

# MEDICINE (MDR)

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## **MDR 1001. RMC Developmental and Behavioral Pediatrics. 2 Credit Hours.**

This outpatient private practice rotation is at the office of Dr. Aronson-Ramos in Coconut Creek, located in northern Broward County. This busy private practice sees children, teens, and young adults with diverse neuro-developmental issues. The practice has a family centered approach and considerable time is spent interviewing family members and observing and interacting with patients. Students will learn about diagnostic assessments and treatment planning for the most common pediatric neuro-developmental problems. Common conditions the student will encounter include: autism spectrum disorders, ADHD, developmental delays, anxiety disorders, mild depression, syndromes, disruptive behavioral disorders, obsessive compulsive disorder, among other clinical issues.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

## **MDR 1002. RMC Pediatric Otolaryngology. 2 Credit Hours.**

1. This clinical elective will expose students to the subspecialty of Pediatric Otolaryngology—Head and Neck Surgery. i) Students will have the opportunity to learn by seeing patients in our private office as well as assisting in the operating room. 2. This elective is designed with two different types student interests in mind, and will be individually tailored to the individual students interests i) PRIMARY CARE TRACK

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

## **MDR 1003. Public Health Clerkship. 2 Credit Hours.**

This is a 2-week required rotation for students in the MD/MPH track. This sub-internship will expose them to the professional responsibilities and workflow of a physician trained and practicing public health. Each block the student will be rotating through one of the divisions within the health department. They will also have weekly interaction with the Florida Department of Health preventive medicine residents.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

## **MDR 1009. Medical Education Elective. 2 Credit Hours.**

This elective offers students who are interested in medical education the opportunity to become familiar with what is required to build and maintain a medical curriculum as well as hone their educational skills in the classroom and clinical setting. This elective will allow senior students the opportunity to gain further insight into the overall goals of medical education and receive a well-rounded immersion in the areas of teaching and curriculum development.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

## **MDR 1013. Med-Peds. 2 Credit Hours.**

Combined Internal Medicine and Pediatrics is a unique specialty that trains physicians in the care of patients of all ages. The elective aims to give students interested in our specialty exposure to Med/Peds in an urban primary care practice setting. Students will see routine care of newborns, infants, children, adolescents and adults, as well as care of patients with complex pediatric diseases as they transition into adulthood. Students interested in Med/Peds as a career are preferred between June and January and other students will be scheduled thereafter.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

## **MDR 1018. Pediatric Mobile Clinic. 2-4 Credit Hours.**

This is an outpatient rotation on the University of Miami Pediatric Mobile Clinic (PMC). The PMC is a clinic on wheels that delivers comprehensive pediatric primary care primarily to uninsured children from birth to 21 years of age throughout Miami Dade County free of charge. The PMC provides care for some of the neediest children in communities including Little Havana, West Dade, Homestead, Florida City, Little Haiti/North Miami, Sweetwater, Kendall and Miami Beach. Patients encountered reflect the diverse population of Miami-Dade County. Many are new immigrants and non-English speaking patients accessing medical care for the first time. Thirteen percent of children served have complex medical needs; 20% of the children have disabilities or developmental concerns. Clinic activities include sick and well-child care and follow up for chronic conditions. Students will work independently and responsibilities will include taking histories, conducting physical exams and discussing assessment and plans of care with the entire unit team including resident and attending physicians, nurse practitioners, social worker, therapist, and psychologist. Students also have the opportunity to do basic procedures such as throat swab, urinalysis, phlebotomy and administration of immunizations and provide counseling and education to patients and families. The students will have an opportunity to participate in telehealth and medical-legal clinics on the unit as well as special projects that are taking place. In addition, students will learn about the public health issues related to caring for uninsured, underserved populations and the social determinants that play a role in health and accessing health care. They will also learn about community resources available to underserved populations.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 1019. Senior Boot Camp: Transition to Residency. 4 Credit Hours.**

The Senior Boot Camp offers fourth-year medical students an opportunity to review and hone core concepts, diagnostic/therapeutic algorithms, procedural skills, and communication tools in preparation for the internship year.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 1020. WPB VAMC Radiology. 2 Credit Hours.**

Students will be able to take a 2 week elective block during their fourth year in diagnostic radiology. During the block, students will spend their time in the department of radiology with the faculty and radiology technicians. They will be responsible for working with radiologists and compiling the medical history as appropriate for the imaging modality.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 1021. HCH Interventional Radiology. 2 Credit Hours.**

Students will be able to take a 2-4 week elective during their fourth year in diagnostic and interventional radiology. During the block, students will spend their time in the department of radiology with the faculty and radiology technicians. They will be working with radiologists on diagnostic imaging, interventional procedures, imaging and compiling the medical history as appropriate for the procedure. They should also attend any conferences or other teaching seminars offered in radiology during their assigned time.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 1024. ACE Forensic Psychiatry. 4 Credit Hours.**

This is a 4-week advanced clinical elective intended to expose the senior medical student to a spectrum of experiences in forensic psychiatry. The student will spend a portion of each week in various hospital and community settings that involve the clinical practice of aspects of forensic psychiatry. The Miami Dade Forensic Alternative Center (MDFAC) unit is a psychiatric unit in the behavioral health hospital, located on the first floor. There are 16 beds in the units. Patients are cared for by two clinical teams with each forensic psychiatry fellow, supervised by Dr. Botros. Patients are over the age of 18 and have been found to lack the capacity to proceed with a hearing/trial due to mental illness. Students are expected to attend nurse reports, participate in clinical rounds, give clinical presentations, and suggest management plans. Students are expected to present on topics related to medical and the law with the guidance of the course director.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 1027. RMC Venous Vascular Disease. 2 Credit Hours.**

Phlebology is an innovative medical specialty in the diagnosis and treatment of disorders of venous origin. This elective will introduce the subspecialty of Phlebology to medical students interested in careers in vein disease and their related specialties (vascular surgery, general surgery, interventional cardiology, cardiothoracic surgery and interventional radiology) and to the basic understanding of fundamental venous diseases pertinent to the practice in the primary care setting of internal medicine and family medicine. Phlebology pushes the forefront of medicine into a new direction by offering diagnostics, treatment options, and research and development opportunities not previously available for the patients with venous disease. This elective is intended to expose the medical student to a spectrum of experiences in a private practice outpatient phlebology office and will take part in patient visits and observe common outpatient venous procedures including office-based surgical and cosmetic procedures in Palm Beach County.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 1031. Minimally Invasive Gynecologic Surgery. 2 Credit Hours.**

This rotation is an intensive experience with the faculty dedicated to Minimally Invasive Gynecologic Surgery (MIGS) in the Department of Obstetrics and Gynecology. It is geared for students interested in the fields of Obstetrics and Gynecology and/or General Surgery. The emphasis of the rotation is surgical and will provide the senior medical student with exposure to laparoscopic and robotic procedures in benign gynecology. The student will observe, and depending on their competence and interest, participate in robotic and laparoscopic procedures and will participate in outpatient office procedures. This will be complemented by time in the outpatient clinics. Students are expected to display a high level of intellectual curiosity and perform as a self-motivated learner. The student is required to participate in simulation based learning. This will allow the student to acquire and develop basic fundamental laparoscopic and robotic skills. For students with an interest in Obstetrics and Gynecology there will be opportunities to become involved with research with the attending physicians.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 1032. Pediatric Palliative Care. 2 Credit Hours.**

This is a 2-4 week elective intended to expose the senior medical student to a spectrum of life-threatening and complex medical illnesses in pediatrics. The student will work directly with a faculty physician and the Palliative Care Nurse Coordinator and interface with a broad spectrum of pediatric subspecialties.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 1035. ACE: Maternal/Child Health: Research, Advocacy, and Leadership. 4 Credit Hours.**

This is a 4-week elective to expose the medical student to a variety of clinical and didactic experiences in maternal and child health, with a focus on developmental and behavioral pediatrics. The student will join pediatric residents and other interdisciplinary trainees in the Leadership Education in Neurodevelopmental Disabilities (LEND) curriculum at the Mailman Center for Child Development, rotate through different clinic/community settings in child and maternal health, and participate in didactic sessions specifically designed to enhance skills in research, advocacy, and leadership in maternal/child health.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 1036. Medicine as a Profession 301. 1 Credit Hour.**

Medicine as a Profession 301 is part of a course series which expands on the knowledge, skills, and attitudes that are essential to the practice of clinical medicine and to becoming transformative leaders in education, research, and policy/health systems. The MAP course touches on the fundamental aspects of being a physician—the knowledge, skills, and attitudes that are the basis for practicing medicine. With time, you will learn what it means to be a doctor, to live a doctor's life, to do a doctor's work. Our goal is to help you become an altruistic, dutiful, culturally humble, and ethical physician, one who is committed to compassionate, respectful patient care, and dedicated to excellence and life-long learning. MAP 3 broadens on the 7 key themes introduced during the Introduction to the Medical Profession (IMP) course. The majority of your MAP 301 sessions will occur through different seminars delivered in collaboration with student services and one on one meetings with your longitudinal clinical educator. The main focus of these sessions will be to provide the required tools and guidance needed for a successful transition into residency.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall.

**MDR 1037. Medicine as a Profession 302. 1 Credit Hour.**

Medicine as a Profession 302 is part of a course series which expands on the knowledge, skills, and attitudes that are essential to the practice of clinical medicine and to becoming transformative leaders in education, research, and policy/health systems. The MAP course touches on the fundamental aspects of being a physician—the knowledge, skills, and attitudes that are the basis for practicing medicine. With time, you will learn what it means to be a doctor, to live a doctor's life, to do a doctor's work. Our goal is to help you become an altruistic, dutiful, culturally humble, and ethical physician, one who is committed to compassionate, respectful patient care, and dedicated to excellence and life-long learning. MAP 3 broadens on the 7 key themes introduced during the Introduction to the Medical Profession (IMP) course. The majority of your MAP 302 sessions will occur through different seminars delivered in collaboration with student services and one on one meetings with your longitudinal clinical educator. The main focus of these sessions will be to provide the required tools and guidance needed for a successful transition into residency.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 1038. Scholarly Concentration II. 3 Credit Hours.**

The Final Capstone Project course in the Scholarly Concentration component of NextGenMD provides students time to complete their mentored scholarly project in the area of interest within the Pathway of Emphasis in which they are enrolled. Students will complete and finalize the project proposed in Phase 1, MDR 535 (Introduction to Pathway of Emphasis) and submit a log of activities to their mentor and pathway director by the end of the course period along with all final results or products. During the dedicated afternoon for Scholarly Concentration work in Phase 3, they will continue the work started in Phase 2, MDR 1038 (Capstone Project). The project culminates in a written Capstone report submitted to the Pathway Director and a poster presentation in the Spring Symposium scheduled for the final spring semester in Phase 3.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 200. Medical Curriculum 2. 18 Credit Hours.**

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 500. Medical Curriculum 5 MD/PHD Research. 18 Credit Hours.**

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 501. Fundamentals of Biomedical Science: Molecular Basis of Life. 4 Credit Hours.**

The Fundamentals of Biomedical Science: Molecular Basis of Life is a course that gives the students the fundamental elements of medical biochemistry, molecular and clinical genetics. The medical biochemistry section includes the basic fundamentals of amino acids, vitamins, proteins, lipids and carbohydrates. The pathways of metabolism and energy production are also studied. The fundamentals of molecular and clinical genetics are discussed. The concepts such as translation, transcription, mutation, single and multiple gene effects are discussed.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 502. Fundamentals of Biomedical Science: Cellular Function and Regulation I. 2 Credit Hours.**

The Fundamentals of Biomedical Science: Cellular Function and Regulation I course is an introductory course into normal cellular physiology and the general principles of pharmacology. Mechanisms of normal cellular function that are fundamental to all cellular systems are taught during this course. The general concepts of pharmacokinetics including drug delivery, distribution in the body, metabolism, and elimination are discussed during the introduction to pharmacology.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 503. Fundamentals of Biomedical Science: Host Defense, Pathogens, and Pathology. 6 Credit Hours.**

The Fundamentals of Biomedical Science: Host Defense, Pathogens, and Pathology course is an introductory course that deals with the general principles of immunobiology and microbiology. It also provides students with an introduction to the principles of pathology. Students are introduced into the normal functioning of the immune defense system and abnormal functioning during disease such as HIV and cancer. The microbiology section of the course deals primarily with prototypical pathogens of bacterial, viral, fungal or parasitic origin. The pathology section deals with the fundamentals of pathological process such as inflammation, necrosis, neoplasia and thrombosis.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 504. Human Structure I. 7.5 Credit Hours.**

The Human Structure I course contains 4 sections that include gross anatomy of the human body, histology of tissues, introduction to cell biology, and introduction to embryology. In the gross anatomy section students are expected to learn the various structures of the human body and their relationships to each other. The gross anatomy course uses dissection of human cadavers and body imaging in the form of CT and MRI to assist in the teaching process. The microscopic anatomy of the various structures of the body are studied in the histology section of the course. The cell biology section introduces the students to various components of the cell and the various functions of these organelles. In the embryology section students learn about the development of the human from the union of the egg and sperm to the birth of the baby.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 505. Human Structure II. 0.5 Credit Hours.**

The Human Structure II course contains 4 sections that include gross anatomy of the human body, histology of tissues, introduction to cell biology, and introduction to embryology. In the gross anatomy section students are expected to learn the various structures of the human body and their relationships to each other. The gross anatomy course uses dissection of human cadavers and body imaging in the form of CT and MRI to assist in the teaching process. The microscopic anatomy of the various structures of the body are studied in the histology section of the course. The cell biology section introduces the students to various components of the cell and the various functions of these organelles. In the embryology section students learn about the development of the human from the union of the egg and sperm to the birth of the baby.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 506. Neuroscience and Behavioral Science. 8 Credit Hours.**

The Neuroscience and Behavioral Science module is an interdisciplinary approach to the study of the nervous system. It incorporates the basic sciences of neuroanatomy, neurophysiology, neurochemistry, pharmacology, neuropathology, microbiology, immunology, and behavioral psychology. Students learn the basic structure and function of the nervous system from the brain to the muscle and motor units. Common disease processes that affect the nervous system are discussed with respect to the basic science of the system. The basic and clinical aspects of behavioral science are also a major portion of the module. Students are introduced to the basic science of behavioral medicine and the common diseases that are encountered. The clinical sciences of neurology, neurosurgery, otolaryngology and psychiatry are represented and offer the clinical applications of the basic sciences.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 507. Cardiovascular System. 8 Credit Hours.**

The Cardiovascular System module is an interdisciplinary approach to the study of the cardiovascular system including the heart and blood vasculature. The basic sciences of anatomy, physiology, pharmacology, biochemistry, pathology and immunology are integrated with the clinical sciences of cardiology in the study of cardiac function and its response to changes in the body with aging from birth to the elderly. The principles of preload, afterload, cardiac output, cardiac failure, EKG, echo and stress testing are discussed. The effects of congenital defects and the surgical procedures to correct these defects are also discussed.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 508. Problem Based Learning I. 0.25 Credit Hours.**

The Problem Based Learning I course has the following objectives: 1) integrate different key concepts in human structure, biochemistry, genetics, microbiology and immunology within a case based, problem-centered format and 2) promote self-directed learning and problem solving. PBL I employs small group teaching, with trained facilitators, where students engage in applying basic science principles to clinical problems.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 509. Problem Based Learning II. 0.25 Credit Hours.**

The Problem Based Learning II course has the following objectives: 1) integrate different key concepts in basic sciences related to medicine within a case based, problem-centered format and 2) promote self-directed learning and problem solving. PBL II employs small group teaching, with trained facilitators, where students engage in applying basic science principles to clinical problems.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 510. Fundamentals of Biomedical Science: Cellular Function and Regulation II. 2 Credit Hours.**

The Fundamentals of Biomedical Science: Cellular Function and Regulation II course is an introductory course into normal cellular physiology and the general principles of pharmacology. Mechanisms of normal cellular function that are fundamental to all cellular systems are taught during this course. The general concepts of pharmacokinetics including drug delivery, distribution in the body, metabolism, and elimination are discussed during the introduction to pharmacology.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 511. Clinical Skills I. 0 Credit Hours.**

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 512. Geriatrics I. 0 Credit Hours.**

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 513. Foundations in Population Health and Health System Sciences. 2 Credit Hours.**

The focus of this course is to address current issues in public health with special attention to individual populations and also to provide an introduction to the workings of the health system as a whole.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 516. Complimentary Medicine and Nutrition. 0 Credit Hours.**

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 517. Systems Based Care Theme. 0 Credit Hours.**

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 518. Physicianship I. 4 Credit Hours.**

Include eight themes which are: Behavioral Medicine and Special Populations, Clinical Skills, Complementary and Alternative Medicine, Evidence-Based Medicine, Geriatrics - Pain Management and Palliative Care, Population Health, Professionalism and Systems-Based Care.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 519. Physicianship II. 4 Credit Hours.**

Include eight themes, which are: Behavioral Medicine and Special Populations, Clinical Skills, Complementary and Alternative Medicine, Evidence-Based Medicine, Geriatrics - Pain Management and Palliative Care, Population Health, Professionalism and Systems-Based Care.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 520. Symptoms, Signs, and Disease 1. 5 Credit Hours.**

The Symptoms, Signs, and Disease course series (SSD 1-5) provides a symptom-oriented and case-based approach to the pathophysiology of diseases frequently seen in patients by the generalist physician. This is accomplished through active learning that develops clinical knowledge organized into discrete units, integrating normal physiology and pathophysiology together with clinical correlates in the arenas of anatomy, radiology, pharmacology, diagnostic testing, pathology and exposure to patient panels. Students learn clinical reasoning skills incorporating common symptoms, clinical signs, diagnostic tests, and an initial differential diagnosis. SSD-1 focuses on the cardiovascular and respiratory systems.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall.

**MDR 521. Symptoms, Signs, and Disease 2. 5 Credit Hours.**

The Symptoms, Signs, and Disease course series (SSD 1-5) provides a symptom-oriented and case-based approach to the pathophysiology of diseases frequently seen in patients by the generalist physician. This is accomplished through active learning that develops clinical knowledge organized into discrete units, integrating normal physiology and pathophysiology together with clinical correlates in the arenas of anatomy, radiology, pharmacology, diagnostic testing, pathology and exposure to patient panels. Students learn clinical reasoning skills incorporating common symptoms, clinical signs, diagnostic tests, and an initial differential diagnosis. SSD-2 focuses on the respiratory and renal systems.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Spring.

**MDR 522. Symptoms, Signs, and Disease 3. 5 Credit Hours.**

The Symptoms, Signs, and Disease course series (SSD 1-5) provides a symptom-oriented and case-based approach to the pathophysiology of diseases frequently seen in patients by the generalist physician. This is accomplished through active learning that develops clinical knowledge organized into discrete units, integrating normal physiology and pathophysiology together with clinical correlates in the arenas of anatomy, radiology, pharmacology, diagnostic testing, pathology and exposure to patient panels. Students learn clinical reasoning skills incorporating common symptoms, clinical signs, diagnostic tests, and an initial differential diagnosis. SSD-3 focuses on hematology and gastrointestinal systems.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Spring.

**MDR 523. Symptoms, Signs, and Disease 4. 7 Credit Hours.**

The Symptoms, Signs, and Disease course series (SSD 1-5) provides a symptom-oriented and case-based approach to the pathophysiology of diseases frequently seen in patients by the generalist physician. This is accomplished through active learning that develops clinical knowledge organized into discrete units, integrating normal physiology and pathophysiology together with clinical correlates in the arenas of anatomy, radiology, pharmacology, diagnostic testing, pathology and exposure to patient panels. Students learn clinical reasoning skills incorporating common symptoms, clinical signs, diagnostic tests, and an initial differential diagnosis. SSD-4 focuses on the nervous system, behavioral health, special senses, and skin.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Spring.

**MDR 524. Symptoms, Signs, and Disease 5. 5 Credit Hours.**

The Symptoms, Signs, and Disease course series (SSD 1-5) provides a symptom-oriented and case-based approach to the pathophysiology of diseases frequently seen in patients by the generalist physician. This is accomplished through active learning that develops clinical knowledge organized into discrete units, integrating normal physiology and pathophysiology together with clinical correlates in the arenas of anatomy, radiology, pharmacology, diagnostic testing, pathology and exposure to patient panels. Students learn clinical reasoning skills incorporating common symptoms, clinical signs, diagnostic tests, and an initial differential diagnosis. SSD-5 focuses on the musculoskeletal, endocrine and reproductive systems.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall.

**MDR 526. Biomedical Principles of Health. 10 Credit Hours.**

Biomedical Principles of Health is an active learning-centered course designed to provide an interdisciplinary foundation for the basic biomedical science disciplines relevant to clinical medicine. Students participate in self-regulated learning as preparation for in-class small group discussions. This course includes foundational genetics, cell physiology, pharmacology, pathology, immunology and microbiology.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall.

**MDR 527. Biomedical Principles of Health II. 5 Credit Hours.**

Biomedical Principles of Health II (BMPH 2) is the sequential active learning-centered course designed to provide an interdisciplinary foundation for the basic biomedical science disciplines relevant to clinical medicine. Students participate in self-regulated learning as preparation for in-class small group discussions. This course is the second of two 6-week foundational courses that include genetics, embryology, pharmacology, immunology and microbiology. Basic anatomy, histology, and physiology of the cardiovascular, respiratory, renal, gastrointestinal systems are explored and discussed in relation relevance to healthy patients. Clinical correlations relative to patient care will be paramount. Key topics from this course will be expanded in parallel in the simultaneous Medicine as a Profession course.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall.

**MDR 530. Epidemiology I. 1 Credit Hour.**

The principles of epidemiology including the distribution, determinants of disease frequency and their investigation. There is a review of the biostatistics to help with the evaluation of scientific investigations.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 531. Medicine as a Profession 101. 4 Credit Hours.**

Medicine as a Profession is a series of courses throughout medical school that focus on the broad themes introduced during the Introduction to the Medical Profession (IMP) course. The MAP courses encompass a wide variety of knowledge, skills, and attitudes that are essential to the practice of clinical medicine and to becoming transformative leaders in education, research, and policy/health systems. MAP content is divided into 7 key themes. Most MAP learning will occur in a Learning Community of 8-9 students that meets the same afternoon, once per week, with a clinical faculty member (Longitudinal Clinical Educator = LCE). On any given afternoon, you may participate in small-group discussions, work with standardized patients, attend larger group activities (50 students), or go into clinical and community settings with your LCE. You will also have substantial independent work to complete, individually or as part of a team, each week. These assignments will be reviewed and discussed in Learning Community meetings with your peers and your LCE.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall.

**MDR 532. Medicine as a Profession 102. 4 Credit Hours.**

MAP 102 occurs in the afternoons during spring semester of the first year of medicine school. As in MAP 101, most learning will occur in your Learning Community with peers and your LCE (Longitudinal Clinical Educator). You will continue to complete independent work each week to review with your peers and your LCE. Some key learning objectives for MAP 102 include the ability to tailor the patient interview and physical exam to the patient's presenting concern; to develop a plan to improve health/prevent disease for one of Miami's communities; and to help a person navigate the health care system of South Florida. At the end of MAP 102, you will begin training in the basic knowledge and skills necessary to be an emergency medical technician (EMT), including ride-alongs with fire-rescue personnel in the community.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Spring.



**MDR 533. Medicine as a Profession 103. 1 Credit Hour.**

MAP 103 occurs in the afternoons during the two months of fall semester before beginning clinical clerkships in October. You will continue training in the basic knowledge and skills necessary to be an emergency medical technician (EMT), including ride-alongs with fire-rescue personnel in the community. You will also have the opportunity to review and to teach key clinical skills. MAP 103 provides opportunities to deepen your understanding of the 7 key MAP themes.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall.

**MDR 535. Introduction to Scholarly Concentration. 2 Credit Hours.**

A key element in preparing for a career in medicine is developing the skills needed to develop a research question and evaluate the evidence generated from systematic scholarly inquiry into that topic. The Pathways of Emphasis within the Scholarly Concentration component of the NextGenMD curriculum provide students a structured framework for more deeply developing knowledge in an area of interest, conducting a research project under the mentorship of a faculty mentor, and presenting the results of this inquiry to the research community. The Introduction to Pathways of Emphasis course provides the base knowledge and skills for students entering one of the individual pathways of emphasis. The course will meet for at least 15 hours during the spring semester of the first year of medical school, usually during the period set aside for Scholarly Concentration activities. These meetings will consist of didactic sessions, active learning activities, seminars and journal clubs, and discussions with faculty mentors designed to match students to research projects of interest to them. Each Pathway of Emphasis will develop its own schedule of sessions and course syllabus specific to that Pathway. While each Pathway will offer sessions tailored to the discipline covered, each section of the course will have the same learning objectives.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Spring.

**MDR 536. Scholarly Concentration I. 0 Credit Hours.**

A key element in preparing for a career in medicine is developing the skills needed to develop a research question and evaluate the evidence generated from systematic scholarly inquiry into that topic. The Pathways of Emphasis within the Scholarly Concentration component of the NextGenMD curriculum provide students a structured framework for more deeply developing knowledge in an area of interest, conducting a research project under the mentorship of a faculty mentor, and presenting the results of this inquiry to the research community. The Introduction to Pathways of Emphasis course provides the base knowledge and skills for students entering one of the individual pathways of emphasis. The course will meet for at least 15 hours during the spring semester of the first year of medical school, usually during the period set aside for Scholarly Concentration activities. These meetings will consist of didactic sessions, active learning activities, seminars and journal clubs, and discussions with faculty mentors designed to match students to research projects of interest to them. Each Pathway of Emphasis will develop its own schedule of sessions and course syllabus specific to that Pathway. While each Pathway will offer sessions tailored to the discipline covered, each section of the course will have the same learning objectives.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 537. Scholarly Concentration for Accelerated Pathway to Residency. 8 Credit Hours.**

For all accelerated pathway students, the course, Clinical Immersion and Professionalism, has the following objectives. As a future resident at the UM/Jackson Health System, the summer course has been developed to provide in depth clinical experience in the student's chosen field. In addition, there will be opportunities for continued work on the student's scholarly project. Due to the variety of future specialties, each student will have a tailored clinical experience. All students will have 4-hour mandatory weekly group sessions aimed at the development of clinical skills, leadership, communication, and wellness. At completion of the course, students should be able to have a more complete understanding of their chosen specialty, more developed clinical reasoning, and clinical skills, and advance their scholarly project.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 550. Introduction to the Medical Profession. 3 Credit Hours.**

The IMP course is the first introduction to the fundamental aspects of being a physician- the knowledge, skills, and attitudes that are the basis for practicing medicine. Our goal is to help you become an altruistic, dutiful, culturally humble, and ethical physician, one who is committed to compassionate, respectful patient care and dedicated to excellence and life-long learning. During IMP, you will learn some basics of clinical skills such as communication, interviewing techniques, and physical examination, and we will introduce broad themes about community health, ethics, and systems of care. We will emphasize the benefits of independent, self-directed learning, as well as small group, team-based learning. The course will be an introduction to the Physicianship course which is organized into 7 overlapping themes: Clinical Skills, Professionalism, Communication Skills, Population Health, Health systems Science, Nutrition and Wellness and Personal Development.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.



**MDR 551. CMC Fundamentals of Biomedical Science I. 8 Credit Hours.**

The course covers the basic concepts and vocabulary in the disciplines of cell biology and physiology, genetics and biochemistry, immunology, microbiology, anatomy, histology, pharmacology, and pathology. This course will meet for about 20 hours per week with approximately 10 hours of lecture per week and 10 hours per week of small group or other non-lecture sessions. Week-long clinical cases will cover specific learning objectives for the various basic science disciplines, are facilitated by a faculty tutor and lectures are designed to complement the clinical cases. FBS I is a prerequisite for FBS 2 and 3. CMC stands for Continuity Medicine Curriculum.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 552. CMC Integration of Public Health and Medicine II. 2 Credit Hours.**

The IPHM I course is designed to allow students to develop their fundamental clinical skills (communication, history taking and physical exam skills) in continuity of care environments (community practice setting and Department of Health clinics). The IPHM I course will meet for 4-5 hours per week and is closely coordinated and integrated with the PS course. Community and faculty preceptors will supervise and evaluate students longitudinally. IPHM I is a prerequisite for IPHM II. CMC stands for Continuity Medicine Curriculum.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 553. CMC Physicianship Skills I. 2 Credit Hours.**

The PS course will expose students to competencies that physicians must master to provide high quality and effective care in today's health care system. The course covers the fundamentals of process evaluation, quality management, out-comes assessment, patient satisfaction, patient safety, systems-based care, interprofessional team care, and complex chronic disease management. The PS course will meet for 4 - 5 hours per week. PS I is a prerequisite for PS II. CMC stands for Continuity Medicine Curriculum.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 554. CMC Fundamentals of Biomedical Science II. 5 Credit Hours.**

FBS 2 continues from FBS1 with the basic concepts and vocabulary in the disciplines of cell biology and physiology, genetics and biochemistry, immunology, microbiology, anatomy, histology, pharmacology, and pathology. This course will meet for about 20 hours per week with approximately 10 hours of lecture per week and 10 hours per week of small group or other non-lecture sessions. Week- long clinical cases will cover specific learning objectives for the various basic science disciplines, are facilitated by a faculty tutor and lectures are designed to complement the clinical cases. CMC stands for Continuity Medicine Curriculum.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 555. CMC Fundamentals of Biomedical Science III. 6 Credit Hours.**

FBS 3 continues from FBS2 with the basic concepts and vocabulary in the disciplines of cell biology and physiology, genetics and biochemistry, immunology, microbiology, anatomy, histology, pharmacology, and pathology. This course will meet for about 20 hours per week with approximately 10 hours of lecture per week and 10 hours per week of small group or other non-lecture sessions. Week-long clinical cases will cover specific learning objectives for the various basic science disciplines, are facilitated by a faculty tutor and lectures are designed to complement the clinical cases. CMC stands for Continuity Medicine Curriculum.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 556. CMC Integration of Public Health and Medicine II. 2 Credit Hours.**

The IPHM II course is designed to allow students to develop their fundamental clinical skills (communication, history taking and physical exam skills) in continuity of care environments (community practice setting and Department of Health clinics). The IPHM II course will meet for 4-5 hours per week and is closely coordinated and integrated with the PS course. Community and faculty preceptors will supervise and evaluate students longitudinally. IPHM I is a prerequisite for IPHM II. CMC stands for Continuity Medicine Curriculum.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 557. CMC Physicianship Skills II. 3 Credit Hours.**

The PS course will continue to expose students to competencies that physicians must master to provide high quality and effective care in today's health care system. The course covers the fundamentals of process evaluation, quality management, outcomes assessment, patient satisfaction, patient safety, systems-based care, interprofessional team care, and complex chronic disease management. The PS course will meet for 4 - 5 hours per week. PS I is a prerequisite for PS II. CMC stands for Continuity Medicine Curriculum.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 558. CMC Neuroscience and Behavioral Science. 8 Credit Hours.**

The module is an interdisciplinary approach to the study of the nervous system. In the context of the principles of continuity medicine and chronic illness, the module includes neurophysiology, neurochemistry, pharmacology, neuropathology, microbiology, immunology, and behavioral psychology. Progressing from neuroanatomy to gross anatomy, students learn the structure and function of the nervous system from the head/brain, and neck, to the muscle and motor units. Students are introduced to the basic science of behavioral medicine and the common diseases that are encountered. Finally, the basic sciences are integrated to the clinical sciences of neurology, neurosurgery, otolaryngology and psychiatry. A combination of didactic, small-group and laboratory methods are used.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 559. CMC Cardiovascular System. 8 Credit Hours.**

The module is an interdisciplinary approach to the study of the cardiovascular system including the heart and blood vasculature. The basic sciences are intergrated with the clinical sciences of cardiology in the study of cardiac function and its response to changes in the body with aging from birth to the elderly. The module seeks to place cardiovascular disease and management into the context of continuity medicine and chronic illness using a combination of didactic, small-group and simulation teaching methods.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 600. Medical Curriculum 6. 18 Credit Hours.**

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 601. Sexual Issues in Medical Practice. 2 Credit Hours.**

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 602. Immunobiology. 2 Credit Hours.**

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 603. Pathology. 6 Credit Hours.**

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 604. Clinical Skills II. 6 Credit Hours.**

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 605. Mechanisms of Disease I. 9 Credit Hours.**

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 606. Mechanisms of Disease II. 9 Credit Hours.**

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 607. Pharmacology. 6 Credit Hours.**

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 608. Microbiology. 6 Credit Hours.****Components:** LEC.**Grading:** GRD.**Typically Offered:** Fall & Spring.**MDR 609. Introduction to Psychiatry. 1 Credit Hour.****Components:** LEC.**Grading:** GRD.**Typically Offered:** Fall & Spring.**MDR 610. Respiratory System. 5 Credit Hours.**

The module is an interdisciplinary study of the respiratory system and includes the anatomy, physiology, immunology, pathology, radiology and biochemistry of the system. The pathophysiology is illustrated with clinical vignettes. Students are also exposed to the evaluation of normal physiological measurement of the respiratory system and the principles of artificial ventilation. Students should be able to solve clinical problems in pulmonary medicine and critical care by the end of the module.

**Components:** LEC.**Grading:** GRD.**Typically Offered:** Fall & Spring.**MDR 611. Accl Basic Science Curriculum. 18 Credit Hours.****Components:** LEC.**Grading:** GRD.**Typically Offered:** Fall & Spring.**MDR 612. Renal System. 5 Credit Hours.**

The module is an interdisciplinary course of the renal system. Students study the structure, function and pathophysiology of the kidneys and genitourinary tract. General concepts of acid-base and electrolyte balance are studied in the normal and diseased states. The course provides a foundation for dealing with the various diseases of the renal system encountered during the clinical years.

**Components:** LEC.**Grading:** GRD.**Typically Offered:** Fall & Spring.**MDR 613. Endocrine and Reproductive System. 5 Credit Hours.**

The module is an interdisciplinary course that deals with the normal endocrine development, function, pathophysiology and disease processes. Students are exposed to problems solving of clinical cases involving endocrine and reproductive medicine. Students will be exposed to various evaluation and treatment tools available at this time.

**Components:** LEC.**Grading:** GRD.**Typically Offered:** Fall & Spring.**MDR 614. Gastrointestinal System and Nutrition. 5 Credit Hours.**

The module is an integrated course on the molecular and cellular processes that involve the digestive system and its associated organs. The module covers the normal structure and function and the pathophysiological processes that occur during disease states of the digestive organs. Nutrition and the clinical aspects of obesity and bariatric surgery are discussed.

**Components:** LEC.**Grading:** GRD.**Typically Offered:** Fall & Spring.**MDR 615. Hematology and Oncology. 5 Credit Hours.**

The module is an introductory course that covers basic hematology that is essential to the practice of medicine. Students are introduced into the variations in hematological parameters that are used in the diagnosis and monitoring of common hematological diseases. The second half of the module serves as a basic overview of cancer and includes basic concepts of oncogenesis, epidemiology, biology of cancer, pathology and the role of the immune system. Students are introduced to the various treatment modalities.

**Components:** LEC.**Grading:** GRD.**Typically Offered:** Fall & Spring.

**MDR 616. Dermatology and Ophthalmology. 2 Credit Hours.**

The Dermatology and Ophthalmology module is an introductory course that covers the basic pathophysiology and clinical aspects of dermatology and ophthalmology that are essential for a general physician. The module covers the normal structure and function of skin, and eye. Common disease diseases of the skin and eye are discussed.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 618. Respiratory. 4 Credit Hours.**

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 619. Inflammation and Infectious Disease. 4 Credit Hours.**

During this four week segment of the curriculum students are divided into small groups and will work with a faculty facilitator who has been trained in small group learning. Students work as a group on clinical scenarios. They are expected to work as both teacher and student during this time. Students are to focus on clinical cases involving rheumatological and infectious disease problems. They receive guiding questions with each case to assist with their learning process. The students will have opportunities to interact with experts in the various areas covered in the cases during consultation sessions. The small group sessions are case driven. The facilitator is there to assist with group dynamics and not to serve as a teacher. The student groups work through a clinical scenario during the three two-hour sessions a week.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 620. Problem Based Learning I. 0.25 Credit Hours.**

During this segment of the curriculum, students are divided into small groups and will work with a faculty facilitator who has been trained in problem based learning. Students work as a group on clinical scenarios. They are expected to work as both teacher and student during this time utilizing the knowledge that they have gained during the core and organ system modules to work through these cases and develop a differential diagnosis and treatment plan for the patients. The small group sessions are student driven. Self-directed learning is emphasized. This allows the students to use their knowledge of basic sciences and to hone the skills of presentation to a clinical team in preparation for their clinical years.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 621. Problem Based Learning II. 0.75 Credit Hours.**

During this segment of the curriculum, students are divided into small groups and will work with a faculty facilitator who has been trained in problem based learning. Students work as a group on clinical scenarios. They are expected to work as both teacher and student during this time utilizing the knowledge that they have gained during the core and organ system modules to work through these cases and develop a differential diagnosis and treatment plan for the patients. The small group sessions are student driven. Self-directed learning is emphasized. This allows the students to use their knowledge of basic sciences and to hone the skills of presentation to a clinical team in preparation for their clinical years.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 622. Behavioral and Special Populations II. 0 Credit Hours.**

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 623. Evidence Based Population Medicine II. 0 Credit Hours.**

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 624. Clinical Skills II. 0 Credit Hours.**

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 625. Geriatrics End of Life Theme II. 0 Credit Hours.****Components:** MOD.**Grading:** GRD.**Typically Offered:** Fall & Spring.**MDR 626. Complimentary Alternative Medicine Theme. 0 Credit Hours.****Components:** MOD.**Grading:** GRD.**Typically Offered:** Fall & Spring.**MDR 627. Systems Based Care Theme. 0 Credit Hours.****Components:** MOD.**Grading:** GRD.**Typically Offered:** Fall & Spring.**MDR 628. Physicianship III. 4 Credit Hours.**

Include eight themes which are: Behavioral Medicine and Special Populations, Clinical Skills, Complementary and Alternative Medicine, Evidence-Based Medicine, Geriatrics - Pain Management and Palliative Care, Population Health, Professionalism and Systems-Based Care.

**Components:** LEC.**Grading:** GRD.**Typically Offered:** Fall & Spring.**MDR 629. Physicianship IV. 2 Credit Hours.**

Include seven themes: 1. Clinical Skills (interviewing the patient, physical examination, clinical reasoning) 2. Professionalism (ethics, health care law, physician behavior, policy/advocacy) 3. Communication skills (interpersonal, interprofessional, group dynamics) 4. Population Health (social determinants of health, role of culture/bias in health outcomes, health equity) 5. Health Systems Science (informatics, population health management, evidence-based medicine, electronic health record, patient safety, quality improvement) 6. Nutrition and Wellness (personal wellbeing, patient health promotion and preventive medicine) 7. Personal Development (learning how to learn, career and scholarly development, becoming a transformational leader)

**Components:** LEC.**Grading:** GRD.**Typically Offered:** Fall & Spring.**MDR 630. Epidemiology II. 1 Credit Hour.**

The principles of epidemiology including the distribution, determinants of disease frequency and their investigation. There is a review of biostatistics to help with the evaluation of scientific investigations.

**Components:** LEC.**Grading:** GRD.**Typically Offered:** Fall & Spring.**MDR 650. CMC Gastrointestinal System and Nutrition. 5 Credit Hours.**

The course continues the interdisciplinary approach to the study of all the systems included are the gastrointestinal system and the liver, and the normal structure-function and the pathophysiological processing during disease states of the digestive organs. The course seeks to place GI disease and nutrition management into the context of continuity medicine and chronic illness using a combination of didactic, and small-group teaching methods.

**Components:** LEC.**Grading:** GRD.**Typically Offered:** Fall & Spring.**MDR 651. CMC Respiratory System. 5 Credit Hours.**

The course continues the interdisciplinary approach to the study of all the systems. It builds upon the knowledge of respiratory anatomy from the FBS course sequence and covers physiology, immunology, pathology, radiology, and biochemistry of the system. Students are also exposed to the evaluation of normal physiological measurement of the respiratory system and the principles of artificial ventilation. The course seeks to place acute and chronic respiratory disease into the context of continuity medicine using a combination of didactic, clinical case presentations and small-group teaching methods.

**Components:** LEC.**Grading:** GRD.**Typically Offered:** Fall & Spring.

**MDR 652. CMC Renal System. 5 Credit Hours.**

The course continues the interdisciplinary approach to the study of all the systems. The structure, function and pathophysiology of the kidneys and genito-urinary tract are covered. General concepts of acid-base and electro-lyte balance are studied in the normal and acute and chronic diseased states. The course seeks to place renal disease into the context of continuity medicine and chronic illness and care, and uses a combination of didactic, clinical case presentations, simulation and small-group teaching methods.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 653. CMC Inflammation and Infectious Diseases. 4 Credit Hours.**

The course uses an interdisciplinary approach to present basic concepts of rheumatology (inflammation) and uses these disciplines to present the basic concepts of infectious processes and disease. The course uses a combination of didactic, clinical case presentations, and small-group teaching methods.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 654. CMC Hematology and Oncology I. 3 Credit Hours.**

The course presents basic hematology concepts essential to the practice of medicine. Variations in hematological parameters used in diagnosis and monitoring of common hematological diseases are presented and integrated with a basic overview of cancer. This includes basic concepts of oncogenesis, epidemiology, biology of cancer, pathology and the role of the immune system. The course seeks to place hematological disorders and cancer into the context of continuity medicine and chronic illness and care, and uses a combination of didactic, clinical case presentations and small-group teaching methods.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 655. CMC Endocrinology and Reproductive System. 5 Credit Hours.**

The course is an interdisciplinary approach to the study of normal endocrine, function, pathophysiology and disease processes. Students are exposed to problem solving of clinical cases involving endocrine and reproductive medicine. The course seeks to place endocrine disorders and management into the context of continuity medicine and chronic illness using a combination of didactic and small-group teaching methods.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Spring.

**MDR 656. CMC Integration of Public Health and Medicine III. 1 Credit Hour.**

The IPHM III course is designed to allow students to apply their clinical skills (communication, history taking and physical exam skills) in continuity of care environments (community practice setting and Department of Health clinics). The IPHM III course will meet for 4-5 hours per week and is closely coordinated and integrated with the PS3 course. Community and faculty preceptors will supervise and evaluate students longitudinally.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 657. CMC Physicianship Skills 3. 5 Credit Hours.**

The PS3 course exposes students to more advanced competencies that physicians must master to provide high quality and effective care in today's health care system. The course reviews and expands upon the process of evaluation, quality management, outcomes assessment, patient satisfaction, patient safety, systems-based care, interprofessional team care, and complex chronic disease management. The PS3 course will meet for 4-5 hours per week.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 658. CMC Hematology and Oncology II. 2 Credit Hours.**

The course presents basic hematology concepts essential to the practice of medicine. Variations in hematological parameters used in diagnosis and monitoring of common hematological diseases are presented and integrated with a basic overview of cancer. This includes basic concepts of oncogenesis, epidemiology, biology of cancer, pathology and the role of the immune system. The course seeks to place hematological disorders and cancer into the context of continuity medicine and chronic illness and care, and uses a combination of didactic, clinical case presentations and small-group teaching methods.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.



**MDR 659. CMC Dermatology and Ophthalmology. 2 Credit Hours.**

The course uses an interdisciplinary approach to present basic concepts of Dermatology and Ophthalmology and uses these disciplines to present the basic concepts of infectious processes and disease. The course uses a combination of didactic, clinical case presentations, and small-group teaching methods.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall.

**MDR 660. CMC Integration of Public Health and Medicine IV. 1 Credit Hour.**

The IPHM IV course is designed to allow students to apply their clinical skills (communication, history taking and physical exam skills) in continuity of care environments (community practice setting and Department of Health clinics). The IPHM IV course will meet for 4-5 hours per week and is closely coordinated and integrated with the PS3 course. Community and faculty preceptors will supervise and evaluate students longitudinally.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 661. Physicianship IV. 1 Credit Hour.**

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 700. Medical Curriculum 7. 18 Credit Hours.**

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 701. Introduction to Radiology. 0 Credit Hours.**

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 702. Transition to Clinical Rotations. 1 Credit Hour.**

Students will take part in mandatory activities, including didactic, experiential and independent activities to prepare them to take part in clinical rotations. This experience is required for all students prior to participating in Phase 2 Clinical Rotations.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall.

**MDR 703. Core Family and Community Medicine. 4-5 Credit Hours.**

The family medicine and geriatric medicine clerkship is a community based primary care rotation where students are exposed to patients in the outpatient setting. Students are introduced to the whole patient approach to medical care. They are expected to gain a working knowledge of the types of medical conditions that are commonly seen in the primary care setting. They will become familiar with managed care concepts of health delivery. They should gain an appreciation for how cultural and social influences affect the perception of health and management of diseases. They should acquire an understanding of the concepts of continuity and coordination of care. Students will also spend one week of intensive training experience on the acute care of elders unit at Jackson Memorial Hospital. They will become proficient in the use of assessment instruments in the evaluation of the geriatric patient. Students are evaluated on their knowledge of family medicine and geriatrics, their interpersonal skills, and their professionalism.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 705. Core Generalist Primary Care Clerkship. 4 Credit Hours.**

The generalist primary care clerkship exposes students to ambulatory medicine. Students are expected to become competent in the properties of common diseases seen in an outpatient setting. They will gain skills and competence in the history taking, physical examination, diagnosis and treatment of these conditions. They will also rotate through a variety of specialty care areas and will evaluate patients with the guidance of specialty care faculty. Students are evaluated on their knowledge of ambulatory medicine, their interpersonal skills, and their professionalism.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 706. Core Internal Medicine Clerkship. 8-10 Credit Hours.**

The Internal Medicine clerkship is a rotation where students are expected to further develop their skills of history taking, physical examination, and observation. They are to gain knowledge about the diagnosis and treatment of medical conditions. They will practice their skills of communication with their team, the hospital staff, and their patients. The clerkship has didactic activities in addition to the bedside teaching, student report, and patient oriented problem solving sessions. Students are evaluated on their knowledge of medicine, their interpersonal skills, and their professionalism.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 707. Neurology Clerkship. 2 Credit Hours.**

The Neurology Clerkship exposes students to common and emergency neurological diseases. Students have the option of exposure to Pediatric Neurology during the clerkship. Students are expected to become competent in the neurological examination, diagnosis, evaluation by various modalities of imaging and laboratory testing, and treatment options. Students are exposed to inpatient ward, consult and stroke services. Students are evaluated on their knowledge of neurology, their interpersonal skills, and their professionalism.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 708. Core Obstetrics and Gynecology Clerkship. 5-6 Credit Hours.**

The Ob/Gyn clerkship offers clinical and didactic learning opportunities in the varied settings of ob/gyn practice - the operating room, inpatient wards, the clinic, labor and delivery, and the ultrasound suite. Students are assigned to JMH, community hospital and private practice sites to varying degrees to meet learning requirements. Students learn the clinical presentations and differential diagnosis of the conditions comprising the majority women's reproductive health care - with nearly even distribution of obstetrics and gynecology topics. On site clinical learning is supplemented with case based and problem based didactic learning, both in the intermediate sized classroom and small group learning settings. Ethical reasoning, EBM, suturing and communications skills and issues are covered in the workshop format. Students will learn how women's cultural, educational and socioeconomic backgrounds affect their access to health care their values about fertility, childbearing, and contraception, the consequences of sexual behaviors and their understanding of their bodies throughout life, and their power in relationships and the role of sexuality in their lives. The evaluation system focuses on medical knowledge, communications skills and EBM skills.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 709. Core Pediatrics Clerkship. 5-6 Credit Hours.**

The clerkship exposes the students to the spectrum of the pediatric population from neonates to adolescence. It is divided into experiences on the clinical ward service, ambulatory, emergency room, neonatal and comprehensive healthcare program. Students are expected to become competent in the examination of the child and in common pediatric diseases. The teaching is divided between ward based teaching rounds and didactic sessions. Students are evaluated on their knowledge of pediatrics, their interpersonal skills, and their professionalism.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 710. Core Psychiatry Clerkship. 6 Credit Hours.**

During phase 2, students perform clinical rotations through inpatient and outpatient clinical settings. The duration of the clerkship is 12 weeks, of which 6 weeks are dedicated to psychiatric clinical rotations. Students are assigned to participate in two different clinical setting through rotations on units such as inpatient/outpatient child and adolescent psychiatry, consultation-liaison psychiatry, the adult outpatient psychiatry clinic, the forensic unit, the addiction psychiatry unit, one of the adult inpatient psychiatry units at the Jackson Behavioral Health Hospital, the inpatient units at the Veterans Administration Medical Center or the consultation liaison service at the University of Miami Hospital. During all these activities, the medical students are taught and supervised by the Jackson Memorial house staff, Miami VA staff and the University of Miami Miller School of Medicine Department of Psychiatry and Behavioral Sciences faculty. Below is a description of the clinical services to which students are assigned.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 711. Core Surgery Clerkship. 8-10 Credit Hours.**

The surgical clerkship is a rotation where students gain knowledge about diseases that have surgery as a treatment modality. Students are exposed to the operating room and assist in surgical procedures. They are expected to gain an understanding of the pathophysiology of the disease processes and have a basic knowledge of the diagnosis and treatment of them. They are expected to develop the basic surgical skills that are expected of a general physician. Students evaluated on their knowledge of surgery, their interpersonal skills, and their professionalism.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 712. Anesthesiology Clerkship. 2 Credit Hours.**

The anesthesia clerkship exposes students to the various techniques used by anesthesiologists during surgical procedures and exposes them to the pre-operative evaluation of patients and post-operative care. Students will use the simulation training devices to become competent in the techniques of management of a patient and their airway. Students will become knowledgeable on the pharmacology of the various medications used in anesthesia. Students are evaluated on their knowledge of anesthesia, their interpersonal skills, and their professionalism. No interviewing during Thanksgiving block.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 713. Core Internal Medicine Clerkship. 10 Credit Hours.**

The Internal Medicine clerkship is a rotation where students are expected to further develop their skills of history taking, physical examination, and observation. They are to gain knowledge about the diagnosis and treatment of medical conditions. Throughout their rotation students will experience inpatient medicine, outpatient medicine, and sub-specialty medicine. During inpatient medicine and sub-specialty they will practice their skills of communication with their team, the hospital staff, fellows, and their patients. Students will experience bedside teaching, student report, and patient oriented problem solving sessions. During their outpatient medicine and sub-specialty experience, they will practice skills of communication with the clinic staff, nurse practitioners, physician assistants, fellows, and patients. During outpatient medicine, students will have a unique experience to see patients in the office from the start of a clinical encounter by getting patients from the waiting room to the end of their encounter where they are encouraged to have an assessment and plan. They will have the opportunity to precept with their attending in the patient's exam room, giving the patient the opportunity to add any additional information the medical student may have missed. These students will also be experiencing telehealth where they will use video visits to see patients. Overall, the clerkship has various didactic activities covering various topics in inpatient, ambulatory, and sub-specialty medicine. Students are evaluated on their knowledge of medicine, their interpersonal skills, and their professionalism.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 714. Caring for Families and Communities. 8 Credit Hours.**

Caring for Families and Communities (CFC) clerkship will help prepare students for the unique and evolving role of the physician in the ever changing health care system. During this 8-week clerkship, you will have many opportunities to work closely with patients, primary care physicians, and other members of the health care team in the varied clinical settings in which future physicians will encounter patients. You will be learning and practicing both the traditional and less traditional skills necessary for our future physicians. You will learn about the importance of meeting the healthcare needs of communities of patients as well as individual patients and will develop some of the knowledge and skills necessary to fulfill these fundamental physician responsibilities. No matter what career path you choose, the experiences, knowledge, and skills that you gain from this clerkship are intended to help you become the best physician you can be.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 715. Integrated Clerkship Women and Children's Health. 12 Credit Hours.**

The Integrated Pediatrics and OBG Clerkship includes the disciplines of Pediatrics and Obstetrics and Gynecology. This clerkship includes elements of Radiology, Pathology, and Genetics. Each student will spend time in each of these disciplines and will follow patients across disciplines when possible. Didactic sessions will be provided for each of the disciplines and will include conferences that are interprofessional in nature. The University of Miami Miller School of Medicine places a priority on active, collaborative, learner-centered methodologies to prioritize the knowledge, skills and attitudes required of physicians to practice in today's health care system. The clerkship experiences will allow students to follow their patients through their care and treatment and participate in the medical, surgical, diagnostic and therapeutic aspects of the care required for management of acute and chronic illnesses. Clinical experiences are designed to emphasize interprofessional, team-based, complex disease management with a major focus on continuity care, health maintenance, and disease prevention. The clinical clerkships will strive to not only integrate the basic and clinical sciences, but also the behavioral and social sciences with continued emphasis on the Institutional Objectives of the Educational Program. The University of Miami Miller School of Medicine places a priority on active, collaborative, learner-centered methodologies to prioritize the knowledge, skills and attitudes required of physicians to practice in today's health care system. The clerkship experiences will allow students to follow their patients through their care and treatment and participate in the medical, surgical, diagnostic and therapeutic aspects of the care required for management of acute and chronic illnesses. Clinical experiences are designed to emphasize interprofessional, team-based, complex disease management with a major focus on continuity care, health maintenance, and disease prevention. The clinical clerkships will strive to not only integrate the basic and clinical sciences, but also the behavioral and social sciences with continued emphasis on the Institutional Objectives of the Educational Program.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 716. Integrated Clerkship Emergency Department to Operating Room. 12 Credit Hours.**

The NextGen integrated clerkship, From ED to OR, will give the Phase 2 medical student the opportunity to actively expand their knowledge across emergency medicine, anesthesia and surgery disciplines, develop technical, procedural and clinical skills and initiate collaborative relationships with patients, residents, faculty and staff across the interdisciplinary continuum of the adult and pediatrics emergency departments, trauma resuscitation, operating room, outpatient clinic and inpatient wards. Below are the discipline course descriptions, learning objectives, student expectations and learning outcomes. EM Discipline Description: The Emergency Department creates an unique opportunity for medical students to acquire a foundation of knowledge and skills to care for patients with emergency medical conditions. We believe that every physician should possess adequate assessment and management skills to rapidly identify life-threatening conditions, to initiate care, demonstrate procedural proficiency and to know whom and when to call for assistance, regardless of their ultimate medical specialty and training. The Emergency Department is also one of the few practice sites where students play an integral role in the initial evaluation of an undifferentiated patient – where the diagnosis is completely unknown on initial contact. The medical students are expected to be an involved, engaged and active member of the ED team, providing ED patient care and communicating with families. Anesthesia Discipline Description: The medical student rotation in the Department of Anesthesiology, Perioperative Medicine and Pain Management is designed to provide medical students with insights into the specialty of general anesthesiology, its subspecialties and the importance of the anesthesiologist in caring for patients prior to surgery, during surgery and the postoperative period. We will educate medical students on the multi-faceted role anesthesiologists play as perioperative physicians, intensivists and pain medicine specialists and how anesthesiologists apply their diagnostic skills and problem-solving abilities in these arenas will be demonstrated. At the same time, we will teach students to perform technical procedures appropriate to their level of training. Whenever feasible, we will promote participation in research so that students may explore a topic in depth as well as develop skills in critical thinking. During the Anesthesia rotation, students will become familiar with the many facets of the practice of anesthesiology including the perioperative setting, pre-anesthetic evaluation, induction and maintenance of anesthesia during surgery, patient emergence from anesthesia and post anesthesia care. It is expected that the medical student will develop an information base allowing them to identify and manage common preoperative concerns. We aim to develop recognition of the importance of patient safety; understand pharmacological dosing, complications related to various anesthetic techniques; understand basic ACLS and understand the management of regional anesthetics. The clerkship offers a unique opportunity for medical students to gain valuable experience and knowledge of the operating room setting within an academic institution. You will be exposed to the daily challenges faced by anesthesiologists. Surgery Discipline Description: The main purpose of the Surgery rotation is to provide the medical student with the resources and knowledge to recognize surgical disease. Career choices available to the medical student today in terms of medical discipline and specialty are quite varied. However, surgical disease is something that needs to be recognized and identified by all physicians. Every clinician needs to understand when patients have surgical problems and need to be referred to a surgeon. Doctors also need to understand proper screening tools available to prevent surgical problems and the appropriate times to order these studies. The purpose of the Surgery rotation is not to produce a junior surgeon. The main goal of this clinical rotation is to introduce the junior student to the world of general surgery and to show students that surgeons play an important role in the management of patients amongst all disciplines in medicine. In addition, students will see that surgery is an exciting field especially with all of the technological advances of the 21st century. The Surgery rotation will introduce students to a wide spectrum of surgical diseases. By following patients through their initial presentation to the operating room, their perioperative and post-operative care, students will be able to observe the evolution and resolution of surgical disease processes. Teaching in the operating room and at the bedside, in particular, brings students and patients together for their mutual benefit.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 717. Integrated Clerkship Practice of Medicine. 12 Credit Hours.**

The Practice of Medicine Clerkship includes the disciplines of internal medicine, geriatrics, palliative care/hospice medicine, and elements of radiology over the 12-week period. In a given week, each student will spend time in each of these disciplines and will follow patients across disciplines when possible. Didactic sessions will be provided for each of the disciplines and will include conferences that are interprofessional in nature. The University of Miami Miller School of Medicine places a priority on active, collaborative, learner-centered methodologies to prioritize the knowledge, skills and attitudes required of physicians to practice in today's health care system. The clerkship experiences will allow students to follow their patients through their care and treatment and participate in the medical, surgical, diagnostic and therapeutic aspects of the care required for management of acute and chronic illnesses. Clinical experiences are designed to emphasize interprofessional, team-based, complex disease management with a major focus on continuity care, health maintenance, and disease prevention. The clinical clerkships will strive to not only integrate the basic and clinical sciences, but also the behavioral and social sciences with continued emphasis on the Institutional Objectives of the Educational Program.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 718. Integrated Clerkship Mind, Matter, and Medicine. 12 Credit Hours.**

The Mind, Matter and Medicine Clerkship includes the disciplines of Neurology, Psychiatry, Ophthalmology and Palliative Care over the 12-week period. In a given week, each student will spend time in each of these disciplines and will follow patients across disciplines when possible. Didactic sessions will be provided for each of the disciplines and will include conferences that are interprofessional in nature. The University of Miami Miller School of Medicine places a priority on active, collaborative, learner-centered methodologies to prioritize the knowledge, skills and attitudes required of physicians to practice in today's health care system. The clerkship experiences will allow students to follow their patients through their care and treatment and participate in the medical, surgical, diagnostic and therapeutic aspects of the care required for management of acute and chronic illnesses. Clinical experiences are designed to emphasize interprofessional, team-based, complex disease management with a major focus on continuity care, health maintenance, and disease prevention. The clinical clerkships will strive to not only integrate the basic and clinical sciences, but also the behavioral and social sciences with continued emphasis on the Institutional Objectives of the Educational Program.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 720. Medicine as a Profession 201. 1 Credit Hour.**

Medicine as a Profession 201 (MAP 201) is the first in a series of 3 MAP 200 courses that coincide with the 3 academic semesters of Phase 2. The 200-level MAP courses continue what you started to learn in Phase 1: the knowledge, skills, and attitudes that are essential to practicing clinical medicine and to becoming transformative leaders in education, research, and policy/health systems. MAP 200s sessions will exclusively occur in your Learning Community on the same House afternoon as during Phase 1. You will meet with your peers and your Longitudinal Clinical Educator (LCE) for two hours once every six weeks using the same flipped classroom approach as in Phase 1. To make the most of these session, you must pay careful attention to pre-session independent work to complete individually or as part of a team each week. To ensure that you have time to prepare for MAP sessions, your clerkship directors know that you have the entire afternoon on your MAP days (1-5pm), even though you are not required to meet with the group until 3pm. The MAP 200 courses are pass/fail, and there are no exams or graded work. To pass the course, you must attend every MAP session; you must come prepared and actively participate. We believe that you will enjoy the chance to step back from the clerkship and regather with your learning community to discuss and understand your clinical experiences.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall.

**MDR 721. Medicine as a Profession 202. 2 Credit Hours.**

Medicine as a Profession 202 (MAP 202) is the second in a series of 3 MAP 200 courses that coincide with the 3 academic semesters of Phase 2. The 200-level MAP courses continue what you started to learn in Phase 1: the knowledge, skills, and attitudes that are essential to practicing clinical medicine and to becoming transformative leaders in education, research, and policy/health systems. MAP 200s sessions will exclusively occur in your Learning Community on the same House afternoon as during Phase 1. You will meet with your peers and your Longitudinal Clinical Educator (LCE) for two hours once every six weeks using the same flipped classroom approach as in Phase 1. To make the most of these session, you must pay careful attention to pre-session independent work to complete individually or as part of a team each week. To ensure that you have time to prepare for MAP sessions, your clerkship directors know that you have the entire afternoon on your MAP days (1-5pm), even though you are not required to meet with the group until 3pm. The MAP 200 courses are pass/fail, and there are no exams or graded work. To pass the course, you must attend every MAP session; you must come prepared and actively participate. We believe that you will enjoy the chance to step back from the clerkship and regather with your learning community to discuss and understand your clinical experiences.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Spring.

**MDR 722. Medicine as a Profession 203. 1 Credit Hour.**

Medicine as a Profession 201 (MAP 201) is the third in a series of 3 MAP 200 courses that coincide with the 3 academic semesters of Phase 2. The 200-level MAP courses continue what you started to learn in Phase 1: the knowledge, skills, and attitudes that are essential to practicing clinical medicine and to becoming transformative leaders in education, research, and policy/health systems. MAP 200s sessions will exclusively occur in your Learning Community on the same House afternoon as during Phase 1. You will meet with your peers and your Longitudinal Clinical Educator (LCE) for two hours once every six weeks using the same flipped classroom approach as in Phase 1. To make the most of these session, you must pay careful attention to pre-session independent work to complete individually or as part of a team each week. To ensure that you have time to prepare for MAP sessions, your clerkship directors know that you have the entire afternoon on your MAP days (1-5pm), even though you are not required to meet with the group until 3pm. The MAP 200 courses are pass/fail, and there are no exams or graded work. To pass the course, you must attend every MAP session; you must come prepared and actively participate. We believe that you will enjoy the chance to step back from the clerkship and regather with your learning community to discuss and understand your clinical experiences.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall.

**MDR 756. RMC Core Integrated Internal Medicine Clerkship. 13 Credit Hours.**

The Integrated Medicine clerkship offers students parallel training in internal medicine primarily, geriatrics and palliative care. Radiology is included as it supports clinical decision making in internal medicine. Students will acquire the clinical skills, critical thinking skills, knowledge, and professional behaviors necessary to provide comprehensive medical care for adults and develop experience in the assessment, evaluation, and basic management of important, common problems encountered in inpatient internal medicine. The objectives for the clerkship are derived from the internal medicine and geriatrics clerkships on the main campus and from the Clerkship Directors in Internal Medicine guidelines. Students will spend half the rotation as part of a team with the UMMSM Internal Medicine residents based at JFK and half the rotation assigned to an internist preceptor and spend their time in both inpatient and outpatient settings. Students will also participate in a geriatrics consult service and a palliative care consult service. Academic half-days will include lecture and small-group activities in the individual disciplines along with integrated multidisciplinary activities. Assessment will be achieved by the use of the NBME Subject Exam in Medicine, clinical performance evaluation by faculty preceptor, observed clinical histories and physical exams and written case reports.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 757. Core Neurology Clerkship. 6 Credit Hours.**

The purpose of the Neurology clerkship is to provide students with an opportunity to acquire a foundation of knowledge and skills to care for patients with neurological conditions. The primary goals of the Neurology Clerkship are for you to gain competence in taking a neurologic history and performing a neurologic exam, and use them to aid in localization and diagnosis of neurologic disease. Also, it is hoped students will develop knowledge, attitudes, and skills necessary to assess, diagnose and refer patients presenting in the primary care setting with neurologic complaints. Students will have the opportunity to explore the field of neurology as a potential career path through exposure to a variety of complaints, diagnoses, patient encounters, and case-based didactics. Students are evaluated on their knowledge of neurology, their interpersonal skills, and their professionalism.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 758. RMC Core Obstetrics and Gynecology Clerkship. 5 Credit Hours.**

By the end of the clerkship, students will demonstrate the ability to obtain a complete obstetric and gynecologic age-appropriate history and perform the physical examination which elicits information necessary for diagnosis and treatment. Students will complement their clinical experience in the office and on the wards with independent directed study and recognize the importance of interdisciplinary collaboration in optimizing clinical outcomes for patients, work effectively with other health professionals, and demonstrate knowledge of the role of obstetrics and gynecological care in the broader community and health care system. Academic half-days will include lecture and small-group activities. Assessment will be achieved by the use of the NBME Subject Exam in Obstetrics and Gynecology, clinical performance evaluation by faculty preceptor, observed structured clinical examination (OSCE), written case reports and journal club.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 759. RMC Core Pediatrics Clerkship. 5 Credit Hours.**

By the end of this clerkship, students will demonstrate the ability to obtain a complete age-appropriate pediatric history which elicits information necessary for diagnosis and treatment and will demonstrate knowledge of appropriate health supervision, anticipatory guidance, and preventive medicine in pediatrics. Students will demonstrate interpersonal and communication skills that result in effective information exchange and collaboration with patients, their families, and other health care providers. Students will be assigned to a general pediatrician preceptor and spend their time in the clinical ward service, ambulatory, emergency room, neonatal and the hospital setting, and a comprehensive healthcare program in private practice. Academic half-days will include lecture and small-group activities. Assessment will be achieved by the use of the NBME Subject Exam in Pediatrics, clinical performance evaluation by faculty preceptor, observed clinical histories and physical exams and written case reports.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 760. RMC Core Psychiatry Clerkship. 5 Credit Hours.**

By the end of this clerkship, students will demonstrate the ability to obtain a complete psychiatric history, recognize relevant physical findings and perform a complete mental status examination, and conduct a psychiatric interview which elicits information necessary for diagnosis and treatment, all of which form the basis of a therapeutic alliance with the patient. Students will demonstrate knowledge of common psychiatric emergencies and their management and demonstrate the ability to evaluate both their patient care practices and the scientific evidence, in order to improve the quality of care they deliver to patients with psychiatric illness. Academic half-days will include lecture and small-group activities. Assessment will be achieved by the use of the NBME Subject Exam in Psychiatry, clinical performance evaluation by faculty preceptor, observed clinical histories and written case reports.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.



**MDR 761. RMC Core Integrated Surgery Clerkship. 11 Credit Hours.**

The Integrated Surgery clerkship offers students parallel training in surgery primarily, anesthesiology and radiology. Students will acquire the clinical skills, critical thinking skills, knowledge, and professional behaviors necessary to provide comprehensive pre-operative evaluation of patients and post-operative care. Students will spend half the rotation assigned to a general surgeon and the other with a vascular surgeon in order to acquire the skills and knowledge about diseases that have surgery as a treatment modality. Students will be part of the operating room teams and assist in surgical procedures. Students will be expected to assist the anesthesiology teams for pre- and post-surgical care. Radiology experiences will be provided by the JFK radiology team during discipline-specific teaching time but also as part of the care of the patient pre- and post-surgery. Academic half-days will include lecture and small-group activities in the individual disciplines along with integrated multidisciplinary activities. Assessment will be achieved by the use of the NBME Subject Exam in Surgery, clinical performance evaluation, observed clinical histories and physical exams and written case reports.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 764. RMC Core Family Medicine Clerkship. 5 Credit Hours.**

The clerkship aims to train students to provide care that is compassionate, appropriate and effective for the treatment of health problems and the promotion of health. The objectives for the clerkship are derived initially from the clerkship objectives on the main campus and from the Society for the Teaching of Family Medicine guidelines. Students will be assigned to a family medicine preceptor and spend the majority of their time in the private practice. Academic half-days will include lecture and small-group activities. Assessment will be achieved by the use of the NBME Subject Exam in Family Medicine, clinical performance evaluation by faculty preceptor, observed clinical histories and physical exams and written case reports.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 765. RMC Community Public Health Practicum. 2 Credit Hours.**

This course will build upon the experiences in the first two years during Community & Public Health Practicum 1. All students will spend one afternoon per week during the core clinical clerkships during this practicum course. Students will rotate through a repeating sequence of four experiences each week: an afternoon in their public health continuity clinic, an immersion experience with Department of Health sites, work on their public health capstone project, and a monthly seminar series. Seminars in contemporary Public Health Issues. In their continuity primary care clinics they will be assigned to a public health FQHC clinic in an underserved community in Palm Beach County. They will work with general internist physicians in this clinic. The course is Pass/Fall and contingent upon attendance, enthusiasm, and professionalism.

**Components:** PRA.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 766. RMC Physicianship Skills IV. 0 Credit Hours.**

The PS4: Transitions to Residency course continues the themes addressed in PS1-2-3 related to the competencies that physicians must master to provide high quality and effective care in today's health care system. The course expands upon the themes of communication skills, medical ethics, medical humanities, wellness, time-management strategies, patient safety, systems-based care, inter-professional team care, and preparing for life as a medical resident within the applied setting of the year 3 clerkships. The PS4 course will meet for eight sessions for two-hours each during the academic year. Each session is delivered in the form of learning communities, with faculty and student continuity throughout the year. This allows for small group discussion, communication skill role plays, team-based learning, and the forging of mentoring relationships. A passing grade will be contingent on attendance at the eight sessions, completion of journal activities, and satisfactory participation.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 800. Ultrasound in Gynecology and Obstetrics. 2 Credit Hours.**

This rotation is an intensive experience with the faculty of the Division of Ultrasound in the Department of Obstetrics and Gynecology. It is geared for students interested in the fields of Obstetrics and Gynecology. The emphasis of the rotation is on the use of ultrasound as a diagnostic and therapeutic tool in women's health. The student will observe and participate in diagnostic ultrasound for gynecologic problems, routine and complicated obstetrics, and ultrasound guided procedures for gynecologic and obstetrical indications. This will be complemented by time in the operating room for general gynecologic surgery and on labor and delivery. Students are expected to display a high level of intellectual curiosity and perform as a self-motivated learner. For students with an interest in Obstetrics and Gynecology or Radiology there may be opportunities to become involved with research with the attending physicians.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 801. Pediatric Adolescent Gynecology. 2 Credit Hours.**

The pediatric and adolescent gynecology elective provides experience in the evaluation and management of young patients presenting for gynecologic care. Students will gain experience in taking a detailed gyn and psychosocial history in pediatric adolescent patients, evaluating and managing menstrual and endocrine disorders, chronic pelvic pain, and differences of sexual differentiation. Provision of contraception for adolescents and transgender care will be covered. A trauma informed approach to care will be emphasized. Students will participate in surgical treatment of endometriosis and ovarian cysts among pediatric and adolescent patients.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 802. Ophthalmology @ BPEI Naples FL. 2 Credit Hours.**

The primary goal of this elective is to provide medical students with a basic understanding of fundamental ophthalmology. Aspects of Ophthalmology that are pertinent to the practice of Internal Medicine, Neurology, Family Practice, and other primary care specialties will also be taught. Emphasis is placed on the ocular exam and findings related to common eye pathology such as conjunctivitis, cataracts, glaucoma, macular degeneration, retinal vascular occlusion, and diabetic retinopathy. Some exposure to more unusual cases in ophthalmology as a subspecialty will be obtained in clinics. Didactic sessions and patient care in clinics with attending faculty, and coordinated self teaching make up the majority of the elective. Students will also have the ability to go to the OR to observe ophthalmic surgery. Opportunity to assist faculty in writeup of case reports will also be available for the students considering ophthalmology as a career goal.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 803. ACE: JFK Medicine. 4 Credit Hours.**

The objective of this rotation is to provide students with hands on clinical experiences that are specifically designed to mirror their upcoming roles as interns in postgraduate training. The medical Sub intern will master specific core competencies and basic principles of inpatient medical care.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 804. ACE: Holy Cross Hospital Medicine. 4 Credit Hours.**

The objective of this rotation is to provide students with hands on clinical experiences that are specifically designed to mirror their upcoming roles as interns in postgraduate training. The medical Sub intern will master specific core competencies and basic principles of inpatient medical care.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 805. Geriatrics: Morse Center Palm Beach. 2 Credit Hours.**

The medical student will spend two weeks at the Morse Geriatric Center and assume responsibility for the care of older patients under the supervision of a board-certified geriatrician, geriatric medicine fellows, and members of the interdisciplinary care team. Our mission is to teach, model and assess the knowledge, skills, and attitudes needed by medical students to complete a comprehensive geriatrics assessment. Clinical activities will take place in multiple chronic care venues including the Morse Geriatric Center, a long term care facility; the Levine Rehabilitation Center, a subacute rehabilitation center; the Traditions of the Palm Beaches, an assisted living center; and the Geriatric Clinic.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 806. Wound Healing. 2 Credit Hours.**

The student will be will have the opportunity to participate in the management of a multitude of difficult-to-heal wounds including common wounds such as diabetic foot ulcers, venous ulcers, pressure ulcers), as well as atypical wounds such as wounds due to connective tissue disease and pyoderma gangrenosum. Students will interview patients and identify critical pathways that will lead to the diagnosis, etiology, pathophysiology and treatment of these difficult-to-heal wounds. Students will learn to care for these wounds by designing treatment plans as part of a multidisciplinary team.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 807. Advanced Gross Anatomy. 2 Credit Hours.**

Intended primarily for students applying for surgical, orthopedic or OB/GYN residency programs, this elective provides the ability to study advanced regional anatomy with opportunities for students to develop teaching and presentation skills.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 808. ACE: Neurosurgery. 4 Credit Hours.**

The neurosurgery service covers virtually the entire gamut of modern neurosurgical practice. The clinical service is divided into teams that focus primarily on specific subspecialty areas. The spine team cares for patients with tumors, trauma, degenerative disease, and other disorders. The general cranial team deals with cerebrovascular disease, tumors, epilepsy, movement disorders, and other pathology. A separate team cares for patients with head injuries. The pediatric division cares for patients at both Jackson Memorial Hospital and Nicklaus Children's Hospital. A separate team cares for a busy neurosurgical service at UHealth Tower that includes both cranial and spinal patients. The JMH Neuroscience Intensive Care Unit is one of the largest such facilities in the world and is an important center of the department's clinical activities.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 809. ACE: Advanced Anesthesiology. 4 Credit Hours.**

The Senior Elective rotation program is consistent with the guidelines of the American Society of Anesthesiology. However, few additions and modifications are included in order to make this rotation a more meaningful one for a student who has been exposed to anesthesiology during his junior year. By the end of the rotation, the student is expected to be proficient in airway management, pharmacology of general and local anesthetics, drug interactions, and the medical evaluation of surgical patients as it pertains to anesthesia.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 810. ACE: Gynecologic Oncology. 4 Credit Hours.**

The objective is for the student to gain experience in the diagnostic and therapeutic approaches for various gynecologic cancers through participating in direct patient care and Resident/Fellow didactic activities. Students will enhance interpersonal skills and professional conduct in the female patient encounter setting. After completing the rotation, students should feel comfortable with both pre and postoperative management of women having complex gynecologic procedures, and have an understanding of the postoperative and medical management of women with gynecologic malignancies.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 811. Dermatology. 2 Credit Hours.**

The student will attend 7 clinics per week, weekly management conferences and grand rounds, the Miami Dermatology Society meetings (which are held 6 times a year), journal club, and slide conferences. The student will participate in outpatient dermatologic care, under supervision of the Chief Resident and a member of the faculty, at Jackson Memorial Hospital and the University of Miami Hospital. Development of history taking, diagnostic skills, and ambulatory management of dermatological diseases will be emphasized in this elective program. Basic diagnostic procedures, including punch and shave biopsies, Tzanck, scabies, and potassium hydroxide preparations will be taught. There will also be opportunities to observe surgical therapy and the Dermatology inpatient service. All students will be required to participate in slide reading session with Dr. Elgart and there will be a quiz at the end of the rotation.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 812. Emergency Medicine Clerkship. 4 Credit Hours.**

The Emergency Medicine four-week rotation will provide both classroom teaching, simulation, and hands-on clinical experience in emergency care of patients of all ages with a wide spectrum of illnesses and injuries. Students are expected to evaluate and manage assigned patients under the direct supervision of an EM attending physician. Students will also gain additional experience at physical diagnosis and procedural skills by working with patients being evaluated by other housestaff, as appropriate for teaching. Emphasis is placed upon initial assessment, recognition, prioritization, and stabilization of acute emergency conditions. Procedural skills are an important emphasized component, including wound repair, intravenous techniques, airway management, ACLS care, fracture and soft tissue injury management, incision and drainage procedures, etc. This rotation also includes a variety of generalist skills in handling minor acute conditions that will be encountered frequently in primary care practice. The student will participate in the provision of pre-hospital emergency care with a Fire Rescue EMS crew.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 813. AISS Dermatology and Skin Pathobiology. 4 Credit Hours.**

The 4 week selective of Advanced Science Selective in Dermatology is to foster future generations and leaders of physician scientists in medicine, skin related fields such as dermatology, wound healing, plastic surgery, and otolaryngology, among others. The program is to train medical students in a focused knowledge area of Skin Science. Through the integration of fundamental basic science and clinical dermatology rotations, students will become familiar with common skin disorders and potential underlined mechanisms and unmet challenges.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 814. NextGenU.org Virtual Externship. 2 Credit Hours.**

Nextgenu.org is a compilation of online modules designed to expose the student to different aspects of medical care. Students sign up through nextgenu.org and may choose any combination of courses.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 815. Externship not at University of Miami. 2-8 Credit Hours.**

A maximum of 12 weeks may be spent in elective time away from UMMSM. Externship time in excess of the allowable 12 weeks will be counted for credit but will not count towards fulfillment of the required 14 weeks of Electives, unless a student obtains prior written approval from the Senior Associate Dean for Undergraduate Medical Education. In other words, at least two weeks of Electives must be taken at your home school. Externship experiences must be described in the course catalog of the host institution. No externships with physicians in private practice will be approved.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 816. Family Medicine in the Florida Keys. 2 Credit Hours.**

Since late 1992, third year medical students have been given the opportunity to complete their Family Medicine rotation in the private office of physicians practicing in the Florida Keys. The popular rotation has prompted many students to request similar experience during the senior year.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 817. Family Medicine Preceptorship. 2 Credit Hours.**

Students taking the Family Medicine Preceptorship will have the opportunity to experience the true essence and diversity of Family Practice in an ambulatory setting and develop knowledge of the specialty. Students are expected to participate with their family physician preceptor in all health care related activities. These may include but are not limited to: management of hospitalized patients, nursing home visits, home visits and volunteer activities.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 818. ACE: Maternal Fetal Medicine. 4 Credit Hours.**

The objective is for the student to gain experience in the diagnostic and therapeutic approaches for various obstetrical scenarios through participating in direct patient care. Students will enhance interpersonal skills and professional conduct in the female pregnant patient encounter setting. After completing the rotation, students should feel comfortable with the management of an uncomplicated vaginal delivery and also gain insight into the management of the complicated obstetrical patient.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 820. Ambulatory Internal Medicine. 2 Credit Hours.**

The ambulatory block rotation serves to enhance the medical student's knowledge and skills in caring for the ambulatory medical patient. Students will primarily be seeing patients which are new to the outpatient clinic, addressing preventive screening as well as care of chronic conditions such as diabetes, hypertension, cardiomyopathy, and chronic obstructive pulmonary disease. In addition, they will be exposed to patients with the following characteristics: - Ambulatory patients with acute complaints - Gender-specific medical care - Patients recently discharged from the inpatient setting or from the emergency room - Patients being evaluated for surgery - Patients presenting for routine GYN care.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 821. Arthritis. 2 Credit Hours.**

This elective will teach the student an approach to the diagnosis, management and therapy of common rheumatic disease including rheumatoid arthritis, gout and osteoarthritis. In addition, unusual diseases such as systemic sclerosis, polymyositis, and vasculitis are seen. Students will become proficient in the examination of joints and interpretation of joint fluid findings.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 822. UMH Cardiovascular Intensive Care Unit. 2 Credit Hours.**

This elective is intended to provide the senior medical student with a variety of cardiac critical care experiences, including acute myocardial infarction, cardiogenic shock, heart failure, valvular heart disease, post cardiac surgery, and arrhythmias. The student will also be exposed to clinical research ranging from valvular heart disease to stem cell transplantation. Three-to-four cardiology conferences will be offered each week, supplementing the daily teaching rounds, which include didactic presentations. An opportunity for procedures experience, including central line placement, will also be available.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 823. ACE Cardiology Teaching Lab: Harvey 4-week Program. 4 Credit Hours.**

This rotation consists of a comprehensive review of clinical cardiology. Clinicians must be able to evaluate and manage patients with cardiovascular disease as they represent a significant proportion of patients they encounter.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Spring.

**MDR 824. JMH Cardiology Consult. 2 Credit Hours.**

Give an overview of the senior elective. What is the student going to be exposed to and expected to learn about during this rotation? This rotation includes consultative diagnosis, electrocardiography, and intensive medical and surgical cardiac care at either JMH or VAMC.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 825. ACE: Integrative Medicine. 4 Credit Hours.**

Students will be immersed in the emerging field of Integrative Medicine and Health through direct experience of philosophy and therapies, didactic sessions, inquiry, observation, and self-reflection.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 826. ACE: Endocrinology, Diabetes and Metabolism. 4 Credit Hours.**

This is a 4-week elective intended to expose the senior medical student to a spectrum of experiences in Endocrinology and Diabetes.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 827. Advanced Geriatrics. 2 Credit Hours.**

This senior level elective in geriatric medicine allows students to gain additional experience evaluating older patients in a variety of care settings under the supervision of attendings physicians and fellows in geriatric medicine. It can also be designed to give students a clinical or research experience in a specialized area of geriatrics tailored to their interests. Students will be assigned to a primary clinical venue and will have opportunities to rotate through other care settings (inpatient consultation, outpatient, home-based and/or long term care).

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 828. Neurology Subspecialties Elective. 2 Credit Hours.**

Medical students who have completed the MMM Integrated Clerkship may perform a sub-specialty rotation at an array of sub-specialties neurology outpatient clinics. Outpatient rotations include Epilepsy, General Neurology, Neuromuscular, Stroke, Pediatric Neurology, Cognitive Disorders, Neuro-immunology, Movement Disorders, Neuro-Oncology, Sleep disorder, Sports/neurology medicine and Headache. Experience in EMG and Neurophysiology/EEG Telemetry can be arranged based on director approval and availability.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 829. JMH Coronary Care Unit. 2 Credit Hours.**

This elective presents students with the opportunity to follow patients with life endangering cardiac problems from the moment of admission to the hospital to discharge from the Unit. Particular emphasis is placed on clinical aspects of diagnosis and management of these patients. Participation in the insertion of Swann-Ganz and pacemaker catheters shall be allowed for students who show exceptional interest. The rotation will, in addition, provide experience in computerized monitoring of arrhythmias, EKG and echocardiographic interpretations, and experience in interpreting cardiac catheterization data.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 830. ACE: Gastroenterology. 4 Credit Hours.**

This is a 4-week clinical elective intended to expose the medical students to a wide spectrum of experiences in gastroenterology. Each week or two (depending on the length of the elective), the students will rotate through a different clinical setting and see patients/procedures based on the emphasis at that location.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 831. Obstetrics and Gynecology Sub-I. 4 Credit Hours.**

The sub-internship (Sub-I), a 4-week experience, offered during Phase 3 of the NextGen curriculum, is intended to provide a learning experience for the student that prepares them to serve as competent interns and effective members of an interdisciplinary team. The primary objective of this rotation is to emphasize mastery of clinical core obstetric and gynecologic competencies, to develop skills in inpatient management of obstetric and gynecologic patients, including laboring and surgical patients, as well as outpatient management in prenatal care and gynecologic care. Additionally, the goal of this sub-internship is to prepare fourth year medical students for intern year and is modeled after the role of the OB/GYN intern on the respective team. This rotation will promote the expansion of the clinical knowledge base and emphasize the practice of evidence-based obstetrics and gynecology.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 832. Advanced Geriatrics @ Miami Jewish Home. 2 Credit Hours.**

The medical student will spend two weeks at the Miami Jewish Health Systems and assume responsibility for the care of older patients under the supervision of a faculty member and members of the interdisciplinary care team. The goal is to teach, model and assess the knowledge, skills, and attitudes needed by medical students to complete a comprehensive geriatrics assessment. Clinical activities will take place in multiple chronic care venues available at the Miami Jewish Health Systems, which include a nursing home, an assisted living facility, outpatient clinics, and an inpatient hospital.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 833. Hematology. 2 Credit Hours.**

The Hematology consult service at JMH is responsible for the initial evaluation and ongoing management of patients admitted to JMH in which a hematology consult is requested. These requests can include consultations for malignant hematology conditions, benign hematology conditions and coagulopathies.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 834. Hepatology. 2 Credit Hours.**

The student will be exposed to a wide spectrum of liver and biliary disease. The pathogenesis and development of a practical clinical approach to the recognition and differential diagnosis of these disorders will be emphasized.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 836. ACE: Infectious Diseases. 4 Credit Hours.**

This elective provides a learning experience in the clinical discipline of Infectious Diseases, a discipline that stresses accurate definition of disease and establishment of an etiologic diagnosis through clinical assessment and microbiologic testing. Treatment can be rationally selected when the etiologic diagnosis is correctly identified. Appropriate initiation and discontinuation of antimicrobials are key activities on the ID service. Performing these steps under guidance of a physician with ID specialty training provides the essence of this clinical experience. This elective provides a unique opportunity to see a broad range of infectious diseases.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 837. Hospital, Health Care Services, and Access: An Interdisciplinary Inquiry. 2 Credit Hours.**

The healthcare services landscape is shifting. Hospitals, which were the foundation of American healthcare, are having to reconfigure their organizations and services. Satellite offices, acute care locations, and even pharmacies are offering more services to increasingly stratified patient consumers. This interdisciplinary course offers graduate students across the University the opportunity to examine closely the complexity of today's health care services and the necessarily multiple perspectives from which we view, think, and work in healthcare settings.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.



**MDR 838. Latin American Externship. 4 Credit Hours.**

Electives in various Latin American countries can be arranged on an individual basis. Areas of special interest will vary but most deal with tropical hygiene and medicine in underdeveloped areas. This program is a reciprocal part of our Latin American Training Program and as such entails certain stipulations. All students will be screened by the Office of Student Affairs and recommended in writing. Students must speak Portuguese if they are planning to travel to Brazil. All other countries in Latin America require conversational Spanish skills. Students will be responsible for their travel, room and board, and any other incidental expense. A maximum of 10 students will be allowed to travel to Latin America. Length of externship is 4-6 weeks. Students will receive credit for four weeks only. Participation in medical clerkships in the areas of Tropical Medicine, Internal Medicine, Pediatrics, Surgery and Family Medicine can be arranged in the following countries: Brazil, Colombia, Costa Rica, Ecuador, Mexico, and Peru.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 839. CCS: Medical Intensive Care Unit. 2 Credit Hours.**

The Critical care selective is mandatory for Phase 3 students who have successfully completed their clerkships. The purpose of this selective is to provide the student a robust exposure of critical care concepts, aligned with their career of choice. This selective focuses on developing skills to recognize early signs of a critically ill patient who would benefit from specialized intensive care and to implement interventions to stabilize a patient during the initial critical phase of their illness. The course will build on core physiological concepts students were introduced to previously. There will be unique opportunities to implement these concepts in real-time in the care of their critically ill patient, allowing them to directly observe changes in the patient's clinical status related to their intervention.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 840. ACE Street Medicine. 4 Credit Hours.**

The Street Classroom elective, hosted by the Dade County Street Response, will provide a unique experience for University of Miami Miller students in the care of our unhoused patient population. There will be opportunities to develop medical skills used in atypical social and environmental situations. Students will have the chance to identify barriers and coordinate outreach strategies. Additionally, students will manage problems related to mental health and substance use. They will work closely with the Dade County Street Response student staff, case managers, and other members of a multi-disciplinary outreach health care team. The primary function of DCSR is in social justice and solidarity - not in the creation of volunteer or student learning opportunities. However, we believe it is possible to offer an ethical balance of teaching/learning while providing critical social services. By offering this opportunity, we may hold the door open for students after us who wish to engage in the care of unsheltered persons. We hope our program encourages the next generation of physicians to see this population with clearer eyes and a more open heart.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 841. CCS: Pediatric Intensive Care Unit. 2 Credit Hours.**

The Critical care selective is mandatory for Phase 3 students who have successfully completed their clerkships. The purpose of this selectives is to provide the student a robust and educational introduction to critical care concepts; aligned with their career of choice. This selective is designed to allow students to recognize the early signs of a critically ill patient who would benefit from specialized care and learn the necessary interventions to stabilize a patient during the initial critical phase of their illness. Advanced physiological concepts will be introduced in a critical care setting, building upon concepts taught in Phase 1. The primary objective of this rotation is to promote the development and mastery of clinical critical care pediatric competencies. The environment of the PICU affords the student a broad exposure to clinically relevant physiological and pathophysiological principles and multisystem disease. The practice of evidence based medicine is promoted by encouraging students to conduct literature searches, with an emphasis on the basic principles of recognition and management of respiratory failure and shock in the pediatric population-infancy to 22 years.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 842. ACE: Nephrology. 4 Credit Hours.**

The clinical and teaching activities focus on the provision of consultative and direct medical care for patients with renal disease, hypertension, disorders of water, electrolyte and acid-base balance, and related metabolic and immunologic disease. Contemporary technologies used in diagnosis and treatment include renal biopsy, acute and chronic hemo- and peritoneal-dialysis, renal transplantation, plasmapheresis, evaluation of nuclear flow studies, and interventional nephrology.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 844. Physical Medicine and Rehabilitation. 2 Credit Hours.**

This elective provides a variety of settings to experience and learn about the field of physical medicine and rehabilitation.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 848. Brain Injury Neurorehab. 2 Credit Hours.**

This elective is intended for medical students who have completed the neurology core clerkship rotation. During the elective, the medical student will spend time on the Lynn Rehabilitation Center (LRC) Neurorehab service, shadowing the Rehab attending on daily rounds. Students will also have the opportunity to become familiar with Botulinum toxin injections and participate of Brain Injury Medicine Clinic on the 2nd and 4th Thursday of the month. There is an opportunity to get involved in clinical research activities that are ongoing in the division.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 849. ACE: Neurology Consultation. 4 Credit Hours.**

On this rotation, students who have completed the MMM Integrated Clerkship are provided the opportunity to evaluate patients with the neurology consulting resident and attending assigned to the service.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 850. ACE: Advanced Neurology. 4 Credit Hours.**

Third- or fourth-year students who have completed the MMM Integrated Clerkship may perform an elective rotation on the General Neurology service at Jackson Memorial Hospital, University Medical Hospital, or the Veterans Administration Medical Center with an array of outpatient and inpatient experiences. Outpatient rotations include Epilepsy, General Neurology, Neuro-ICU, Neuromuscular, Stroke, Pediatric Neurology, Cognitive Disorders, Neuro-immunology, Interventional Neuroendovascular, Movement Disorders, Neuro-Oncology, Sleep and Headache. Experience in EMG and Neurophysiology/EEG Telemetry can be arranged based on director approval and availability.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 851. Neurology Sub-I. 4 Credit Hours.**

The Neurology Sub-I on the inpatient neurology stroke service will provide 4th year medical students with the opportunity to serve as competent interns and effective members of an interdisciplinary team. Students will be able to learn and practice clinical skills and enhance their knowledge of clinical neurology and neuroanatomy with a focus on vascular neurology, as well as vascular and general neurology diagnostics and therapeutics. The course will consolidate and expand upon knowledge, attitudes and skills learned on the MMM thematic clerkship block and pertinent selectives.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 853. UMH Cardiac Catheterization. 2 Credit Hours.**

This is a 2-week elective intended to expose the senior medical student to the vast array of procedures performed in interventional cardiology. During the rotation, the student will have the opportunity to interact with multiple specialists who have expertise in various areas of interventional cardiology and attend cardiology conferences. The student will spend time at the Catheterization Laboratory of University of Miami Hospital (UMH), and be actively involved in the care of patients undergoing procedures. The student will discuss all cases with cardiology fellows and attending physicians and scrub in 3 or more diagnostic and interventional catheterization procedures daily. The student will attend cardiology conferences and a weekly half-day clinic where he/she will either see patients referred for catheterization procedures or follow up patients who had recently undergone a procedure. Learning during the rotation will be case-based. The student will meet at least once weekly with the clerkship director, or a designated faculty member. During these meetings, the student will present the case log and discuss one of the two required case work-ups as detailed below.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 855. AISS: Clinical Anatomy and Surgery - Thorax. 4 Credit Hours.**

This advanced anatomy selective course is offered to the NextGen Phase 3 Miller School of Medicine students who have a strong interest in deepening their knowledge of surgical anatomy and developing their surgical dissecting skills. Learning will be accomplished through self-directed on-demand lectures ("flipped classroom"), practical demonstrations by Anatomy faculty, proctored dissection of human donors, and real-time, hands-on exposure in the operating rooms.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 858. Reproductive Health. 2 Credit Hours.**

The objectives are for the student to improve knowledge and skills in managing both routine/complex contraceptive cases, learn about reproductive options including surgical/medical abortion and the surgical/medical management of miscarriage. The student should become proficient in counseling patients on contraceptive and abortion methods. During the two week sub-internship course, students will learn to incorporate preventative medicine, public health, and other issues in reproductive health into their daily clinical practice.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 860. ACE Ophthalmology. 4 Credit Hours.**

The 4 week clinical elective in ophthalmology is geared toward medical students with an interest in obtaining an in depth understanding of fundamental ophthalmology. Students will rotate through the emergency room, operating room, and various subspecialty clinics at the Bascom Palmer Eye Institute where they will shadow attendings and housestaff. A comprehensive didactic course will be conducted concurrently which includes interactive case based presentations. A final examination will be administered at the conclusion of the course. Students are also welcome to attend weekly grand rounds and fluorescein conferences, as well as daily resident lectures during the rotation.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 861. MIA VAMC Ophthalmology. 2 Credit Hours.**

To provide medical students the opportunity to shadow residents and attendings in the clinic and emergency room setting, and thereby become familiar with instrumentation utilized in standard eye examinations. To provide medical students the opportunity to watch ophthalmic surgery (cataract surgery, glaucoma surgery, retinal surgery) to provide initial exposure to microsurgical techniques.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 862. Orthopedic Trauma Elective. 2 Credit Hours.**

The student will participate in the management of traumatic injuries of the musculoskeletal system, excluding hand, and spine. The participation will be directed to acquiring an adequate history and physical examination and management of trauma through conservative and surgical approaches. The student will be asked to assist in the operating room to learn surgical skills, how to set up traction and to do closed reductions with cast applications.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 865. Adult Reconstruction & Joint Replacement. 2 Credit Hours.**

This is a four-week elective rotation intended to expose the senior medical student to spectrum of experiences in Joint Replacement and Orthopaedic surgery. Each week or two, the student will rotate through a different hospital/clinic setting and see patients/procedures based on the emphasis at that location.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 866. Hand Surgery. 2 Credit Hours.**

The student will be provided with the opportunity to become familiar with acute injuries, chronic conditions and congenital deformities of the hand. They will learn to take a history and do a physical examination of the hand, as well as assist in the conservative and surgical management of hand problems. The student will be expected to attend rounds, clinics, surgery and conferences, both hand and general orthopedic conferences. All Students will be required to take Ortho E.R. call with the PGY2 on the hand service.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 867. Musculoskeletal Oncology. 2 Credit Hours.**

Students on the orthopedic oncology service are expected to become familiar with the differential diagnoses of bone and soft tissue tumors and the principles of staging for orthopedic neoplasms. The student will evaluate patients in the outpatient and inpatient setting and be responsible for the management of these patients pre- and post-operatively with close resident, fellow and attending supervision. The student will develop history and physical examination skills, as they pertain to oncologic patients, as well as actively participate in their non-operative and operative management. The student will participate in the regular educational conferences including a bi-weekly didactic orthopedic oncology small group conference, a weekly multidisciplinary oncology conference, and a weekly pre-operative planning conference. In the second week, the student is encouraged to lead a brief, 30-minute educational presentation from a list of provided orthopedic oncology topics. There are a number of potential research projects, which are available to interested investigators through this division - both clinical and laboratory. Dr. Conway is the Program Director and member of the Orthopedic Residency Selection Committee.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 869. ACE: Family Medicine. 4 Credit Hours.**

The overall goal for the students taking Inpatient Family Medicine (Ward Family Medicine) is to afford them the opportunity to experience Family Medicine in an inpatient setting, and to develop some knowledge of the specialty.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 870. Orthopedic Spine. 2 Credit Hours.**

This rotation provides exposure to traumatic and degenerative affections of the spine. Students will participate in all rounds, clinics, and conferences.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 871. ACE: Otolaryngology. 4 Credit Hours.**

Otology is the surgical sub-specialty of hearing, balance, skull base and cochlear implant surgery, and facial nerve dysfunction.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 872. Introduction to Geriatric Psychiatry. 2 Credit Hours.**

The Department of Psychiatry offers an elective in Geriatric Psychiatry. The elective can be tailored to the student's special needs. Clinical experiences focus on diseases that are more prevalent in the geriatric population such as delirium and dementia.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 873. Otolaryngology Elective. 2 Credit Hours.**

This rotation gives an overview of the scope of activities covered by Otolaryngology. Students are expected to get exposed to both clinical and surgical aspects of Otolaryngology and explore the variety of different subspecialties within this field. Students are encouraged to start if possible with this course before taking MDR875.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 874. Introduction to Inpatient Psychiatry. 2 Credit Hours.**

This elective allows students to diagnose and manage a variety of psychiatric disorders. This includes patients with mood disorders, psychotic disorders and other conditions that require psychiatric hospitalization. Under the supervision of attending physicians students will manage patients with a variety of therapeutic techniques available for their treatment. We have several units available for this elective: - 2 Inpatient units (ABC1 & ABC2) for acutely ill adult psychiatric patients – JMH

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 875. Otolaryngology Sub-I. 4 Credit Hours.**

This rotation is a clinical and surgical Otolaryngology clerkship. Students are expected to get involved in both clinical and surgical aspects of Otolaryngology. Students are encouraged to start if possible with MDR873 before taking this course.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 877. AISS: Immunology, Allergy, Microbiology, and Transplant. 4 Credit Hours.**

Immunology is increasingly important in understanding the pathophysiology of disease and in the diagnosis and treatment of disease. In this Immunology Advanced Integrated Science Selective, students will engage in self-directed learning of advanced immunological topics and experience clinical applications. In a series of clinical rotations, students will spend 1 week each with faculty in Pediatric Allergy/Immunology, Pediatric Infectious Disease, Pediatric Bone Marrow Transplant, and Adult Solid Organ Transplant. Additionally, throughout the rotation, there will be opportunities for additional clinics such as, but not limited to: Bascom Palmer's Uveitis and Ocular Immunology Clinic, Adult Rheumatology Arthritis Clinic, Adult Inflammatory Bowel Disease Clinic, and Pediatric Cystic Fibrosis Clinic. At the end of the 4 week rotation, students should have an understanding and appreciation for the translational application of basic immunology to the clinical realm.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 879. ACE: Pathology. 4 Credit Hours.**

This elective is geared towards students who wish to explore Pathology as a career option or who seek to better understand and utilize laboratory medicine pathology services in their clinical practice. Students are provided with hands-on experience in all aspects of diagnostic laboratory medicine and attend all departmental teaching conferences.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 880. Adolescent Medicine. 2 Credit Hours.**

The goals of this elective clinical rotation are to broaden the student's general knowledge of Adolescent Medicine, with emphasis on learning diagnosis and treatments of unique physical, developmental, and psychosocial problems of patients ages 10 – 25 years. The student will participate in the multidisciplinary team approach to adolescent health care, gain experience in communicating and interacting with a wide variety of inpatient and outpatient adolescents, and attend all aspects of the Adolescent Medicine teaching program. ADOLESCENT INPATIENTS The student will have opportunities to perform consultation examinations of adolescent patients at Holtz Children's Hospital, as well as participate in multidisciplinary care. The student also will participate in consultations at Ryder Trauma Center and at the psychiatric inpatient unit for adolescents at JMH's Behavioral Health Hospital. ADOLESCENT OUTPATIENT CLINICS The student will attend and participate actively in the General Adolescent Medicine Clinics, as well as the Adolescent Specialty Clinics (Gynecology, STD/HIV, Sports Medicine, Chronic Diseases, High School) and outreach educational events. Students will be required to do health education topic discussions in the clinic and/or community settings also.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 881. Child Protection Team. 2 Credit Hours.**

The Child Protection Team elective is designed to familiarize the students to all aspects of child abuse. The students will learn to assess and document physical abuse and neglect, attend court hearings and participate in case staffing. This elective is geared to meet the needs of all medical students (independent of their career goals) and introduce them to the community resources available for children and their families.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 882. AISS: Neuroscience and Neurology. 4 Credit Hours.**

This Selective shall aim to introduce NextGenMD students to key and specialty areas of clinical neurology while ensuring that the students have a strong foundation in basic cellular, molecular and systems neuroscience needed for deeper understanding of the clinical field. Thus, there will be active review and learning of fundamental neuroscience linked to clinical experiences in the following areas: general neurology, epilepsy, stroke, neurocritical care, movement disorders, neuromuscular, dementia, neuro-oncology, neuro-pediatrics, genetics, interventional endovascular and sleep disorders. The clinical experience will complement the basic neurosciences throughout the Selective. It is envisioned that many Neuroscience pathway students, in addition to those from other pathways, might choose to take this Selective.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 883. ACE: Neonatology. 4 Credit Hours.**

The student will be part of the team headed by an attending, and will follow and manage one or two patients together with one of the residents on the team. Teaching rounds will be conducted 5 times a week, work rounds 7 days a week. During the first 2 weeks of the rotation the student will refresh and refine his/her physical examination skills. He/she will become familiar with the nutritional needs of neonates and infants and with how these needs can be met by feedings and parental alimentation. How to prevent and correct imbalances in body water and electrolytes will be stressed. Problems with anemia, hyperbilirubinemia, infection (congenital or acquired after birth), hypoglycemia and hypocalcemia and their management will be explained. During the second two weeks of the rotation the focus of training will change to infants with respiratory and cardiovascular failure. The student will become familiar with the different causes of respiratory failure, how to judge the severity of respiratory failure by interpreting arterial blood gases and acid base status, and how to support the infants with supplement O<sub>2</sub> or mechanical ventilation. Furthermore, the students will be exposed to signs and symptoms of cardiovascular failure, impaired regulation of breathing, and the consequences of hypoxic ischemic brain injury.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 884. AISS: Pharmacology and Pharmacy. 4 Credit Hours.**

The Pharmacology and Pharmacy Selective will provide those who enroll with a detailed overview and understanding of basic pharmacology and drug development concepts, including, but not limited to drug-receptor interaction, elucidation of the mechanism of action, pharmacokinetic and drug metabolism concepts, active/toxic metabolites, role of pharmacogenomics and drug-drug interactions, the drug discovery and development process, overview of regulatory requirements and the FDA approval process, and clinical trials (phases 0 to 4). Students will be expected to learn what are the requirements of a safe and effective drug, what are possible sources for new drugs and what are the basic regulatory requirements for their approval, what are the effects of pharmacogenomics and drug-drug interactions, and what are the basic concepts of clinical trials. The corresponding clinical section, Acute Care Pharmacy selective is designed to offer students insight into the intricate workings of pharmacy in the acute care setting. Students will work alongside clinical pharmacists and pharmacy administration who will explain their pharmacy services and their role in patient care. Students are expected to learn pharmacy operations, methods utilized to minimize medication errors, role of the clinical pharmacist in the medical team, and an overview of pharmaco-economics.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 885. Pediatric Cardiology. 2 Credit Hours.**

The student is exposed to the physiology, clinical and laboratory diagnosis, and management of the infant and child with congenital and acquired heart disease. Physical examination skills are emphasized during participation in the out-patient clinics at Jackson Memorial Hospital. Cardiology ward rounds are conducted daily providing the opportunity to follow hospitalized patients from clinical diagnosis to cardiac catheterization to cardiac surgery. Interpretation of pediatric electrocardiograms and echocardiograms are included in the individual patient's evaluation. Fundamentals of cardiac electrophysiology and pulmonary physiology, as it relates to heart disease, will be discussed in scheduled tutored session.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 886. Pediatric Dermatology. 2 Credit Hours.**

The understanding of mechanisms of pathophysiology and effective therapy in pediatric dermatological diseases is stressed in this elective. The students will participate in management of in-patient and out-patient dermatological and connective tissue problems. Diagnostic techniques by light microscopy and immunologic techniques and standard dermatologic laboratory techniques will be emphasized. The student will attend approximately 7 clinics per week, weekly management conferences and grand rounds, the Miami Dermatology Society meetings (which are held 6 times a year), journal club, and slide conferences. All students will be required to participate in slide reading session with Dr. Elgart and there will be a quiz at the end of the rotation.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 887. Pediatric Emergency Medicine. 2 Credit Hours.**

The student will be the primary physician for pediatric patients presenting with acute problems in the emergency facility of Jackson Memorial Hospital. The student will evaluate and treat patients with an extensive variety of acute illnesses under supervision of pediatric faculty and house staff.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 889. ACE: Pediatric Gastroenterology, Hepatology, and Nutrition. 4 Credit Hours.**

The student will be able to participate in the care for inpatients and outpatients; to participate in daily rounds on inpatients as well as consults with the attending physician, fellow and pediatric resident team. Opportunities to conduct patient interviews and examinations as well as to observe/participate in GI procedures will be an integral part of the elective. The student will review indications/risks for particular procedures and surgeries as they relate to pediatric gastroenterology. Students will also participate in weekly outpatient clinics. Students will also learn care of gastrostomy tubes. The 4 week rotation will consist of 2 weeks inpatient and 2 weeks outpatient. For the 2 week rotation, the student will choose either the inpatient or outpatient component of the rotation.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 890. Genetics and Metabolic Diseases. 2 Credit Hours.**

This elective exposes students to diagnosis and management of a variety of genetic syndromes, inheritable metabolic diseases, hereditary cancer syndromes, and other heritable disorders.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 891. Pediatric Infectious Diseases and Immunology. 2 Credit Hours.**

The 2-week rotation in Pediatric Immunology and Infectious Disease is designed to give the student a broad experience in the immunological and infectious disease problems of children. The student will participate in both the inpatient and outpatient care of children with such problems by rounding daily with the attending fellow and the clinical pediatric infectious disease faculty. The student will also have the opportunity to assist in the care of children with HIV-1 infection as well as other immunodeficiency diseases.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 893. ACE Pediatric Surgery. 4 Credit Hours.**

This busy surgical service will allow the medical student the opportunity to care for surgical problems in the pediatric population.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.



**MDR 894. ACE Pediatric Nephrology. 4 Credit Hours.**

This course will emphasize the clinical approach to health maintenance and diseased states of the renal and urologic systems. We aim to provide a review of renal pathophysiology through representative outpatient and consultative clinical encounters, as well as educational conferences. By the end of the course, you should have an understanding of the abnormal findings, diagnostic evaluation and therapeutic approach for a given disease process. In addition, we hope that you will develop an appreciation for the scientific evidence behind current clinical practice in pediatric nephrology.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 895. ACE: Pediatric Pulmonary. 4 Credit Hours.**

The objective of this rotation is to provide the students with the clinical exposure to acute and chronic, acquired and congenital, respiratory diseases from infancy to adolescence in both in-patient and out-patient venues. These conditions include but are not limited to asthma, chronic cough, chronic lung disease of infancy, cystic fibrosis, congenital lung abnormalities, recurrent and complicated pneumonia. The student will participate in the in-patient rounds or activities, ambulatory clinics and didactic conferences.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 896. Poison Center Toxicology. 2 Credit Hours.**

The senior student will be given the opportunity to assist the Poison Information Specialists and Toxicologists at the Florida Poison Information Center with the diagnosis, triage, treatment and follow-up of patients exposed to toxins. The high volume of cases (over 170 patients per day) will allow the student to learn about a wide variety of toxins in both pediatric and adult patients. The clinical experience at the Poison Center will be supplemented with didactic lectures and bedside consultations for both adult and pediatric patients hospitalized at Jackson Memorial Hospital.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 897. Pediatrics Sub-I. 4 Credit Hours.**

The large pediatric inpatient service offers a unique opportunity to the student to improve the clinical and didactic skills in the diagnosis and management of all the common and most of the uncommon disorders in children. The senior student will be placed in the regular first year resident rotation functioning as part of the ward team under direct supervision of pediatric residents and the attending physicians. There might be two (2) attendings on the team, one full time faculty member in general pediatrics and the other a pediatric specialist or a practicing community pediatrician.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 898. Ophthalmology @ Palm Beach Gardens. 2 Credit Hours.**

The primary goal of this elective is to familiarize the student with general concepts of Ophthalmology, and how to conduct a basic eye examination. Aspects of Ophthalmology that are pertinent to the practice of Internal Medicine, Neurology, Family Practice, and other primary care specialties will also be taught. Emphasis is placed on the ocular exam and findings related to common eye pathology such as cataracts, glaucoma, macular degeneration, diabetic retinopathy, and conjunctivitis. Some exposure to more unusual cases to ophthalmology as a subspecialty will be obtained in clinics. Didactic sessions with attending faculty, patient care with fellows in the clinics and coordinated self-teaching make up the majority of the elective. Students will also have the ability to go to the OR to observe ophthalmic surgery. Opportunity to assist faculty in write-up of case reports will also be available for the students considering ophthalmology as a career goal.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 900. Physical Medicine and Rehabilitation Sub-I. 4 Credit Hours.**

The sub-internship (Sub-I), a 4-week experience, offered during Phase 3 of the NextGen curriculum is intended to provide a learning experience for the student that prepares them to serve as competent interns and effective members of an interdisciplinary team. The student will participate as an intern on the service. This will include performing Histories and Physicals and Writing admission orders to the service. These documents will be reviewed and supervised by the attendings and residents. In addition, the student will follow these patients through their rehabilitation stay and participate in the weekly interprofessional team conference (with nursing, physical therapy, occupational therapy, social work/case management, speech therapy and psychology). The student will be responsible for day to day care of their patients and documentation daily in the electronic Medical Record. Notes will be reviewed by the resident/attending on a daily basis. Orders will be written in accordance with the current UM student at JMH policies (it is expected that the student will have Cerner access and be familiar with it before starting). The students will participate in overnight call two week days during the rotation and one weekend day coverage, staying overnight with the rest of the team. The types of patients the student may see will include neuromuscular diseases (eg. Guillain-Barre, Multiple Sclerosis, amyotrophic lateral sclerosis), general debility (following prolonged hospital care for cardiac, pulmonary or traumatic issues), organ transplants (including liver, kidney, heart and lungs) and cardiovascular diseases (stroke, post CABG, heart failure, LVAD), spinal cord injuries, traumatic brain injuries, orthopedic issues (joint replacements, fractures, polytrauma).

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.



**MDR 901. Child and Adolescent Psychiatry. 2 Credit Hours.**

Various clinical services are utilized for undergraduate and post-graduate training in Child & Adolescent Psychiatry: the Children's Inpatient Unit and the Child & Adolescent Outpatient Clinic. Students may be assigned to one or a combination of these services where they will have a supervised experience.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 902. Consultation-Liaison Psychiatry. 2 Credit Hours.**

This service is responsible for psychiatry consultations to medico-surgical inpatients and for liaison activities with other clinical services and units of the general hospital. Students under supervision will respond to psychiatry consultation requests in evaluating the patient and making recommendations to the referring physician. They will join faculty members in their liaison work and attend regularly scheduled seminars and consultation reviews. The Psycho-Oncology service at Sylvester Comprehensive Cancer is responsible for psychiatric evaluation and assessment of cancer patients, throughout all phases of illness: initial diagnosis, during treatment, recurrence, chronic phases of illness, advanced cancer, end of life care, and during cancer survivorship. The service is provided in the ambulatory oncology setting, as well as the acute inpatient oncology units and bone marrow transplant unit at Sylvester Comprehensive Cancer Center. This elective will give the medical students the opportunity to work with multidisciplinary teams comprised of Psychiatrist, Psychologists, Oncologists, LCSWs, and Palliative Care Physicians.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 903. ACE: Geriatric Psychiatry. 4 Credit Hours.**

The Department of Psychiatry offers an elective in Geriatric Psychiatry. The elective can be tailored to the student's special needs. Clinical experiences focus on diseases that are more prevalent in the geriatric population such as delirium and dementia.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 904. ACE Inpatient Psychiatry. 4 Credit Hours.**

This elective allows students to diagnose and manage a variety of psychiatric disorders. This includes patients with mood disorders, psychotic disorders and other conditions that require psychiatric hospitalization. Under the supervision of attending physicians students will manage patients with a variety of therapeutic techniques available for their treatment. We have several units available for this elective: - 2 Inpatient units (ABC1 & ABC2) for acutely ill adult psychiatric patients – JMH 2 Inpatient units (ABC1 & ABC2) for acutely ill adult psychiatric patients – JMH

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 905. Surgical Skills Elective. 2 Credit Hours.**

This elective offers the opportunity to learn and practice operative techniques in the Minimally Invasive Surgical Training and Education (MISTE) Center. Students will review assignments from classic texts in surgical technique as well as operative videos prior to performing the same skills in high-fidelity simulation. Emphasis will be placed on open surgical skills and emergency procedures. The goal of this elective is for students to arrive in surgical residency with operative skills, experience, and confidence that exceeds expectations for their level of training.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 906. Ambulatory Psychiatry. 2 Credit Hours.**

The courses consist of daily required didactic conferences and practical film interpretation sessions covering all areas of Radiology.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 907. Research Experience. 0 Credit Hours.**

**Components:** MOD.

**Grading:** NON.

**Typically Offered:** Fall & Spring.

**MDR 909. Radiology Clerkship. 2 Credit Hours.**

Radiology is a required 2 week clerkship available to third and fourth year medical students, and must be successfully completed prior to graduation. The course is offered once a month 12 times a year. It is a structured two week course mainly at Jackson Memorial Medical Center. The aim of the course is to teach the student what every physician should know about diagnostic imaging and how to effectively use our varied radiographic techniques and imaging modalities to diagnose disease, regardless of their field of interest. An Advanced Radiology elective is offered in 2-week blocks (B blocks only) to those students wanting to gain more in depth knowledge or who are interested in the field as a career choice. Multiple blocks may be taken. Please refer to Course MDR 910 for description. The course consists of daily required morning image interpretation sessions rotating through the subspecialties of Radiology as well as afternoon small group interactive sessions for case solving, based on the assigned on-line video tutorials. There will be an assigned instructor which will be an attending, fellow, or senior resident. Attendance is mandatory and will be recorded. The students will be assessed for performance during these sessions. The students are also invited to attend other departmental and sectional conferences. A final exam will be given on the last day of the course.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 910. ACE Advanced Radiology. 4 Credit Hours.**

Advanced Radiology consists of a more extensive exposure to one or two subspecialty areas in clinical Diagnostic Radiology

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 911. Nuclear Medicine. 2 Credit Hours.**

The Nuclear Medicine elective allows the student to interact with the clinical and research activities of Nuclear Medicine as it relates to diagnostic imaging and therapy with this modality. Students are trained under the direct supervision of our faculty members with guidance from our residents. Learning Techniques include: daily work, teaching file, and conference attendance. Reading sessions start at 8:30 a.m. daily. While patients are injected for studies during the morning, the students observe the technical aspect of this procedure prior to interpreting the studies with residents and attendings. An example of such studies is the myocardial perfusion studies - patients are injected early in the morning, residents and students monitor the stress and rest imaging acquisitions. Students will also observe many other nuclear medicine procedures, such as bone scans, renal scintigraphy, thyroid scintigraphy and PET/CT scans.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 912. AISS: Clinical Anatomy and Surgery - Urogenital/Gynecology. 4 Credit Hours.**

This advanced anatomy selective course is offered to the NextGen Phase 3 Miller School of Medicine students who have a strong interest in deepening their knowledge of surgical anatomy and developing their surgical dissecting skills. Learning will be accomplished through self-directed on-demand lectures ("flipped classroom"), practical demonstrations by Anatomy faculty, proctored dissection of human donors, and real-time, hands-on exposure in the operating rooms.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 913. HCH Cardiology. 2 Credit Hours.**

This rotation includes consultative diagnosis, electrocardiography, and intensive medical and surgical cardiac care at Holy Cross Hospital and Clinics. Under the direct supervision of the attending cardiologist, students will have the opportunity to evaluate patients presenting with a full spectrum of cardiac complaints. The student will participate in consultation rounds with the attending cardiologists, in both the inpatient and outpatient settings, participate in the evaluation of noninvasive testing, and observe cardiac catheterization and cardiac surgery of their patients.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 914. AISS: Clinical Anatomy and Surgery - Extremities. 4 Credit Hours.**

This advanced anatomy selective course is offered to the NextGen Phase 3 Miller School of Medicine students who have a strong interest in deepening their knowledge of surgical anatomy and developing their surgical dissecting skills. Learning will be accomplished through self-directed on-demand lectures ("flipped classroom"), practical demonstrations by Anatomy faculty, proctored dissection of human donors, and real-time, hands-on exposure in the operating rooms.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 915. ACE: Radiation Oncology. 4 Credit Hours.**

The objective of the Radiation Oncology elective is to familiarize the student with the treatment of neoplastic disease in general, and specifically with the role of ionizing radiation in treating cancer and related disorders.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 916. Research. 0-8 Credit Hours.**

Guidelines for obtaining academic credit for research are found on the subsequent pages. This information is also available on the MedEd website under Important Documents for students. MDR 916 "Research" – Used to designate credits student has been awarded. Seniors are required to always have on their schedule an appropriate number of credits required for graduation. Since Research Credits are frequently granted late in the Senior year, students must schedule Electives late in the year that they may drop if and when Research credit is granted.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 917. Burn Unit Sub-I. 4 Credit Hours.**

The Burn Service admits over 150 major injuries and 300 total patients per year. Concentration is on acute care but reconstruction is also done. Principles of critical care, infection control, nutritional support, wound care and rehabilitation are stressed. Opportunities for clinical research exist.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 918. Diagnostic Radiology Elective. 2 Credit Hours.**

Radiology two-week observational elective consists of a rotation in all subspecialties in Diagnostic Radiology. The student will participate as an observer during read out sessions and interventional procedures. This is designed for the student who wants to learn more about each subspecialty in Radiology and or potentially thinking about a career in Radiology. For those who desire to do a Radiology Residency, we recommend taking our Advanced Clinical Experience Elective (4 weeks).

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 924. Introduction to Neurosurgery. 2 Credit Hours.**

This 2 week elective is intended to give the third year or fourth year medical student an initial acquaintance to neurosurgery including the pathophysiology, evaluation, and management of the spectrum of disorders that confront the modern neurosurgeon. The UM neurosurgery service covers virtually the entire gamut of neurosurgical practice. The clinical service is divided into teams that focus primarily on specific subspecialty areas. The spine team cares for patients with tumors, trauma, degenerative disease, and other disorders. The general cranial team deals with cerebrovascular disease, tumors, epilepsy, movement disorders, and other pathology. A separate team cares for patients with head injuries. The pediatric division cares for patients at both Jackson Memorial Hospital and Miami Children's Hospital. A separate team cares for a busy neurosurgical service at UHealth Tower that includes both cranial and spinal patients.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 926. Oral and Maxillofacial Surgery. 2 Credit Hours.**

The Department of Surgery's Division of Oral and Maxillofacial Surgery offers the student an intense experience in Head and Neck Reconstructive Surgery, Oral and Maxillofacial Pathology, Facial Trauma and Head and Neck Anatomy. The attending and resident staff is committed to providing the student with a valuable educational experience. This is the only exposure the medical student receives regarding the problems related to the oral cavity and to oral and maxillofacial surgery, which may confront him/her at a later date in his/her career. This is an advantageous rotation for those interested in ENT, Plastic Surgery, and Ophthalmology.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 928. Plastic Surgery. 2 Credit Hours.**

This rotation provides comprehensive exposure to all facets of aesthetic plastic and reconstructive surgery at UM affiliated clinical institutions and educational venues.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 929. CCS: Surgical Intensive Care Unit. 2 Credit Hours.**

The critical care selective is mandatory for Phase 3 students who have successfully completed their clerkships. The purpose of this selective is to provide the student a robust and educational introduction to critical care concepts; aligned with their career of choice. This selective is designed to allow students to recognize the early signs of a critically ill patient who would benefit from specialized care and learn the necessary interventions to stabilize a patient during the initial critical phase of their illness. Advanced physiological concepts will be introduced in a critical care setting, building upon concepts taught in Phase 1. In addition to being introduced to the critical care environment students will be exposed to a wide array of surgical pathologies as well as the management of both pre and post-operative patient. This management will include recognizing and treating post-operative complications in a wide variety of post-operative patients from transplant to emergency general surgery patients. In addition the student will be introduced to and exposed to the advanced life sustaining modalities that exist in the ICU. These devices range from hemodynamic monitoring to dialysis to ECMO.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 930. Transplant Surgery. 2 Credit Hours.**

The student will have responsibilities similar to a junior house officer, under strict supervision of the Transplant Team because of the critical care of these patients. The student will be present at the operation for vascular access surgery, general surgery on transplantation patients and chronic renal failure patients, which would include bilateral native nephrectomies (usually for difficult to control hypertension), kidney, liver, pancreas, and pancreatic islet transplants, and related surgery. In addition, issues related to native organ disease – kidney, pancreas, liver, leading to need for transplantation – will be covered. There will be weekly conferences and seminars in research and clinical problems in kidney, liver, and pancreas transplantation and participation in weekly immunobiology transplant conferences.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 931. Trauma Surgery Sub-I. 4 Credit Hours.**

The sub-internship (Sub-I), a 4-week experience, offered during Phase 3 of the NextGen curriculum is intended to provide a learning experience for the student that prepares them to serve as competent interns and effective members of an interdisciplinary team. This 4-week rotation will expose the Next Gen phase 3 student to the comprehensive world of trauma that will include exposure to patients in all areas of trauma care. These areas will include the trauma resuscitation bays, the trauma operating rooms, the trauma floors, clinics and ICU. Students will develop an understanding of the complexities of managing both blunt and penetrating trauma across all age groups and all demographics. The Sub-intern will also learn how to develop collaborative skills and strong interpersonal communication skills as well as the development of professionalism in all facets of the rotation. This is an ideal opportunity for the Sub-I to function as an integral member of the trauma team on par with the intern.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 932. CCS: Trauma Intensive Care Unit. 2 Credit Hours.**

The Critical care selective is mandatory for Phase 3 students who have successfully completed their clerkships. The purpose of this selective is to provide the student a robust and educational introduction to critical care concepts; aligned with their career of choice. This selective is designed to allow students to recognize the early signs of a critically ill patient who would benefit from specialized care and learn the necessary interventions to stabilize a patient during the initial critical phase of their illness. Advanced physiological concepts will be introduced in a critical care setting, building upon concepts taught in Phase 1. In addition to being introduced to the critical care environment students will be exposed to a wide array of both surgical and trauma pathologies / injuries. Students will in addition to becoming familiar with the management of post-operative patients will also be introduced to the complexities of managing polytrauma patients. This management can include recognizing and treating post-operative complications in both acute care surgical patients as well as trauma patients. In addition the student will be introduced to and exposed to the advanced life sustaining modalities that exist in the ICU. These devices range from hemodynamic monitoring to dialysis to ECMO as well as many other forms of life sustaining equipment.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 933. HCH General Surgery. 2 Credit Hours.**

This elective in General Surgery will focus on Open and Laparoscopic General Surgery, Surgical Oncology, Colorectal Surgery and Vascular Surgery. The cases include cholecystectomies, colon resections, hepatobiliary and pancreatic surgery, complex hernia repairs, distal bypasses, aortic aneurysms and vascular stenting. In addition, appendectomies, hernias, hemorrhoid operations, as well as other outpatient procedures will be part of the surgery experience.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 934. AISS: Clinical Anatomy and Surgery - Head and Neck, Brain and Spinal Cord. 4 Credit Hours.**

This advanced anatomy selective course is offered to the NextGen Phase 3 Miller School of Medicine students who have a strong interest in deepening their knowledge of surgical anatomy and developing their surgical dissecting skills. Learning will be accomplished through self-directed on-demand lectures ("flipped classroom"), practical demonstrations by Anatomy faculty, proctored dissection of human donors, and real-time, hands-on exposure in the operating rooms.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 935. AISS: Clinical Anatomy and Surgery - Brain and Spinal Cord. 4 Credit Hours.**

This advanced anatomy selective course is offered to the NextGen Phase 3 Miller School of Medicine students who have a strong interest in deepening their knowledge of surgical anatomy and developing their surgical dissecting skills. Learning will be accomplished through self-directed on-demand lectures ("flipped classroom"), practical demonstrations by Anatomy faculty, proctored dissection of human donors, and real-time, hands-on exposure in the operating rooms.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 936. AISS: Clinical Anatomy and Surgery - Abdomen. 4 Credit Hours.**

This advanced anatomy selective course is offered to the NextGen Phase 3 Miller School of Medicine students who have a strong interest in deepening their knowledge of surgical anatomy and developing their surgical dissecting skills. Learning will be accomplished through self-directed on-demand lectures ("flipped classroom"), practical demonstrations by Anatomy faculty, proctored dissection of human donors, and real-time, hands-on exposure in the operating rooms.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 938. Urology Elective. 2 Credit Hours.**

This elective is designed for students who are interested in learning more about urologic chief complaints and patient presentations, and gaining exposure to both the office-based and surgical management of urologic disease. Students interested in Urology as a career choice should consider the Urology Sub-I (course MDR 937).

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 940. Public Health Elective. 2-4 Credit Hours.**

The Public Health elective will be offered to senior MD/MPH medical students if approved by the course director for time spent on a 2- or 4-week public health externship. MD students who have completed public health coursework will also be considered. The consideration of elective credit includes the content and quality of the program/ project and its relevance to the dual degree curriculum. In addition, the dates of the program must mesh with the schedule of the UMMSM MD/MPH medical school curriculum and academic calendar. Each application will be considered on an individual basis with consideration of the student's overall performance and standing in the UMMSM MD/MPH program.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 942. ACE: Interventional Radiology at VA. 4 Credit Hours.**

This course is a follow-up course to the initial/introduction to Vascular/Interventional Radiology and consists of intensive hands-on experience in Vascular and Interventional Radiology procedures under the direct supervision of interventional radiologists. This course will build off prior themes and objectives of learning about and participating in (a) the use of radiological imaging to guide procedures, (b) the evaluation and management of pre- and post- procedural IR patients, and participation in various procedures by encouraging a greater level of student autonomy and independence while working directly with an IR attending. Specifically, this course will emphasize one-on-one learning with an Interventional Radiology attending and development of general skills an IR resident should have as well as development of skills necessary in smaller procedures such as ultrasound-guided abscess drainages and paracentesis. Students will primarily work alongside an IR attending(s) and IR residents at the VA to evaluate and prepare patients pre-procedurally, obtain appropriate informed consents, discuss pre-procedural planning including proper imaging modality selection with their attending and IR residents, perform basic procedures in the measure and extent considered appropriate by the attending (dependent on the student's level of knowledge and expertise), and manage post-procedure care as well as long-term complications. As the student's skills and knowledge increase during the rotation, the student may be allowed increased participation, always under the direct supervision of the attending or a Fellow designated by the attending.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 944. MIA VAMC General Surgery Sub-I. 4 Credit Hours.**

The surgical program at the VA Medical Center is a truly General Surgical Service which focuses on Open and Laparoscopic General Surgery, Surgical Oncology, Colorectal Surgery and Vascular surgery. The cases include cholecystectomies, colon resections, hepatobiliary and pancreatic surgery, complex hernia repairs, distal bypasses, aortic aneurysms and vascular stenting. In addition, appendectomies, hernias, hemorrhoid operations and an increasing number of outpatient surgeries compose our experience.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 945. Taylor Breast Health Center. 2 Credit Hours.**

This elective will consist of a 2 week or a 4 week block at the Taylor Breast Health Center. During this time, the student will have the opportunity to participate in the diagnosis and follow-up of patients with the full spectrum of breast diseases, most importantly breast cancer.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 946. ACE: Plastic Surgery. 4 Credit Hours.**

The primary objective of this rotation is to promote the development and mastery of clinical core plastic, aesthetic, and reconstructive competencies and to review common reconstructive and cosmetic conditions. The practice of evidence based medicine is promoted by encouraging students to conduct literature search for current guidelines

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 947. ACE: HCH Cardiothoracic Surgery. 4 Credit Hours.**

This unique surgery sub-internship will allow the student to learn in a preceptor-based model about the surgical management of cardiovascular and thoracic diseases. The students will be exposed to a wide variety of surgical experiences, including open and minimally-invasive surgical approaches. The student will also engage in preoperative and postoperative assessment and treatment of patients. The students will have primary responsibility for the care and management of their patients.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 949. Caring for the Community: Free Clinics Elective. 2 Credit Hours.**

Provides students with an opportunity of clinical care at student-run free clinics while advancing their knowledge of the social determinants of health and the barriers that uninsured patients encounter in obtaining primary medical care and specialty care when needed. The student-run free clinic elective will provide medical students with an engaging clinical experience that will prepare them to more effectively advocate and care for uninsured patients. This elective provides an opportunity for third and fourth year medical students to provide clinical care at student-run free clinics while advancing their knowledge of the social determinants of health and the barriers that uninsured patients encounter in obtaining primary medical care and specialty care when needed. The student-run free clinic elective will provide medical students with an engaging clinical experience that will prepare them to more effectively advocate and care for uninsured patients. In addition to their clinical roles, students will be actively involved as both teachers and learners. Working under the direct supervision of faculty physicians, students will participate in training and educating volunteer underclass students by leading clinical care teams and conducting wrap-up sessions at the end of each clinic session. To prepare them for their educator roles, students will receive didactic training outside of clinic on various topics pertaining to teaching skills and the social determinants of health. This longitudinal experience provides students the opportunity to receive two weeks of elective credit by completing the required didactic sessions and at least 18 clinical experiences that may be scheduled over the course of 21 months during years 3 and 4. The Free Clinic elective is available to all students; however it will be required of all third and fourth year students in the social medicine pathway.

**Components:** PRA.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 951. Cardiology Teaching Lab: Harvey 2-week Program. 2 Credit Hours.**

This rotation consists of a focused review of clinical cardiology. Clinicians must be able to evaluate and manage patients with cardiovascular disease, as they represent a significant proportion of patients they encounter.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.



**MDR 952. Reproductive Endocrinology and Infertility. 2 Credit Hours.**

This rotation will provide you with the unique opportunity to learn about the subspecialty of reproductive endocrinology and infertility. During this rotation student will learn the basics of menstrual cycle, hormonal regulation and different causes of infertility. Students will be exposed to a wide variety of endocrinological disorders such as amenorrhea, polycystic ovarian syndromes, thyroid dysfunction, and hyperprolactinemia. Opportunity will be given to attend and observe the different techniques of advanced reproductive technology, including in vitro fertilization, intracytoplasmic sperm injection, intrauterine insemination. You will also be able to scrub-in and observe a wide variety of endoscopic surgeries.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 953. ACE: Cardiac Anesthesiology. 4 Credit Hours.**

During this rotation, the student will be exposed to the principles and the practice of cardiothoracic anesthesia, applied cardiovascular physiology and pharmacology. The course will provide the student exposure to and experience performing the preoperative assessment and intraoperative management of cardiothoracic surgical patients from the perspective of the cardiac anesthesiologist. The student will work with faculty, fellows, and residents delivering anesthetic care to adult patients undergoing cardiothoracic and vascular procedures.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 954. Pediatric Anesthesiology. 2 Credit Hours.**

This elective will introduce the subspecialty of pediatric anesthesiology to medical students interested in careers in anesthesiology who seek to gain exposure to the anesthetic care of neonates, infants and children. This 2-week rotation consists of clinical exposure to the varied clinical practice of pediatric anesthesia, including ambulatory and inpatient pediatric cases, regional techniques, and congenital cardiac anesthesia. This practice spans multiple settings, including the OR, NICU/PICU bedside cases, Bascom Palmer ambulatory surgical center, pediatric sedation suites, and more. Didactics cover topics such as pediatric physiology, pharmacology and anatomy, as well as a review of basic procedural skills pertinent to pediatric perioperative care. The course will provide the student clinical exposure to the preoperative assessment, intraoperative, and postoperative management of pediatric surgical patients from the perspective of the pediatric anesthesiologist.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 956. ACE: Urology. 4 Credit Hours.**

This elective is designed for those students considering Urology as a career choice, and for those interested in learning more about the University of Miami urology residency program. Students will participate in inpatient and outpatient urology at both the University of Miami and the Jackson Healthcare System. Sub-interns will participate as members of the resident team on both the UM and Jackson rotations, and will accept responsibilities and perform duties commensurate with their ability.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 957. Geriatrics and Palliative Medicine Clerkship. 2 Credit Hours.**

The medical student will spend four weeks at the VA Medical Center and assume responsibility for the care of older patients under the supervision of board-certified geriatricians and palliative medicine physicians, geriatric and palliative medicine fellows, and members of the interdisciplinary care team. Our mission is to teach, model and assess the knowledge, skills, and attitudes needed by medical students to complete comprehensive geriatric and palliative care assessments. Clinical activities will mainly take place in multiple chronic care venues at the VA including the Intermediate Care Unit, the Hospice Unit, the Community Living Center, and the Geriatric Primary Care Clinic. Students may have an opportunity to rotate at the Miami Jewish Health System or participate in clinical services at the University of Miami Hospital and the Cancer Center.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 960. Vascular Surgery. 2 Credit Hours.**

This rotation is a busy service treating the complete spectrum of vascular diseases including aneurysms of the aorta, cerebrovascular disease, mesenteric vascular disease, renovascular disease and peripheral vascular disease. In addition, endovascular procedures will be observed.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 962. Internal Medicine SUB-I. 4 Credit Hours.**

The primary objective of this rotation is to emphasize mastery of clinical core internal medicine competencies, to develop skills in inpatient management of common medical illnesses, and to prepare fourth year medical students for internship. This rotation will promote the expansion of the clinical knowledge base and emphasize the practice of evidence based internal medicine.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.



**MDR 963. ACE Obstetric Anesthesiology. 4 Credit Hours.**

During this rotation, the student will be exposed to the principles and the practice of obstetric anesthesia, maternal/fetal physiology, and pharmacology. The course will provide the student exposure to, and experience performing, the preoperative assessment of obstetric patients and gain a basic understanding of neuraxial labor analgesia techniques. The student will work with faculty, fellows, and residents delivering anesthetic care to obstetric patients in the Labor & Delivery unit and obstetric operating rooms.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 964. AISS: Oncology and Cancer Biology. 4 Credit Hours.**

Cancer is the second leading cause of death in the United States. Each year over 1.3 million Americans are diagnosed with cancer and over 660,000 die. By the time a male is 65 they will have a 1 in 2 chance of getting cancer and a female 1 in 3 chance. Cure rates are improving with earlier detection and improved treatments. There have also been major advances in treatments that can significantly prolong life in those patients that are incurable. It is of utmost importance for the medical students to learn as much as possible about cancer. Suboptimal clinical outcomes for cancer patients are frequently caused by physicians not recognizing cancer in earlier stages or not treating the cancer patient properly due to lack of knowledge which stems from their lack of exposure to cancer patients in medical school. Medical students will be given the opportunity to directly observe the various specialties involved with diagnosing and managing cancer patients including specialized pathologists, medical oncologists, radiation oncologist and surgical oncologist (including gynecology/oncologist, orthopedic oncologist, head and neck oncologist and urological oncologist).

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 965. Addiction Psychiatry @ Wellington Retreat. 4 Credit Hours.**

Medical students get hands on experience regarding the evaluation and treatment of addiction and other psychiatric illnesses. Levels of care seen are Detox, Residential, PHP, IOP and OP, on adult and adolescent populations and also pregnant women. From day one, they are taught to recognize symptoms and gain interview techniques. They perform initial evaluations directly supervised by Dr. Moran who is quadruple board certified in general psychiatry, addiction psychiatry, addiction medicine, and preventive medicine. Students attend community meetings every week day as well as adolescent community meetings and several groups (which usually takes all morning 8:30-12:00). They are shown the proper way to write notes on patients with psychiatric diseases and all notes are written by the students and reviewed by the doctor. Students are assigned a caseload of patients. The students are expected to assess them daily to witness and understand the gradual changes in the psychopathology. Every day, everyone involved in the care of patients (Doctors, Therapists, Clinical Director, Coordinators Director, Residents P.A. students and the medical students) meet during lunch (12:30-13:30) to discuss the individual treatment of each patient; students are encouraged to participate since their contact with the patients provides helpful additional observations. Our treatment is based on cutting edge research and the students will learn about psychopharmacology as well as evidence-based psychosocial interventions. Other experiences attained are Cognitive Testing and Exercises and Transcranial Magnetic Stimulation.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 966. Health Law Course. 2 Credit Hours.**

Health Law course presents issues of health in the broader social context of people's lives, providing knowledge and skills from both disciplines to the advancement of health through joint medical-legal advocacy and interdisciplinary solutions to complex problems. During the course, students from medicine will have the opportunity to work in unique clinical experiences which focus not only on medical care of actual patients but also on broader policy issues that affect public health. They will have an opportunity to work with the Child protection Team, Justice Outreach with the Veterans courts, Human Trafficking and Asylum clinics and the State Attorney's office Human trafficking unit and the judges and Domestic Violence courts. They will also participate in seminars with other medical students as medical faculty to discuss topics pertinent to the interface of medicine and law. At the end of this course they will have a preliminary understanding of the social determinants that adversely affect patient health such as income and employment, housing, education, legal status, and personal safety. They will have an introduction to how health care providers and lawyers can work together to invoke more effective and preventive remedies for patients and clients. During the course, students from medicine will have the opportunity to work in unique clinical experiences which focus not only on medical care of actual patients but also on broader policy issues that affect public health. They will have an opportunity to work with the Child protection Team, Justice Outreach with the Veterans courts, Human Trafficking and Asylum clinics and the State Attorney's office Human trafficking unit and the judges and Domestic Violence courts. They will also participate in seminars with other medical students as medical faculty to discuss topics pertinent to the interface of medicine and law. At the end of this course they will have a preliminary understanding of the social determinants that adversely affect patient health such as income and employment, housing, education, legal status, and personal safety. They will have an introduction to how health care providers and lawyers can work together to invoke more effective and preventive remedies for patients and clients.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 967. JFK Cardiology Consult. 2 Credit Hours.**

This is an inpatient consult rotation is at JFK Medical Center, a tertiary care center in Palm Beach County. It is a very active cardiac center with invasive cardiology services, cardiac surgery, and electrophysiology services. Patients encountered reflect the rich, diverse nature of pathology present in the area with equal exposure to men and women of multiple ethnicities and socioeconomic backgrounds. Possible disease states the student will encounter may include: coronary artery disease, acute coronary syndrome and its complications, congestive heart failure including systolic as well as diastolic dysfunctions, endo-, myo- and pericarditis, valvular heart disease, brady- and tachy-arrhythmias, cardiac conduction abnormalities, cardiac pacers and ICDs, peripheral vascular disease, hyperlipidemia, ischemic and non-ischemic cardiomyopathy, preoperative cardiac evaluation for cardiac and non-cardiac surgery for both elective and emergency procedures, and pulmonary embolism. The student will gain valuable insight into the indications, contraindications, and performance of commonly ordered cardiac tests. Cost-effective health issues are regularly addressed in this setting.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 969. ACE: Interventional Radiology. 4 Credit Hours.**

The course is an introduction to Vascular/Interventional Radiology and consists of intensive exposure to Vascular and Interventional Radiology procedures under the direct supervision of interventional radiologists. Students will learn and participate in (a) the use of various radiological imaging to guide procedures in different organ systems, (b) the evaluation and pre and post procedural management of patients requiring interventional radiology procedures, and (c) participate in and learn various interventional procedures such as arterial and venous access, angiography, angioplasty, stenting, biopsies, various image guided drainages, arterial embolization, tumor ablations and other vascular and interventional procedures.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 970. Ophthalmology for the Non-Ophthalmologist. 2 Credit Hours.**

The two week clinical elective in ophthalmology is geared toward fourth year medical students NOT pursuing a career in ophthalmology with an interest in obtaining a basic understanding of fundamental ophthalmology for students. Students will rotate through the emergency room, operating room, and various subspecialty clinics at the Bascom Palmer Eye Institute where they will shadow attendings and house staff. Students will be required to keep a patient log and will be expected to complete an online course. A case presentation session based on the patient pathology seen throughout the course will take place at the end of the rotation. Students are also welcome to attend weekly grand rounds and fluorescein conferences as well as daily resident lectures during the rotation. An additional two weeks is offered for students considering ophthalmology as a career. All students wishing to be part of the four week course must have approval of the course coordinator. These additional two weeks are set up as a preceptorship and may be arranged independently with a faculty ophthalmologist.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 971. Ophthalmic Pathology. 2 Credit Hours.**

Students will review cases received in the lab, participate in daily teaching sessions and sign out at the multi-headed microscope and participate in the complete work-up of these pathologic specimens. The observer will learn how ocular structure and function are affected by the major ocular diseases through the study of current and teaching slide sets of pathologic specimens. The students will learn how to examine ocular specimens using a microscope and learn the value of ancillary techniques to include immunohistochemistry and molecular studies. It is expected that they will have a functional vocabulary of ophthalmic terms, a working knowledge of ocular anatomy, and a rational approach to eye disease at the completion of this course. Clinical-pathologic correlation and therapy will be emphasized.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 972. Ophthalmology in the Emergency Department. 2 Credit Hours.**

The two-week clinical elective in ophthalmology is geared toward 4th year/Phase 3 medical students with an interest in pursuing a career in ophthalmology to further their knowledge of the assessment and management of patients presenting acutely for eye care. Students will rotate through the emergency department at Bascom Palmer Eye Institute where they will shadow attendings and house staff. During the rotation, students are also welcome to attend weekly grand rounds and fluorescein conferences as well as daily resident lectures.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 973. Pediatric Allergy and Immunology. 2 Credit Hours.**

The pediatric allergy and immunology elective is designed to give senior medical students exposure to the spectrum of diseases seen in the field of Allergy and Immunology. The student will predominantly rotate through the outpatient clinic and inpatient consults, and see patients and procedures based on the emphasis of that location.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 974. AISS: Cardiac Physiology and Advanced Heart Disease. 4 Credit Hours.**

Overview: This is a 4-week selective intended to expose the senior medical student to the clinical practice of cardiology. During the rotation, the student will have the opportunity to interact with multiple specialists who have expertise in various areas of cardiology and attend cardiac conferences. Course Design: The primary patient population will be at UM Health Tower. Learning during this selective will be case based with a half-day of didactic. The students will be assigned to 4 different areas of cardiology: 1. Invasive Cardiology/ Intensive Care 2. Cardiac Electrophysiology 3. Non-Invasive Cardiology 4. Heart Failure During the intensive/invasive cardiology service they will follow a patient admitted to intensive care that undergoes invasive therapeutic modality (percutaneous Coronary Intervention vs percutaneous valve intervention) in the catheterization lab during hospitalization. During electrophysiology service week, the students will be expected to follow a patient who requires invasive electrophysiology modality in the EP lab (Pacemaker or Catheter Ablation). During the non-invasive cardiology week students will participate in a half day of clinic then observe acquisition echocardiography, stress testing or ECGs with respective technologists then read studies with attending. During the heart failure rotation, the students will round with the Heart failure attending on inpatient service to go over acute care of heart failure.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 975. LABOR AND DELIVERY NIGHT ROTATION. 2 Credit Hours.**

This is a 2-week elective intended to expose the MS4 to a spectrum of experiences in Obstetrics. Each week, the student will rotate through Labor and Delivery and gain experience in the care of pregnant patients, including vaginal delivery, cesarean delivery, triaging gravid patients, and obstetrical emergencies.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 976. Acute Care Surgery Sub-I. 4 Credit Hours.**

The sub-internship (Sub-I), a 4-week experience, offered during Phase 3 of the NextGen curriculum is intended to provide a learning experience for the student that prepares them to serve as competent interns and effective members of an interdisciplinary team. This 4-week rotation will expose the Next Gen phase 3 student to the comprehensive world of Acute Care Surgery (ACS) that will include exposure to patients in all areas of the various hospital services from medical to surgical. Students will develop a comprehensive understanding of the complexities of managing acutely ill patients that present with a multitude of surgical pathologies. ACS deals with all adult patients 18 years and older and all demographics. The Sub-intern will also learn how to develop collaborative skills and strong interpersonal communication skills as well as the development of professionalism in all facets of the rotation. This is an ideal opportunity for the Sub-I to function as an integral member of the trauma team on par with the intern.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 978. Trauma-Informed Care for Survivors of Sexual Violence. 2 Credit Hours.**

Sexual violence is a public health crisis with almost 18 percent of people who identify as women reporting rape or attempted rape in their lifetime.<sup>3</sup> Millions of people are victims of human trafficking and forced sexual exploitation every year.<sup>2</sup> The Roxcy Bolton Rape Treatment Center (RTC) and the THRIVE (Trafficking Healthcare Resources and Interdisciplinary Victim Services and Education) Clinic on the University of Miami/Jackson Healthcare campus are designed to provide trauma-informed care to survivors of sexual violence. Medical students should have opportunities to administer trauma-informed care. The purpose of this elective rotation is to expose medical students to clinical scenarios in which patient trauma is addressed and prioritized, prepare students to advocate for vulnerable patients and practice holistic and humanistic medicine for survivors throughout their careers.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 979. AISS: Pulmonary and Pulmonary Physiology. 4 Credit Hours.**

Students will review physiology and pathophysiology of pulmonary processes in the afternoons and apply knowledgebase to their clinical rotations both inpatient and outpatient.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 980. ACE: Cardiothoracic Surgery. 4 Credit Hours.**

This rotation will give the Phase 3 students a unique opportunity to see complex surgical procedures while learning how to care for critically ill patients.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 981. General Surgery EI. 2 Credit Hours.**

This 2-week rotation will expose the 4th year student to a wide array of cancer problems and teach an integrated interdisciplinary approach to their management. Esophageal, hepatic, breast, and gastric carcinomas will be seen and treated in addition to melanomas and soft tissue sarcomas.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 982. General Surgery EII. 2 Credit Hours.**

This elective surgery service predominantly sees hepatobiliary, pancreatic problems, surgical endocrine and adrenal disease. It deals with patients with portal hypertension and biliary tract disease, and both benign and malignant conditions will be seen and treated. In addition, endocrine surgery patients will be seen, and the full spectrum of thyroid and parathyroid disease will be learned. Advanced laparoscopic skills can also be seen treating a whole spectrum of surgical problems.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 983. ACE: General Surgery EIII. 4 Credit Hours.**

This elective service deals primarily with diseases of the colon, rectum, and anus. Benign disease, such as hemorrhoids, anal fistulae, anal fissures, and inflammatory bowel disease will be seen and thoroughly discussed and learned. In addition, the entire spectrum of colon and rectal cancer will be seen and treated.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 984. General Surgery EIV. 2 Credit Hours.**

This 2-week rotation will expose the 4th year student to several unique, yet related, surgical disciplines: laparoscopic surgery, surgical endoscopy, and the surgical management of morbid obesity.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 985. CCS: JMH Neuroscience Intensive Care Unit. 2 Credit Hours.**

The Critical care selective is mandatory for Phase 3 students who have successfully completed their clerkships. The purpose of this selective is to provide the student a robust and educational introduction to critical care concepts; aligned with their career of choice. This selective is designed to allow students to recognize the early signs of a critically ill patient who would benefit from specialized care and learn the necessary interventions to stabilize a patient during the initial critical phase of their illness. Advanced physiological concepts will be introduced in a critical care setting, building upon concepts taught in Phase 1. Additionally, the neuroscience intensive care unit will introduce students to evaluation of the comatose patient, management of seizures, and intracranial hypertension.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 987. SOAR Fellowship Research Course. 0 Credit Hours.**

SOAR Fellows are instructed in the principles of research and manuscript writing by working closely with the physicians of The Balkan Center and Bascom Palmer Eye Institute's career researchers. Our established national and international programs and initiatives (blindness prevention, pediatric eye diseases and ocular genetics) provide a structure from which Fellows can choose an area of focused study. SOAR Fellow research opportunities include telehealth in ophthalmology, developmental and quality of life issues in children with vision loss and their families, and genetic and environmental factors affecting eye disease.

**Components:** MOD.

**Grading:** NON.

**Typically Offered:** Fall & Spring.

**MDR 988. Required Management of the Acutely Ill Patient Course. 4 Credit Hours.**

Students will be exposed to the management of acutely ill patients through simulated online modules to develop and reinforce critical patient care skills in preparation for residency.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Spring.

**MDR 989. ACE: Emergency Medicine. 4 Credit Hours.**

The goal of this elective is to provide students who are pursuing careers in emergency medicine an opportunity to experience the care of patients in the emergency room setting and provide sufficient exposure to the Emergency Medicine Residency Faculty so that they can provide a useful Standardized Letter of Evaluation (SLOE).

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 990. HCH Emergency Medicine Clerkship. 4 Credit Hours.**

The purpose of the RMC Emergency Medicine clerkship at Holy Cross is to provide students with an opportunity to acquire a foundation of knowledge and skills to care for patients with emergency medical conditions. Every physician should possess adequate assessment and management skills to rapidly identify life-threatening conditions, to initiate care, and to know whom and when to call for assistance. The Emergency Department is also one of the few practice sites where students play an integral role in the initial evaluation of an “undifferentiated” patient – where the diagnosis is completely unknown on initial contact, and the clinician must “start from scratch” to formulate a differential diagnosis, plan of evaluation, and plan of management. Experience in a wide range of procedural skills are also readily available including airway management, suturing, and central venous line placement. Students will participate in an EMS ride along, simulation cases, and didactic sessions. Students are evaluated through clinical evaluations and a written examination.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 994. Dean's Research Excellence Award in Medicine Program. 0 Credit Hours.**

The DREAM research scholarship program is designed for medical students who are interested in pursuing a physician-scientist career in academic medicine. The DREAM program integrates Miller School of Medicine's outstanding preclinical and clinical training, rigorous research training, and professional development elements specifically designed to enhance the physician-scientist training experience. Program Overview Through engaged mentoring, this research scholarship provides medical students a valuable education and training opportunity in basic and translational science. Students will join a research lab at the Miller School of Medicine, carry out independent research projects, and acquire the essential research skills (study design, experimental execution, project management, and report preparation) designed to accelerate a career path in academic medicine. The one-year DREAM research program will start after the end of year 3 (June of MS3) for students in legacy curriculum, and after the Phase 2 (January of MS3) for students in NextGen MD curriculum.

**Components:** MOD.

**Grading:** NON.

**Typically Offered:** Fall & Spring.

**MDR 995. WPB VAMC Physical Medicine and Rehabilitation. 2 Credit Hours.**

The purpose of this rotation is to provide the medical student with an introduction to the field of PM&R with emphasis on basic assessment and management options for common musculoskeletal disorders and neurological conditions affecting physical function. The rotation takes place mostly in the outpatient clinic setting with opportunities to also learn in other settings such as a nursing home or acute general hospital. There is also exposure to electrodiagnostic medicine and pain management.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 996. International Study Abroad. 0-8 Credit Hours.**

All students going abroad on international programs (ie, medical mission trips and others), regardless if UM or non-UM sponsored/related, must obtain proper approval from the Office of Student Affairs. Required forms can be found on the MedEd website under Important Documents for Students – “Administrative Requirements for International Study”. MDR 996 “International Study Abroad” – Senior medical students may obtain academic credit for selected international clinical experiences. Only senior students are allowed to receive credit for such experiences. Credit is counted towards their Elective requirements. The above mentioned forms must be filled out. Additional information is also required, including written goals/objectives for the rotation, expectations, student responsibilities, location/institution for the clinical experience, how the student will be evaluated, and the name/contact of physician who will complete the evaluation form. This information needs to be presented in advance to the Senior Associate Dean for Undergraduate Medical Education for approval prior to the trip, preferably far in advance.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 997. Research Md/Phd Program. 0-8 Credit Hours.**

Students must have defended their thesis for Graduate School and also finished their 3rd year MD clerkships student will be granted 8 credits.

**Components:** MOD.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 998. John T. and Winifred Hayward Foundation Genomic Medicine Fellowship Research Course. 0 Credit Hours.**

The John T. and Winifred Hayward Foundation Genomic Medicine Fellowship is awarded to one student per year to support work on a mentored research project in genomics and genomic medicine. The fellowship provides a stipend (awarded through the Medical Education Financial Aid Office) and support for research supplies and travel to a scientific meeting to present results. The research proposal submitted in the fellowship application outlines the activities to be completed in the fellowship year, under the guidance of a UM faculty mentor. Specific learning objectives and milestones are outlined below.

**Components:** MOD.

**Grading:** NON.

**Typically Offered:** Fall & Spring.

**MDR 999. ACE Orthopedic Trauma. 4 Credit Hours.**

The student will participate in the management of traumatic injuries of the musculoskeletal system, excluding hand, and spine. The participation will be directed to acquiring an adequate history and physical examination and management of trauma through conservative and surgical approaches. The student will be asked to assist in the operating room to learn surgical skills, how to set up traction and to do closed reductions with cast applications.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**MDR 000. Elective. 1-30 Credit Hours.**

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall, Spring, & Summer.