RADL7201
4 Credits
ELECTIVE DIRECTOR:  Dr. Andrij Wojtowycz
CONTACT:  snyderca@upstate.edu
PREREQUISITES:  MDCN2000 SURG8200
MAXIMUM NUMBER OF STUDENTS:  10
PERIODS OFFERED:  001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012

ELECTIVE DESCRIPTION: This elective is designed to expand the student’s knowledge of the fundamentals of diagnostic radiology and the use of radiology in clinical diagnosis. Building upon the foundation of the junior clerkship, the student will observe the daily performance and interpretation of radiographic procedures. The student may select rotations to various areas of the department according to his or her individual interests. Rotations are offered in addition to chest, gastrointestinal, genitourinary, and bone imaging. Audiovisual teaching materials are available. Students are required to prepare a one page summary and a ten minute oral presentation of an interesting case at the end of the elective.

Neuroradiology .................RADL7206
4 Credits
ELECTIVE DIRECTOR:  Dr. Kavya Mirchia
CONTACT:  snyderca@upstate.edu
PREREQUISITES:  NEUR3000
MAXIMUM NUMBER OF STUDENTS:  1
PERIODS OFFERED:  001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012

ELECTIVE DESCRIPTION: 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.

**Interventional Radiology .......... RADL7210**

**4 Credits**

**ELECTIVE DIRECTOR:** Dr. Mohammed Jawed, Tomas Appleton-figueira  
**CONTACT:** snyderca@upstate.edu  
**PREREQUISITES:** MDCN2000 SURG8200  
**MAXIMUM NUMBER OF STUDENTS:** 1  
**PERIODS OFFERED:** 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012  
**ELECTIVE DESCRIPTION:** 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.

**Nuclear Medicine................. RADL7217**

**4 Credits**

**ELECTIVE DIRECTOR:** Mary McGrath, Dr. David Feiglin  
**CONTACT:** MCGRATHM@UPSTATE.EDU  
**PREREQUISITES:** MDCN2000 SURG8200  
**MAXIMUM NUMBER OF STUDENTS:** 1  
**PERIODS OFFERED:** 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012  
**ELECTIVE DESCRIPTION:** Intervenational 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 radiiodine therapy of hyperthyroidism and thyroid cancer. Integration of various imaging modalities (nuclear, radiographic, CT, MR and ultrasound) with patient problem is stressed.

**Physical Medicine & Rehabilitation**

**Physical Medicine & Rehabilitation.............................. RMED7605**

**4 Credits**

**ELECTIVE DIRECTOR:** Dr. Margaret Turk  
**CONTACT:** hayesmi@upstate.edu  
**PREREQUISITES:** None  
**MAXIMUM NUMBER OF STUDENTS:** 1  
**PERIODS OFFERED:** 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012  
**ELECTIVE DESCRIPTION:** Students will have the opportunity to experience the broad field of PM&R encompassing musculoskeletal medicine (neuromuscular evaluation and treatment) 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 lectures and student directed learning. Students are expected to develop a 15 minute presentation at the end of rotation, based on an interesting observed case or concept, and mentored by a PM&R faculty member.

**Radiation Oncology**

**Radiation Oncology................. RONC7401**

**4 Credits**

**ELECTIVE DIRECTOR:** Michael Mix  
**CONTACT:** klapputa@upstate.edu  
**PREREQUISITES:** MDCN2000 SURG8200 OBGY3600 PEDS5600 FAMP1600 PYCH6800  
**MAXIMUM NUMBER OF STUDENTS:** 1  
**PERIODS OFFERED:** 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012  
**ELECTIVE DESCRIPTION:** 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.

Acting Internship in Radiation Oncology  
**RONC7403**

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<tr>
<th>Credits</th>
<th>Acting Internship Selective, Basic Science Selective</th>
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<tbody>
<tr>
<td></td>
<td>ELECTIVE DIRECTOR: Michael Mix</td>
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<tr>
<td></td>
<td>CONTACT: <a href="mailto:klapputa@upstate.edu">klapputa@upstate.edu</a></td>
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<td>PREREQUISITES: None</td>
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<td>MAXIMUM NUMBER OF STUDENTS: 1</td>
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<td>ELECTIVE DESCRIPTION: 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.</td>
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Surgery  
**SURG8001**

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<th>Credits</th>
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<tr>
<td></td>
<td>ELECTIVE DIRECTOR: Dr. Marshall Dhir</td>
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<td>CONTACT: <a href="mailto:BELLINIR@UPSTATE.EDU">BELLINIR@UPSTATE.EDU</a></td>
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<td>PREREQUISITES: MDCN2000 SURG8200 PEDS5600 FAMP1600 PYCH6800</td>
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<td>ELECTIVE DESCRIPTION: This AI focuses on our &quot;Surgery Oncology 1&quot; pertaining to Hepatobiliary and Pancreatic Diseases (including the gallbladder, liver, bile duct, and pancreas) including 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.</td>
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Acting Internship Thoracic Surgery  
**SURG8005**

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<th>Credits</th>
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<td>4</td>
<td>ELECTIVE DIRECTOR: Dr. Jason Wallen</td>
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<td>CONTACT: <a href="mailto:bellinir@upstate.edu">bellinir@upstate.edu</a></td>
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<td>PREREQUISITES: MDCN2000 SURG8200</td>
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<td>MAXIMUM NUMBER OF STUDENTS: 1</td>
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<td>PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012</td>
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<td>ELECTIVE DESCRIPTION: This AI will involve the surgical management of pulmonary and thoracic disease. Treatment of lung cancer, esophageal problems, and inflammatory disease of the lung and pleura will be presented. In order to experience longitudinal care and understanding of the basic concepts behind operative cases, students will be expected to help manage the care of thoracic patients on the floor and in the clinics. In addition, there will be significant operating room experience.</td>
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Burns  
**SURG8008**

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<th>Credits</th>
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<tr>
<td>4</td>
<td>ELECTIVE DIRECTOR: Dr. Joan Dolinak</td>
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<td>CONTACT: <a href="mailto:bellinir@upstate.edu">bellinir@upstate.edu</a></td>
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<td>PREREQUISITES: MDCN2000 SURG8200</td>
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<td>MAXIMUM NUMBER OF STUDENTS: 1</td>
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<td>PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012</td>
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<td>ELECTIVE DESCRIPTION: An introduction to critical care of thermal, electrical, chemical and environmental exposure injury; as well as requisites of therapy for complex wound closure and surgical management of burns including skin grafts, skin substitutes and exposure to exfoliative skin disorders such as TEN and SJS. Student will resuscitate individuals with burns and other injuries, establish priorities of treatment, organize therapeutic regimens. Exposure to techniques for controlling infection, maintaining nutritional balance and closing the burn wound will be provided. Although the emphasis will be on the pathophysiology of major trauma and the requirements for survival, facts pertaining to the epidemiology of burns, the prevention of thermal injury, the psychic adaptation to major stress and the multifaceted nature of rehabilitation will be presented. The student will be expected to assist in operating room and during wound therapy procedures.</td>
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General Surgery Acting Internship - Crouse Hospital  
**SURG8013**

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<tr>
<td>4</td>
<td>ELECTIVE DIRECTOR: Dr. Benjamin Sadowitz</td>
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<td>CONTACT: <a href="mailto:bellinir@upstate.edu">bellinir@upstate.edu</a></td>
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<td>PREREQUISITES: SURG8200</td>
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<td>MAXIMUM NUMBER OF STUDENTS: 1</td>
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<td>PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012</td>
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<td>ELECTIVE DESCRIPTION: The primary opportunity of this period would be exposure to the community hospital types of surgical problems, including early diagnosis, pre-operative evaluations and preparations, and operative and post-operative management of normal and complicated patients. This program should</td>
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</table>
be helpful to any student seeking additional experience in general surgical problems in terms of a possible career choice or even as a “last” exposure for future non-surgeons.

**Pediatric Surgery .......................... SURG8014**  
4 Credits  
ELECTIVE DIRECTOR: Dr. Kim Wallenstein  
CONTACT: bellinir@upstate.edu  
PREREQUISITES: SURG8200  
MAXIMUM NUMBER OF STUDENTS: 1  
PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012  
ELECTIVE DESCRIPTION: The emphasis in the course is placed on the diagnosis, pre-operative preparation and post-operative management of children from the newborn period to adolescence. Additional emphasis will be placed on: a) diagnosis and pre-operative preparation of the patient with neonatal congenital anomalies; b) diagnosis of common pediatric surgical problems; c) assessment and management of pediatric trauma; d) assessment and management of fluid and electrolytes in pediatric surgery patients; e) nutritional management of patients with acute and chronic surgical diseases; f) techniques for outpatient and inpatient minor surgical procedures, including the surgical placement of intravenous catheters. The student will participate in in-house patient and outpatient care as a member of the Pediatric Surgery service. Participation in Pediatric Surgery includes attendance at formal teaching rounds, clinical rounds, inpatient surgical procedures, Pediatric Surgical Clinic, and selected programs from the Department of Surgery and the section of Pediatric Surgery.

**Plastic Surgery .......................... SURG8015**  
4 Credits  
ELECTIVE DIRECTOR: Dr. Prashant Upadhya  
CONTACT: bellinir@upstate.edu  
PREREQUISITES: MDCN2000 SURG8200  
PEDS5600 FAMP1600 PYCH6800  
MAXIMUM NUMBER OF STUDENTS: 1  
PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012  
ELECTIVE DESCRIPTION: The student will rotate with the Plastic Surgeon on the surgeon’s schedule. The scope of rotation includes clinics at 550 Harrison Street and Surgery at Upstate downtown and Community campuses and Crouse Hospital. The student will essentially function as an intern and participate in all aspects of patient care, both inpatient and outpatient. The objective of this rotation is to introduce to the student the scope and philosophy of Plastic Surgery. The student will be expected to educate self prior to the start of the rotation with basics of Plastic surgery and gain on that foundation by experience in a clinical setting. *Please contact Dr. Upadhya, via email at upadhayap@upstate.edu, prior to rotation start.

**Critical Care for the Surgical Patient .......................... SURG8030**  
4 Credits  
ELECTIVE DIRECTOR: Dr. Amie Lucia  
CONTACT: bellinir@upstate.edu  
PREREQUISITES: MDCN2000 SURG8200  
MAXIMUM NUMBER OF STUDENTS: 1  
PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012  
ELECTIVE DESCRIPTION: This course will cover clinical, pathophysiologic, legal and ethical ramifications of the critically ill surgical patient. 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.

**Acting Internship in Vascular Surgery .......................... SURG8048**  
4 Credits  
ELECTIVE DIRECTOR: Dr. Michael Costanza  
CONTACT: BELLINIR@UPSTATE.EDU  
PREREQUISITES: SURG8200  
MAXIMUM NUMBER OF STUDENTS: 1  
PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012  
ELECTIVE DESCRIPTION: Advanced endovascular procedures, complicated surgeries, and critically ill patients will be the focus of this course for students interested in vascular surgery. The medical student will gain valuable clinical experience by directing the care of patients in the busy vascular surgery service. The student will acquire technical skills by scrubbing into a variety of surgical and endovascular procedures. The student will be relied on as an important team member on the level of a junior resident. After completing this course, the student will have an expanded vascular knowledge base and a solid foundation of surgical and endovascular technical skills.

**Acting Internship Acute Care Surgery .......................... SURG8051**  
4 Credits  
ELECTIVE DIRECTOR: Dr. Moustafa Hassan  
CONTACT: bellinir@upstate.edu  
PREREQUISITES: MDCN2000 SURG8200  
MAXIMUM NUMBER OF STUDENTS: 1  
PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012  
ELECTIVE DESCRIPTION: This Acting Internship focuses the fast paced and varied discipline of the Acute Care Service. The course is designed to expose students to the wide variety of emergency surgical patients and procedures. The purpose of this course is to developing a more in depth knowledge and understanding of a wide variety of surgical diseases pathologies across multiple organ systems. 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-two weekend nights of night float.
PREREQUISITES: MDCN2000 SURG8200 OBGY3600
PED55600 FAMP1600 PYCH6800

MAXIMUM NUMBER OF STUDENTS:  1

PERIODS OFFERED:  001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 12

ELECTIVE DESCRIPTION: This Acting Internship is designed to give students clinical experience to a variety of diseases which may include obesity, breast and breast oncology, endocrine, thyroid, parathyroid, and adrenal. Surgery procedures may be performed using minimally invasive general surgery techniques such as laparoscopic surgery as well as other common bariatric surgery procedures such as gastric bypass, sleeve gastrectomy, adjustable gastric band, and biliopancreatic diversion with duodenal switch. In addition, the course will offer opportunities for students to evaluate patients pre-operatively, intra-operatively, and post-operatively, and to participate in diagnostic and management strategies.

**Acting Internship - Colorectal ... SURG8054**

4 Credits  Acting Internship Selective

ELECTIVE DIRECTOR: Dr. Jeffrey Albright, Joseph Valentino

CONTACT: bellinir@upstate.edu

PREREQUISITES: MDCN2000 SURG8200 OBGY3600
PED55600 FAMP1600 PYCH6800

MAXIMUM NUMBER OF STUDENTS:  1

PERIODS OFFERED:  001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 12

ELECTIVE DESCRIPTION: 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 that patients with colon and rectal diseases experience. Students will work closely with the attending and residents in the operating room, but also find many opportunities to gain experience in pre-operatively and post-operatively under faculty/resident guidance.

**Acting Internship in Trauma Surgery**

...................................................... SURG8055

4 Credits  Acting Internship Selective

ELECTIVE DIRECTOR: Michael Luca

CONTACT: bellinir@upstate.edu

PREREQUISITES: MDCN2000 SURG8200 OBGY3600
PED55600 FAMP1600 PYCH6800

MAXIMUM NUMBER OF STUDENTS:  1

PERIODS OFFERED:  001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012

ELECTIVE DESCRIPTION: In this Acting Internship students will be considered an integral member of the Trauma Service and expected to take initiative in all phases of care of the injured or critically ill trauma patient, from the trauma bay, to the ICU or the floors, as well as in the OR and follow up visits in our trauma clinic. This is often a very busy service with a lot of patient turnover, so it is of utmost importance for all members of the team to be dedicated and dependable. Students will be strongly encouraged to immerse themselves in the team in order to get the full and experience. We want students to have a real experience of what this lifestyle is like.

**Acting Internship in Breast Surgery**

...................................................... SURG8057

4 Credits  Acting Internship Selective

ELECTIVE DIRECTOR: Ranjna Sharma

CONTACT: bellinir@upstate.edu

PREREQUISITES: SURG8200 A MDCN2000

MAXIMUM NUMBER OF STUDENTS:  1

PERIODS OFFERED:  004, 005, 012

ELECTIVE DESCRIPTION: Students will have the opportunity to study benign and malignant breast disease processes including breast masses, atypical cells, and breast cancer. They will receive an introduction to breast imaging and breast pathology. Students will gain exposure to the breast patient population by spending time in the Breast Cancer Program Clinic (Upstate Cancer Center) and in the operating room (Community Campus). By participating in patient care in the clinics and the operating room, they will develop an understanding of the basic concepts of management of breast disease and longitudinal care. Students will learn to assimilate information on a relevant topic of presentation to the Team. They will also learn to critically evaluate and synthesize data from a journal article from the medical literature on a relevant breast topic.

**Urology**

**Urology Acting Internship ........ UROL8401**

4 Credits  Acting Internship Selective

ELECTIVE DIRECTOR: Dr. Elizabeth Ferry

CONTACT: schulzes@upstate.edu

PREREQUISITES: MDCN2000 SURG8200 OBGY3600
PED55600 FAMP1600 PYCH6800

MAXIMUM NUMBER OF STUDENTS:  5

PERIODS OFFERED:  001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012

This course is not available in the elective lottery.

ELECTIVE DESCRIPTION: 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.
Anesthesiology

Introduction to Anesthesiology. ANES0803
2 Credits  Preceptor's Site

ELECTIVE DIRECTOR: Dr. William Monteith
CONTACT: ccstuaff@upstate.edu
PREREQUISITES: MDCN2000 SURG8200
MAXIMUM NUMBER OF STUDENTS: 0
PERIODS OFFERED: 01A, 01B, 02A, 02B, 03A, 04B, 05A, 05B, 06A, 06B, 08A, 10B, 12A

This course is not available in the elective lottery.

ELECTIVE DESCRIPTION: 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 anesthesiology technical skills and knowledge of perioperative patient care. Weekly activities include inpatient contacts. Preceptor's Sites: Dr. Knuth - Our Lady of Lourdes Memorial or Dr. Patterson - Wilson Memorial Hospital

Family Medicine

Doctoring ........................................ FAMP1607
4 Credits  Preceptor's Site

ELECTIVE DIRECTOR: Dr. John Wacendak, Dr. Daniel Young
CONTACT: ccstuaff@upstate.edu
PREREQUISITES: FAMP1600
MAXIMUM NUMBER OF STUDENTS: 2
PERIODS OFFERED: 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012, IC

This course is not available in the elective lottery.

ELECTIVE DESCRIPTION: 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.

Palliative Care ........................................ FAMP1647
2 Credits  Wilson Memorial Hospital

ELECTIVE DIRECTOR: Dr. Philip Dzwonczyk
CONTACT: ccstuaff@upstate.edu
PREREQUISITES: FAMP1600
MAXIMUM NUMBER OF STUDENTS: 1
PERIODS OFFERED: 01A, 01B, 02A, 02B, 04A, 04B, 05A, 05B, 06A, 06B, 08A, 08B, 09A, 09B, 10A, 10B, 11A, 11B

This course is not available in the elective lottery.

ELECTIVE DESCRIPTION: 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.

Acting Internship in Family Medicine – Wilson Family Medicine Residency Program Based ........................................ FAMP1659
4 Credits  Acting Internship Selective, Wilson Memorial Hospital

ELECTIVE DIRECTOR: Dr. Daniel Young
CONTACT: YOUNGD@UPSTATE.EDU
PREREQUISITES: MDCN2000 SURG8200 OBGY3600 PEDS5600 FAMP1600 PYCH6800
MAXIMUM NUMBER OF STUDENTS: 1
PERIODS OFFERED: 0, 01, 02, 05, 06, 3, 4

This course is not available in the elective lottery.

ELECTIVE DESCRIPTION: 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.

Medicine

Clinical Cardiology ................................. MDCN2126
4 Credits

ELECTIVE DIRECTOR:
CONTACT:
PREREQUISITES: MDCN2000
MAXIMUM NUMBER OF STUDENTS: 2
PERIODS OFFERED: 005, 007, 008, 009, 010

This course is not available in the elective lottery.

ELECTIVE DESCRIPTION: Binghamton Elective: The student's time will involve clinical consultative cardiology. This would involve EKG readings, echocardiography, and arrhythmia management. There would be participation in daily rounds, EKG and echocardiogram reading. There will be occasional organized conferences and informal teaching at the bedside and in rounds. Textbooks include internal medicine. An introductory textbook of EKG reading should also be used (Dubin, Thaler or Chou). The clinical service would include patients with myocardial infarction, angina, congestive heart failure, atrial and ventricular arrhythmias and hyperlipidemia. Reading also includes NEJM reviews and ECGs. Criteria for evaluation of performance consists of oral examinations (informal), patient work-ups, research papers (optional), seminar and conference
presentations (optional). ECG interpretation.
Preceptor's site: 169 Riverside Dr., Suite 205,
Binghamton, NY 13905

**General Dermatology** .......................... MDCN2130
1 Credits  Concurrent Elective, Preceptor's Site

**ELECTIVE DIRECTOR:** Dr. Genadij Sienkie
**CONTACT:** ccsstuaff@upstate.edu
**PREREQUISITES:** MDCN2000 SURG8200 OBGY3600
PED55600 FAMP1600 PYCH6800
**MAXIMUM NUMBER OF STUDENTS:** 1
**PERIODS OFFERED:** 12

This course is not available in the elective lottery.

**ELECTIVE DESCRIPTION:** Binghamton Elective: Concurrent elective offered part-time Tuesday and Wednesday afternoons 1-5 pm and Thursday mornings 8:00-12h. Experience in general medical/surgical dermatology including diagnosis and management of skin diseases and skin cancer. The student will be seeing and discussing patients with the instructor. They will be introduced to online dermatology resources which will be integrated into the teaching plan, and also used for self-study and reference.

**Critical Care** ................................. MDCN2132
2 Credits  Wilson Memorial Hospital

**ELECTIVE DIRECTOR:**
**CONTACT:**
**PREREQUISITES:** MDCN2000 SURG8200 OBGY3600
PED55600 FAMP1600 PYCH6800
**MAXIMUM NUMBER OF STUDENTS:** 2
**PERIODS OFFERED:** 07A, 07B

This course is not available in the elective lottery.

**ELECTIVE DESCRIPTION:** Binghamton Elective: Familiarity with the care of the medically critically ill patient including some surgical patients in consultation. Special emphasis on pulmonary critical care – ventilator management and procedures. Direct working relationship with the medical residents including night call 4-5 nights. Attend morning report, grand rounds and all noon lectures in general medicine.

**Clinical Dermatology** .......................... MDCN2150
2 Credits  Preceptor's Site

**ELECTIVE DIRECTOR:**
**CONTACT:**
**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

This course is not available in the elective lottery.

**ELECTIVE DESCRIPTION:**

A G.I. Experience .............................. MDCN2166
4 Credits  Preceptor's Site

**ELECTIVE DIRECTOR:** Dr. Leslie Bank
**CONTACT:** ccsstuaff@upstate.edu
**PREREQUISITES:** MDCN2000 SURG8200 OBGY3600
PED55600 FAMP1600 PYCH6800
**MAXIMUM NUMBER OF STUDENTS:** 1

**ELECTIVE DESCRIPTION:**

**Pathology**

**Hospital Based Pathology Practice** .......................... PATH5203
4 Credits Basic Science Selective, Our Lady of Lourdes Memorial

**ELECTIVE DIRECTOR:** Dr. Michael Zur, Dr. James Terzi
**CONTACT:** ccsstuaff@upstate.edu
**PREREQUISITES:** MDCN2000 SURG8200
**MAXIMUM NUMBER OF STUDENTS:** 1

**OPHTALMOLOGY**

**Ophthalmology and Ambulatory Surgery** .......................... OPHT4008
2 Credits

**ELECTIVE DIRECTOR:** Dr. Daniel Sambursky, Dr. Michael Herceg, Dr. Lloyd Suter, Dr. John Meehan, Dr. Charles Rubin
**CONTACT:**
**PREREQUISITES:** MDCN2000 SURG8200 OBGY3600
PED55600 FAMP1600 PYCH6800
**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.

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

**ELECTIVE DESCRIPTION:**

**CARDIOLOGY**

**Wilson Memorial Hospital** .......................... MDCN2179
4 Credits

**ELECTIVE DIRECTOR:** Dr. Owais Ahmed, Dr. Leslie Bank
**CONTACT:** ccsstuaff@upstate.edu
**PREREQUISITES:** MDCN2000
**MAXIMUM NUMBER OF STUDENTS:** 1
**PERIODS OFFERED:** 001, 002, 003, 004, 005, 006,
007, 008, 009, 010, 011

This course is not available in the elective lottery.

**ELECTIVE DESCRIPTION:** 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 related to G.I. Preceptor’s Site: Binghamton Gastroenterology Assoc., 40 Mitchell Ave., Binghamton, NY.
ELECTIVE DESCRIPTION: 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.

General and Special Pathology . PATH5219 4 Credits Basic Science Selective, Wilson Memorial Hospital
ELECTIVE DIRECTOR: Dr. Jagmohan Sidhu
CONTACT: ccstuaff@upstate.edu
PREREQUISITES: MDCN2000 SURG8200 OBGY3600 PEDS5600 FAMP1600 PYCH6800
MAXIMUM NUMBER OF STUDENTS: 1
PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 008, 010, 011, 012
This course is not available in the elective lottery.

PEDIATRICS
Neonatal-Perinatal Acting Internship .................................................. PEDS5610 4 Credits Acting Internship Selective, Wilson Memorial Hospital
ELECTIVE DIRECTOR: Dr. Paula Farrell
CONTACT: ccstuaff@upstate.edu
PREREQUISITES: MDCN2000 SURG8200 OBGY3600 PEDS5600 FAMP1600 PYCH6800
MAXIMUM NUMBER OF STUDENTS: 1
PERIODS OFFERED: 001, 002, 003, 004, 005, 006, 007, 008
This course is not available in the elective lottery.


Radiology
Diagnostic Radiology ...................... RADL7214 2 Credits Wilson Memorial Hospital
ELECTIVE DIRECTOR: Dr. Zafar Bajwa
CONTACT: ccstuaff@upstate.edu
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
This course is not available in the elective lottery.

ELECTIVE DESCRIPTION: 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.

**Physical Medicine & Rehabilitation**

*Osteopathic Recognition .......... RMED7608*

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<th>4 Credits</th>
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<tr>
<td>ELECTIVE DIRECTOR:</td>
<td>Dr. Marita Powell</td>
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<td>CONTACT:</td>
<td><a href="mailto:ccstuaff@upstate.edu">ccstuaff@upstate.edu</a></td>
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This course is not available in the elective lottery.

**ELECTIVE DESCRIPTION:** 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.

**Surgery**

*Advanced Surgical Techniques .. SURG8052*

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<tr>
<td>ELECTIVE DIRECTOR:</td>
<td>Dr. Nirupama Anne, Dr. Ratnakishore Pallapothu</td>
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This course is not available in the elective lottery.

**ELECTIVE DESCRIPTION:** Binghamton Elective: The objective of advanced surgical techniques is to provide a comprehensive educational exposure to surgical oncology techniques in breast surgery as well as advanced laparoscopy and head and neck surgery. It is for medical students who are interested in learning about the diverse range of surgical techniques and are interested in pursuing a career in general surgery or surgical specialties.