UCF College of Medicine

Course Descriptions for M3 Selectives & M4 Electives

Use this document with the Elective Course Directory excel file found on 4th year GPS https:// med.ucf.edu/student-affairs/registrar/4th-year-gps/.

To search for a course, use Ctrl + F on your keyboard and enter the course number or title from the Directory. If you find that an elective is not listed, please email mdclinicalscheduling@ucf.edu to inquire about the course you're interested in.

*Courses listed here have been approved, but may not be currently active or offered.

Last updated: 3/17/26

UCF College of Medicine

Acting Internship in Family Medicine
MDI 8120

Family Medicine 4th year Sub-Internship in Family Medicine that is split between inpatient and outpatient locations.

Goals Objectives:

This rotation is designed to provide medical students with insights into the specialty of Family Medicine**.** During this rotation students will encounter, exam and assist in caring for multiple patients on the family medicine inpatient adult hospital service and ambulatory Family Medicine Clinic. They will have the opportunity to exam, take complete history, perform physical exams, present to attending physicians and formulate assessments and plans on patients in the outpatient clinic and inpatient environment. Students will have the opportunity to discuss current evidence-based concepts, key guidelines and relevant literature with the care teams of resident physicians and attendings.

Learning Activities

Students will participate in the assessment and management of patients, with an emphasis on acute and chronic illnesses commonly seen in the primary care outpatient office setting and on inpatient adult medicine. Students will meet with their assigned faculty attending at the beginning of the rotation and discuss student's current knowledge & skills and their specific learning goals, as well as expectations from the preceptor and appointment time for feedback and evidence-based discussions. Students are expected to perform history and physicals, develop assessment and plans, document encounters in the medical record section assigned to students, and present findings to the assigned resident and either attending (inpatient) or precepting attending (outpatient). Students will initially perform history and physicals under the supervision of the resident or faculty. When faculty considers the student competent in these skills, student will perform history and physicals independently. Student will always be directly supervised by faculty when performing any office procedure. Students are expected to read evidence-based information about each of their patient's condition and present to the faculty for discussion. Faculty will supervise the student's active participation in clinical patient encounters with one-on-one instruction and periodic feedback.

UCF College of Medicine

Acting Internship in Allergy / Asthma / Immunology
MDI 8300

This rotation will expose the student to commonly encountered problems in allergy such as sinus illness, skin disorders, asthma & immune deficiencies. The student will do initial work ups including history and physical to present patients to myself and nurse practitioner. They will then learn how to manage these problems.

Goals Objectives:

Recognize clinical patterns of common allergic disease such as allergic rhinitis & asthma. Learn the proper methods of work ups & evaluations.

Learning Activities

The student will each day interview new patients then present their history and physical, suggest testing options, then therapeutic options. He will then discuss these options with the MD and help explain these options to the patient. Follow up appointment with his patient will be arranged for continuing care.

UCF College of Medicine

Acting Internship in Emergency Medicine
MDI 8710

This four-week acting internship introduces the student to initial evaluation, workup, diagnostic ordering and treatment of patients presented to the emergency department

Objectives:

- Students are expected to develop basic diagnostic skills in emergency medicine. These basic skills include performing a detailed history and physical exam, the collection of appropriate cost-effective laboratory data and radiographs, the performance of appropriate procedures, and the formulation of relevant differential diagnosis and treatment plans.
- Students will develop basic skills and understanding of wound repair, abscess drainage, and ultrasound usage as well as developing skills in central line insertion, lumbar puncture, joint aspiration, slit lamp exam, dental blocks, and airway interventions through either direct supervision by residents, fellow, or attendings or by assisting residents, fellows, and attendings in these procedures.
- During the 4-week rotation, the students will achieve competence in six areas listed below (based on ACGME core competencies:
    - Patient care
    - Medical Knowledge
    - Practice-based Learning and Improvement
    - Interpersonal and communication skills
    - Professionalism
    - System-based practice

UCF College of Medicine

Acting Internship in Medical Critical Care
MDI 8344

The critical care clerkship immerses the student in the care of ICU patients by focusing technology, multidisciplinary personnel, and physiologic, goal-oriented, humanistic practice in critical illness. The University of Central Florida College of Medicine M4 Critical Care Clerkship is designed to make the transition from basic clinical sciences to acute care of patients with life-threatening conditions and who need advanced life support technology and personnel. The clerkship is based in the hospital intensive care unit and the educational experience will come from a multidisciplinary team of hospital-based intensivists, critical care fellows and residents, consulting physician specialists, critical care nurses, pharmacists, respiratory therapists, dieticians, physical therapists, rehabilitation specialists, social workers, other health care professionals, and most importantly, the patients and their families who are cared for by this team. The practice of critical care medicine is based upon sound physiological principles, evidence-based practices, and application of cutting-edge technology, meticulous attention to details, and a compassionate, humanistic approach to severely ill or injured patients and support of their families at their time of crisis.

Objectives:

The educational philosophy of the critical care clerkship is to provide the matrix upon which to develop a scientifically sound approach to the management of critically ill patients. Additionally, the program is designed to allow individuals to become familiar with the clinical aspects of critical care and acute care medicine.

- Show an understanding of a comprehensive approach to patients with multi-system critical illness.
- List the indications and complications of invasive hemodynamic monitoring.
- Demonstrate understanding of the techniques for arterial, central venous, and pulmonary arterial catheterization.
- List and prioritize means for increasing cardiac output.
- Define, in physiologic terms, the adequacy of cardiac output.
- Reproduce and utilize the formulae for SVRI, PVRI, LVSWI, RVSWI, CI, SV, CPP and MAP.
- List major risk factors for acute respiratory failure.
- Discriminate between oxygenation, ventilation, and airway support.

UCF College of Medicine

Acting Internship in Pediatric Critical Care
MDI 8463

Program Overview:
Students will rotate in the state-of-the-art Pediatric Intensive Care Unit (PICU) and Pediatric Special Care Units at Nemours. Students will work under the supervision of the pediatric critical care attending and the PICU team to care for children in critical or serious condition.

Objectives:

- Understand the scope of established and evolving biomedical, clinical, epidemiological and social-behavioral knowledge needed by a physician caring for critically ill children; demonstrate the ability to acquire, critically interpret and apply this knowledge in pediatric critical care.
- Succinctly present an ICU patient on rounds, formulate a coherent assessment of a patient's problems and present an appropriate therapeutic/diagnostic plan. Further, effectively communicate this plan to nurses, respiratory therapists, and sub-specialists/ consultants.
- Recognize and appropriately respond to acute life-threatening events. The student should observe and be able to describe the necessary skills to resuscitate and describe the initial stabilization of the critically ill child particularly airway management, volume replacement and resuscitative pharmacology.
- Demonstrate competence in basic airway skills (appropriate implementation of oxygen delivery devices and demonstration of bag-mask ventilation) and placement of peripheral intravenous catheters.
  Advanced airway skills (intubation) and advanced intravenous access skills (central venous catheter placement and arterial line placement) may be observed.
- Understand the pathophysiology and treatment of common medical disorders in the PICU: respiratory failure (apnea, bronchiolitis, asthma, ARDS), shock (septic, cardiogenic, hypovolemic), neurologic critical care (status epilepticus, traumatic brain injury, brain death), renal failure, as listed on the Pediatric Critical Care Required Encounters list
- Understand the different monitoring techniques in pediatric critical care: vascular hemodynamics, intracranial devices, blood pressure, arterial saturations, end-tidal CO2, and a variety of common laboratory tests.
- Utilize common diagnostic tests and imaging studies appropriately in the pediatric intensive care unit, obtaining consultation as indicated for interpretation of results.
- Understand pediatric critical care pharmacology: inotropes and vasoactive agents, basic antibiotic therapy, common sedatives and analgesics, drug pharmacokinetics and monitoring of side effects.

- (cont.) Understand techniques for enteral and parenteral nutritional supplementation in the PICU patient.

- Understand the ethical and legal issues which emerge during the care of critically ill and/or dying children (do not resuscitate orders, withholding and withdrawing life support, right of patients).
- Understand the importance of psychosocial issues related to the care of critically ill or dying children. Learn to provide support and deliver difficult information to the family of a critically ill child. Recognize the health care challenges of a child with a critical or chronic disease. Appraise the impact of a child's critical illness on his or her family.
- Apply evidence-based principles of pediatric critical care to compare and contrast available treatment options with regard to efficacy, risk, benefit, cost-effectiveness.

UCF College of Medicine

Acting Internship in Internal Medicine
MDI 8340

This rotation is designed to provide medical students with insights into the specialty of Internal Medicine. Students will encounter patients with a broad range of acute and chronic medical conditions that require hospitalization. Students will perform full history and physical exams along with both written and oral presentation of such. Students will interpret and report data acquired during their rotation on their assigned patients. They will begin to manage patient issues. Students will engage in patient-centered care in a professional manner. Students will create differential diagnosis and determine appropriate plans of care for each of their patients. They will research targeted patient care related questions and relay this information to the group.

Student will care for patients under the direct supervision of an upper level resident physician and faculty member from their admission to discharge. Their work week will be 6 days/week. They will participate in team sign-out daily and accept patients as transfers from overnight and assume their care. They will admit a goal of one patient daily while working under a cap of 5 total patients each day. They will round on the inpatient medical wards with the resident and attending where they will learn oral presentation skills for both follow up and new patient history and physicals. They will assign in the performance of any bedside procedures performed on their patients. While on service, the student will attend “noon report” Mond-Wed and Fri from 12-1pm where residents will present cases for group discussion. They will also participate in schedule simulated procedures when they are scheduled during this time.

UCF College of Medicine

Acting Internship in General Pediatrics, Inpatient
MDI 8400

This acting internship is designed to acquaint the student with the management of acute pediatric illness in the hospital setting. The student will learn to manage the severely ill child, including fluid and electrolyte management, ordering and interpretation of appropriate diagnostic tests and procedures, as well as strategies to manage the complexities of dealing with the hospitalized child and the psychosocial issues surrounding the hospitalization. The student will also learn to become an effective part of the health care team.

Objectives:

- Demonstrate proficiency in the management of the severely ill child, including fluid and electrolyte management.
- Order and interpret appropriate diagnostic tests and procedures.
- Demonstrate proficiency in the performance of basic pediatric procedures.
- Demonstrate proficiency in counseling ill children and their families, including patient education.
- Describe strategies for managing the complexities of dealing with the hospitalized child and psychosocial issues surround the hospitalization.
- Demonstrate effective collaboration skills in a health care team.

UCF College of Medicine

Acting Internship in Pediatric Neurology and Epilepsy
MDI 8470

Evaluate the treatment of inpatient & outpatient Pediatric Neurology patients, with exposure to acutely ill patients in ICU to evaluations of Epilepsy/Seizures, Movement Disorders, and Headache. Exposure and instruction in reading and interpreting EEGs, MRIs, CTs, and Long-Term EEGs. Exposure to pre-surgical Epilepsy evaluations and outcome reflections in OR.

Objectives:

- Obtain appropriate/focused Neurologic history.
- Provide complete Neurologic & Mental Status Exam.
- Evaluate and form Treatment Plan for new and follow up patients both inpatient & outpatient settings, including ICU patients.
- Learn basic EEG reading/interpretation
- Provide support via phone to ER & around region inpatients who present with Neurologic issues.
- Learn how to select and work up patient for Epilepsy surgery.

UCF College of Medicine

Acting Internship in Neonatal ICU
MDI 8461

This acting internship is designed to expose the student to normal physiology and a wide variety of diseases that affect the term and pre-term infant. Patient care activities will take place in the Neonatal Intensive Care unit, where the student will learn to become an integral part of the healthcare team. Skills learned during the rotation will include evaluation, diagnosis and treatment of the critically-ill newborn, proper use of ventilator management, and understanding the factors that contribute to a "high-risk" pregnancy. The student will also learn counseling skills and discussion of ethical issues that arise in the care of the critically-ill newborn.

Objectives:

- Demonstrate proficiency in healthcare principles for the care of the critically-ill newborn (e.g., evaluation, diagnosis, and treatment).
- Explain or demonstrate the proper use of ventilator management.
- List the factors that contribute to a "high-risk" pregnancy.
- Demonstrate proficiency in assisting in the performance of specialized procedures.
- Demonstrate counseling skills in care conferences with parents regarding their critically-ill newborn.
- Discuss ethical issues that arise in the care of the critically-ill newborn.
- Demonstrate team skills in the neonatal intensive care unit.

UCF College of Medicine

Acting Internship in Emergency Psychiatry
MDI 8840

Increased level of responsibility for clinical assessment and treatment planning in the Emergency Department and Walk-In/Triage Clinic at V.A. Additional responsibilities for teaching 3rd year medical students. The student will do one short-call one weekday evening/week and one Saturday or Sunday half-day on call each week for the first 3 weeks, under the supervision of an attending physician. Students will be expected to gain the knowledge and develop the clinical skills necessary for care of patients presenting with acute psychiatric conditions, including: potential dangerousness to self or others; acute, severe, major depressive disorder; acute psychosis, including Bipolar disorders and Schizophrenia; acute substance abuse intoxication/withdrawal; acute anxiety/agitation including PTSD, complications of Neurocognitive disorders such as dementia.

Objectives:

- Perform and document a complete psychiatric diagnostic evaluation in a patient population with a high level of acuity of treatment needs, identifying psychopathology, and developing appropriate biopsychosocial evaluation (laboratory, radiologic, and psychological testing) and treatment plans.
- Appropriately utilize the indications for psychiatric hospitalization, considering presenting problem and its acuity, risk of danger to patient or others, community resources, and family support; when necessary, help implement the process of involuntary hospitalization.
- Demonstrate the ability to appraise and assimilate scientific evidence, utilizing relevant databases of psychiatric evidence-based medicine, to improve patient care and teach 3rd year medical students rotating in Psychiatry.
- Demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and other health professionals and students.

Learning Activities:

Formal presentations of individual patients to the attending faculty supervisor, including discussion of differential diagnoses and proposals of appropriate workup and biopsychosocial treatments plans. Conduct literature review of current evidence-based treatments for a range of acute psychiatric conditions.

UCF College of Medicine

Acting Internship in Psychiatry V.A. Residential Care at Domiciliary
MDI 8835

Goal is to assume increased responsibility for Psychiatry intake assessments and treatment planning and delivery for patients in residential care at the V.A. Domiciliary. This patient population has high rates of homelessness, PTSD, and substance-related disorders, and the student will gain valuable clinical experience in these and other psychiatric conditions. No on-call. No weekend duties.

Objectives:

- Perform and document complete psychiatric diagnostic evaluations in a residential care patient population with high levels of homelessness, PTSD, and substance-related disorders, and developing appropriate biopsychosocial evaluation and treatment plans.
- Demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and other health professionals.
- Know the clinical features of, and help implement treatment for, intoxication with, and withdrawal from alcohol and drugs.
- Demonstrate the ability to monitor and document patients' clinical progress, and alter diagnostic formulation and management in response to changes.

UCF College of Medicine

Acting Internship in Consultation Liaison Psychiatry
MDI 8841

Students will gain progressive clinical responsibilities for the psychiatric assessment and management of patients hospitalized on medical and surgical wards that have concomitant psychiatric conditions. Students will be expected to gain the knowledge and develop the clinical skills necessary to provide effective consultation for medical surgical patients and their treatment teams. It is anticipated that clinical conditions that students will encounter will include:

- Delirium with multifactorial etiologies including psychiatric reactions to medications
- Mood disorders including major depressive disorder and bipolar disorder
- Posttraumatic stress disorder
- Anxiety disorders including generalized anxiety disorder and panic disorder
- Substance use disorders
- Psychotic disorders including schizophrenia
- Patients with potential dangerousness to self or others
- Patients with possible lack of decision-making capacity
- Personality disorders
- Neurocognitive disorders including Dementia

Objectives:

- Perform and document a psychiatric diagnostic evaluation in a patient population with comorbid acute medical and surgical conditions, and develop recommendations for appropriate biopsychosocial evaluation (including laboratory, radiologic and psychological testing) and treatment plans.
- Recognize the indications (when medically stable) for transfer for psychiatric hospitalization, considering the presenting problem and its acuity, and any risk of danger to the patient or others; when necessary, help implement the process of involuntary hospitalization.
- Conduct literature reviews of current evidenced-based treatments for a range of psychiatric conditions seen in the acutely ill medical and surgical patient population.

UCF College of Medicine

Acting Internship in Inpatient Psychiatry
MDI 8843

Students will gain insights into the specialty of Psychiatry. Students will gain progressive clinical responsibilities for the psychiatric assessment and management of patients requiring inpatient treatment for acute psychiatric symptoms. During this rotation students will be assigned to an individual faculty mentor to guide them and be responsible for their daily clinical activities. By the end of the rotation it is expected that medical students will have developed a knowledge base and clinical skills allowing them to conduct a full inpatient psychiatric disorder. There will be a focus on the following clinical skills: diagnostic interviewing and development of a therapeutic alliance in the acute setting; crisis intervention and management; and effective communication with the patient's multidisciplinary team. It is anticipated that clinical conditions that students encounter will include:

- Mood disorders including major depressive disorder and bipolar disorder
- Posttraumatic stress disorder
- Anxiety disorders including generalized anxiety disorder and panic disorder
- Substance use disorders
- Psychotic disorders including schizophrenia
- Personality disorders
- Neurocognitive disorders including Dementia

Objectives:

- Perform and document a psychiatric diagnostic evaluation and develop recommendations for appropriate biopsychosocial evaluation (including laboratory, radiologic and psychological testing) and treatment plans.
- Recognize the indications for psychiatric hospitalization, considering the presenting problem and its acuity, and any risk of danger to the patient or others; when necessary, help implement the process of involuntary hospitalization.
- Conduct literature reviews of current evidenced-based treatments for a range of psychiatric conditions.
- The student will gain clinical experience on the ECT service at the Orlando VA.

Acting Interns will also have the opportunity to assist in the teaching of 3rd year medical students rotating in Psychiatry. The student will do one short-call one weekday evening/week and one Saturday or Sunday half-day on call each week for the first 3 weeks, under the supervision of an attending physician.

UCF College of Medicine

Acting Internship in Outpatient Psychiatry
MDI 8840

This rotation is designed to provide medical students with insights into the specialty of Outpatient Psychiatry. The goal is for the acting intern to gradually assume increasing responsibility, under supervision, for the evaluation and evidence-based treatment of psychiatry patients in the outpatient setting. The student will gain experience establishing a therapeutic alliance with a patient population of all ages (primarily adults), with a wide variety of psychiatric disorders with comorbidities, and a range of acuity of treatment needs. Responsibilities may also include some teaching of 3rd year UCF COM Psychiatry clerkship students also working at this busy practice.

Objectives:

- Perform and document a complete psychiatric diagnostic evaluation, identifying psychopathology, and developing appropriate biopsychosocial evaluation (laboratory, radiologic and psychological testing) and treatment plans. One emphasis will be on establishment of a therapeutic alliance and rapport; during follow up visits, the patients progress and course (including any ordered laboratory studies), diagnoses, and treatment plan, will be assessed and revised as indicated, with appropriate documentation.
- The student will obtain and develop medical knowledge in the following areas:
  - Ability to form a broad differential diagnosis
  - Ability to formulate a biopsychosocial treatment plan
  - Appropriately utilize the indications of psychiatric hospitalization, considering presenting problem and its acuity, risk of danger to patient or others, community resources, and family support; when necessary, help implement the process of involuntary hospitalization.
  - Demonstrate the ability to appraise and assimilate scientific evidence, utilizing relevant databases of psychiatric evidence-based medicine, to improve patient care and teach 3rd year medical students.
  - Demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families and other health professionals and students.

UCF College of Medicine

Acting Internship in Pediatric Orthopedic Surgery
MDI 8570

This rotation is intended for the student with interest in Orthopedic Surgery. The student will function at the level of a junior house officer and be expected to perform clinical activities with independence and procedures under direct supervision. The medical student will be expected to be involved in the workup, diagnosis, treatment, and follow up of patients with a wide variety of pediatric orthopedic surgical diseases. The student will be involved with the patient evaluation in the emergency department, outpatient clinic, and inpatient setting. He/She will also be involved in daily inpatient rounds, outpatient clinic, minor procedures, as well as major operations. The student will be expected to present in the pediatric orthopedic surgery education conference weekly, attend grand rounds, journal clubs, and morbidity and mortality conference. Call will be 1 day per week and 1 weekend day per rotation.

Learning Objectives

Patient Care:

- Recognize common pediatric orthopedic surgical problems and emergencies in children.
- Recognize orthopedic surgical complications in children.
- Assist with the workup of new patients in the emergency department, outpatient clinic, and inpatient settings.
- Assist in preparing patients for discharge.

Medical Knowledge:

- Learn the fundamentals of basic science in pediatric orthopedic surgery.
- Learn pediatric orthopedic common diagnoses and their management.
- Read for the operative cases and be prepared for the operating room.
- Understand the pathology of pediatric orthopedic disease.
- Understand diagnostic tests commonly used in pediatric orthopedic patients.
- Practice evidence-based medicine in reviewing the literature.

Practice-Based Learning and Improvement:

- Utilize a pediatric orthopedic surgery textbook and journal articles to study pediatric orthopedic diseases.
- Document patient care activities in the medical chart in a timely fashion.
- Utilize electronic educational resources.

(cont.) Interprofessional and Communication Skills:

- Learn to communicate well with families and children.
- Learn to interact with surgical team.
- Work well with other members of the health care team.

Professionalism:

- Continue life-long learning.
- Maintaining confidentiality of patient information.
- Maintain sensitivity to others' cultures, age, gender, and disabilities.
- Maintain accountability for personal actions and decisions.

Systems-Based Practice:

- Learn to communicate appropriately with families under the direction of Faculty.
- Learn to communicate with the health care team members about the surgical patients.

Learning Activities:

The medical student will present in the weekly pediatric orthopedic surgery education conference. He/She will present in daily inpatient rounds, attend pediatric surgery clinic, and participate in the surgeries. He/She will also practice evidence-based medicine by performing literature searches on the pediatric orthopedic surgery diseases of their patients.

UCF College of Medicine

Acting Internship Pediatric Surgery
MDI 8490

The University of Central Florida College of Medicine M4 Acting Internship in Pediatric Surgery will further expose the student to the workup, diagnosis, treatment and follow up of a wide variety of pediatric surgical diseases. Evidence based practices will be emphasized. The student will spend 4 weeks on the pediatric surgical service. Students will be responsible for the evaluation and workup of patients in the emergency room and wards as well as in the outpatient setting. Participation in daily inpatient multidisciplinary ward rounds will be emphasized as well as active participation in a wide array of bedside surgical procedures and major operative interventions under general anesthesia. In hospital call will be a requirement and will occur no more than twice per week and may include weekend call. The student will also be responsible for regular attendance at weekly didactic conferences, grand rounds, journal club conferences and morbidity and mortality conferences and simulator/animal lab experiences when offered.

Objectives:

Medical Knowledge

- Learn the fundamentals of basic science as applied to pediatric surgery. Examples include embryologic development of the peritoneal cavity, normal rotation and fixation of the abdominal viscera, the physiologic changes of birth, fluid, and electrolyte requirements by weight, normal physiologic parameters in newborns and children, and major physiologic differences of babies and children compared to adults.
- Recognize common surgical problems and emergencies in newborns. Examples include: omphalocele, gastroschisis, imperforate anus, meconium ileus, Hirschsprung's disease, pyloric stenosis, and undescended testis.
- Recognize common surgical problems and emergencies in children. Examples include: inguinal hernia, hydrocele, intestinal intussusception, and appendicitis.
- Utilize appropriate diagnostic laboratory procedures as applied to pediatric surgery patients ex: arterial blood gas analysis, hematologic profiles and coagulation assessment, hepatic function tests, and serum chemistries.
- Utilize appropriate diagnostic imaging studies in infants and children ex: chest radiographs, abdominal ultrasonography, and contrast studies of the esophagus, stomach, intestine, and colon.
- Understand the physiology, fluid and electrolytes, nutrition, pulmonary function and hemodynamics of children.
- Understand the pathology of pediatric disease, pediatric anatomy and special pharmacology aspects of pediatrics.
- Assist in the management of the pediatric trauma patient.

(cont.) Patient Care

- Recognize surgical complications (i.e. post-operative fever, abdominal pain, airway distress, GI obstruction and bleeding).
- Assist in the workup of new admissions, including history and physical examination appropriate for age, calculation of fluid requirements, and development of a plan.
- Assist in the care of all inpatients on the pediatric service, including daily assessment, evaluation of new problems, and preoperative preparation.
- Assist in the initial evaluation of all consults in the emergency department and on other hospital services.
- Arrive in the OR prepared for the procedure.
- Assist in the process of discharging patients.

Interpersonal and Communication Skills

- Work effectively with the health care team and/or other professional groups.
- Present all patients in a concise, organized, logical and knowledgeable manner.
- Utilize input from collaborative interactions with those contributing to patient care.
- Exhibit the ability to interact as part of the surgical team.
- Exhibits honesty, reliability, good communication skills, and appropriate judgment.

Practice-Based Learning and Improvement

- Use textbooks, journal articles, internet access, and other available tools to learn about diseases of infants and children.
- Effectively and promptly documents practice activities.

Systems-Based Practice

- Communicate with families, under the supervision and guidance of the senior resident and attending.
- Communicate with nurses, physician extenders, social workers, and allied health care personnel about the care of pediatric surgery patients.
- Appreciate the specific needs of infants and children that are different from those of adults.

Professionalism

- Demonstrate respect, compassion and integrity and a dedication to professionalism and life-long learning.
- Demonstrate a commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent, and business practices.
- Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities.
- Demonstrate accountability for actions and decisions.

UCF College of Medicine

Acting Internship in Clinical Neurological Ophthalmology
MDI 8802

The neuro-ophthalmology rotation is designed for medical students who are interested in ophthalmology as a specialty. This course introduces students to neuro-ophthalmology. Students will observe patients with Dr. Mont Cartwright, and gain exposure to Humphrey and Goldmann visual fields, optical coherence tomography, fundus photography, and the neuro-ophthalmologic exam. The rotation offers direct one-on-one teaching with Dr. Cartwright. As opposed to other ophthalmic rotations, no particular additional skill other than those already possessed by a typical medical student (e.g., hand light, direct ophthalmoscope, confrontation visual fields and mortality assessment) are required for the rotation. The rotation also might be suitable for medical students interested in neurology, neurosurgery, neuroradiology, or interventional radiology, as there is considerable overlap in these fields with neuro-ophthalmic patients.

Learning Activities:

The student time commitment shall be from Monday to Friday, 8:00 am to 5:00 pm. There is no mandatory student call, night, after hours, or weekend responsibility. Journal club weekly, hospital rounds, clinic outpatients, hospital/ambulatory surgery assistance/observation, one-on-one interaction with instructor. No pre-requisite readings are required but students may be asked to research small case vignettes or present at ophthalmology grand rounds during the rotation.

UCF College of Medicine

Acting Internship in Oculo-Facial Plastic and Reconstructive Surgery
MDI 8661

This rotation will provide greater exposure to diagnosis, management and surgical correction of ophthalmic and reconstructive disorders.

Goals of the rotation:

- The overall goal and objective is to complement the basic knowledge gained in the ophthalmology program and to provide greater exposure to the diagnosis, management, and surgical correction of ophthalmic plastic and reconstructive disorders.
- During this rotation, the students will be responsible for the day-to-day management of patients. The rotation will provide education in the care and management of patients. The student will have the opportunity to become knowledgeable about the procedures in oculo-facial plastic and reconstructive surgery.
- The focus of patient care will be on all aspects of patient's that are treated by oculo-facial plastic and reconstructive surgery. The student will be actively involved with teaching rounds, clinical care conferences, journal club, radiology conferences, follow up clinic, and multidisciplinary planning. The student is expected to make a case presentation or journal club at the end of their rotation.
- Provide a well-rounded experience with emphasis on basic principles, techniques, patient selection and patient management. Students will participate in outpatient settings with the emphasis on outpatient experience.

Learning Objectives:

The medical student is expected to provide family-centered patient care that is compassionate, appropriate and effective for the promotion of health, prevention of illness, and treatment of disease. The medical student will interact with the oculo-facial plastic and reconstructive surgeon using evidence based decision-making and problem-solving skills. Acting interns should have experience in the following specific areas:

- Anatomy and physiology of the orbit, eyelids, lacrimal system, nose, sinuses, and head and neck
- Common orbital disorders of adults including orbital cellulitis, thyroid orbitopathy, idiopathic orbital inflammation, vasculitis, congenital tumors, vascular tumors, neural tumors, lacrimal gland tumors, fibro-osseus tumors, histiocytic diseases, lymphoid tumors, metastatic tumors, blunt and penetrating trauma, orbital and facial fractures, an ophthalmic socket problems and skull base disease

(cont.) Eyelid including congenital syndromes, inflammation, trauma, ectropion, entropion, trichiasis, blepharoptosis, eyelid retraction, dermatochalasis, blepharochalasis, eyelid tumors, blepharospasm, facial nerve palsy, eyebrow, midface and lower face function and aesthetics, and histology and pathology of the facial skin including medical and surgical management of these conditions

- Regional anatomy including graft donor sites frequently used such as cranial bone, ear, nose, temporal area, mouth and neck, abdomen, buttocks, legs, supraclavicular area and arm.
- Fundamentals of ocular and orbital anatomy, chemistry, physiology, microbiology, immunology, and wound healing;
- Experience in neuroradiology for radiologic interpretation of images (CT, MRI, MRA, arteriography, ultrasound)
- Ocular Pathology to interpret ocular and periocular pathology and de1matopathology
- Understanding and interpreting imaging techniques;
- The principles of plain films, CT, MRI, and ultrasound imaging relating to the head and neck with particular emphasis on the orbit;
- The type of scan/imaging to order, given the clinical setting and be able to read the film or scan; and,
- Skills in the use of information technology for study of reference material, including electronic searching and retrieval of relevant miicles, monographs, and abstracts.
- Demonstrate consistent skill in gathering accurate, essential information from all sources, including medical interviews, medical records, and diagnostic/therapeutic procedures
- Gain competence in the physical examination ofoculo-facial plastic and reconstructive surgical candidates

UCF College of Medicine

Acting Internship in Clinical Ophthalmology
MDI 8555

The overall goal is for students to perform an ophthalmology-targeted history and physical exam techniques and receive greater exposure to the diagnosis, management and surgical correction of ocular diseases. During the rotation, the student will learn to do the primary work up for patients including intraocular pressure check, visual acuity, and pupillary examination, and improve ability to perform slit lamp examinations, dilated fundus examinations, indirect ophthalmoscopy, and refraction. Students will rotate through the general, retina, cornea, glaucoma, and oculoplastic clinics to receive a well-rounded experience on patient care and management in order to identify ophthalmologic emergencies and urgencies and learn the basic therapies that should be initiated prior to referral. Students will have the opportunity to see multiple imaging techniques such as OCT, OPTOS, IVFA, outpatient laser procedures, and retinal injection treatments. Opportunity to practice on a surgical simulator.

Learning Activities:

Student schedules for the 4-week rotation will be determined by preceptor along with out of house call schedule. Each week will consist of general clinic, retina clinic and OR days. Students are expected to present to general clinic at 7am after the first day. In the first week, students will work to develop ocular work-up skills (pressure, pupil, visual acuity, and necessary drops_ learning closely from technicians, and practice using the slit lamp and visualizing the eye with the residents via teaching scope during each patient examination. Students should plan to be in the OR once every weekend should talk to the participating attending and resident for preparation for cases and start time. OR days can consist primarily of cataract surgeries, along with cornea, glaucoma, retina and oculoplastic surgeries. During the first week, the student will start from working up a patient, practice slit-lamp examination skills, and refraction. Students will work in the retina and uveitis clinics to practice dilated fundus exams and indirect ophthalmoscopy. By the end of the 4th week, students should have an understanding of all the above physical exam maneuvers. Every Monday from 12:30pm-2pm is noon conference led by preceptor. Each month there is a morbidity and mortality conference. Students are required to participate in all conferences.

UCF College of Medicine

Acting Internship in Adult Orthopaedic Surgery
MDI 8571

This rotation is structured to develop clinical skills in the six ACGME competencies.

Goals of the rotation:

- Students will develop competence in the care of orthopaedic emergencies; evaluation of joint, back and neck pain; ordering of tests and interpretation of radiographs and advanced imaging; prioritizing of clinical care based upon diagnoses and associated comorbidities; and the fundamentals of physiology as they relate to orthopaedic surgery. Students will strengthen their skills in history and physical examination, oral and written communication with patients and staff, documentation of patient are using an electronic medical record, splinting and cast application, and basic positioning and surgical techniques. Students will provide patient care in the out-patient clinic, emergency department, operating room, and in-patient rooms.

Learning Objectives:

The medical student is expected to provide family-centered patient care that is compassionate, appropriate and effective for the promotion of health, prevention of illness, and treatment of disease. Perform musculoskeletal history and physical examinations; educate patients about their diagnoses; and assist in surgical and bedside procedures.

- Describe the diagnostic criteria and initial intervention for successful treatment of orthopaedic emergencies; integrate information about the criteria for diagnosis, natural history, risks and surgical approach for orthopaedic surgical cases; and understand the risks associated with comorbidities and how these affect the development of treatment plans.
- Identify the deficiencies in their knowledge base, clinical skills or interactive behavior with staff and patients and develop a plan to address these weaknesses; utilize electronic media, peer and mentor resources to effect improvement.
- Communicate openly and respectfully with staff, patients and families; and utilize the medical record appropriately.
- Protect the confidentiality of patient information and demonstrate sensitivity to the diversity of our patient population and our workforce.
- Identify appropriate solutions for specific patient needs within the VA system and understand

  differences in processes to identify patient care solutions in contrasting health systems.

(cont.)

Learning Activities:

Students will participate in the admission and out-patient history and physical examinations, daily in-patient rounds and clinic follow up care in a variety of orthopaedic specialties including hand surgery, joint replacement, spine surgery, ligament reconstruction and arthroscopic procedures. Some students will develop and initiate research projects, report cases of special interest, or provide a literature review on a selected topic. Reading in preparation for cases will be expected; supplemental reading about some special topics may also be assigned.

Students will be assessed based on their preparation for surgical cases, their interest in learning about cases seen in clinic, their documentation of information in the medical record (when appropriate) and their performance in undertaking patient care tasks. Assessments will be by the mentoring surgeon and the supervising preceptor. Feedback will be provided during clinical experiences by mentoring surgeons.

UCF College of Medicine

Acting Internship in General Surgery
MDI 8600

This rotation is designed to provide medical students with insights into the specialty of General Surgery.

Goals Objectives:

- The student will build on the knowledge and skills developed during the third-year surgical clerkship, including principles of pre-op assessment, operative intervention and post-op care and follow up of patients presenting with a wide variety of surgical diseases. Commonly encountered elective surgical procedures include abdominal wall and groin hernia repair, colon resection for benign and malignant conditions, cholecystectomy, breast biopsy/partial resection/ mastectomy, bariatric surgery, anorectal procedures, excisional biopsy of skin/soft tissue/extremity/abdominal/retroperitoneal masses, etc. Urgent/emergent conditions treated include acute appendicitis, cholecystitis, diverticulitis, small and large bowel obstruction, gastrointestinal bleeding.
- The student will be integrated into the surgical team, which includes surgical residents and attendings and will be expected to function at the senior student/surgical intern level. These duties include care of the ward-level hospitalized patient for routine postoperative care and routine non-operative management. Medical documentation of daily care activities and oral presentations on attending rounds is expected. Preparation for and participation in assigned operative cases at the first or second assistant level is expected. Introduction to assessment of acute patient complaints (on call problems) and workup of the same under direct supervision is expected. Development of differential diagnostic skills and the ability to recommend diagnostic tests when seeing surgical consult patients is expected. For assigned cases, the student will be knowledgeable in the anatomy of the abdomen, chest, neck and vascular tree and will be familiar with the operative steps from incision to wound closure. The student will be required to maintain continuity of care for patients throughout an entire episode of care.

Learning Activities

The student will be expected to pre-round on patients in preparation for 7:30am team rounds, write daily progress notes, write or participate in writing initial admission or consultation notes, attend biweekly Thursday morning M&M conferences. The student will also be prepared to present their patients in team rounds as well as prepare a case report, literature review or other evidence-based medicine presentation for practice in scholarly presentation/ teaching skills and or possible submission for publication.

UCF College of Medicine

Correctional Medicine Elective
MDE 8122

The Correctional medicine Elective is designed for fourth year students who desire to explore primary care medicine offered in a judicial system. The student will have the opportunity to see patients in the infirmary and in the clinics. During the experience, the student is expected to treat patients under the supervision of the attending faculty explore healthcare barriers unique to the incarcerated patients and become familiar with illnesses prevalent in correctional medicine. This rotation is designed to provide medical students with insights into the specialty of Family Medicine/Internal Medicine**.** Upon completion of this elective, a student will be able to:

- List three barriers to medical care in a correctional facility.
- Develop a follow up medical plan for at least one patient anticipating release from the correctional facility.
- Recognize five illnesses with increase prevalence in a correctional facility.
- Explain the role of mental illness in correctional medicine Illustrate professionalism while working with patients.

Patient care: The medical student is expected to provide patient care that is compassionate, appropriate, and effective for promoting health, prevention of illness, and treatment of disease.

Medical Knowledge: The medical student is expected to demonstrate medical knowledge relevant to Family/Internal Medicine, as well as the application of this knowledge to patient care:

• History and Physical assessment

Practice-Based Improvement: The medical student is expected to demonstrate the ability to investigate and evaluate their care of patients and continuously improve care based on constant self-evaluation and life-long learning.

• Student will identify areas for improvement and implement strategies to improve process of care. Demonstrate a willingness to learn from errors, ability to use EMR to manage information to provide care to patients.

Interprofessional and Communication Skills: The medical student is expected to demonstrate interpersonal and communication skills that effectively exchange information and collaboration with patients, their families, and health professionals.

• Student will provide effective communication to patients and health care providers.

(cont.)

(cont.) Professionalism: The medical student is expected to demonstrate behaviors that reflect a commitment to continuous professional development, ethical practice, understanding and sensitivity to diversity, and a responsible attitude toward their patient, profession, and society.

- Students will display continuous professional development. Demonstrate respect, compassion, integrity during encounters with patients and staff here at Orange County Jail and adhere to the principles of confidentiality. Student will recognize and identify areas of improvement in their personal awareness.

Systems-Based Practice: The medical student is expected to demonstrate an awareness of and responsiveness to the larger context of health care and the ability to call effectively on other resources in the system to provide optimal health care.

- Apply evidence-based, cost conscious strategies for prevention, diagnosing, and disease management in caring for patients in the correctional setting,

Learning Activities: Daily rounds in the infirmary, caring for patients during acute and chronic clinic.

Required textbooks and articles: Evidence-based information from UpToDate and textbooks required by UCF for Family Medicine and Internal Medicine Clerkships.

UCF College of Medicine

Outpatient Family Med/Internal Med with a Geriatric Emphasis Elective
MDE 7120

Students will participate in the care of adult patients and gain experience with comprehensive history and physical examination and application of this information for the prevention and treatment of outpatient primary care conditions.

- Student with obtain pertinent history and physical exam under direct supervision. Visits will be focused on preventive care, chronic disease care and evaluation and treatment of acute problems. Student will learn appropriate diagnosis and treatment of acute and chronic problems.

Learning Objectives:
Patient care:

- The medical student is expected to provide patient care that is compassionate, appropriate, and effective for promoting health, prevention of illness, and treatment of disease.
- The medical student is expected to be professional in action and appearance.

Medical Knowledge: The medical student is expected to demonstrate medical knowledge relevant to Family Medicine/Internal Medicine, as well as the application of this knowledge to patient care:

• The student will obtain the knowledge of the sign and symptoms to diagnose and treat common acute illnesses and the use, side effects and interactions of therapies for the treatment of acute and chronic disease.

Practice-Based Improvement: The medical student is expected to demonstrate the ability to investigate and evaluate their care of patients and continuously improve care based on constant self-evaluation and life-long learning.

• The student will learn to self-reflect and improve their clinical knowledge through the use of references, research and technologies.

Interprofessional and Communication Skills: The medical student is expected to demonstrate interpersonal and communication skills that effectively exchange information and collaboration with patients, their families, and health professionals. The student will learn how to communicate effectively with other professions, the healthcare team, the patient and patient's family. They will also learn proper documentation.

Professionalism: The medical student is expected to demonstrate behaviors that reflect a commitment to continuous professional development, ethical practice, understanding and sensitivity to diversity, and a responsible attitude toward their patient, profession, and society.
•(cont.) Student will demonstrate respect, compassion, integrity, altruism and confidentiality in dealing with patients, patient's families and colleagues.

Systems-Based Practice: The medical student is expected to demonstrate an awareness of and responsiveness to the larger context of health care and the ability to call effectively on other resources in the system to provide optimal health care.

- Student will utilize resources to provide optimal health care recognizing limitations in opportunities regarding the indigent old patient. The student will utilize evidence-based medicine in prevention, diagnosis, and treatment management. The student will also use cost conscious strategies for treatment

Learning Activities: Initially student will observe the attending as he demonstrates the history taking and physical exam as well as the preventative care. Student will then take over different aspects of the history taking and physical exam as well as developing a treatment plan under the supervision of the attending physician.

Required textbooks and articles: Recommended textbook is Harrison's Principles of Internal Medicine 20th addition or equivalent textbook.

How will the student's performance be assessed? (All M4 Electives and Acting Internships are P/F Grading):

- The medical student will be evaluated by their engagement in the entire learning opportunity, including presentations, preparedness for the clinic, and participation in educational conferences. There will be a formal feedback session at mid-term and at the end of the rotation. Feedback for continuous improvement will be provided throughout the rotation.

Summative evaluation: Click the box to agree to the statement below.

- A final written evaluation will be provided at the end of the rotation. All evaluations will be completed electronically via an online evaluation system.

UCF College of Medicine

Emergency Ultrasound Elective
MDE 8773

The primary goal for the emergency ultrasound point of care elective is to provide the knowledge, skill, and experience to perform focused bedside ultrasound (US) examinations as a means to provide immediate information and answer specific questions about patients' physical conditions and care.

Objectives:

Patient Care: Gather accurate, essential information in a timely manner from all sources, including medical interviews, physical examinations, medical records, and diagnostic/therapeutic procedures. Integrate diagnostic information and generate an appropriate differential diagnosis.

Medical Knowledge: Understand the basic principles of medical ultrasonography with the potential risks and benefits to the patient. Demonstrate the ability to appropriately use the ultrasound machine to obtain basic images. Demonstrate the ability to identify basic ultrasound anatomy. Understand the appropriate use of ultrasound in the diagnosis of common medical problems. Demonstrates adequate foundation of knowledge in US applications: FAST, Aorta, Renal, First Trimester Bleeding, Echo, Gallbladder, and Procedural ultrasound.

Practice Based Improvement: Locate, appraise, and assimilate evidence from scientific studies related to the health problems of their patients. Use information technology to manage information, access online medical information, and support their own education.

Interprofessional and Communication Skills: Demonstrate the ability to respectfully, effectively, and efficiently develop a therapeutic relationship with patients and their families. Demonstrate effective participation in and leadership of the health care team.

Professionalism: Arrive on time and prepared to work. Demonstrate appropriate use of symptomatic care. Treat patients/family/staff/paraprofessional personnel with respect. Protect staff/patient's interests/confidentiality. Accept responsibility/accountability for patient care activities.

UCF College of Medicine

Point of Care Ultrasound Elective
MDE 8774

This course will consist of didactic training, hands-on ultrasound scanning, simulation lab and clinical scanning rounds, and proficiency assessment and tracking. The goal is for every student to have access to Point-of-Care Ultrasound (POCUS) training and the opportunity to develop life-long skills to advance their medical practice.

Goals of the rotation:

This rotation is designed to provide medical students with insights into the specialty of Internal Medicine**.**

- Acquire knowledge of ultrasound basic principles
- Complete mandatory reading assignment.
- Practice image acquisition
- Interpret POCUS images and review with faculty
- Attend and participate in ultrasound guided procedures—peripheral venous access, paracentesis and thoracentesis.
- Prepare a 30-minute presentation highlighting interesting cases that you saw or discussing other aspects of POCUS.

Learning Activates:

Students must read these chapters from Point of Care Ultrasound, Second Edition by Nilam Soni, MD prior to starting this rotation: Chapter 2, 8, 10, 14, 24, and 34. The entire book is recommended to be read and an electronic copy is available free of charge through the UCF and VA library. Students will have weekly lectures on ultrasound and echocardiography as well as weekly review of POCUS images with faculty. Students will be scanning patients on the medical wards and ICU. They will make sure to alert the medical teams that they will be scanning their patients for educational purposes. Also, whenever the opportunity presents itself, they will be able to participate in bedside procedures such as paracentesis and thoracentesis. They will be required to complete a specific number of ultrasound studies, including different windows of the heart, lung, abdomen, and DVT evaluation.

They must bring their own laptop and thumb drive to save and sort/label images for review. By the end of their rotation, they will need to prepare a 30-minute presentation (PowerPoint or similar style) highlighting interesting cases that they saw or discussing other aspects of POCUS. This should involve a brief clinical vignette, DEIDENTIFIED images/video, and teaching points. They will be scheduled to present this on noon report by the Chief resident. They are expected to attend all internal medicine didactics during this time, this includes noon report and academic half day.

UCF College of Medicine

Advanced Physiology in the Critically Ill Patient
MDE 8210

This non-clinical course offers an integration of advanced physiology and ICU cases in online meetings with physiologist and intensivist to do case evaluation and working through mechanism of disease analyses. Zoom sessions several times a week and individual and group case work-total work in the week with reading would be 20-30 hours per week. 15 Zoom plus 15 work independent or in groups.

UCF College of Medicine

Orthopaedic Research Elective
MDR 8570

This rotation is designed to provide medical students with insights into the specialty of orthopaedic research. Ortho research, addressing the musculoskeletal limitations experienced across the breadth of society, encompasses many tissues and conditions. This course will focus on the current clinical approaches in cartilage, bone, tendon and muscle. Ortho implants are successful in improving quality of life by reestablishing mobility and reducing pain. Due to an increasingly aging population and awareness of new technologies, better implants and therapies are desired. Tissue engineering, smart and customized, 3D printed implants all have potential to improve patient outcomes.

Musculoskeletal disorders represent one of the greatest healthcare challenges of today. In order to achieve a world free of musculoskeletal limitations, significant research efforts must be expended. This course will highlight some of the challenges, approaches and current research in orthopaedic medicine.
Course Guiding Questions:

- What are the current orthopaedic treatments for cartilage, bone, tendon and muscle?
- How are we falling short?
- What is the role of orthopaedic research in patient care?
- What are the current approaches under research?
- How do we evaluate that research?
- What are the next steps?

This module will train students in the main areas of orthopaedic research. We will delineate current clinical approaches to trauma and diseases of the musculoskeletal system, tissue engineering, biomaterial, physiotherapy and pharmaceutical research, integration of those approaches and the future of clinical orthopaedics. When combined the course broadly covers orthopedic research with a deep dive into treatment, assessing current, developmental and future technologies. We will teach principals of Ortho treatment approaches, why they're used and some of the research being done to improve patient outcomes. No clinical responsibilities. The students will be given an assignment on a current/recent news or journal article. They will build a brief, patient oriented, video presentation centered around the use of orthopaedic research for this medical problem or disease connected to a key concept covered in the class (20% of the grade). At the end of the course, thy will integrate their findings and forecasts to write a term paper that demonstrates their acquired knowledge (20% of the grade). In addition to scientific questions, they will also be trained how to improve their presentation skills. For participation in reviewing and commenting, they will be assigned to a group. They will review each other's work, make comments and respond to comments. This ensures that they will also learn how to serve as a reviewer.

UCF College of Medicine

Nanomedicine Elective
MDE 8209

This rotation is designed to provide medical students with insights into the specialty of Nanomedicine. The nanomedicine course provides a thorough overview of the exciting and emerging discipline of nanomedicine which is already starting to transform the way that medical and healthcare solutions are developed and delivered. The course will focus on the impact that nanotechnology has in the advance of medicine and healthcare including its role in delivery of therapy, tissue engineering and biosensing/diagnosis techniques and will discuss how to progress this area to meet future needs.

Course Guiding Questions:

- What are the potential benefits and challenges of nanomedicine?
- How is nanomedicine currently being used to treat patients?
- What are the building blocks of nanomedicine? How do they provide unique & distinctive functions in the body?
- How can we customize nanomedicine solutions for specific diseases?
- How do we demonstrate that nanomedicine is both safe and effective?

Course Goals:

- To introduce students to the emerging field of nanomedicine and to give an overview of present and future applications of nanotechnologies and nonmaterial in medicine and healthcare and their limitations.
- To provide an understanding of the scientific and regulatory obstacles in implementation of nanomedicine.
- To provide an environment in which students can share their ideas in group discussions and learn presentation skills.
- To enable students to make informed decisions about applications of nanotechnologies in their own field of work.

The students will be given an assignment which is structured in such a way to help them build content and ideas centered around the use of nanomedicine for a medical problem or disease that they are interested in and also highlights a key concept covered in the class. In the second half of the course, students will work to create a 10-15-minute presentation about their assignment. At the end of the course, they will integrate their findings and forecasts to write a term paper. The assignment including presentation and term paper make up 40% of the grade.

UCF College of Medicine

Urology Elective
MDE 8675

After completing the urology rotation, you will have improved your ability to evaluate urology patients and formulate a treatment plan. Additionally, you will improve your operative skills and exposure to urologic procedures.

Objectives:

- The medical students along with the mid-level providers are expected to take primary responsibility for all patients on the in-patient and consultation urology service.
    - Mid-level providers (Physician Assistants and Nurse Practitioners) work on the urology service. The medical students are encouraged to communicate often with the appropriate resident, fellow, or mid-level providers in regard to specific patient care. The attending, resident, fellow, or mid-level providers will assign the medical student tasks.
    - Students will be assigned in-patients and consults to follow. Prior to going to the OR or clinic in the morning the students are expected to round on their patients along with the urology team. Students should write a progress note but not put it into the patient's chart. The note should be reviewed with the attending, resident, fellow, or mid-level providers who will write the note in the patient's chart. This note should include but not be limited to: report on significant events from the previous day/night, laboratory studies, vital signs, intake (oral and IV) and output of fluids (including drains) and physical exam for the past 24 hours. The student should show their progress note to the attending for feedback.
    - The medical student, resident, fellow, and mid-level providers will be encouraged by each attending physician to work together as a team and divide tasks appropriately in order to better complete the morning's work.

- The medical student is expected to experience and participate in the full spectrum of perioperative patient care. The priorities of medical student assignment after completion of morning "rounds" are as follows in order of importance.
    - **Surgical Procedures:** Specifically, the medical student in conjunction with the resident, fellow, and mid-level providers is expected to evaluate emergency and inpatient consultations, form a diagnosis and initial plan, and discuss each with the attending urologist on call. All consultations are to be filled out on the written comprehensive forms complete with review of systems, physical, pmh,psh,… The mid-level providers, resident, fellow, or attending will dictate formal consultation note.
- The medical student is expected to read on the medical condition of the inpatient and consults and the upcoming OR cases. In addition, the student should be familiar with the patient's history and physical exam, operative indication, and surgical steps proposed for the case being discussed.

UCF College of Medicine

Clinical Cardiology Elective
MDE 8220

Students enrolled in this course will get a basic understanding of common cardiovascular conditions such as CAD, CHF, Dyslipidemias, HTN, Arrhythmias, Dizziness & Syncope, PAD and Venous Disorders. Basic interpretation of Cardiovascular tests like EKG, 2DEcho, Nuclear Stress Test, Carotid Doppler, Arterial Doppler, Holter Monitor, Cardiac CTA. Students get to scrub in cardiac procedures such as diagnostic cath, peripheral angiography, coronary and peripheral interventions performed in the cath lab.

Learning Activities:

Seeing patients on all week days 8:30-4:00 pm at the office or at the hospital with the attending. Work up 1-2 new patient consults/day and see 5 F/U visit patients/day. Presentation and discussion of every patient you see and do pertinent literature research on the patient diagnosis you have encountered.

UCF College of Medicine

Outpatient Cardiology
MDE 8222

This rotation is designed to provide medical students with insights into the specialty of cardiology. The goal of this rotation is to allow the M4 student to have greater independence and involvement in the care of the cardiology patients in the ambulatory setting. This will include EMR documentation, assessment and plan of care for such patients, under direct supervision of a UCF faculty member. Expectations (compared to M3) will include greater volume of patients seen, advanced history taking and assessment skills, demonstration of fundamental medical knowledge in decision-making and formulation of a plan of care for selected patients.

Learning Activities:

The students will participate in daily patient care. The student will observe outpatient cardiovascular testing procedures including stress testing and echo imaging and interpretation. During independent study time, the student will enrich their knowledge on topics they saw during their clinical care. They will be expected to provide brief presentations upon request on their topic of review. UCF Health Grand rounds occur each month on the 4th Friday at 4pm. Students are expected to attend this event as well as any other educational offerings which may occur during the rotation period.

UCF College of Medicine

Ambulatory Internal Medicine
MDE 8205

This rotation is designed to provide medical students with greater independence and involvement in the care of internal medicine patients in the ambulatory setting. This will include EMR documentation, assessment and plan of care for such patients, under the direct supervision of a UCF faculty member. Expectations include greater volume of patients seen (as compared to M3), advanced history taking and assessment skills, demonstration of fundamental medical knowledge in decision making and formulation of a plan of care for selected patients.

Learning Activities:

The student will be expected to investigate various methods of treatment in the care of patients and to educate him/herself by critically appraising literature related to the topic of interest. The student will observe clinical workflow and design and suggest improvement, offer suggestions if flaws or other areas of improvement are noticed. Students will participate in daily patient care, including daily patient care "huddles" to review patients for the day. UCF Health grand rounds occur on the fourth Friday of each month at 12:30pm. Students will be expected to attend this educational event, as well as any other educational opportunities which may occur during this rotation period.

UCF College of Medicine

Gastroenterology Elective
MDE 8270

This rotation is designed to provide medical students with insight into the specialty of Gastroenterology. At the end of the rotation the student will be able to:

- Carry out the initial history and physical exam and make diagnostic plans for patient presenting with primary GI disorders
- Discuss indications for common GI procedures including endoscopy, colonoscopy, ERCP, EUS, liver biopsy, laparoscopy, cholecystectomy, etc.
- Discuss workup and therapeutic plan for common inpatient GI conditions including GI hemorrhage, abdominal pain, cholecystitis, peptic ulcer, diverticulosis, etc.
- Learn to interpret common GI results/images including detecting polyps, ulcers, gastritis, diverticulosis, liver function tests, CT images, etc.

Learning Activities:

Students will learn to interpret laboratory results, imaging results including plain X rays, CT scans, esophagrams, US etc. Students will learn to use information obtained from history, physical examination and imaging and lab results to formulate a diagnostic and therapeutic plan for patients. Students will be expected to use outside sources including journal articles, textbook chapters and resources such as UpTo Date to help with the assessment of patients.

Students will see patients daily in the office and assist with hospital rounds. Students will also observe GI procedures including EGD, colonoscopy and ERCP. Students will present cases to the supervising physician after assessing each patient individually. Students will be expected to make formal presentations of learning topics given directly to them by the supervising physician.

UCF College of Medicine

Ambulatory Elective in Hematology/Oncology
MDE 8281

Goals are advanced training and responsibility in the care of adult hematology/oncology patients. The student will assume intern level responsibility for his/her patients and will be expected to see/provide care for approximately eight or more patients daily.

Objectives:

- Demonstrate ability to assess and care for adult patients in the outpatient setting, initially and in an ongoing fashion.
- Demonstrate appropriate communication skills, with colleagues (oral and written presentations), patients and families.
- Demonstrate professional behavior at all times.

UCF College of Medicine

Nephrology, Inpatient/Outpatient
MDE 8350

This course provides an in-depth exposure to the diagnosis and treatment of renal disease in the hospital and outpatient setting through bedside teaching, didactic lectures, conferences and Grand Rounds. After completion of the course, the student will be familiar with the various diagnostic and therapeutic modalities that are used in the treatment of patients with renal disease.

Objectives:

- After completion of the course, the student will be familiar with the various diagnostic and therapeutic modalities that are in the treatment of patients with renal disease.

UCF College of Medicine

Wound Care
MDE 8345

The student will be exposed to patients with all types of wounds. Most of the wounds will be located on the lower extremity. Diabetic ulcers will be heavily emphasized, though all types of wounds will be encountered, including decubitus ulcers, venous stasis ulcers, arteriosclerosis ulcers, surgical wounds and complications. In addition, the student will be exposed to the patient at high risk for developing ulcers as well as those who have finished healing a wound and are now being monitored for reoccurrence.

Objectives:

- Demonstrate the ability to assess and care for adult patients in the outpatient setting, initially
  and in an ongoing fashion.
- Demonstrate appropriate communication skills, with colleagues (oral and written presentations), patients and families.
- Demonstrate professional behavior at all times.

UCF College of Medicine

Dermatology Elective
MDE 8250

This elective will allow the student to be exposed to all areas of dermatology, including general, surgical, cosmetic, and dermatology pathology. The student will be an active member of the office team and will have additional exposure to the office management.

Objectives:

- The student will gain his/her dermatology basic clinical knowledge and ability to communicate, discuss cases and interact with staff, patient in an intelligent and thoughtful way, and responds to clinical questions appropriately as knowledge of the field increase.
- The student learns about skin and sun safety as well as the importance of evaluating the whole patient and discussing risk-taking behaviors.
- The student learns to assist in basic dermatologic surgery procedures as well as gains understanding of more complex surgical procedures (Moh's surgery and cosmetic closures), and laser surgery.
- The student is exposed to the broad spectrum of dermatology specific medications and completes the rotation with a basic dermatology treatment armamentarium.
- The student gains an understanding in which cosmetic dermatology is used as a methodology to enhance the appearance of the skin by repairing damage done through sun, trauma and/or skin disease.

UCF College of Medicine

Advanced Dermatology Elective
MDE 8254

The student is exposed to one of the largest group dermatology practices in the country. The practice has over 50 office sites in 50 cities in Florida. Opportunities to work in several offices will expose the student to almost all aspects of diagnosis and treatment within general dermatology (pediatric to geriatric), surgical dermatology (routine, Moh's, laser), cosmetic dermatology (lasers, fillers, cosmetic surgery, hair transplantation, aesthetic services), and dermatopathology. In addition, the student will be able to participate in or observe ongoing clinical research studies (phase II-IV). Furthermore, the student may choose to be instructed in centralized, multiple office management. Emphasis is placed on treating the patient's current problem while repairing the underlying skin abnormalities to reduce risks of further problems. The student is expected to function as a member of the office team. The student, with the help of the office manager, will arrange weekly rotations through several offices to provide the broadest experience possible.

Objectives:

- The student increases his/her basic clinical knowledge and ability to communicate, discuss cases and interact with staff, patients, and research subjects in an intelligent and thoughtful way and responds to clinical questions appropriately as knowledge of the field increases.
- The student learns about skin and sun safety as well as the importance of evaluating the whole patient and discussing risk-taking behaviors.
- The student learns to assist in basic dermatologic surgery procedures as well as gains understanding of more complex surgical procedures (Moh's surgery and cosmetic closures) and laser surgery.
- The student is exposed to the broad spectrum of dermatology specific medications and completes the rotations with a basic dermatology treatment armamentarium.
- The student gains an understanding in which cosmetic dermatology is used as a methodology to enhance the appearance of the skin by repairing damage done through sun, trauma, and/or skin disease.
- The student is exposed to the complexities of the business aspects of a medical practice.
- The student is exposed to new drug development as well as studies which expand the use of current medications and/or retest the safety profiles.

UCF College of Medicine

Ambulatory Elective in Rheumatology
MDE 8310

Goals are advanced training and responsibility in the care of adult rheumatology patients. The student will assume intern level responsibility for his/her patients and will be expected to see/provide care for approximately eight or more patients daily.

Objectives:

- Demonstrate ability to assess and care for adult patients in the outpatient setting, initially and in an ongoing fashion.
- Demonstrate appropriate communication skills, with colleagues (oral and written presentations), patients and families.
- Demonstrate professional behavior at all times.

UCF College of Medicine

Pulmonary Elective
MDE 8245

At the end of the 4-week rotation the student will have an understanding of pulmonary physiology and common pulmonary diseases that are seen in the VA population. He or she will have an opportunity to visit the Pulmonary lab and learn basic tests.

Objectives:

- The student will learn to read pulmonary function tests. He or she will learn to read X ray chest and CT scans. Will be able to take history from veterans with various pulmonary disorders and will also be able to watch major procedures. There will be opportunities to present articles in journal club, take part in lung cancer clinic and Chest X ray meetings.
- Student will see patients with the preceptor for the first week and then be allowed to do history taking and examination by themselves and formulate a diagnosis and generate differential diagnosis and management.
- The student will be encouraged to call other specialty providers as the case may be and document in the electronic notes.
- The student will learn the best way to respect and interact with veterans.
- A lot of emphasis will be made on prevention of pulmonary diseases and multidisciplinary care.

UCF College of Medicine

Advanced ECG Self-Study Program
MDE 8227

The primary goal of this rotation will be mastering the art and practice of clinical ECG interpretation. This will focus on the following areas:

- The basics,
- Myocardial abnormalities,
- Conduction abnormalities,
- Arrhythmias,
- Narrow & wide complex tachycardias,
- Paced rhythms, channelopathies and electrolyte disturbances.

Upon completion of this 2-week session, the students will have reviewed 400-600 case studies. This will provide them with a broad and in-depth understanding of ECG analysis and diagnosis.

Learning Activities:

- Self-study case reviews by student (Using Podrid's ECG Series)
- Additional literature review ECG topics.
- Weekly presentations to faculty on assigned ECG/Cardiovascular topics.
- Weekly conference/faculty discussions to assist in instruction and understanding of ECG interpretation.

Required Texts:

- Podrid's Real World ECG - Volume 1-4 (Volume 5-6 once released)-Available electronically in the library.
- Marriott's Practical Electrocardiography 12th edition-Available electronically in the library.

UCF College of Medicine

Dermatology Research Elective
MDR 8250

The student is exposed to one of the largest group dermatology practices in the country. The practice has over 50 office sites in 50 cities in Florida. Opportunities to work in several offices will expose the student to almost all aspects of diagnosis and treatment within general dermatology (pediatric to geriatric), surgical dermatology (routine, Moh's, laser), cosmetic dermatology (lasers, fillers, cosmetic surgery, hair transplantation, aesthetic services), and dermatopathology. The student with the help of the office manager, will arrange weekly rotations through several offices to provide the broadest possible. No night call or weekends required.

Objectives:

- The student increases his/her basic clinical knowledge and ability to conduct clinical research within dermatology, to communicate, discuss protocols, and data. The student will interact with staff, investigators and industry representatives throughout the world, in an intelligent and thoughtful way, and responds to clinical questions appropriately as knowledge of the field increases.
- The student learns about the import of Good Clinical Practices and maintaining patient safety throughout any clinical field.
- The student learns to create protocols, enter data and develop reports.
- The student is exposed to new drug development as well as studies which expand the use of current medications and/or retest the safety profiles.
- The student is exposed to the complexities of the business aspects of a clinical research and medical practice.
- The student gains an understanding in which cosmetic dermatology is used as a methodology to enhance the appearance of the skin by repairing damage done through sun, trauma, and/or skin disease.

UCF College of Medicine

Family Medicine Outpatient Elective
MDE 7120

This rotation is designed to provide students with insights into the specialty of Family Medicine. They will work with the attending one on one to see patients that came in for management of chronic conditions, acute conditions and prevention medicine. They will have the opportunity to see patients, take a full comprehensive history, present to the attending and discuss an assessment and plan. Students will have the opportunity to present and discuss evidence-based medicine concepts with the attending.

Objectives:

Students will participate in the assessment and management of patients, with an emphasis on acute and chronic illnesses commonly seen in the primary care outpatient office setting. Students will meet with their assigned preceptor at the beginning of the rotation and discuss student's current knowledge & skills and their specific learning goals, as well as expectations from the preceptor and appointment time for feedback and evidence-based discussions. Students are expected to perform history and physicals, develop assessment and plans, document encounters in the medical record section assigned to students, and present findings to the preceptor. Students will initially perform history and physicals under the supervision of the faculty. When faculty considers the student competent in these skills, student will perform history and physicals independently. Student will always be directly supervised by faculty when performing any office procedure. Students are expected to read evidence-based information about each of their patient's condition and present to the faculty for discussion. Faculty will supervise the student's active participation in clinical patient encounters with one-on-one instruction and periodic feedback (once a week verbally in an informal setting and once a month in writing via OASIS for student's grade).

UCF College of Medicine

Primary Care, Community & Preventative Care Medicine Elective
MDE 8100

This rotation is designed to provide students with insights into the specialty of Family Medicine. Students will be exposed to real-world primary care/outpatient medicine. Students will get history and physical of patients, formulate a differential diagnosis, propose a treatment plan and discuss with attending physician and chart encounters in SOAP note format. Students will also screen patients for preventative measures according to USPSTF guidelines based on age/gender when they are due for their annual physical. Students will participate in counseling and education patients on lifestyle modifications that can be implemented to improve overall patient health.

Objectives:

Students will understand how to diagnose and treat common primary care acute complaints and manage chronic disease. Students will apply knowledge of pharmacology to decide if certain medication should be added or discontinued based on patient presentation. Students will apply EBM algorithms in deciding further diagnosis and treatment plans. Students will demonstrate ability to apply evidence-based medical resources in making decisions regarding further management plans. Ability to apply feedback regarding history-taking or SOAP-note writing to improve critical thinking and organization skills. Students will interview patients and review their patients' chart in the EMR. They will assimilate all the information they gather to make an assessment and plan regarding the patient and discuss their findings and proposed care plan. Students will be expected to research EBM resources such as UpToDate or AAFP to help fill in their knowledge gap based on the clinical cases they work on.

UCF College of Medicine

Allergy & Immunology Elective
MDE 8301

This rotation is designed to provide students with insights into the specialty of Allergy & Immunology. Clinical experiences are intended to assist the student's transition from didactic to integrated clinical evaluation and patient management. Under supervision, students are expected to assist in the management of acute and chronic allergic and immunologic diseases. The student should also develop fundamental psychomotor skills by performing routine basic procedures under direct supervision. The student be able to: conduct comprehensive evaluation of new and follow up patients with allergic and immunologic disorders, be familiar with the interpretation of laboratory, procedural and diagnostic data as it relates to allergic and immunologic diseases, develop familiarity with the clinical manifestations of common allergic/atopic conditions, demonstrate the knowledge of recommended treatments and evidence used to formulate treatment recommendations, demonstrate knowledge of allergen avoidance and environmental control measures, interpret commonly used diagnostic test in patients with allergic and immunologic diseases.

Objectives:

The medical student is expected to demonstrate medical knowledge relevant to allergy and immunology as well as the application of this knowledge to patient care. The student will obtain and develop medical knowledge in the following areas: history taking (The significant attribute of allergy symptoms, alleviating factors, aggravating factors, associated symptoms, functional impairment and patient's interpretation of symptoms), physical exam (four methods of physical exam: inspection, palpation, percussion, and auscultation), interpretation of clinical information (interpret specific diagnostic tests and procedures that are ordered to evaluate patients who present with common symptoms and diagnosis encountered in practice of allergic and immunologic disorders), therapeutic decision making (information resources for determining medical and surgical treatment options for patients with common and uncommon allergic and immunologic problems), case presentation (student should be able to define, describe and discuss components of comprehensive and abbreviated case presentations).

UCF College of Medicine

Digestive and Liver Health Elective
MDE 8271

This rotation is designed to provide students with insights into the specialty of Gastroenterology. Students will be mentored by a tenured GI in the evaluation and management of the full range of digestive and liver health issues, participate with the GI in outpatient office visits for new and established patients as well as endoscopic procedures (eg., EGD and colonoscopy), learn efficient workflow mechanics of a busy practice and ASC, prepare a presentation on a specific topic of interest to the student and be afforded the opportunity to participate in hospital consults and rounding as appropriate.

Objectives:

The medical student is expected to demonstrate medical knowledge relevant to nutrition and digestive health, as well as the application of this knowledge to patient care. The student will obtain and develop medical knowledge in the following areas:

- Chart review and prep prior to patient presentment and how to work with medical assistants and front office staff, patient discussions on principal complaint or chronic condition, review of medications and compliance and changes, if any, in GI health. Student will also witness and participate in development of, or changes to, treatment plan.
- Environment open to suggestions for improvement of work flow, patient interaction and technology innovations to improve the patient experience.
- Provide effective and professional consultation to other physicians in the practice, document the patient history and plan of care and communicate with family members of the patient.
- Demonstrate respect, compassion, integrity and altruism in relationships with patients, families and colleagues.

After discussion with the student's principal preceptor, the student will draft an outline from which to work with constant learning opportunities during the 4-week rotation.

UCF College of Medicine

Internal Medicine Outpatient Elective
MDE 7371

This rotation is designed to provide students with insights into the specialty of Internal Medicine. During this rotation, students will work with the attending one on one to see patients that came in for management of chronic conditions, acute conditions and prevention medicine. They will have the opportunity to examine patients, take a full comprehensive history, present to the attending and discuss an assessment and plan. Students will have the opportunity to present and discuss evidence-based medicine concepts with the attending. Medical students will perform a literature search to answer questions regarding current evidence for the prevention or management of an outpatient primary care presentation.

Objectives:

Students will participate in the assessment and management of patients, with an emphasis on acute and chronic illnesses commonly seen in the primary care outpatient office setting. Students will meet with their assigned preceptor at the beginning of the rotation and discuss student's current knowledge and skills and their specific learning goals, as well as the expectations form the preceptor and appointment time for feedback and evidence-based discussions. Students are expected to perform history and physicals, develop assessment and plans, document encounters in the medical record section assigned to students, and present findings to the preceptor. Students will initially perform history and physicals under the supervision of the faculty. When the faculty considers the student competent in these skills, student will perform history and physicals independently. Student will always be directly supervised by faculty when performing any office procedure. Students are expected to read about each of their patient's condition and present to the faculty for discussion. Faculty will supervise the student's active participation in clinical patient encounters with one on one instruction and periodic feedback (once a week verbally in an informal setting and once a month in writing via Oasis for student's grade).

UCF College of Medicine

Endocrinology Elective
MDE 7260

This rotation is designed to provide students with insights into the specialty of Endocrinology. The rotation is hands on and illustrates the role of a provider of Endocrinology in a clinical setting. During the rotation, students will be monitored by the faculty and be responsible for their daily clinical activities. By the end of the rotation, it is expected that medical student will have developed a knowledge base and clinical skills allowing them to identify and manage common concerns in endocrinology including relevant anatomy, relevant physiology, and pathophysiology, eliciting a past medical, past surgical, family and social history for new patients, formulating appropriate differential diagnosis, determining appropriate pharmacologic and nonpharmacologic therapy, and providing patient education. Students will also be come familiar with documentation. Students are expected to attend learning sessions. The student is expected to complete an EMB project during the rotation to present to the team by the end of the rotation.

Objectives:

Students will obtain knowledge in therapeutic effects, side effects of common medications used in endocrinology, recognize signs and symptoms of diseases and treatment, develop and present treatment plan for common endocrinological disorders such as hypothyroidism, hyperthyroidism, type 2 diabetes and dyslipidemia. They will be able to learn how to read blood glucose logs on continuous glucose monitoring devices as well as insulin pumps. Students will get to observe fine needle aspiration biopsy of thyroid nodules and thyroid ultrasounds performed in clinic. Will also gain knowledge on pituitary function, adrenal function, osteoporosis, hormone replacement therapy, amongst others.

UCF College of Medicine

Elective in Gynecology
MDE 8165

The Gynecology Elective focuses on all aspects of gynecologic care of the patient. The student will evaluate and propose course of treatment for commonly encountered gynecologic health issues. The student will develop differential diagnosis and propose treatment plans that are appropriate. Expected conditions to be encountered include management of abnormal cervical cytology, abnormal uterine bleeding across all age groups, vulvar disorders, fibroids, adenomyosis, endometriosis, and complex gynecological surgical procedures. Students will work team Nurse Practitioners in completing well-women examinations and evaluating breast disease. The student will be expected to have learned basics of gynecologic outpatient procedures such as endometrial biopsy, intrauterine device placements for contraception, colposcopy basics, and performance of breast and pelvic examination, including collection of specimens for cytology. The student will also be expected scrub and assist with all surgical cases.

Learning Activities

Student will be an active team member of all patient encounters. The student will assist with admissions, round pre-op and post op on all surgical patients. The student will prepare 2 presentations to be delivered to the team regarding gynecologic care of patients. These presentations will incorporate literature reviews and case-based presentations with a discussion.

UCF College of Medicine

Elective in Obstetrics and Gynecology
MDE 8160

The 4th year student in this course will focus on the comprehensive nature of women's health, gaining experience in the office, inpatient setting, and operating room. This rotation is designed to provide medical students with insights into the specialty of Obstetrics and Gynecology. Students will work with patients in the full scope of the specialty. They will work directly with pregnant patients during the prenatal, intrapartum, and postpartum course. Additionally, they will have the opportunity to assess common gynecologic concerns including abnormal uterine bleeding, contraceptive care, preventative care, abnormal cervical cytology, and adnexal masses. Students will work directly with the faculty mentor to develop a schedule for clinical activities to meet the goals of the rotation. By the end of the elective, students will be expected to have a knowledge base and clinical skills to identify and provide initial management of common OB and GYN concerns. Students will be expected to participate in change of shift sign-out while on inpatient service, high risk OB meeting during their outpatient service, and resident didactics. The student will be expected to provide an evidence-based presentation on a topic of their choosing by the end of the rotation.

Learning Objectives:

Patient care: The medical student is expected to provide patient care that is compassionate, appropriate, and effective for promoting health, prevention of illness, and treatment of disease. Expectations in patient care include:

- Complete a comprehensive women's health history
- Perform clinical breast and pelvic exams in a sensitive manner
- Recognize common obstetrical and gynecologic concerns in reproductive aged and postmenopausal women
- Assist in evaluation of patients in the outpatient clinic, emergency room, and inpatient setting
- Participate in obstetric and gynecologic procedures in the hospital

Medical Knowledge: The medical student is expected to demonstrate medical knowledge relevant to Obstetrics and Gynecology, as well as the application of this knowledge to patient care. The student will obtain and develop medical knowledge in the following areas:

- Presentation, risk factors, evaluation and management of abnormal uterine bleeding in adolescents, reproductive aged women, and postmenopausal women
- Role of preventative medicine in gynecology including cervical cancer screening, breast cancer
- screening, immunizations, and bone density screening
- Components of routine prenatal care including role of ultrasound for fetal evaluations,
- laboratory evaluations, fetal heart rate assessments, fundal height measurements
- (cont.) Participate in spontaneous vaginal deliveries, including demonstration of steps of delivery,

- placental delivery, and assessment for lacerations
- Contraceptive counseling, including identification of risk factors for complications, side effects,
- route of administration, efficacy, and contraindications
- Identify common gynecologic concerns and initial management including, but not limited to
- vaginitis, urinary tract infections, ovarian cysts, and pelvic pain
- Identify common obstetrical concerns and initial management including, but not limited to
- decreased fetal movement, preterm contractions, vaginal bleeding, abdominal pain, and
- rupture of membranes
- Learn female pelvic anatomy and be prepared for operative cases

Practice-Based Improvement: The medical student is expected to demonstrate the ability to investigate and evaluate their care of patients and continuously improve care based on constant self-evaluation and life-long learning.

- Utilize Obstetrics and Gynecology textbooks, journal articles, and ACOG clinical practice
- guidelines to study disease processes and most up to date recommendations for patient care
- Seek formative feedback from preceptors on a weekly basis to identify strengths and
- weaknesses in clinical care

Interprofessional and Communication Skills: The medical student is expected to demonstrate interpersonal and communication skills that effectively exchange information and collaboration with patients, their families, and health professionals.

- Communicate with patients and families in a sensitive manner
- Interact with the residents, physicians, nurses, and other team members to coordinate patient care effectively
- Work within clinical team in outpatient, inpatient, and OR settings effectively

Professionalism: The medical student is expected to demonstrate behaviors that reflect a commitment to continuous professional development, ethical practice, understanding and sensitivity to diversity, and a responsible attitude toward their patient, profession, and society.

- Demonstrate respect, compassion, integrity and altruism in relationship with patients, family, and colleagues
- Demonstrate respect for different beliefs and lived life experiences, including their impact on medical care
- Adhere to confidentiality at all times, protecting patient privacy

(cont.) Systems-Based Practice: The medical student is expected to demonstrate an awareness of and
responsiveness to the larger context of health care and the ability to call effectively on other resources in the system to provide optimal health care.

- Utilize available resources to provide cost-effective care to patients in all settings
- Recognize opportunities to engage other members of healthcare team to provide optimal care

Learning Activities: Students will actively participate in clinical care with resident and attending team. Outpatient clinic starts at 8am Monday-Thursday, L&D coverage starts at 7am, OR cases start at 7:30am or 8:00am based on attending coverage. Students are expected to be present at all clinical activities for their assigned coverage unless otherwise excused. They will be present and participate in all resident educational experiences, typically provided on Fridays from 8am-12pm. During their elective, students should prepare a presentation on a clinical topic of their choosing, to be presented to the residents during their academic time.

Required textbooks and articles:
Beckmann and Ling's Obstetrics and Gynecology, 8th edition. Casanova, Robert
Te Linde's Operative Gynecology, 12th edition. Handa, Van Le
William's Obstetrics, 26th edition, Cunningham, Leveno, Dashe, Hoffman, Spong, Casey

UCF College of Medicine

Reproductive Endocrinology & Infertility Elective
MDE 8110

The rotation is designed to provide medical students with insights into the specialty of OB/GYN. It will provide unique clinical experience of providing optimum care for patients with reproductive problems in a teaching environment. You will learn the consulting skills needed to formulate a diagnostic and therapeutic plan. Learn to effectively communicate information to patient, family, attending physicians and nursing staff. You will become familiar with a variety of diagnostic tests and therapeutic interventions.

Learning Activities

Students will offer daily presentation of patients to the attending, effectively document the patient history and plan of care, and learn to effectively communicate information to the patient and family members, if applicable.

For surgeries, the student is expected to be fully cognizant of the patient, indication and purpose for surgery, and familiarity with the surgical technique. Weekly, the student will provide a literature review on a specialty topic, chosen the student and attending, and give a brief presentation. At the end of the rotation, the student will present an interesting patient and provide a thorough review of the disease process and treatment.

UCF College of Medicine

Advanced Prenatal Diagnosis Clinic Elective
MDE 8182

The rotation is designed to offer 4th year medical students the opportunity to learn and/or improve their ultrasound skills of image acquisition and interpretation through hands-on practice and professional guidance from perinatal sonographers and Maternal Fetal Medicine Specialist at Nemours.
At the end of this rotation, the student will be able to:

- Understand the applicability of ultrasound in Pregnancies at risk
- Independently aquire images for all biometric parameters
- Independently determine fetal presentation and lie
- Independently determine amniotic fluid volumes
- Present a brief presentation on a topic of choice on the last (4th) Monday of the rotation

Week 1 Ultrasound Objectives:

- Fetal Presentation and Lie
- Amniotic fluid index
- Fetal heart rate
- Placental location

Week 2 Ultrasound Objectives:

- Biparietal Diameter
- Head Circumference
- Crown-rump length

Week 3 Ultrasound Objectives:

- Abdominal circumference
- Crown-rump length

Week 4 Ultrasound Objectives:

- Femur Length
- Crown-rump length

Key Topics:

Key 1st trimester ultrasound topics:

- Confirm presence of one or multiple IUPs
- Amnionicity/chorionicity
- Estimated gestational age via crown-rump length vs. gestational sac diameter
- Evaluation of suspected ectopic or molar pregnancy
- NT measurement
- (cont.) Placental location

Key 2nd-3rd trimester ultrasound topics:

- Standard Fetal Exam (fetal number, fetal presentation, amniotic fluid volume [amniotic fluid index vs. single deepest pocket vs. two diameter pocket])
- Placental location/appearance/relationship to cervical os
- Number of umbilical vessels
- Fetal cardiac activity
- Gestational age assessment and fetal weight estimation via BPD, HC, AC, FL
- Maternal and fetal anatomic surveys
- Evaluation of uterus, adnexal structures and cervix

Competencies:

In Obstetric ultrasound, the student should improve their ability in:

- Image acquisition
- Image interpretation
- Peer to peer instruction and collaboration

Educational Activities:

- Obstetric Ultrasound lecture on Monday of the final week of the rotation
- Participate in Fetal Echocardiogram Clinic
- Participate in Genetic counseling sessions
- Participate in monthly Fetal Conference

Required Reading:

Week 1

- Practice Bulletin #175: Ultrasound in Pregnancy
- Practice Bulletin #226: Screening for Fetal Chromosomal Abnormalities

Week 2

- SMFM Consult Series #52: Diagnosis and Management of Fetal Growth Restriction
- Practice Bulletin #222: Gestational hypertension and Preeclampsia

Week 3

- SMFM Fetal Anomalies Consult Series #1: Facial Anomalies
- SMFM Fetal Anomalies Consult Series #2: Extremities

Week 4

- Practice Bulletin #201: Pre-gestational diabetes

UCF College of Medicine

Gynecological Oncology Elective
MDE 8165

This is a 2 week or 4-week Elective, open to M4s, that will provide a comprehensive experience in inpatient and outpatient Gynecologic Oncology.
The student will participate in hospital as well as office GYN oncology. The student will scrub into multiple varieties of surgery at both the hospital and surgery center to diagnose and treat several types of GYN malignancies. The student will also see patients in the office and interact with families and staff. The student will examine patients under anesthesia as well as in the office setting. The student will see a detailed pelvic anatomy during surgery. The student will gain proficiency in case presentation in both the hospital and clinic settings.

Learning Objectives:
Patient care: The medical student is expected to provide patient care that is compassionate, appropriate, and effective for promoting health, prevention of illness, and treatment of disease.

Medical Knowledge: The medical student is expected to demonstrate medical knowledge relevant to GYN oncology, as well as the application of this knowledge to patient care:
• Pelvic exams, Foley catheter insertion, disease processes for GYN malignancies, disease surveillance, palliative care

Practice-Based Improvement: The medical student is expected to demonstrate the ability to investigate and evaluate their care of patients and continuously improve care based on constant self-evaluation and life-long learning. Textbook as well as current literature search to aid in planning for malignant patient care and treatment

Interprofessional and Communication Skills: The medical student is expected to demonstrate interpersonal and communication skills that effectively exchange information and collaboration with patients, their families, and health professionals.
• The student will be expected to communicate findings in both inpatient and outpatient settings as well as the operating room. They will speak with patients, families, GYN residents and office staff.

Professionalism: The medical student is expected to demonstrate behaviors that reflect a commitment to continuous professional development, ethical practice, understanding and sensitivity to diversity, and a responsible attitude toward their patient, profession, and society.
• The patient will learn how to manage patients empathetically in various practice settings.

(cont.) Systems-Based Practice: The medical student is expected to demonstrate an awareness of and responsiveness to the larger context of health care and the ability to call effectively on other resources in the system to provide optimal health care.
• The patient will get an understanding of working with other medical professionals, utilizing support services, working within the confines of third-party pairs and hospital systems, following rules and regulations regarding documentation

Learning Activities: The student will actively participate in surgery by scrubbing multiple cases. The student will see patients in the office and obtain patient histories and perform physical exams. The student will round daily with the GYN residents and present some of the patient's today attending physician including formulation of care plans. The student will attend twice monthly tumor conference. The student will be given reading assignments to correlate with patient care and literature searches or reviews and selected circumstances.

Required textbooks and articles: TeLinde's operative gynecology

UCF College of Medicine

Clinical Ophthalmology Elective
MDE 8550/8555

A 4-week rotation will be developed by the elective faculty and the student based on individual student goals. Core competencies to be achieved during the elective include general eye examination and ophthalmoscopic examination skills and exposure to ophthalmic surgery. For more advanced students or those available for longer time commitments, students will assist in ophthalmic surgical procedures, workup and presentation of ophthalmic cases to faculty and have the opportunity to present and or write a case report for publication. There are no weekend clinics outside of call. Call will be limited to accompanying staff to after-hours emergency evaluations (rare).

Objectives:

- Achieve proficiency in the evaluation of patients with ocular disorders.
- Establish familiarity within common eye conditions and their treatment.
- Recognize ocular manifestations of systemic disease.
- Become familiar with the clinical procedure ophthalmology.

UCF College of Medicine

Pediatric Nephrology Elective
MDE 8445

This two or four-week elective rotation, open to fourth year medical students, will provide a broad learning experience in pediatric Nephrology. Learning will occur through direct provision of care to children requiring Nephrology consultation. Learning will also occur through formal and informal didactic presentations, bedside teaching, and through directed and undirected reading. The medical student will serve as an integral part of the care team, providing direct patient care as appropriate under the supervision of the Nephrology attending.

The overall goal of the Nephrology elective is to acquire an in-depth knowledge and experience with commonly encountered renal problems of infants and children. This elective also includes adequate time to pursue readings that focus on pathophysiology of disease processes. With this information as a background, the Medical student will acquire a good understanding of the management and long-term outcomes of common renal disorders in children.

During the rotation, the medical student will, under the guidance of a supervising Nephrology physician, evaluate, examine, discuss, treat, and follow hospital inpatients and outpatients with proven or suspected Nephrologic diseases, including, but not limited to, those with hematuria, proteinuria, hypertension, urinary tract infections, kidney stones, nephrotic syndrome, acute kidney injury, chronic kidney disorder, and kidney transplantation.

UCF College of Medicine

Pediatric Endocrinology Elective
MDE 8430

Learn the basics of Pediatric Endocrinology. Provide in depth exposure and experience in the diagnosis and treatment of endocrine disorders with a focus on the multidisciplinary care of the diabetic child. Also, growth disorders, disorders of puberty, and obesity and its complications.

Objectives:

- Diagnosis and treatment of Type 1 & 2 diabetes.
- Differential diagnosis and treatment of growth disorders.
- Differential diagnosis and treatment of pubertal disorders.
- Recognition of obesity and complications.

UCF College of Medicine

Pediatric Hematology/Oncology
MDE 8440

Pediatric hematology and oncology including bone marrow transplant. On this rotation the student will be exposed to a wide spectrum of pediatric hematology and oncology diseases. Patient care and consultation experience will be provided primarily in the pediatric hematology/oncology clinic, as well as through inpatient consults, and inpatient experience can be obtained if desired. The student will observe lumbar puncture and bone marrow examination procedures. Students will spend approximately one day with the hematopathologist examining normal and abnormal peripheral blood smears and bone marrow slides.

Objectives:

- Learn low to diagnose and treat hematologic problems in children.
- Understand mechanisms of immune manipulation in pediatric BMT.
- See and understand common childhood malignancies.

UCF College of Medicine

General Outpatient Pediatrics with Nursery
MDE 8466

This rotation will provide medical students a broad exposure with insights into the specialty of Pediatrics focusing on newborn nursery care and outpatient primary care. In the newborn nursery, the students will be exposed to routine newborn care and common neonatal illnesses such as hyperbilirubeiemia, suspected sepsis, and respiratory distress. In the outpatient clinic, the student will encounter a wide variety of acute and chronic illness, simple trauma/injury care, and well child care from 0-18 years with an emphasis on normal development, preventative medicine, and immunizations.

The student will participate in daily rounds in the nursery and see sick and well visits in the primary care office. The student will be responsible for all components of the visit (including history, physical examination, assessment/plan, and counseling) under the guidance of their faculty preceptor. Additionally, the student and faculty will mutually agree upon a topic to be presented to office staff as a formal presentation prior to the end of the rotation. The student may participate in phone communication with families, giving immunizations after training, and other procedures as opportunity arise at the discretion of their preceptor.

UCF College of Medicine

General Outpatient Pediatrics Clinic
MDE 8409

This rotation will provide medical students a broad exposure with insights into the specialty of Pediatrics focusing on outpatient primary care. The student will encounter a wide variety of acute and chronic illness, simple trauma/injury care, and well child care from 0-18 years with an emphasis on normal development, preventative medicine, and immunizations.

The student will participate in sick and well visits in the primary care office. The student will be responsible for all components of the visit (including history, physical examination, assessment/plan, and counseling) under the guidance of their faculty preceptor. Additionally, the student and faculty will mutually agree upon a topic to be presented to office staff as a formal presentation prior to the end of the rotation. The student may participate in phone communication with families, giving immunizations after training, and other procedures as opportunity arise at the discretion of their preceptor.

UCF College of Medicine

Pediatric Ultrasound
MDE 8775

This rotation is designed to provide medical students with insights into the specialty of Pediatric Ultrasound. Ultrasound is a widely used diagnostic modality in pediatric care. During this rotation, students will have the opportunity to enhance their ultrasound scanning and interpretation skills with hands-on practice and focused mentoring. Students will work individually with Nemours radiology faculty and staff to build their ultrasound experience and develop an understanding of how ultrasound is utilized when caring for pediatric patients. By the end of the rotation students will have gained exposure to the role of ultrasound in the diagnostic process for pediatric cases and they will be better equipped to acquire and interpret pediatric ultrasound images.

Objectives:

- Enhance ultrasound scanning and interpretation skills
- Develop an understanding of how ultrasound is utilized when caring for the pediatric patient
- Gain exposure on the role of ultrasound in the diagnostic process for pediatric cases
- Apply up to date evidence-based information to address clinical questions and to guide medical therapy as it related to ultrasound imaging
- Evaluate their own performance, identifying gaps in their knowledge base, and target their self-directed learning to improve performance and address knowledge gaps
- Provide, request and accept and incorporate feedback from all colleagues and from patients and their families
- Work with all members of the health care team to enhance team and knowledge.

UCF College of Medicine

Pediatric Pulmonary Elective
MDE 8425

This clinical course will be based on basic respiratory physiology and will include a variety of clinical pulmonology experiences such as infectious disease of the lungs, hypersensitivity lung disease, cystic fibrosis, asthma, pulmonary reactions to chemical injury and trauma, radiologic evaluation of lung disease, pulmonary pathology, flexible bronchoscopy, pulmonary function testing, exercise physiology, sleep disordered breathing, apnea of prematurity/infancy, congenital disorders of the respiratory tract, home ventilation and chronic lung disease of infancy. Patient care and consultation experience will be gained on the inpatient services, intensive care units, and in the pediatric pulmonology clinic. In addition, the student will spend time in the pediatric pulmonary function and sleep laboratories.

Objectives:

- Describe normal patterns of breathing in infants and children.
- Demonstrate proficiency in the examination of the respiratory system.
- Diagnose and treat asthma according to national guidelines.
- Demonstrate proficiency in the management of children with cystic fibrosis.
- Describe strategies for managing the complexities of the treatment of BPD.
- Interpret basic pulmonary function testing in children.

UCF College of Medicine

Pediatric Cardiology
MDE 8420

The overall goal of this rotation is to provide a comprehensive program toward the recognition and management of major/common pediatric cardiology problems. Emphasis will be on the pathogenesis, pathophysiology, diagnosis and management principles of congenital and acquired heart disease in the young. Additional time will be spent on the understanding, recognition and management of pediatric cardiac rhythm disturbances and general pediatric cardiology issues.

Objectives:

- Elicit a thorough and accurate history and performing comprehensive cardiovascular examination of neonates, infants, children and adolescents.
- Detect significant heart disease through history and physical exam.

UCF College of Medicine

Pediatric Gastroenterology Elective
MDE 8433

On this rotation the student will be exposed to a wide spectrum of pediatric gastrointestinal and liver diseases. Patient care and consultation experience will be provided in the pediatric gastroenterology clinic, inpatient service and intensive care units. The student will participate in a full range of endoscopic, monomeric and biopsy procedures.

Objectives:

- Describe normal feeding patterns from infancy through adolescence.
- Explain how differential diagnosis and work-up is used for the evaluation of chronic recurrent abdominal pain in the pediatric patient.
- Evaluate a child with abnormal liver function tests.
- Evaluate a child with gastroesophageal reflux.
- Manage a child with gastroesophageal reflux.
- Describe a diagnostic approach for the child with vomiting or hematochezia.

UCF College of Medicine

Basics of Adolescent Medicine
MDE 8410

This rotation is a hands-on experience that illustrates the role of the physician in specialty of Adolescent medicine. During the rotation the student will be provided with opportunities to work as a part of the multidisciplinary team that provides care to adolescent patients in the outpatient setting. Adolescents are in a complex time of transition and thus their needs are physical as well as psychological and social. Students will learn how to provide care in a biopsychosocial context. By the end of the rotation it is expected that medical students will have developed a knowledge base and clinical skills allowing them to understand the following concepts:

- The developmental tasks of each stage of adolescence and how they impact biopsychosocial functioning
- The underlying premise and rationale for adolescent risk taking on a neurocognitive level
- How to utilize motivational interviewing to create behavior change
- How to proficiently take an adolescent social history known as HEADDSS
- Basic work up and management of common menstrual concerns, gynecologic problems, contraception counseling, as well as STI testing and treatment in adolescents.

Students are expected to attend grand rounds, morning report, and resident learning sessions. Additionally, the student will learn about special populations of adolescents by visiting community partners that provide services to them. The student is also expected to complete a 15-minute oral presentation on an adolescent biopsychosocial topic inspired by a patient seen in clinic. They must submit their proposed topic by end of week 2 and the presentation will be given during week 4.

UCF College of Medicine

Pediatric Infectious Diseases
MDE 8454

This two- or four-week elective rotation, open to fourth year medical students, will provide a broad learning experience in pediatric infectious diseases. Learning will occur through direct provision of care to children requiring infectious diseases consultation at the Nemours Children's Hospital and at Nemours-associated clinics. Learning will also occur through formal and informal didactic presentations, bedside teaching, and through directed and undirected reading. The medical student will serve as an integral part of the care team, providing direct patient care under the supervision of the infectious diseases attending.

This rotation will emphasize diagnostic assessment through a detailed history, a careful physical examination, and appropriate use of laboratory studies. The rotation also emphasizes appropriate use of antimicrobial therapy, the understanding of post pathogen relationships, and the importance of social, emotional, physical, and medical legal issues that impact children with infectious diseases.

During the rotation, the medical student will, under the guidance of a supervising infectious disease physician, evaluate, examine, discuss, treat, and follow hospital inpatients and outpatients with proven or suspected infectious diseases, including, but not limited to, those with nonsocomial infections, postoperative infections, trauma-related infections, septicemia, pneumonia, peritonitis, and infections in immunocompromised hosts, including patients with primary immunodeficiency syndromes, patients undergoing immunosuppressive therapy, and children and adolescents with HIV infection.

Objectives:

Medical students will demonstrate compassionate scientifically guided and effective care for the promotion of health, prevention of illness, and treatment of disease. Medical students must:

- Demonstrate the ability to acquire and evaluate new information needed for the care of each patient.
- Demonstrate the ability to perform meticulous physical examination of children across the age spectrum.
- Demonstrate the ability to create comprehensive differential diagnoses that include both infectious and noninfectious etiologies for the patient's illness.
- Analyze accurately and apply available information to make appropriate diagnostic decisions and therapeutic plans.
- Demonstrate the ability to create and evaluate patient management plans for children with infectious diseases.

Medical Knowledge

Medical students must demonstrate proficiency and obtaining new knowledge through didactic lectures discussions on rounds, a signed and unguided readings, use of the internet, and consultation with colleagues. Students will apply an open-minded, analytical approach to acquire a new knowledge, and will assess their knowledge critically through continued use of the medical and scientific literature. Students will also apply new knowledge to clinical problem solving and to clinical decision making.

- Describe the pathogenesis, clinical presentation diagnostic approaches to infections encountered in children in the inpatient and outpatient settings.
- Describe the appropriate use of diagnostic procedures and laboratory tests to evaluate and monitor children with suspected or proven infections.
- Demonstrate competence for the selection of appropriate antibiotics, and demonstrate the ability to provide appropriate recommendations for antimicrobial use and monitoring.
- Demonstrate knowledge and skill in the critical assessment of complex clinical infectious diseases problems
- Demonstrate knowledge of the appropriate, evidence-based management of inpatient and outpatient children with infectious diseases.
- Demonstrate knowledge of approaches for diagnosis and management of proven and suspected infections in immunocompromised children.
- Demonstrate an understanding of the rationale for and nature of infection control policies.
- Demonstrate understanding of the variation in epidemiology of infectious diseases among different age groups, states 4 immune function, socio-demographic groups, and geographic locations.

Practice Based Improvement:

Medical students are expected to evaluate and critically assess patient care practices, as well as appraise and dissimilate clinical information. Students will also demonstrate an ability to learn from their own and others' mistakes

- Demonstrate proficiency in the use of the pediatric infectious diseases literature
- Apply up-to-date evidence-based information to address clinical questions and to guide medical therapy
- Evaluate their own performance, identifying gaps in their knowledge base, and target their self-directed learning to improve performance and address knowledge gaps.
- Provide, request, and accept and incorporate feedback from all colleagues and from patients and their families
- Work with all members of the health care team to enhance team and knowledge and esprit de corps.

Interprofessional and Communication Skills:
Medical students are expected to demonstrate consistent interpersonal and communication skills that result in effective information exchange and support of families and colleagues.

- Demonstrate effective communication with the entire health care team
- Demonstrate effective communication with patients and their families
- Demonstrate the ability to communicate crucial and appropriate information through written medical records and patient case presentations
- Demonstrate appropriate use of cultural and language interpreters as needed
- Demonstrate the ability to counsel and educate patients and their families in a comprehensive, supportive, and culturally-appropriate manner

Professionalism: Medical students are expected to practice consistently high-quality healthcare that is cost effective and beneficial to the patient within the context of the health care system.

- Always act in the best interest of the patient
- Demonstrate a caring and respectful demeanor when interacting with patients and their families
- Maintain patient and family confidentiality
- Demonstrate sensitivity to ethical principles, culture, age, gender, religious belief, sexual orientation, and a disability
- Be punctual, reliable, and conscientious

Systems Based Practice: Medical students are expected to practice consistently high-quality healthcare that is cost effective and beneficial to the patient within the context of the health care system.

- Advocate for patients and their families as they navigate the complexities of the healthcare system
- Describe a role of the subspecialist in consultation
- Participate in multidisciplinary patient care activities
- Participate actively and regularly in educational and case management conferences
- Demonstrate knowledge of restrictions in public and private insurance and the ramifications of these restrictions in the care of patients

UCF College of Medicine

Pediatric Orthopaedics Elective
MDE 8485

Time will be divided between outpatient clinics, inpatient rounds and surgery. Weekly preoperative and post-operative clinics are held, as are didactic conferences. Call is encouraged but not required.

Objectives:

- Upon completion of the course, the student should be able to perform a complete pediatric orthopaedic examination.
- Be able to treat simple fractures and be aware of the dangers and possible complications of the more complicated fractures.
- He/She should be able to apply a cast and able to use traction.

UCF College of Medicine

Pediatric Otolaryngology Elective
MDE 8592

This rotation is intended for students interested in but not excluding Pediatric Otolaryngology, Pediatrics, Family Medicine, Emergency Medicine, Critical Care, Allergy subspecialties, and Pulmonary subspecialties. Pediatric otolaryngologists are NOT pediatricians, but surgeons who completed 5 years of otolaryngology-head and neck surgical training, followed by surgical fellowship in pediatric otolaryngology. The rotation provides students opportunity to see children in clinic setting with common conditions such as snoring, sleep disordered breathing, nasal symptoms like congestion, runny nose, understand that "sinusitis" is over-diagnosed, learn about acute versus chronic ottis media, conductive versus sensorineural hearing loss and their impact on speech development, congenital anomalies of the head and neck, swallowing dysfunction, tracheostomy dependent children, and all ENT issues for healthy and medically complex children. Students will gain understanding of how Otolaryngologists work with primary care physicians to evaluate, diagnose, determine surgical candidacy, provide surgical risk and complication counseling, and treat these common conditions. Students will also have opportunity to see complex Otolaryngology care involving Neuro-otologic procedures such as cochlear implantation, airways procedures, and head and neck surgeries.

Otolaryngologists are also frequently involved in the care of children with complex medical conditions, so students will be exposed to children with autism spectrum, Downs syndrome and other craniofacial syndromes, anoxic brain injury, cerebral palsy/quadriplegia and highly completx patients and learn key issues in complex medical and surgical decision making.

Students will also learn about social determinants of health (food insecurity, educational barriers, legal support, transportation, mental health support, language barriers, etc.) as the key drivers that negatively impact health for any child. Students will gain understanding of how to recommend resources to families including social work, referrals for various evaluations and therapy services, role of pediatric ENT in ordering of medical equipment related to trach care, etc.

Students will be expected to become familiar with guidelines for medical treatment and surgical candidacy as set forth by national societies such as the AAP and AAO-HNS.

Students are expected to round on patients daily with our advanced nurse practitioners, and prepare for surgical cases and understanding each surgical patient observed through chart review.

The student will be expected to attend educational conferences such as surgical grand rounds, journal clubs, morbidity and mortality conference, and aerodigestive multidisciplinary conference. The student will be expected to give a 10-15-minute case and topic presentation at least once during the rotation. We hope that by the end of the rotation, the student will become comfortable and competent with basic clinical skills specific to ENT, such as using otologic equipment with the microscope, performing nasal and laryngeal endoscopy, and understanding wound care.

UCF College of Medicine

Pediatric Telehealth Elective
MDE 8412

This rotation is designed to provide medical students with insights into the specialty of Pediatric Telemedicine.

- The goals of the rotation include understanding the history of telemedicine and introducing students to the application of telemedicine in the pediatric setting.
- This rotation will include developing skills in obtaining a patient history, performing a virtual physical exam, being familiar with telemedicine templates, smart sets and patient education resources utilized in documenting a note in the electronic medical record, understanding appropriate consenting, billing and coding and troubleshooting technical challenges.
- The rotation will illustrate the role of the pediatric telemedicine provider in the clinical setting.
- During the rotation, students will be assigned to an individual faculty mentor to guide them and be responsible for their clinical activities. Students are encouraged to participate in as many telemedicine encounters as possible. Students will have the opportunity to see patients in a simulated setting prior to seeing actual patients. Students will receive feedback from faculty. Students are expected to maintain patient logs. Students will become familiar with peripheral devices that can be used to assist telemedicine exams. Students will have the opportunity to sit in on physician meetings related to the telemedicine program as determined by faculty.
- By the end of the rotation, it is expected that the student will have developed a knowledge base about telemedicine and clinical skills allowing them to identify and manage common pediatric conditions and concerns appropriate for telemedicine. Students will understand the history of telemedicine, terminology, legal issues, limitations and current uses. Students will become familiar with ethical concerns and best practices. Students will understand the impact that a pandemic can have in telemedicine.
- Students are expected to read articles provided, review photos for visual diagnosis, and discuss the evaluation and management of common conditions treated through the telemedicine platform.
- The student is expected to complete a pre-test prior to the start of the rotation and a post-test at the completion of the rotation and the student is expected to complete a case presentation about a common condition assessed through telemedicine.
- Interested students will have the opportunity to participate in ongoing research and/or quality improvement projects, depending on the needs of the department.

UCF College of Medicine

Outpatient Psychiatry Elective
MDE 8831

This rotation is designed to provide M4 students with an immersive experience in the outpatient practice of general adult and child psychiatry. Students will be given progressive clinical responsibilities for the psychiatric assessment and management of patients requiring outpatient treatment for acute and chronic psychiatric symptoms. During the rotation students will be assigned to an individual faculty mentor to guide them and be responsible for their daily clinical activities. By the end of the rotation it is expected that medical students will have developed a knowledge base and clinical skills allowing them to conduct a full outpatient psychiatric diagnostic assessment and formulate biopsychosocial treatment plans for common psychiatric disorders. There will be a focus on the following clinical skills: diagnostic interviewing and development of a therapeutic alliance in the outpatient; acute and chronic management and effective communication with the patient's multidisciplinary treatment team. Staff includes physicians, social workers, and licensed therapists.

It is anticipated that clinical conditions the students will encounter will include:

- Mood disorders including Major Depressive Disorder and Bipolar Disorder
- PTSD
- Anxiety disorders
- Adjustment disorders
- Substance Use disorders
- Psychotic disorders including Schizophrenia
- Personality disorders
- ADHD
- Neurocognitive disorders including dementia

This clinic also has a very active practice using TMS. The M4 student may also have the opportunity to assist in the teaching of 3rd year medical students' rotation in Psych.

UCF College of Medicine

Treatment of Addiction
MDE 8853

Students will be working in a residential drug, alcohol, and/or eating disorders treatment center. They will be working with a psychiatrist who specializes in addiction medicine. All of the patient's have either an alcohol, and/or drug addiction, and or and eating disorder and most also have a comorbid mood and/or thought disorder and/or personality disorder. Students will have the opportunity to evaluate, diagnose, and treat patients. They will present to the attending, write orders, communicate with nursing staff, and attend treatment meetings and counseling sessions. They will have the opportunity to sit in on group therapy sessions and see a variety of different therapeutic modalities, depending on the psychiatrist/psychologist/counselor/facilitor.

Patient care: Click box to agree to the statement below

☒The medical student is expected to provide patient care that is compassionate, appropriate, and effective for the promotion of health, prevention of illness, and treatment of disease.

☒Other: Student's will need to maintain complete confidentiality during and after the rotation. Students will encounter vets, homeless patients, professionals, as well as possibly well-known athletes, entertainers, and prominent members of the community.

Medical Knowledge: The medical student is expected to demonstrate medical knowledge relevant to general psychiatry and addiction medicine, as well as the application of this knowledge to patient care: The student will obtain and develop medical knowledge in the following areas:

- The medical students should demonstrate knowledge in general psychiatry, addiction medicine, and addiction psychiatry. Upon this foundation, students will add knowledge about addiction and addiction treatment.

Practice Based Improvement: The medical student is expected to be able to demonstrate the ability to investigate and evaluate their care of patients and to continuously improve care based on constant self-evaluation and life-long learning.

- Students should become familiar with the major substance abuse and eating disorders diagnostic criteria (based on DSM-V).

Interprofessional and Communication Skills: The medical student is expected to demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals.

- Students will need to learn how to act and listen to patients, that are in some of the most difficult circumstances one can imagine. Students should be prepared to hear often disturbing stories and life events from patients, in an empathic and non-judgemental way.

Professionalism: The medical student is expected to demonstrate behaviors that reflect a commitment to continuous professional development, ethical practice, understanding and sensitivity to diversity, and a responsible attitude toward their patient, their profession, and society.

- Professionalism, courtesy, and respect of all patients and staff will be of the utmost importance. The medical student will be working within a team structure of various health professionals.

Systems Based Practice: The medical student is expected to demonstrate an awareness of and responsiveness to the larger context of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.

- Students will utilize resources available through interaction with attending, treatment team, and provided learning materials.

Learning Activities: Specify the level of the student's clinical responsibilities, e.g., admissions, daily rounds, weekly conferences, case presentations, literature review, other projects: Students will start day with entire staff meeting reviewing patient events from the previous day/night. This will be followed by attending group counseling sessions, education seminars, attending rounds 3 days a week. Students will be expected to see and evaluate the new patients prior to presenting to the attending later that day or the following day. Patients will follow up with "their" patients at least once a week. Evaluations and patient interactions can be lengthy and intense. While this elective will not require extensive on-site hours, the emotional interaction can be exhausting. This elective is not for the faint of heart.

Required textbooks and articles: DSM- V (pocket edition is fine) is the only required text. Articles will be provided weekly, and it is recommended that students have or have access to any general psychiatry textbook (Kaplan and Saddock is a good one), Principles of Addiction Medicine 4th edition by Richard Ries et al. (recommended not required), Treating Personality Disorders, Edited by Naomi Murphy and Des McVey (or other available text on treating personality disorders), The Treatment of Eating Disorders, Edited by Carlos Grilo and James Mitchell (or other available text regarding the treatment of eating disorders).

UCF College of Medicine

Psychiatry Elective
MDE 8836

Goal is to assume responsibility for psychiatric intake assessments for Pasadena patients who have a wide variety of psychiatric disorders. Become familiar with the transitional program at Pasadena Villa which helps patients work on life skills. No on-call. No weekend duties.

Objectives:

- Perform and document complete psychiatric diagnostic evaluations in a residential care setting. The patient population has a variety of various psychiatric disorders including Autism Spectrum Disorders.
- Identify psychopathology and develop appropriate biopsychosocial evaluation and treatment plans.
- Demonstrate good interpersonal and communication skills that results in effective exchange of information with patients, families, and the treatment team.
- Demonstrate ability to review professional literature and utilize evidence-based medicine to improve patient care.
- Demonstrate and apply knowledge of psychopharmacology topics in treatment planning and management.
- Demonstrate an ability to monitor and document patient's clinical progress and update recommendations for treatment plan as indicated.

Learning Activities:

- The student will present a topic in medication group to help the patients understand medications, side effects or mechanisms of actions.
- The student will attend the transitional living and learning groups at Pasadena.
- The student will participate in multidisciplinary treatment team meetings to provide feedback on assigned patients.
- The student will prepare an in-service didactic presentation on relevant topic in Psychiatry to present to staff.
- Informal discussions Dr. Branch of assigned readings.

UCF College of Medicine

UCF RESTORES Treatment Center for PTSD
MDE 8844

This rotation will provide the student with the opportunity to learn, and implement, pharmacological and behavioral interventions for posttraumatic stress disorder, acute stress, and anxiety disorders. The student will participate in group and individual therapies, assist with biological procedures such as transcranial magnetic stimulation (if appropriate patients are available). A major emphasis of the Center is the use of technologies (tables, apps, virtual reality) to augment existing interventions. Furthermore, the student will learn about resilience and preventative strategies as they relate to posttraumatic stress disorder and acute stress.

Objectives:

Patient Care: The medical student is expected to provide patient care that is compassionate, appropriate and effective for the promotion of health, prevention of illness and treatment of disease.

Medical Knowledge: Provide individual behavioral treatment for PTSD. Provide Group treatment for PTSD. Assist in provision of biological treatments such as tramscranial magnetic stimulation.

Practice Based Improvement: Identify areas for improvement based on assessment using standardized diagnostic interviews. Learn how to apply single case design strategies to assess efficacy of interventions with respect to patient improvement. Participate in ongoing research protocols to develop new, empirically supported interventions.

Interprofessional and Communication Skills: Provide effective consultation to behavioral health care team and to patients. Document intervention efforts in the electronic medical record. Discuss patient progress in group and individual supervision in behavioral and empirical terms.

Professionalism: The medical student will display compassion and respect for patients, understand and respect diversity, display professionalism toward patients, colleagues and supervisors.

Systems Based Practice: The student will demonstrate knowledge of the muli-disciplinary nature of behavioral health and utilize evidence-based practices to treat psychiatric disorders.

Learning Activities:

The student will learn to use virtual reality and virtual environments to provide evidence-based treatments. The student will be responsible for presenting at journal clubs, research meetings and weekly supervision. Given the student's interest and activities of the clinic, the student may participate in ongoing research activities.

The medical student will be evaluated by his/her engagement in the entire learning opportunity including presentations, preparedness for clinic and participation in educational conferences. There will be a formal feedback session at mid term and at the end of the rotation.

UCF College of Medicine

Academic Psychiatry Elective
MDE 8890

In this elective, students will develop a scholarly project, do clinical and classroom teaching of junior medical students and help deliver residents as teacher didactics to residents. No weekend or call duties.

Objectives:

- Obtain thorough history in a psychiatry patient, develop differential diagnoses, know the management of common psychiatric diseases.
- Identify areas for improvement and implement strategies to enhance knowledge, skills and process of care, develop and maintain a willingness to learn from errors, demonstrate ability to use technology or other available methodologies to access and manage information, to support patient care decisions. Specifically, student will be asked to bring at least 3 specific questions related to patient care each week during journal club and the course director will demonstrate how to use evidence-based tools to improve their care
- Provide effective and professional consultation to other physicians and health care team, effectively document the patient history and plan of care and effectively communicate information with family members of the patient.
- Demonstrate respect, compassion, integrity and altruism in relationship with patients, families and colleagues. Demonstrate respect for religious beliefs, adhere to the principles of confidentiality, recognize and identify areas of improvement in personal and in peer performance.
- Utilize resources to provide optimal health care, recognize limitations and opportunities regarding the individual patient care, apply evidence based, cost conscious strategies to prevention, diagnosis and disease management.

Learning Activities:

- Students will spend 30% of the time in rotation doing clinical work. Student will be expected to interview, present and generate preliminary differential diagnosis and treatment plan. There may be other responsibilities as assigned by the clinic attending. In addition, the student will read a journal article and present it to the course director each week. Student will also spend majority of the rotation working on a scholarly project that will ultimately be disseminated in some format. Student will also participate in resident as teacher activities with the Faculty Development team members.

UCF College of Medicine

Child and Adolescent Psychiatry Elective
MDE 8873

This rotation is designed to provide medical students with insights into the specialty of Child & Adolescent Psychiatry. By the end of this rotation it is expected that medical students will have developed a knowledge base and clinical skills allowing them to conduct a full psychiatric diagnostic interview/assessment and formulate biopsychosocial treatment plans for common psychiatric disorders in children. There will be a focus on the following clinical skills: diagnostic interviewing and development of a therapeutic alliance; crisis intervention and management; and effective communication with the patient's multidisciplinary treatment team. It is anticipated that clinical conditions the students will encounter include: ADHD, Autism Spectrum Disorders, OCD, Mood disorders including Major Depressive Disorder, DMDD and Bipolar Disorder, PTSD, and Psychotic disorders including schizophrenia

Objectives:

- Perform and document a psychiatric diagnostic evaluation and develop recommendations for appropriate biopsychosocial evaluation (including laboratory, radiologic, and psychological testing) and treatment plans.
- Recognize indications for psychiatric hospitalization, considering the presenting problem and its acuity, and any risk of danger to the patient or others; when necessary, help implement the process of hospitalization from outpatient setting.
- Formulate appropriate differential diagnoses and psychiatric management plans.
- Demonstrate the ability to appraise and assimilate scientific evidence, utilizing relevant databases of psychiatric evidence-based medicine, to improve patient care.
- Utilize resources to provide optimal health care, recognize limitations and opportunities regarding the individual patient care, apply evidence based, cost-conscious strategies to prevention, diagnosis and disease management.

UCF College of Medicine

Geriatric Psychiatry Elective
MDE 8883

Goal is to assume increased responsibility for Psychiatry intake assessments and treatment planning and delivery for geriatric patients in nursing home care at the VA CLC. This 120-bed patient population (approximately 80% of whom need psychotropic medication) includes 40 bed unit for patients with dementia. In addition to the geriatric patients, it may also be possible for the student to obtain some experience with other CLC patients, including hospice patients as well as younger patients needing short and longer-term rehabilitation due to traumatic brain injury, spinal cord injuries, and substance abuse. No on-call. No weekend duties

Objectives:

- Perform and document complete psychiatric diagnostic evaluations in a geriatric patient population and develop appropriate biopsychosocial evaluation and treatment plans.
- Demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families and other health professionals.
- Demonstrate the ability to monitor and document patients' clinical progress and alter diagnostic formulation and management in response to changes.
- Demonstrate knowledge of the epidemiology, clinical features, course and prognosis, diagnostic criteria, differential diagnosis and treatment strategies for the major classes of psychiatric disorders that are especially common in the geriatric population, including dementia, delirium and mood disorders and evaluate each patient for potential relationships between medical and psychiatric illnesses, for potential history of abuse or neglect and for decision-making capacity.
- Summarize the indications and contraindications, basic mechanisms of action, pharmacokinetics and pharmacodynamics, efficacy and cost, common and serious side effects, toxicity, drug-drug and drug-disease interactions, and issues relevant to the geriatric population, of each class of psychotropic medications and demonstrate the ability to select and use these agents to treat mental disorders.
- Identify the indications, precautions and appropriate use of restraints and one to one sitters.

Learning Activities:

- Daily assistance with patient assessment and treatment implementation for geriatric psychiatric conditions at the VA CLC. Student will prepare presentation and complete informal didactics.

UCF College of Medicine

Neurodegenerative Disease: Research & Clinical Care
MDR 8802

The focus of the elective is to provide students an intensive exposure to evaluation and management of patients with neurodegenerative disease, with a focus on Alzheimer's dementia and Parkinson's disease. The clerkship director (Dr. Riggs) has fellowship-level training in these areas, and the primary faculty (Dr. Goodman) has over 20 years' experience in care and evaluation of these patients. The elective will take place in the context of patients referred for possible participation in clinical trials, and exposure to clinical trial methodology is an additional focus. No on-call duties, no weekend activity.

Objectives:

- Demonstrate the ability to assess patients with neurodegenerative disease; generate a thorough differential diagnosis for such patients; plan initial diagnostic and treatment interventions; discuss eligibility for clinical trials.

UCF College of Medicine

Diagnostic Radiology Clerkship
MDE 8763

This rotation is open to all M4s and is particularly suited to students who have completed a general radiology elective or plan to pursue a career in Radiology. The student will gain experience in this exciting field which will utilize all modalities of radiology (general radiography, ultrasound, fluoroscopy, nuclear medicine, CT, and MRI). Students will particulate pin radiology procedures, readout of cases and weekly case presentations. There are no call or weekend responsibilities.
Rotations can be general diagnostic radiology which will give an overview of all modalities—or specialty-specific rotations (i.e. Angio-interventional Radiology, Pediatric Radiology, , Nuclear Medicine, Cardiac Radiology, Body (MRI, CT, US, Oncology combined); Musculoskeletal Radiology, and Women's Radiology.

Objectives:

- Understand the clinical radiographic indications for a variety of imaging modalities and examinations.
- Understand the major procedure-specific activities of physicians and associated pediatric patient experiences for the differing image modalities.
- Gain familiarity and develop basic interpretive and diagnostic skills regarding the radiographic appearance of common pediatric pathological processes for commonly utilized imaging modalities.
- Develop basic skills required for the professional presentation of radiologic material for daily work rounds and weekly case conferences.

UCF College of Medicine

Clinical Radiation Oncology
MDE 8769

This is a 2-week or 4-week elective, open to M3 or M4 students, that will provide a comprehensive experience in outpatient radiation oncology. Students will rotate through the Radiation Oncology Clinic with multiple providers and see a variety of solid malignancies.

Goals of the Rotation:

This rotation is designed to provide medical students with insights into the specialty of Radiation Oncology**.** Students will be exposed to a variety of patients with oncologic conditions as well as some benign conditions that are treated with radiotherapy. Skills expected to be learned are assessment of oncologic stage, assessment of symptoms related to the disease as well as to treatment, and assessment of efficacy of treatment. Clinical knowledge gained will be on management of common and occasionally rare malignancies, initial work up of malignancies including staging, initial and subsequent treatment and management of complications from treatment. Students will also be exposed to the appropriate integration of surgical management, oncologic management and palliative care and hospice in regards to the cancer patient.

Learning Activities:

Apart from seeing patients and learning from each patient encounter, students will be given contouring assignments. They will also have mini case reviews where they have physician led discussion(s) that will explore selected patient(s) history, treatment paradigms, and treatment planning. On the last day of the rotation, the student will present a short (15-20 min) presentation on a radiation oncology related research project, case discussion, or topic review.

UCF College of Medicine

Pediatric Radiology
MDE 8769

This rotation is open to all M4s and is particularly suited to students who have completed a general radiology elective or plan to pursue a career in a pediatric specialty. The student will gain experience in this exciting field which utilizes all modalities of radiology (general radiography, ultrasound, fluoroscopy, nuclear medicine, CT and MRI). Students will participate in radiology procedures, read-out of cases, and weekly case presentations. There are no call or weekend responsibilities.

Objectives:

- Understand the clinical and radiographic indications for a variety of pediatric imaging modalities and examinations.
- Understand the major procedure specific activities of physicians and associated pediatric patient experiences for the differing modalities.
- Gain familiarity and develop basic interpretive and diagnostic skills regarding the radiographic appearance of common pediatric pathological processes for commonly utilized imaging modalities.
- Develop basic skills required for the professional presentation of radiologic material for daily work rounds and weekly case conferences.

UCF College of Medicine

Pediatric Emergency Medicine
MDE 8505

The course is designed to expose the student to patient assessment and emergency management of a large number of pediatric patients entering a metropolitan Pediatric Emergency Department. Instruction is centered around bedside clinical supervision by faculty and residents in a busy Pediatric Emergency Department. Students will be expected to prepare a 45-minute case presentation from one of the cases encountered during their rotation. Students will work eight hour shifts with approximately 5 shifts per week. These shifts will include 2 weekends per month. Shifts will be distributed between day and evening (not overnight) shifts.

Objectives:

- Gain exposure to both emergent and urgent care of pediatric patients.

UCF College of Medicine

Emergency Medicine Elective
MDE 8710

This course is designed to expose the student to patient assessment and Emergency Department management of a large number of patients entering a metropolitan Emergency Department and Pediatric Emergency Department. During this elective, the student will have responsibilities, supervision, and performance expectations comparable to that of a starting first year EM resident. Instruction is centered around bedside clinical supervision by faculty and residents in two busy Emergency Departments. A comprehensive didactic schedule is provided and includes conferences prepared for residents and students, as well as conferences designed exclusively for students. If available, there will be teaching time dedicated to the use of Ultrasound in the Emergency Medicine setting.

Objectives:

- Perform an appropriate history and physical examination on pediatric, adult, and geriatric patients.
- Recognize common, urgent, and emergent problems, and develop a differential diagnosis for these common presentations.
- Interpret results of common lab studies, recognize basic ischemic patterns and arrhythmias on EKG tracings and interpret radiographs of the chest, abdomen, and extremities.
- Recognize the indications for the specialty or subspecialty consultation and/or admission.
- Apply real time data acquisition to patient management.

UCF College of Medicine

TeleUrgent Care
MDE 8082

This rotation is designed to provide medical students with insights into the specialty of Telemedicine, specifically Teleurgent Care. Medical students will be introduced to key concepts, competencies, and applications of telemedicine as a method to delivery of quality medical care. The student should understand the provider-patient relationship within the context of a telemedicine encounter. Student understands the process of Informed Consent for Telemedicine Services. Student understands privacy and confidentiality (HPPAA) within the context of telemedicine. Student demonstrates awareness of technology pitfalls and privacy. Student understands the importance of assessing patient safety and stratify risk factors remotely (i.e, unstable patient, suicidal risk, safety of surroundings) and considers the appropriateness of the telemedicine encounter and its limitations. Student understands the value of Teleurgent care and its value and limitations in avoiding a primary care office, urgent care and/or the ED.

The student will participate in telemedicine encounters under the supervision of a provider where they will obtain a history and physical, present, document encounters and discuss management plans. There will be weekly didactic sessions related to telemedicine, teleurgent care and basic emergency medicine diagnoses.

UCF College of Medicine

Emergency Medicine Fellowship Experience Elective
MDE 8711

This rotation is designed to provide medical students with insights into the specialty of Emergency Medicine. The primary goal is to provide medical students with the knowledge, skills and experience that each of the multiple EM subspecialties can provide and how they impact patient care. Students will be asked to gather accurate and essential information regarding the patient's presentation in a timely manner in order to integrate that information with the POCUS examination to generate appropriate differential diagnoses. Through this rotation the student is expected to experience a diversified curriculum aimed to give students the opportunity to cate for patients in multiple scenarios and have an experience of academic emergency medicine.

The student will understand the basic principles of Emergency ultrasonography, pediatrics, emergency medical services, administration, research, simulation and medical education. Demonstrate the ability to appropriately use ultrasound equipment, evaluate a pediatric patient, create a simulation scenario, learn and possibly develop research and understand prehospital emergency care. Students may identify areas for improvement and implement strategies to enhance knowledge, skills and process of care, develop and maintain a willingness to learn from errors, demonstrate ability to use technology or other available methodologies to access and mange information, to support patient care decisions. Locate and appraise evidence from scientific studies to better guide patient care.

Students will participate in daily activities scheduled by the directors of each department. Students will also be involved in fellowship related activities such as literature review, case presentations, research projects or learning modules.

UCF College of Medicine

Neurosurgery Elective
MDE 8650

This four-week experience will provide advanced clinical training to prepare the 3rd year or 4th year student for the rigors of surgical internship (with neurosurgical focus). The student will participate by rounding with our provider at HCA Osceola Regional Medical Center to assess post op care as well as triage incoming Trauma patients while on call at 7:00 am. The student will present on Wednesday for surgeries at 6:30 am as well as be available for any cases that are incoming to the Neurosurgical Unit as described while the provider is on Trauma call. The student will show extreme flexibility in the Neurosurgical unit as this is necessary in this environment. When not at the hospital, the student will present to our practices located in Orlando and Kissimmee, FL (details to be provided on day one.)

Goals of the Rotation: This rotation is designed to provide medical students with insights into the specialty of Neurosurgery**.**

- Manage and understand the management of traumatic head injury patients
- Manage and understand the management of spinal cord injury
- Manage and understand Neurosurgical emergencies: Intracerebral hemorrhage, Epidural hematoma, subdural hematoma, epidural abscess, cauda echyna syndrome

Patient care: The medical student is expected to provide patient care that is compassionate, appropriate, and effective for promoting health, prevention of illness, and treatment of disease.

Medical Knowledge: The medical student is expected to demonstrate medical knowledge relevant to Neurological surgery, as well as the application of this knowledge to patient care:

- Neurological exam, Neuroanatomy.

Practice-Based Improvement: The medical student is expected to demonstrate the ability to investigate and evaluate their care of patients and continuously improve care based on constant self-evaluation and life-long learning.

- Daily rounds presentation and discussions

Interprofessional and Communication Skills: The medical student is expected to demonstrate interpersonal and communication skills that effectively exchange information and collaboration with patients, their families, and health professionals.

- Communication with team members, staff and residents

(cont.) Professionalism: The medical student is expected to demonstrate behaviors that reflect a commitment to continuous professional development, ethical practice, understanding and sensitivity to diversity, and a responsible attitude toward their patient, profession, and society. The student is expected to present a calm demeanor, demonstrating professionalism through compassion for the patient, respect for others, including family members, colleagues, and other department heads. The student is expected to respect the religious beliefs of others and to demonstrate principals of confidentiality as it pertains to the patient.

Systems-Based Practice: The medical student is expected to demonstrate an awareness of and responsiveness to the larger context of health care and the ability to call effectively on other resources in the system to provide optimal health care. The student should utilize all resources provided to optimize the patient experience, to provide the highest standard of healthcare while demonstrating sound decision-making skills that would award discovery and diagnosis in an effort to optimize patient recovery in a hospital setting.

UCF College of Medicine

Clinical Elective in Vascular Surgery
MDE 8605

Goal of clinical elective is to expose fourth year medical students to the vast array of vascular disease seen at a busy Veterans Administration Hospital including the risk factors for disease, clinical presentation, and treatment modalities. The risk factor modification for these patients with multiple medical co morbidities will be stressed. The history and physical findings will be the cornerstone of the workup for these patients with appropriate laboratory and radiologic studies based on the findings. Treatment options will include non-surgical approaches, minimally invasive approaches and surgical approaches. Since these patients have multiple organ systems affected by their diseases, the students will need to integrate many of the disciplines they have learned over the first three years of medical school training. This will give the students an early opportunity to sharpen clinical skills in history taking, physical diagnosis, and decision making. These skills have a broad application to all fields of medicine, so elective is appropriate to students interested in surgery or non-surgical fields.

The radiology department works closely with the vascular surgery department so the student will have ample opportunities to review studies in radiology. The students will follow their patients to the operating room and the PACU to further their learning of the disease process.

The student will be given the opportunity to create a presentation of one or two patients to the members of the department at either the multidisciplinary conference or the surgical conference. If the presentation warrants publication in a peer reviewed journal, then the student may go on to write a case report for submission with the assistance of the clerkship director.

Initially there will be no night or weekend activities. Once the VA hospital opens there will be opportunity to incorporate this into the program.

Objectives:

- Identify and respect patients' differences and expressed needs.
- Listen to, clearly inform, and communicate well with patients.
- Share decision making management with emphasis on disease prevention and wellness with a promotion of healthy lifestyles.
- Use established and evolving clinical and basic science knowledge to further patient care.
- Assimilate appropriate scientific evidence to improve patient care.
- Improve communication skills regarding information transfer with patients and their families.
- Maintain professional behavior with strict adherence to accepted ethical standards.

(cont.) Learning Activities:

- Patient care will include daily patient visits in clinic. Student will be given advance notice of specific type of clinical problems to prepare for the encounter. After each patient visit a review of appropriate history and physical including relevant radiologic studies will occur with the instructor.
- Student will be present in operating room twice on most weeks.
- Review of literature will be continuously stressed by the instructor.
- Student will be given opportunity for case presentation as noted above.

UCF College of Medicine

Introduction to Trauma and Surgical Critical Care
MDE 8682

Students will function as an integrated member of the trauma team at Central Florida Regional Hospital, a Florida Department of Health certified level II Trauma Center serving Seminole County and portions of Lake, Volusia and Brevard. Working with the trauma team, students will participate in ICU and Neurosurgical ICU rounds, floor rounds, trauma resuscitations, emergency room consults and follow-ups in the Trauma outpatient clinic. Patients will also be present for surgical interventions and procedures, including emergency surgery for trauma and general surgery as well as central line and chest tube placement.

Objectives:

- Learn how to perform a history and physical exam for trauma patients
- Learn the key aspects of the history and physical exam to identify common surgical diseases presenting to the emergency room
- Learn appropriate examination of critically ill patients in the ICU setting
- Develop skills for patient evaluation for follow up of complex injury in the clinic setting

Learning Activities:

- Students will be embedded in the trauma team and work closely with faculty and team members. They will participate in ICU and floor rounds and observe trauma alerts, surgeries, and procedures. Additional clinical modules will expose students to emergency medicine, anesthesia and orthopedic and neurosurgical trauma care.
- Lectures and workshops will be offered to supplement clinical experience, including modules on ventilator function, neuro critical care, hemorrhage control and intensive care unit monitoring. Students will also be exposed to the administrative, regulatory and financial aspects of modern trauma care.

At the completion of the rotation, students will present a capstone talk on a topic of interest to the faculty and trauma team.

UCF College of Medicine

Surgical Critical Care
MDE 8342

This rotation is designed to provide medical students with insights into the specialty of Surgical Critical Care. The Bay Pines VA SICU sees patients from a variety of surgical specialties including General Surgery, Thoracic Surgery, ENT, Urology, Orhopedics, Orthpedics Spine, Vascular, Plastic Surgery aand GYN. The students will be exposed to a wide variety of critical care medicine conditions and will be expected to have an understanding of these issues, including but not limited to: sepsis and septic shock, hypovelmic shock, blood loss anemia, bacteremia, endocarditis, cardiac ischemia, GI bleed, DKA, pneumorhorax, pleural effusions, pericardial effusions, dysrhythmias, acute and chronic respiratory failure, COPD, ventilator management, ventilator weaning, tracheostomy care and management, secretions control, vasopressor use, acute and chronic renal failure, fluid management, acid bae management, nutrition needs, pancreatitis, appendicitis, cholecystitis, bowel perforation, morbid obesity, lung cancer, colon cancer, prostate cancer, bladder cancer, kidney cancer, head and neck cancer, skin cancer, sinus disease, limb ischemia, abdominal and thoracic aortic aneurysms, spinal nerve impingement, hypertension, pneumonia, sedation, pain management, blood product use, advanced directives, end of life discussions and many other intensive care issues. Students will be expected to learn critical care history and physical examination skills. They will also learn how to present patients during multidisciplinary rounds and participate in bedside procedures.

Team rounds at 8:30am (preround prior to team rounds), write daily progress note, write or participate in writing initial admission or consultation notes, clinical conference on Tuesday and Thursdays, Didactic/Journal review once a week, presentation of their patient on rounds and call colleague's and support staff as needed, directly supervised for all patient care and procedures.

UCF College of Medicine

Plastic Surgery 4th Year Elective
MDE 8660

Students will gain exposure to the diverse specialty of plastic surgery by working in office, operating room and hospital settings (Lake Nona Medical Center) with a number of private practice surgeons, whose differing interests will provide a broad exposure. Occasional weekend cases may exist if an attending is on ER call.

Objectives:

- Understand basic principle of wound management, with emphasis on preservation of vital tissues and structures.
- Demonstrate proficiency in basic suturing techniques.
- Have a basic understanding of the broad specialty of plastic surgery.
- Show competence in the evaluation of plastic surgery using a problem-based approach to formulate a surgical plan.

UCF College of Medicine

Aesthetic Plastic Surgery Rotation
MDE 8663

This rotation will take the student to a private office setting. The focus of this facility is largely aesthetic surgery, but students also experience other plastic surgical procedures done on an outpatient basis. The objectives of this rotation are to gain experience and participate in cosmetic procedures involving the face, breast and body. The rotating student will spend two-three days per week in the operating room and two days in the clinic.

Objectives:

- Advanced suturing techniques, simple reconstruction of small to moderate cancer resection defects.
- The student will be responsible for a weekly review of 2 articles in plastic and reconstructive surgery, to include CME approved content. This will be combined with weekly discussion of the reviewed material.
- Students will be expected to explain patient pathology to the selected patients as well as various options for surgical treatment of the issue at hand under direct supervision.
- Didactic presentations on ethics are beyond the time constraints of this rotation, however, informal discussions prior to patient encounters will be an essential part of pointing out specific patient issues and sensitivities. This is essential to a practice rooted in elective procedures.
- The hospital-based trauma call portion is more in line with mainstream medicine in that various specialties are involved in the treatment of the multiply injured patient and care must be coordinated effectively, clearly, and in a timely fashion. The student will be expected to participate in the organization of this care and demonstrate effective communication with residents and mid-level providers charged with direct patient care.

UCF College of Medicine

Colon and Rectal Surgery Rotation
MDE 8676 & MDI 8676

This rotation will build on the knowledge of the 4th year medical student in the workup, diagnosis, treatment and follow up of a wide variety of surgical diseases involving the colon, rectum and anus. There will be a broad experience caring for patients with inflammatory bowel disease. Evidence based practices will be emphasized. Students will be responsible for the evaluation and workup of patients in both the inpatient and out-patient setting. Participation in daily inpatient rounds as well as in a wide array of bedside surgical procedures and major operative interventions under general anesthesia will take place. In the office setting, students will participate in all diagnostic procedures, including colonoscopy, GI endoscopy and anoscopy/sigmoidoscopy. The student will be expected to attend a ll conferences, journal clubs and other educational experiences and will be required to present topics and discuss articles with the faculty.

Objectives:

- Learn fundamentals of basic science as they apply to the clinical practice of colorectal surgery.
- Understand GI anatomy and physiology, GI diseases, diagnosis and management and risks and complications of GI endoscopy.
- Understand the indications and recommendations for surveillance and diagnostic endoscopy.
- Develop a meaningful differential diagnosis and appropriate diagnostic plan for the evaluation of common colorectal disorders.
- Begin to develop knowledge of surgical pathophysiology, pharmacology, physiology in diagnosing and managing the patient with colorectal disease.
- Begin to formulate a minimal diagnostic and treatment plan for colorectal disease requiring surgical intervention.
- Begin to understand the roles of surgery, chemotherapy, and radiation therapy as measures in the total management of the colon cancer patient.
- Begin to develop some understanding of the roles of surgery and pharmacology in the total management of patients with inflammatory bowel disease.

UCF College of Medicine

Orthopaedic Spine Surgery Elective
MDE 7690

Rotating students will gain experience in a busy spine surgery practice. Spine surgery is unique in that while the surgical practice is quite specialized, the outpatient management of patients requires a working understanding of and diagnostic skills necessary to rule in/out a variety of pathophysiologies based on a patient's complaint, physical exam, laboratory data, and imaging findings. Rotating students will begin to understand how the successful management of a patient must begin with a proper diagnosis. Pain and neurologic complaints are an extremely common presenting issue for patients across multiple disciplines from primary care to emergency medicine to oncology or the surgical specialties.
By the end of the rotation, students are expected to have developed a knowledge base and clinical skills necessary to be able to identify and understand some very basic orthopedic and spine surgery complaints. Students are welcome but not expected to participate in the inpatient practice, potentially to include observation in the OR. The student is expected to complete and EBM project during the rotation to present to the team.

Learning Activities:
Students will participate in weekly didactics. Students will prepare a literature review on a specialty topic and give a brief presentation. Students will be expected to participate in office hours with the preceptor or, on occasion, with his partners in the office. When students are scheduled to the operating room, the first case starts at 7:30am except on alternating Fridays, when the first case will start at 8:30am. The student should arrive 30 minutes prior to the first case to be able to discuss the treatment plan with the assigned preceptor and help prepare the operating room for the first case.

UCF College of Medicine

Essentials of Musculoskeletal Care in Primary Care Elective
MDE 8370

This rotation is designed to provide medical students with insights into the specialty of Orthopedic Surgery. The focus of this rotation will be to start initial evaluation, examination and treatment of musculoskeletal complaints in a primary care setting. Students are not expected to go to the operating room or learn procedural skills:

- Students should be able to evaluate various causes of neck and back pain at the end of the rotation.
- Students should be able to evaluate various causes of shoulder pain, elbow pain, and wrist pain at the end of the rotation.
- Students should be able to evaluate various cases of hip pain, keen pain, and ankle pain at the end of the rotation.

Learning Activities:

Students will have an opportunity to follow 3-4 orthopedic surgeons specializing in various sub-specialties over a 4-week period. Students are expected to learn initial evaluation and focused musculoskeletal exam in office-based setting. Students will have didactic sessions twice a week at 7am on Tuesdays and Wednesdays focusing on differential diagnoses, natural history of various musculoskeletal pathologies, conservative treatment options and surgical indications. Students will have opportunity to interview and examine patients independently and subsequently see the patient again with supervising surgeon. Interested students can take initiative to learn commonly administered musculoskeletal injections.

Clinical knowledge will be evaluated through a quiz at the end of the rotation based on information from didactic sessions. Students will be given a 40-question quiz and have 90 minutes to complete it. Students must score at least 80% on the quiz. Can be retaken a week later if needed. If not passed on the second attempt, no credit will be given for the course.

UCF College of Medicine

Pediatric Neurosurgery Elective
MDE 8491

Monday-Friday round with neurosurgeons, assist with surgery, Minimal call, one weekend per month.

Objectives:

- Understand neurosurgical issues related to children.
- Manage acute neurological problems.

UCF College of Medicine

Pediatric Orthopedic Surgery Elective
MDE 8485

This rotation is intended for the student interested in orthopedic surgery, pediatrics, and pediatric or family practice sports medicine. This rotation will prove an opportunity to gain insight and experience with the diagnosis and management of orthopedic surgical disorders of childhood. It will provide an overview of pediatric orthopedic topics selected from topics required by national pediatric, family practice, and orthopedic residency programs. The medical student will be expected to be involved in the workup, diagnosis, treatment, and follow up of patients with a wide variety of pediatric orthopedic surgical diseases. The student will be involved with the patient evaluation in the emergency department, outpatient clinic, and inpatient setting. He/She will also be involved in daily inpatient rounds, outpatient clinic, minor procedures, as well as well as major operations. The student will be expected to present in the orthopedic surgery education conference weekly, attend grand rounds, journal clubs, and morbidity and mortality conference. Call will be 1-week day and 1 weekend day per rotation for 2 week elective, and 2 week days and 1 weekend day per rotation for 4 week electives.

Objectives:

Patient Care:

- Recognize common pediatric orthopedic surgical problems and emergencies in children.
- Recognize orthopedic surgical complications in children.
- Assist with the workup of new patients in the emergency department, outpatient clinic, and inpatient setting.
- Assist in preparing patients for discharge.

Medical Knowledge:

- Learn the fundamentals of basic sciences in pediatric orthopedic surgery.
- Learn pediatric orthopedic common diagnoses and their management.
- Read for the operative cases and be prepared for the OR.
- Understand the pathology of pediatric orthopedic diseases.
- Understand diagnostic tests commonly used pediatric orthopedic patients.
- Practice evidence-based medicine by reviewing the literature.

Practice Based Improvement:

- Utilize a pediatric orthopedic surgery textbook and journal articles to study pediatric orthopedic diseases.
- Document patient care activities in the medical chart in a timely fashion.
- Utilize electronic educational resources.

(cont.) Interprofessional and Communication Skills:

- Learn to communicate well with families and children.
- Learn to interact with the surgical team.
- Work well with other members of the health care team.

Professionalism:

- Continue life-long learning.
- Maintaining confidentiality of patient information.
- Maintain sensitivity to others' cultures, age, gender, and disabilities.
- Maintain accountability for personal actions and decisions.

Systems-Based Practice:

- Only communicate appropriately with families under the direction of Faculty.
- Communicate with the health care team members about the surgical patients.

Learning Activities

The medical student will present in the weekly pediatric orthopedic surgery education conference. He/She will present in daily inpatient rounds, attend pediatric orthopedic surgery clinic, and participate in surgeries. He/She will also practice evidence-based medicine by performing literature searches on the pediatric orthopedic surgery diseases of their patients.

UCF College of Medicine

Pediatric Surgery Elective
MDE 8490

Understand basic diagnosis and therapeutic management of pediatric surgical disease. Will participate in all inpatient and outpatient activities, including weekend rounds.

Objectives:

- Take accurate H&P, see patients in consultation, participate in all didactic discussions and learn basic surgical technique.

UCF College of Medicine

Introduction to the Ambulatory Surgical Center
MDE 8606

During this rotation students will be assigned to an individual faculty mentor to guide them and be responsible for their daily clinical activities. By the end of the rotation it is expected that medical students will have developed a knowledge base and clinical skills allowing them to assess surgical risk in patients. In addition, the medical students will be exposed to ultrasound guided pain blocks commonly used in ambulatory surgery, ie, Interscalene, popliteal, TAP, axillary blocks. The student will also be exposed to colonoscopies and EGD with emphasis in anatomy and physiology of the gastrointestinal tracts. Knee arthroscopies and inguinal herniorraphy are commonly done as well with the same emphasis on the anatomy. Finally, they will be exposed to the art of medicine of providing anxious and frightened people a pleasant experience. They will start seeing different doctor's approaches of such.

Learning Activities:

The student will be required to arrive at the Surgicenter at 7:30 in time for the first scheduled cases. The student will be expected to end the day when the last patient is discharged from the surgicenter. Between these two times, the student will actively participate in assisting the anesthesiologist prepare the blocks, learn airway management, learn radiation safety, review x-rays and interact with over 8 different specialties.

UCF College of Medicine

Non-Clinical Advanced Surgery Elective
MDE 8607

Students will be responsible for assigned independent study work each week, which includes but is not limited to: operative videos from the Journal of Medical Insight, landmark research articles, textbook chapters, podcasts and various sources regarding both "soft-skills" for surgeons and historical examples of surgical practice and education. Students will be responsible to prepare for and attend scheduled web-based student-led journal clubs, student presentation sessions, and specialty-specific discussion sessions that will occur three to four times weekly and as needed. Lecture/presentation-based sessions will include all students in the course. Discussion based sessions will be divided into small groups consisting of at least 4 and no more than 7-8 students to facilitate active participation.

Learning Activities:

This rotation is designed to provide medical students with knowledge and insights into the core principles of care of the surgical patient, the historical and contemporary practice of surgery and key topics in selected surgical specialties including vascular surgery, orthopedic surgery, gynecologic surgery, urologic surgery, plastic surgery, head/neck surgery, neurosurgery and ophthalmology. Emphasis will be given to awareness and development of skills and attributes necessary for lifelong learning, education of others, teamwork and leadership.

The student will obtain and develop medical knowledge in the following areas:

- Basic sciences principles of surgery
- Evaluation of pre-operative risk and perioperative risk mitigation practices
- Bedside management of surgical patients
- Core topics in general and trauma surgery
- Emergency and "do not miss" topics in all surgical subspecialties
- In-depth topics in surgical subspecialty of the student's choice

UCF College of Medicine

Pathology and Laboratory Medicine
MDE 8530

Students will rotate through multiple areas of the clinical laboratory and anatomic pathology. They will shadow pathologists performing specific procedures including frozen sections, fine needle aspirations, and autopsies, and will have hands-on experience in processing surgical pathology specimens. They will participate in an active hematopathology service and learn about applications of molecular pathology for disease diagnosis. Exposure to clinical chemistry and blood banking will also be included.

Objectives:

- Describe gross and microscopic pathology for multiple tissue types and correlate findings with clinical presentation.
- Discuss the appropriate role of clinical laboratory testing for select disease processes.
- Become familiar with a few select laboratory instruments and how they function, including interferences and limitations.
- Gather appropriate laboratory and clinical information and interpret findings to select additional testing processes.
- Communicate effectively with laboratory and other health care professionals.

UCF College of Medicine

Forensic Pathology
MDE 8533

The course is designed to provide medical students with insights into the specialty of forensic pathology. Students will have the unique opportunity of performing selected forensic autopsies under direct supervision of the medical examiner and when not assigned an autopsy, to actively participate and assist the attending physician performing the autopsy. Additional clinical duties include: writing autopsy reports, reviewing histology and critical thinking about the cause and manner of death. The rotating student is expected to learn a hands-on approach in anatomy, interpretation of post mortem toxicology, abstracting medical records, as well as appropriate synthesis of clinicopatholgic correlation. The rotating student will also be exposed to forensic death investigation, review cremation requests, and observe testimony/depositions.

Objectives:

- The medical student is expected to provide accurate information, compassion and effective communication to law enforcement, families of the deceased, hospital representatives, and to members of the office.
- Basic principles of performing an autopsy, collecting the appropriate samples, submitting sections for histology, interpreting post mortem toxicology, correlating autopsy findings with medical diseases, abstraction from medical charts, understanding jurisdiction and death certification.
- Demonstrate the ability of synthesizing gross and microscopic autopsy findings to appropriately assig a case of manner of death.
- Provide effective communication to the medical examiners, the members of the medical examiner's office, law enforcement, hospitals and family members of the deceased.
- Students are expected to show commitment to integrity and compassion to all of those within the medical examiner's office, law enforcement and families.
- The student will learn the systematic approach to determining appropriate cause and manner of death by abstracting autopsy findings, histology, toxicology and medical record review.
- Apply evidence based critical thinking skills to future practice for death certification and jurisdiction.
- On a weekly basis, the student will be required to present a relevant article from the literature that is relevant to an autopsy case that the student performed or assisted. A final 30-minute presentation will be given by the medical student at the end of the rotation. As the opportunity presents, research topics with intent to publish in the medical and forensic literature are available.

UCF College of Medicine

Surgical Pathology Elective
MDE 8534

Student will participate in preparation and evaluation of inpatient and outpatient submitted pathology specimens; preparation and evaluation of inpatient laboratory specimens (blood, urine, etc.) during a regular 40-hour work week.

Objectives:

This rotation is designed to provide medical students with insights into the specialty of Pathology

- Basic understanding of gross features of neoplasms
- Basics of histology lab processing, expected turnaround time
- Basic understanding of microscopic features of neoplasms and of useage of immunohistochemistry and molecular biology testing in differential diagnosis and in tumor biomarkers for therapeutic purposes
- Correlation of relevant clinical information and imaging studies to reach diagnosis
- Understanding pathology reports
- Understanding clinical usage of rapid intraoperative frozen sections
- Understanding of processes and interpretations for laboratory testing of blood, urine, etc.

UCF College of Medicine

Advanced Clinical Anatomy
MDE 8520

Primary goal of the elective is to provide medical students with the opportunity to study advanced clinical anatomy related to a medical specialty they anticipate applying for graduate medical education. The experience will involve cadaver dissections, literature survey and consulting with clinical specialists in the area they will be working on. The contact time is flexible and does not require any on call responsibility.

Objectives:

- Demonstrate detailed anatomy, and anatomical variations in the area studied.
- Describe the current knowledge of the anatomy in the area studied.
- Relate and compare the anatomical knowledge with the current surgical approaches in the area studied.
- Prepare and give a presentation to the supervising faculty member and assigned clinical faculty on the project outlined in the contract agreed upon at the beginning of the elective.

UCF College of Medicine

Anesthesia Elective
MDE 8702

The University of Central Florida College of Medicine Selective in Anesthesia will introduce the student to evidence-based care of the patient requiring surgery in an outpatient setting. They will have exposure to local, regional, or general anesthesia as well as the necessary preparation and care rendered in the preoperative and perioperative setting. The student will spend 2-4 weeks on the anesthesia service. Students will be responsible for the evaluation and workup of patients in the outpatient setting. There will also be opportunity for evaluation and assessment for patients receiving care for chronic pain. The student will be responsible for regular attendance. Students will be exposed to a series of practice-based learning (PBL) sessions designed to illustrate common clinical anesthesia problems.

Objectives:

Medical Knowledge:

- Begin to learn the fundamentals of anesthesiology as applied to surgery. Examples include the effect of induction agents, inhalation anesthetic agents, and muscle relaxants. Students should obtain an understanding of the effect of these agents on the respiratory physiology, circulatory physiology, and the fluid and electrolyte balance of the surgical patient. Evaluation of blood gas analysis and treatment of acid/base disorders.
- Begin to understand the anesthesia preoperative exam and the concerns faced by the anesthesiologist when anesthetizing a surgical patient.
- Understand the reasoning for ordering diagnostic laboratory procedures in the preoperative patients. Examples include liver function tests, serum chemistries, arterial blood has analyses and hematologic profiles.
- Begin to understand the different types of anesthetic care. Examples include general anesthesia, spinal anesthesia, epidural anesthesia, and regional anesthesia and an understanding of when the various types of anesthetic care are indicated and which patients will benefit from regional versus general anesthesia.
- Begin to understand the commonly used anesthesia non-invasive monitors and the anesthesia machine.
- Begin to understand the methods of securing/supporting an airway and associated complications.
    - Anatomy of the airway (adult vs. pediatric)
    - Airway assessment
    - Basic skills and tools to maintain ventilation and oxygenation
    - Outline the proper and safe way to inducing patients including rapid sequence inductions
    - Outline basic intubation techniques
    - Outline the Difficult Airway Algorithm
    - Perform a successful laryngoscopy and intubation on an adult with normal anatomy.
- (cont.) Begin to understand the medical procedural treatment of chronic pain syndromes.

Patient Care:

- Perform pre-anesthetic physical examinations including specific knowledge regarding the patient's airway and possible need for advanced airway intubation techniques. Basic Airway management—the student should be able to perform an airway exam, demonstrate proper use of oral/nasal airways, show different ways of delivering oxygen to patients, perform bag-mask and bag-endotracheal tube ventilation on patients, and demonstrate the ability to perform basic laryngoscopy/intubation, and atraumatic placement of laryngeal mask airway (LMA).

Interpersonal Communication Skills:

- Demonstrate skill and sensitivity when counseling and educating patients and their families in a variety of anesthesia options.
- Work effectively with the health care team.
- Present patients in a concise, organized, logical, and knowledgeable manner.
- Exhibit honesty, reliability, good communication skills, and appropriate judgment.

Practice-Based Learning and Improvement:

- Use textbooks and journal articles to learn principles of anesthesia as applied to surgery.
- Attend department of surgery conferences.

Systems-Based Practice:

- Understand the relationship and shared responsibilities between anesthesiologists and surgeons.

Professionalism:

- Demonstrate adequate communications skills while dealing directly with patients.
- Arrive in the OR on time, prepared for the procedure.

Procedures:

Under appropriate supervision, the student will have the opportunity to assist and at times perform basic anesthesia procedures such as:

- Tracheal intubation using different techniques
- Regional anesthesia, spinal and epidural
- Placement of intravenous lines

UCF College of Medicine

Pediatric Anesthesia
MDE 8511

The fourth-year rotation is designed to provide senior medical students with insights into the subspecialty of anesthesiology and the importance of the anesthesiologist in caring for patients prior to surgery, during surgery, and during the post-operative period. The rotation is hands-on and illustrates the role of the anesthesiologist in the clinical setting. During the rotation, students are assigned to an individual faculty mentor to guide them and be responsible for their daily clinical activities.

During the rotation, students become familiar with the many facets of the practice of anesthesiology, including the perioperative setting, pre-anesthetic evaluation, inducing and maintain anesthesia during surgery, patient emergence from anesthesia and post anesthesia care. By the end of the rotation, it is expected that the medical student will have developed a knowledge base allowing them to identify and manage common pre-operative concerns facing anesthesiologists and surgeons; developed an awareness and appreciation of the importance of patient safety relative to the anesthesiologist and operative course to the patient; comprehend pharmacological dosing, effects, and complications related to various anesthetic techniques; acquire a basic facility with airway and ventilator manipulation; and be able to contribute substantially to the management of regional or general anesthetics under the supervision of a licensed anesthesiologist. Our rotation is an opportunity for the medical student to gain valuable experience and knowledge of the operating room setting. You will be exposed to the challenges faced by anesthesiologists and surgeons on a daily basis and how contribute to the provision of excellent patient care while coping with the demands of a busy clinical setting. You are also expected to attend Morbidity and Mortality lectures as well as Surgical Grand Rounds on the first and second Wednesday of each month. Also, a brief PowerPoint presentation is required at the end of the rotation. The medical student will also interact with the Pain Clinic once or twice during the rotation. This is a valuable educational opportunity not only for those students who are considering anesthesiology as a specialty career path, but also for those who want to develop practical skills and knowledge that can serve as a foundation for practice in other specialties.

UCF College of Medicine

Independent Studies/Research at UCF COM
MDR 8900

The independent study/research elective permits fourth year medical students to pursue, under the sponsorship of UCF COM faculty members, areas of study/research that are not included among regular elective offerings. Arrangements for these electives are made between the student and the faculty member; and will require written administrative approval prior to registration.

UCF College of Medicine

Directed Study/Independent Study at UCF COM
MDE 8900

Individual study by students under the direction of a faculty member and with the approval of the Assistant Dean of Medical Education and the Associate Dean for Students. Topics vary and will be selected on an individual basis. Arrangements for these electives are made between the student and the faculty member; and will require written administrative approval 6 weeks prior to start date and registration.

M3 Independent Study Guidelines:

1. The rotation does not already exist as a approved selective/elective course in the Elective Directory
2. Cannot be an away rotation or VSLO rotation
3. Faculty supervisor must be a current UCF COM - Affiliated or volunteer faculty
    a. i. Physician must work in Florida
4. The rotation cannot be hosted at a site without an already existing affiliation agreement for M3 level learners
    a. i. M3 students may not complete an independent study at Orlando Health, or Advent Health.
    b. ii. Regardless if the faculty you are working with is UCF COM faculty. You may not rotate at these sites in M3 year for a Clinical Independent Study.
5. Clinical Independent Studies must meet the Clinical Criteria for credit
6. M3 Independent Study petition form must be submitted for approval 6 weeks in advance of block start date

UCF College of Medicine

Independent Studies/Research Elective (Away)
MDX 8900

The Independent Study/Research elective (away) permits 4th year medical students to pursue areas of research/away outside of UCF. Arrangements for these electives are made between the student and the away location supervising faculty member and must be supervised by a UCF COM faculty member. Students must obtain written administrative approval prior to registration.

UCF College of Medicine

International Elective
MDE 8072

Students interested in completing an elective outside of the United States should contact the Director of International Health Programs. Additional information may be available from the Office of Student Affairs. The process for arranging for an international elective should being early in the 3rd year. Students must obtain written administrative approval prior to registration. All students are required to meet with international director prior to travel and register the travel with UCF at www.med.ucf.edu/global-health. Prior to traveling, students should review the information in the "Before You Travel" section. Completed forms must be submitted to international director.

UCF College of Medicine

Narrative Medicine Elective
MDE 8048

Student will be expected to participate in patient rounds; read/view and be prepared to discuss assigned readings (including short stories, essays, or poetry) and short films; actively participate in close reading exercises; write parallel chart entries (a parallel chart entry is a written, reflective account written by the student reflecting upon a patient encounter); elicit and transcribe patients illness narratives; respond to writing prompts developed by the preceptor; and lead a Narrative Medicine workshop for the M3 and M4 students assigned to NCH.

Goals of the Rotation:

- Student will learn about the history and development of Narrative Medicine and medical humanities. Student will be able to identify how humanities-related disciplines can "…enhance empathy, perspective-taking, openness to different viewpoints, and to prompt reflection on self, others, and the world." (Kumagai, 2014)
- Student will recognize the ability of the arts to "make strange": "…to trouble one's assumptions, perspectives, and ways of being in order to view anew the self, others, and the world, (which) may serve a critical educational function in the development of reflective, humanistic clinicians." (Kumagai, 2014)
- Students will be able to identify and describe the tenets of Narrative Medicine: attention, representation, affiliation (Charon, 20016)
- Student will learn to conduct close reading exercises using prose, poetry, essays, short films, photography, and works of art assigned by preceptor
- Student will participate in Pediatric Intensive Care (PICU), Neonatal Intensive Care (NICU), and Pediatric Hospitalist rounds with direct faculty preceptor supervision, and write parallel chart entries based upon patient encounters.
- Student will elicit a narrative from a patient, listen while the patients tells his/her story, and then transcribe the story, concentrating on capturing its essence. The student will then read his/her written version of the patient's story back to the patient. This experience will be conducted under the direct supervision of the faculty preceptor. This exercise has been shown to develop the skills of narrative competence and attentive listening, and ultimately result in enhanced affiliation with the patient the patient care experience from the patient perspective. (Chretien et al, 2015; Das Gupta, 0007; Kumagai, 2008)
- Student will respond to writing prompts and actively participate in discussion of these written entries with preceptor.
- Student will choose a piece of short fiction (poetry or prose), short film, photographs, or work of art and lead a Narrative Medicine exercise for M3 and M4 students assigned to NCH, including a close reading, in-depth discussion, and response to a writing prompt under the direct supervision of the faculty preceptor.

(cont.)

Learning Activities

Student will participate in close reading and writing exercises daily, both scheduled with the preceptor as well as independently as directed by the preceptor. Student will participate in NICU, PICU, and Hospitalist wounds, elicit and transcribe patient illness narratives, and write reflectively about patient encounters. Student will actively participate in discussion of readings and his/her reflective writing. At the end of the course, student will lead a 1 and ½ hour Narrative Medicine workshop consisting of close reading exercises, discussion, and writing prompt. These workshops already occur as part of the UCF COM pediatric clerkship at Nemours Children's Hospital and are currently led by the preceptor, Olivia DiLeonardo.

UCF College of Medicine

Culinary Medicine
MDE 8105

Culinary Medicine is a unique approach to nutrition education that integrates medical nutrition therapy principles with culinary medicine techniques. The goal is to introduce future physicians to healthy nutrition and cooking principles and to develop their communication skills around nutrition so that patients and their families can more effectively incorporate nutrition and food preparation knowledge into their daily lives in their own home kitchens. Exposure to the Culinary Medicine elective will enhance medical students' awareness of the positive impact of nutrition and healthy cooking in preventing and treating diet-related illnesses such as obesity, diabetes and coronary heart disease. This unique nutrition education is based upon the culinary medicine curriculum developed at the Tulane school of Medicine. Community partners will include the Second Harvest Food Bank and TMCA of Central Florida. Students will learn culinary nutrition techniques from professional chefs and dietitians at the UCF Rosen College of Hospitality Management and then teach these concepts and techniques to community members of all ages to the community partners using on site kitchens and mobile kitchens.

Learning Activities:

- Module 1: Introduction to Culinary Medicine, Sanitation, Mediterranean Diet
- Module 2: Weight Management, Portion Control, Nutrition Labels, Healthy Breakfast preparation
- Module 3: Fat, Texture, Increasing Fiber, Lunch Preparations
- Module 4: Food Sensitivities and Allergies, Calcium and Osteoporosis, Mindfulness, Local Resources
- Module 5: Protein, Amino Acids, Vegetarian Diet, Eating Disorders
- Module 6: Renal Physiology, Hypertension, Sodium and potassium homeostasis, sodium reduction and flavor building.
- Module 7: Carbohydrates, Diabetes, Snacking and desserts
- Module 8: Pediatric Diet, Breastfeeding, Meal Planning, Baby Food, Kid friendly meals

UCF College of Medicine

Aquifer Course
MDE 8900

This course will focus on one of the following Aquifer courses for a two-week elective: Aquifer Pediatrics, Aquifer Geriatrics, High Value Care/Diag Excellence, Aquifer Family Medicine, Aquifer Internal Medicine. Students will utilize the online Aquifer virtual patient courses found at http://www.aquifer.org. Each course contains 30+ interactive cases with links for additional learning. Many of the courses have formative multiple-choice questions associated with each case.

Learning Activities

You will sign up to complete an independent study elective using the Aquifer online learning programs. This includes pediatrics, radiology, internal medicine, family medicine and the WISEmd surgical videos; it does not include the uWise OBGYN course. During this elective you will be able to work independently while completing **every** module in your selected course. You selected your courses when you planned your M4 year through the registrar's office. That office provides me with the list of courses for which you are registered. Dr. Moran will only complete a course student performance evaluation in OASIS for the course the registrar's office informed me. If you do not remember which course/s you selected, you will need to contact Alisha Corsi. If you need to change the course/s you previously selected, you will need to notify, by email, both Ms. Corsi and Dr. Moran. She is available for any questions that you may have- just send an email.

You will not need to send in any documentation of your completion as I will be reviewing your course log through Aquifer's administrative access. This view enables me to see **your time spent on each module or each case**, your short answers within the cases and any posttest assessments (not all courses have post case assessments.) If the time spent on each module or case is less than what would signify meaningful engagement then you will be asked to repeat the modules or the entire course. When you have completed all of the cases/modules in your selected course, you will have completed the independent study. You do not need to contact me of your completion unless you requested and were given an extension. We are not currently using the summative Aquifer course assessments. If you are interested in taking the post course exam please let me know and this can be set up but it will not affect your grade for the independent study.

If, for any unforeseen reason of which there are many during the M4 year especially during interview season, you are unable to complete all modules within your elective block you must notify me and we will create a learning plan that will enable you to successfully complete the independent study. If you do not notify me and your coursework is incomplete at the time of evaluation, you could be at risk for receiving an incomplete grade or failure for the course. Please communicate in a timely and professional manner!

UCF College of Medicine

Hospice and Palliative Care Elective
MDE 8150

During this rotation, students will see palliative care and hospice patients in the inpatient acute care hospital setting, outpatient clinic, home environment via home visits, as well as in the community living setting. Students will be able to participate in the interdisciplinary care of seriously ill and dying patients. Additionally, students will have the opportunity to learn about pain management symptoms such as pain, nausea, constipation, fatigue and delirium in this vulnerable patient population. Students will also learn communication skills as they will participate in family meetings. By the end of the rotation, the students will have gained basic communication skills required to deliver difficult information to patients in a compassionate manner. Additionally, students will understand the importance of determining a patient's goals of care, and how to subsequently tailor medical care to achieve those goals.
Students will be expected to give one 15-minute presentation at the end of the rotation.

Goals:

- Students will be actively involved in the initial assessments of all patients by the Palliative Care team and to write an initial history and physical.
- Students will be expected to participate in daily rounds, write prognosis notes, attend interdisciplinary team meetings, and to perform self-directed learning.
- Students will be evaluated for engagement and preparedness while on rounds.
- Students will be evaluated on the quality of the presentation at the end of the rotation.

UCF College of Medicine

Palliative and Pain Management Elective
MDE 8152

This rotation is designed to provide medical students with insights into the specialty of Palliative Medicine/Pain Management

Goals:

- This rotation will include on line case work, discussion and practice (simulated practice) for the following for the Palliative Medicine patient. These will be adjusted and scaled according to the student's experience and the length of the elective:
    - Pain and Symptom Management
    - Palliative Care Communication
    - Psychosocial, Spiritual and cultural aspects of care
    - Terminal Care and Bereavement
    - Palliative care principles and practice
- The student will obtain and develop medical knowledge in the following areas:
    - Basic precepts and goals of palliative care-list and elaborate
    - Common Therapeutic uses and misconceptions about opioid's-recognize and address
    - Clinical features of imminent death and family needs-recognize and address
    - Spiritual and Cultural needs of patients-identify and address, optimize communications
    - Interdisciplinary team in palliative care-recognize and optimize communications

Students will work in a small group to practice communication skills around difficult conversations such as: goals of care, end of life decisions, family meetings for seriously ill patients, pain medication use.

UCF College of Medicine

Geriatric Elective – Academic & Clinical sections
MDE 8147

This rotation is designed to provide medical students with insights into the specialty of Geriatrics and geriatric pharmacology. During this rotation, students will be assigned to a faculty mentor to guide their activities. If the clinical option is selected (1 week in outpatient geriatric clinic), students will develop the knowledge and clinical skills needed to identify and manage common concerns in the older adult population.

If the academic option is pursued, students will conceptualize and develop an educational project under the supervision of an appropriate mentor (dependent on the project). All students will complete the assigned online modules and web-based cases.

Objectives:

- Determine clinical features, differential diagnoses, evaluation and treatment/pharmacological approach for the common clinical conditions that affect older adults.
- Recognize mediations to be avoided and identify evidence-based interventions that promote healthy aging.
- Collaborate with other health care team members in the assessment, implementation, and evaluation of care. Meet deadlines for completion of curricular assignments.

Learning Activities

The first week of the experience will include many of the self-directed activities including the completion of several faculty developed SLMS, National web-based modules on geriatric topics and for the students who select the academic track, the conceptualization of their project. The second week of the experience will include three days in a geriatric primary care clinic and two days at an upscale retirement community for the home visiting component. The schedule for the clinical week will be communication prior to the start of the rotation. The second week for the academic track includes mentoring and feedback as the student develops a curricular resource/project.

UCF College of Medicine

Medical Spanish
MDE 8040

****Students are required to attend a virtual practical session based on the block the student is registered in. Dates are not negotiable.**

See the Medical Spanish section on 4th year GPS for Practical Dates for the current AY

Goals of the Rotation:

1. Students will have improved knowledge of Spanish grammar and medical Spanish vocabulary.
2. Students will learn how Latino culture affects access and utilization of health care.
3. Students will become familiar with correct use of a medical interpreter.
4. Students will practice use of medical Spanish in the clinical skills center.

Objectives:

1. Improved knowledge of role of culture in care of patients will enhance patient care.
2. Assessing skills in language will define safety limits in relying on personal medical Spanish knowledge.
3. Enhanced knowledge of medical Spanish will improve communication ability.
4. Understanding correct use of an interpreter will improve professionalism.
5. Understanding the role of the interpreter and laws requiring access to interpreter will improve systems-based practice knowledge.

Learning Activities

1. Students are expected to work independently on Canopy models. You must request access from the COM library.
2. They are expected to attend 2 conversation sessions, one virtual SP session through the clinical skills center, and sessions on use of an interpreter and practical medical Spanish.
3. A literature review and brief essay (1-2 pages) on the role of culture in medical care is required.

UCF College of Medicine

Clinical Anatomy Teaching Elective
MDE 8093

Students will participate as teaching assistants in the Structure and Function Module for the four-week period of their elective. They will need to prepare for the anatomical/physiological areas being covered in the respective component of the HB-2 module during their elective period. They will be required to be prepared to discuss with the M-1 students the relevant anatomy/physiology and medical imaging of the area being studied. They will attend all anatomy/histology/physiology/medical imaging laboratory/simulation sessions. They will also assist the M-1 students with their cadaver/autopsy report data and provide support for students having difficulties in the areas being studied.

Objectives:

- Prepare pro-section anatomy dissections for demonstration to M-1 students.
- Attend all anatomy/histology/physiology/medical imaging laboratory/simulation sessions.
- Demonstrate knowledge of the anatomy/physiology/histology and medical imaging of the areas being studied in the elective
- Assist M-1 students having academic difficulties with anatomy
- Assist M-1 students' knowledge of clinical anatomy

UCF College of Medicine

Endoscopic Spine Surgery/Interventional Pain Management
MDE 8820

The rotation is an introduction to Minimally Invasive treatment modalities for spine pathology with a primary focus on Endoscopic Spinal Surgery and a secondary focus on Interventional Pain Management. The rotation will focus on the fundamentals of Endoscopic spinal surgery and fluoroscopically guided spine injections. The importance of quality measures and understanding the financial landscape of medicine from a private practice perspective. The creation of outcome-based care plans will also be taught as well as how to achieve objectives in the face of logistical barriers.

Goals of the rotation:

This rotation is hands-on and illustrates the role of the private practice provider in the outpatient clinical setting. During the rotation students will follow a private practice faculty mentor to guide them and be responsible for their daily clinical activities. By the end of the rotation it is expected that medical students will have developed a knowledge base and clinical skills allowing them to identify and manage provider specific issues and patient care.

Objectives:

Patient Care:

The medical student is expected to provide patient care that is compassionate, appropriate, and effective for the promotion of health, prevention of illness and treatment of disease. The medical student may be asked to submit a generalized writing assignment.

Medical Knowledge:

- Recognize patho-anatomical pain generator as they relate to primary diagnosis
- Describe therapeutic effects and contraindications of pharmacology used in pain medicine
- Learn the basic anatomy and pathology of the spine
- Learn basic reading ability of spine MRI's and fluoroscopy
- Learn the pharmacokinetics of steroids
- Learn fundamentals of Endoscopic Spine Surgery
- Learn tissue recognition as it is viewed through an Endoscope
- Discuss spinal cord/epidural space physiology as it pertains to endoscopic spine surgery
- Learn contemporary treatment options for low back pain and radiculopathy
- Learn risks, benefits, limitations, and expected outcomes of standard spinal procedures such as endoscopic discectomy, facet injections, medical branch blocks, radio frequency ablations, epidural steroid injections, sacroiliac joint injections, spinal cord stimulation, peripheral nerve stimulation
- (cont.) Discuss quality of metrics of care for Endoscopic Spine Surgery, what are our objectives and what is the best way to measure them

Practice Based Improvement:

- Understand the importance of conceptual thinking in procedural therapy
- Develop the ability to analyze medical journals
- Gain perspective on the business of medicine
- Gain understanding and perspective in “minimally invasive treatment modalities”

Interprofessional and Communication Skills:

- Effectively document the patient history and plan of care
- Effectively communicate information with the patient
- Become familiar with interprofessional communication between referral physicians

Professionalism:

- Demonstrate respect, compassion, integrity and altruism in relationship with patients, families and colleagues
- Demonstrate respect for religious beliefs
- Adhere to principles of confidentiality
- Recognize and identify areas of improvement in personal and in peer performance

Systems Based Practice:

- Utilize resources to provide optimal healthcare
- Recognize limitations and opportunities regarding the individual patient care
- Apply evidence based, cost-conscious strategies to prevention, diagnosis and disease management
- Consider the importance of quality measures when developing outcome-based care plans

Students will participate in initial and follow up appointments. They will also participate in outpatient interventional pain management and procedures and discuss access and tissue/pathology recognition in Endoscopic Spine Surgery.

The medical student will be evaluated by his/her engagement in the entire learning opportunity including presentations, preparedness for clinic and participation in educational conferences. There will be a formal feedback session at mid-term and at the end of the rotation. Feedback for continuous improvement will be provided throughout the rotation. A final written evaluation will be provided at the end of the rotation. All evaluations will be completed electronically via an online evaluation system.

UCF College of Medicine

Physical Medicine and Rehabilitation, Physiatry Elective
MDE 8582

This rotation is designed to provide medical students with insights into the specialty of PM and R, Physiatry. The rotation will be an all outpatient clinic rotation. Medical students will rotate through the following clinics: TBI, amputee, chronic pain, and physiatry clinics; and they will observe electrodiagnostic studies, interventional pain procedures, and peripheral joint injections. Medical students will be expected to see patients, present to attendings and write progress notes. Medical students will learn to take a history and perform the physical exam pertinent to physiatry. This will include a basic functional assessment, evaluation for activity limitations and impairments and a focused musculoskeletal examination. Medical students should develop a basic understanding of functional mobility and be able to discuss treatment recommendations to include indications of rehab therapy, bracing, medications and/or injections. Medical students will attend weekly lectures provided by faculty and be expected to select one paper/research article for discussion or provide one case presentation during their rotation.

UCF College of Medicine

Trichology-Clinical and Surgical
MDE 8256

In this rotation, the student will work directly with the preceptor and his staff, seeing patients in consultation, follow-ups and assisting in office procedures (hair transplant procedures, hair loss treatments involving Platelet-Rich Plasma (PRP) and/or Mensenchymal, Adipose-Derived Stem Cells, skin biopsies, Botox Cosmetic treatments, Facial Filler application). The student will be involved daily in taking medical histories from patients with different types of hair loss, performing skin and scalp examinations, considering differential diagnosis and assisting in prescribing treatment, both medical and surgical when indicated. Student will assist in hair transplant procedures, skin biopsies intralesional injections and in data collection for clinical research. Student will participate in post-operative follow-ups and clinical follow ups. Time will be given to student for studying and reading from textbooks in Trichology and Hair Pathology. At the end of the rotation, student will be asked to write a report on his/her experience and how he/she will apply the knowledge acquired during the rotation.

During this experience, the student will be able to learn how different specialties can work together toward the common goal of providing optimal care to patients. Feedback will be given to the student in real time so they may improve their skills. Student will be expected to be inquisitive and resourceful and to be able to research and demonstrate understanding of the various clinical conditions that will be seen in the practice.

UCF College of Medicine

WikiProject Medicine
MDE 8097

Goals of the rotation:

This rotation is designed to provide medical students with insights into the specialty of Evidence Based Medicine and Informatics.

- Efficiently use information technology to identify relevant, high-quality evidence and apply it to the improvement of Wikipedia's WikiProject: Medicine articles.
- Identify clinical questions that currently exist in WikiProject: Medicine and identify and apply evidence relevant to answering those questions.
- Appraise, assimilate and apply relevant, high-quality, evidence in editing WikiProject: Medicine articles.
- Determine whether clinical evidence can be applied to the reference standards of Wikipedia.
- Access and appropriately apply information from practice guidelines while editing articles.
- Identify a WikiProject Medicine article that has not yet reached "Good Article" or "Feature Article" status.
- Use secondary literature (systematic reviews, meta-analyses), textbooks, and practice guidelines, to edit an article using the WikiProject Medicine Style Guidelines, providing references as required.
- Demonstrate proficiency in appraising the quality and reliability of a Wikipedia medicine article.

Objectives:

Patient Care: The medical student will engage in effective utilization of evidence-based resources and techniques on how to appropriately convey the information to patients on a global scale.

Medical Knowledge: The student will obtain and develop medical knowledge in the following areas: Information Retrieval, Critical Appraisal of Medical Literature, Writing/editing medical articles

Practice Based Improvement: Students will select, critically evaluating and utilize information from scholarly articles to disseminate accurate and evidence-based information to patients worldwide. Students will also edit and critique current Wikipedia medical articles to make them current, reliable and up to date.

(cont.) Interprofessional and Communication Skills: Medical students will learn how to use digital media to effectively communicate and convey complex medical information on a global scale

Professionalism: Medical students will demonstrate professional communication, adherence to copyright law, and respect for intellectual property (plagiarism).

Systems Based Practice: This course exposes students to information that millions of patients read worldwide. Students will become experts at editing content with evidence-based resources, so that patients and readers can read reliable, trustworthy content.

The medical student will be evaluated by his/her engagement in the entire learning opportunity including presentations and participation in educational conferences. There will be weekly feedback sessions with a final project due at the end of the rotation.

The final evaluation is the completed peer reviewed article on Wikipedia. Final feedback will be provided and completed electronically via an online evaluation system for each student.

UCF College of Medicine

Simulation in Medical Education: From Design to Delivery
MDE 8094

Goals of the rotation:

This program will be clinically aligned with the current curriculum. It will highlight a clinical condition recently explored in the didactic setting and enable participants to broaden their knowledge of that condition by applying relevant physiologic and pharmacologic principles to simulation case design, development and delivery.

Objectives:

Patient Care: Participants will design a simulation case for a simulated patient and apply the principles of care to that simulated patient encounter.

Medical Knowledge: Anatomy, physiology, pharmacology, disease process, physical exam findings, focused history guidelines, development of differential diagnoses, creation of various diagnostic values and establishment of treatment plan appropriate to case condition.

Practice Based Improvement: Utilizing various principles of simulation in healthcare, participants will create a unique (simulated) patient care encounter (case). Case creation enables participants to apply existing knowledge to structured simulation templates in a controlled, immersive environment guided by clinical faculty. This experience will broaden perspectives of practice and solidify pathophysiologic concepts through active learning and peer development.

Interprofessional and Communication Skills: This program will emphasize interpersonal and interprofessional communication throughout the continuum of a selected patient care encounter. Utilizing established team communication strategies, concepts and principles, participants will create a simulated patient care encounter inclusive of communication roles, goals and objectives. During all phases of this elective, participants will communicate with one another, various Faculty, Medical Librarians and fellow medical students.

Professionalism: Throughout this experience, participants will be expected to demonstrate all concepts of professionalism described above in addition to privacy and confidentiality (case content). A common theme of continuous improvement will be highlighted throughout this elective to ensure a safe, professional learning environment.

(cont.) Systems Based Practice: This elective will continuously emphasize the continuum of care within the larger context of healthcare in general It is expected that participants will engage (or verbal engagement of) various healthcare-related resources available to them and applicable to the case.

Participants will explore simulation through literature review, content development, case creation, consultation sessions with faculty and/or subject matter experts, case refinement and case presentation with peers. From focused scenarios to complex conditions, each cohort will practice and continuously develop simulation skills including debrief and feedback, apply principles of anatomy, physiology, pharmacology, communication, teamwork and professionalism to each case and enhance existing knowledge of systems-based assessment and care.

The summative evaluation will be based on level of participation, development of case content, application of current evidence-based medicine, simulation principles and current curricular relevance, general case creation, peer delivery of a simulation encounter and subsequent debrief session (s).

UCF College of Medicine

Telemedicine Elective
MDE 8081

This rotation is designed to provide medical students with insights into the specialty of Telemedicine for outpatient primary care. Medical students will be introduced to key concepts, competencies and applications of telemedicine as a method of delivery of quality medical care.

Objectives:

Patient Care: Student understands the provider-patient relationship within the context of a telemedicine encounter. Student understands the process of Informed consent for telemedicine services. Student understands privacy and confidentiality (HIPPA) within the context of telemedicine. Student demonstrates awareness of technology pitfalls and privacy (not all technology is HIPPA compliant-text, email). Student understands the importance of screening other family members and or care takers accompanying the patient (for health provision, risk assessment, and privacy purposes). Student is capable to take a standard history. Student considers patient site and geographic location factors. Student considers patient site and geographic factors. Student considers patient culture, values, behaviors and technological needs/preferences (social determinants of health). Student understands the importance of assessing patient safety and stratify risk factors remotely (unstable patient, suicidal risk, safety of surrounding area). Considers the appropriateness of the telemedicine encounter and its limitations.

Medical Knowledge: Student understands the medical standard of care as it applies to both in person care and telemedicine. Florida standards for telemedicine practice. Student is aware of telemedicine guidelines and best practices.

Practice Based Improvement: Student is aware of strengths, deficiencies, and limits in one's knowledge and expertise of telemedicine. Student must think creatively to solve problems encountered during sessions. Student is familiar with the resources available for telemedicine research and self-learning.

Interprofessional and Communication Skills: Student understands the importance of effective and clear communication with patient family and other health care providers via telemedicine. Student understands the importance of putting patients at ease when they feel insecure about using telemedicine technology.

Professionalism: Student is aware of telemedicine regulations. Student is aware of legal and jurisdictional issues related to prescribing drugs via telemedicine.

(cont.) Systems Based Practice: Student understands how to work effectively in various health care settings via telemedicine; outpatient, inpatient, rural, urban, small practice, large trauma run, etc.

Participants will experience didactic teaching: online and webinars, case-based learning: video/webinar, clinical site experience, report presentation.

The student will be evaluated based on his/her engagement in the entire learning opportunity including presentations, preparedness for clinic, and participation in educational conferences. There will be a formal feedback session at mid-term and at the end of the rotation.

UCF College of Medicine

Ward Ethics Elective
MDE 8064

Goals of the rotation:

Mixed mode course-students and faculty shall meet Face to Face once in 2 weeks-for the closing course session and final group activity. All further activities shall be carried out online. Medical students shall participate in mock rounds with typical ward ethics cases; they shall present both assigned cases and their own ethical dilemmas regarding cases and preceptors experiences on the clerkships (core M3 clerkships and sub-internships). Students are expected to prepare in appropriate level of detail readings and ethical analyses for group discussion as well as to provide commentary to colleagues in a safe environment. They shall consider hidden curriculum, moral distress and organizational ethics challenges to their professional identity and wellness, and develop their "virtuous fishbone root causal analysis" and team and shared decision-making strategies for both reverse engineering medical error in ward care and for planning ways to mitigate a range of ethical challenges as part of their medical education preparation. Additionally, there will be opportunities to explore end of life issues and palliative care.

Objectives:

Patient Care: The medical student is expected to develop one's ethical sensitivity in the context of moral disagreement and moral distress while handling mock patient cases.

Medical Knowledge: Medical ethics; Ward Ethics; Student well-being; Moral Distress; Hidden Curriculum; Theoretical and Empirical Bioethics; Palliative Care and end of life

Practice Based Improvement: Students will engage in the deliberate practice of ethical reasoning and ethical deliberation under moral diversity through multiple case analyses

Interprofessional and Communication Skills: Student shall reflect on communication gaps in ward cases and propose ethics and shared decision-making strategies for their revision, inclusive of team ethics and consideration

Professionalism: Students shall discuss in practice and in context the recommendations of the AMA Code of ethics regarding their own real-life ward cases

(cont.) Systems Based Practice: Students are expected to demonstrate an understanding of the interface between Medical Ethics and Organizational Ethics and its extensions to health care ethics and justice in social context.

Students are expected to prepare, present and respond to multiple ward ethics cases representing challenges on the team-doctor-student-patient relationship, inclusive of conflict of interest, managing confidential information, refusal of care, impaired colleagues, gifts from drug companies, from patients as well as special ethical issues on clinical specialties. Students will be paired for providing feedback on assigned close readings but shall present cases individually for the group. By the end of the course, students shall develop a brief reflective essay, considering their wellness, moral distress and how to thrive ethically in their physician training. They shall also provide each other with suggestions and deliberate practices to avoid moral distress and on how to contribute to an ethical environment in wards, in a final document.

The student will be evaluated based on his/her participation, including presentations, preparedness, collaboration with others and final essay. A final written evaluation will be provided at the end of the rotation.

UCF College of Medicine

Evidence Based Medical Education Elective
MDE 8099

As technology and our understanding of learning and evidence-based practice continue to advance, so does the need to improve and innovate medical education. Providing students with opportunities to develop their knowledge of and ability to practice evidence based medical education will impact the future of medical education. During the elective, students will collaborate with faculty to (re)design a self-selected unit or lesson of undergraduate or graduate medical education. Utilizing the EBME processing (i.e, assessing educational needs, articulating questions, acquiring and appraising evidence, applying the evidence) they will improve and innovate their selected unity of medical education. By the end of the elective, participants will have designed a new or revised undergraduate or graduate medical school learning experience that has been exposed to rigorous review by peers and educational experts. Two 1.5 synchronous virtual sessions (total of 3 direct contact hours) per week.

UCF College of Medicine

MedED Development: Moving Beyond the PowerPoint
MDE 8092

This course will teach students how to apply and create evidence-based instructional materials for undergraduate medical education. Each student will collaborate with a faculty member who will mentor the student in the creation or redesign of educational material to be used in the curriculum. Students will be introduced to instructional design and technology, learning theories pedagogical techniques and active learning strategies (e.g., TBL's, small-group learning, etc.) used in medical education. At the end of the course, the students will present their completed project. Students will also be given the opportunity and guidance needed to prepare their projects for further scholarship (e.g, MedED portal, journal publications, etc.). The knowledge and skills taught in the course are particularly relevant given the demand for accelerated, innovative and effective medical education. Students will complete online SLM's, formative quizzes and assignments and participate in online discussions and weekly Zoom meetings. Students will work with a faculty mentor to prepare a project proposal on a specialty topic, develop their project and give a brief presentation of the completed project.

UCF College of Medicine

Advanced Evidence Based Medicine Elective
MDE 7392

This course will use published literature to teach study design, statistical analysis, and adverse event reporting to relate evidence-based medicine to clinical care. Goals are to learn to critically review the medical literature, understand basic biostatistics, learn clinical pharmacology, learn MedDRA to assess adverse events and understand how clinical guidelines are developed. You should learn to understand the generation of medical hypothesis, understand power calculation, hazard ratios, noninferiority trails, understand adverse event reporting and understand clinical pharmacology terminology.

UCF College of Medicine

Lifestyle Modification Skills in Practice Elective
MDE 8127

Students will gain experience interviewing patients, with an emphasis on utilization of lifestyle assessment skills. The student will present these detailed evaluations to Dr. Wasserstrom and assist in development of a treatment plan and formulating lifestyle prescriptions. Initially independently the student will formulate a corresponding action plan with the patient. Then together with the patient and Dr. Wasserstrom, the student will outline the action plan and Dr. Wasserstrom can further assess the patient and add any additional plans needed for the patient. The student will also be involved in Lifestyle Medicine group visits. The group visits will be focused on providing tools to patients to help them improve their lifestyle and as the student you will help run these group visits and facilitate group discussion. Some of the clinical conditions the student will encounter are: Prediabetes, Diabetes, Hypertension, Hypercholesterolemia, Fatty liver disease, Obesity and Coronary Artery Disease. The student will be expected to learn how to use lifestyle assessment tools to help assess a patient's current lifestyle and aid in helping empower the patient to set SMART goals, utilizing questionnaires, health coaching, motivational interviewing, and group visits.

There will be lectures by practitioners who are skilled at health coaching and exercise Prescriptions. Students are also expected to read articles, book chapters, use tools, resources, and websites to educate themselves on topics and improve their delivery of care to patients. Students will have the opportunity to also spend some time at the Lake Nona Performance Club seeing how health care practitioners can collaborate with a medically integrated wellness club to provide additional tools and assessment to empower patients to adopt evidence-based lifestyle changes.

UCF College of Medicine

Insights into the Medication Use Process
MDE 8364

This elective will explore all steps in the medication use process: prescribing, transcribing and documenting, dispensing, administering and monitoring. A variety of virtual learning platforms will take students into a deeper understanding of this process and strengthen their knowledge regarding safe medication use. All instruction and assessments will take place virtually, with a weekly Zoom meeting with faculty preceptor to debrief the weekly learning experiences. The students will be required to submit two powerpoint presentations, pass all quizzes imbedded in the virtual learning material and pass the midterm and final exams. All instruction is to be completed independently by the student during the two-week rotation period. All assessments and course evaluation must be completed by the last Friday of the rotation by 5pm EST.

Students will obtain knowledge in the areas of safe prescribing, appropriate documentation, inpatient and outpatient pharmacy operations, inpatient and outpatient medication administration, pediatric medication administration and patient monitoring for safety and efficacy. Students will acquire an increased understanding of the drug development process. Students will learn the clinical skills of taking a medication history. Students will obtain drug information skills and be able to assess medication profiles for drug interactions.

UCF College of Medicine

Write and Publish a Research Article
MDI 7011

The goal of this elective is to provide students with the knowledge and skills required to design and write a research manuscript in a format, and to a quality suitable for publication within a peer-reviewed journal. This goal will be achieved through students working in collaboration with a member/s of the Biionix (Bionic Implants, Interfaces and Materials) Cluster. The Cluster consists of 15 faculty members and is interdisciplinary in nature; comprised of professors from UCF's Department of Mechanical and Aerospace Engineering, Materials Science and Engineering, within the College of Medicine (also Nemours, AH and OH) and Limbitless Solutions. The overall aim is to offer students a hands-on experience in writing and completing a research article on a topic of their choice as well as learning about the mechanisms involved in the peer review process and in article publication. At the beginning of the elective, students will receive a taught class on the "principles of how to write a research paper" and will then be assigned to a faculty mentor who will guide them on a day to day basis during the construction and writing of the manuscript and over the 4-week period.

In the first instance, students will have the opportunity to choose from a list of manuscript topics formed by the Cluster and provided by Dr. Coathup, or to collaboratively develop a new concept to worn on. A wide variety of research topics will be available, ranging from the use, synthesis and development of novel biomaterials, biosensors, robotics, movement, computational modeling, various cutting-edge techniques involved in tissue regeneration and repair as well as clinically based topics; all focused towards making healthcare smarter and safer. Manuscripts will mainly consist of literature or systematic reviews, but may also include those following study data collection-if the data already exists or is expedient to obtain. If preferred, it will also be possible for more than one student to work on one manuscript.

By the end of the elective, students will have developed a strong knowledge-base on the content, style and form required to write a research manuscript, how to critically analyze and appraise research papers, how to gather, interpret and present data in addition to developing in-depth scientific knowledge of their chosen subject area. By the end, the goal will be for the students to have formed a strong draft of a manuscript and post-elective, students will be expected to work with the mentor to ensure its publication in a journal or book (or other appropriate published form). Where appropriate, students will also be encouraged to submit their findings to local, national and international conferences. Subsequent research presentations will contribute to improving communication and presentation skills as well as in providing students with the opportunity to engage and network with the scientific and/or clinical community.

UCF College of Medicine

Arts in Medicine
MDE 8058

Goals of the rotation:
Please note that this rotation takes place entirely in-person in and around Orlando. This rotation
is designed to provide medical students with insights into the specialty of arts in medicine. The course aims to provide medical students familiarity with creative-arts related strategies, activities, tools, and experiences as part of the approach to providing humanistic care and in support of the doctor/patient- care relationship. During the rotation, students will complete a survey of experiences through weekly instruction and off-site experiential learning to deepen their understanding of the value of the use of art to enhance health and wellbeing. Throughout the course, students will be exposed to a variety of arts modalities – including but not limited to music, drama, art, creative writing, dance, offerings may vary from year to year – and be instructed in the ways that the modality can be used in wellness and/or community settings. Wellness and community settings may include the following locations/settings and may feature opportunities to connect with patients, staff, or physician groups, or other community members around Orlando: Advent Health, Nemours Children's Health, the Orlando VA, Orlando Health, the Center for Health and Wellbeing. Course deliverables will include weekly asynchronous "Discovery Tasks", and a final individualized reflection and art piece due at the end of the course. By the end of the course, it is expected that students will be able to recognize the use of one or more art forms to enhance medical practice, appreciate how the arts can be used to explore and strengthen patient- physician interactions and relationships, and become familiar with how arts in medicine techniques and approaches can be applied as a compliment to traditional practice to improve the health and wellbeing of us all.

Learning Objectives:

- Patient Care: N/A
- Medical Knowledge: Become familiar with a variety of art modalities and their potential for use in patient care and for patient wellbeing.
- Practice Based Improvement: Develop and maintain a willingness to incorporate artistic modalities, resources, and tools into future practice as appropriate.
- Interprofessional and Communication Skills: Recognize the use of creative arts as a way to enhance communication and build connections between patient and physician. Recognize the role creative arts therapy and creative arts therapist can play in the healing process.
- Professionalism: N/A
- Systems Based Practice: Become familiar with creative arts therapy and healing arts resources and personnel in the health care setting and broader community. Develop a basic understanding of the practice of social prescribing as it relates to the arts.

Learning Activities:

The course is comprised of synchronous and asynchronous activities as follows:
Synchronous:
• Weekly experiential site visits or on-site interactive workshops. 2-3 a week, will last 90-120minutes.
• Guided Debrief discussions
• Presentation of final deliverable (see more below)
Asynchronous:
• Weekly intro lecture or other introductory video prep, etc., weekly Discovery Task discussion board assignments
• Completion of final deliverable (emphasizing the value of creating art for your own wellness and reflection as a soon-to-be healthcare provider).

About Discovery Tasks:

"Discovery Tasks" are short exploratory activities that help the learner to discover something new and
interesting about a topic or themselves. Students will complete one such task each week during the
elective. Assignments will be posted to Webcourses.
About the Final Deliverable:
The final deliverable allows students to select a modality of their choice (creative writing, visual arts,
music, drama, etc.) to express what this experience with arts in medicine has meant to them. Students
may work on this at their own pace throughout the elective and should adhere to the following
guidelines:
• Begin by creating a word bank reflecting on what this elective has taught you. Consider values, feelings, skills, whatever words come to mind.
• Next, choose a word or a series of words from your word bank to be the focus of the actual deliverable.
• Finally, select a modality of your choice to bring your word(s) to life. Possibilities include but are not limited to a reflective essay or poem, a two- or three-dimensional art piece, a musical composition, performance art, etc.
• Write a reflection (300-500 words) that describes your process of creating your piece. The reflection should answer the following questions:
    - o How did you go about creating your piece?
    - o What materials/modality did you use and how did you choose them?
    - o Why did you select the words you chose to create your piece around?
    - o How did the project make you think and feel while you were engaged in a creative
    activity for the purpose of your own wellbeing?

o Did you learn anything new about yourself during the process of creating your deliverable?

Building a Mindful Practice – Intro to Mindfulness & Wellness
MDE 8012

The goals of this rotation is to provide medical students with the necessary skills and coping mechanisms to deal with the increasingly stressful circumstances that they will endure as they transition into residency and in future practice. These mechanisms will be focused on reflections, development of personal wellness, mindfulness, and stress-based reduction techniques that have been established in the literature as mindful-based stress-reduction (MSBR) techniques. Students will be expected to engage with the required material daily, in addition to any required daily exercises and reflections. Moreover, students will be expected to develop a longitudinal goal that will help develop their own personal wellness as well as proof of said development. Finally, students will submit a final reflection and compilation of their lived experience while going through the material, while highlighting the concepts and principles covered within the material.

Learning Objectives:

Patient care:

- The medical student is expected to provide patient care that is compassionate, appropriate, and effective for promoting health, prevention of illness, and treatment of disease.
- This elective does not possess direct patient-care

Medical Knowledge: The medical student is expected to demonstrate medical knowledge relevant to psychiatry, anatomy & physiology, neurology, as well as the application of this knowledge to patient care:

• Students will cover relevant material and are expected to relay principles of mindfulness and stress reduction techniques as it relates to anatomy and physiology concepts, concepts of autoregulation, homeostasis, and neuroregulation, and finally relevant concepts in neurology and psychiatry as it applies to stress and physiology.

Practice-Based Improvement: The medical student is expected to demonstrate the ability to investigate and evaluate their care of patients and continuously improve care based on constant self-evaluation and life-long learning.

• Students are expected to be able to identify, implement, and innovate with regards to stress-based techniques, mindfulness, and anxiety reduction as it relates to their own experiences, the experiences of their colleagues, and their patients. Students are

expected to know how to identify potential tools that can help in becoming more mindful or in allowing for reflective spaces. Students are also expected to build their empathy and compassion for themselves, colleagues, and patients who struggle with stress, anxiety, and other forms of mental wellness.

(cont.) **Interprofessional and Communication Skills:** The medical student is expected to demonstrate interpersonal and communication skills that effectively exchange information and collaboration with patients, their families, and health professionals.

- The student is expected to learn basic terminology as it pertains to mindfulness, wellness, and mental illness. Learners are expected to be able to communicate among colleagues and patients in a nonjudgmental but reflective manner to illicit feelings of reflection, vulnerability, and healing. Learners are expected to be able to communicate the importance of wellness and mindfulness in allowing individuals to live a fulfilling life as well as communicate their own emotional states, thoughts, and feelings.

Professionalism: The medical student is expected to demonstrate behaviors that reflect a commitment to continuous professional development, ethical practice, understanding and sensitivity to diversity, and a responsible attitude toward their patient, profession, and society.

- Learners are expected to develop patience, altruism, compassion, respect, openness, willingness to learn, and empathy with regards to themselves, colleagues, and patients especially as it pertains to their emotional well-being and mental health. Learners will become advocates for reducing physician burnout and will withhold personal stigmas with regards to mental health. Furthermore, learners will be sensitive and understanding of the diversity of lived experiences and will take care with regards to conversations between people with regards to their emotional states and vulnerabilites.

Systems-Based Practice: The medical student is expected to demonstrate an awareness of and responsiveness to the larger context of health care and the ability to call effectively on other resources in the system to provide optimal health care.

- The medical student is expected at the conclusion of the course to understand the importance of mindfulness and wellness within their daily life and be able to implement their learned skills within a variety of different context and practices. Moreover, the learner is expected to continue their independent study and practice of the MSBR techniques so that they can continue to combat feelings of physician burnout, stress, and anxiety that they may experience in their clinical practice.

Learning Activities: Specify the level of the student's clinical responsibilities, e.g., admissions, daily rounds, weekly conferences, case presentations, literature review, other projects: No clinical activities as this is not a patient-care elective. In regards to non-clinical activities students are expected to engage with the online material daily, to complete all of the required exercises in their entirety as well as the subsequent reflections, and to submit completed projects at the conclusion of the elective that comprises the concepts outlined within the course.

Required textbooks and articles: All materials will be provided by the instructor and will be drawn from the Georgetown Mindfulness Stress Based Reduction materials such as slidesets from their clinical faculty.

UCF College of Medicine

Extramural Clerkship
MDX 8011

Extramural electives offer students the opportunity to gain experience at LCME accredited medical schools and affiliated facilities. Arrangements for these electives are made between the student and the visiting institution. Students must obtain written administrative approval prior to registration.

Objectives:

- Have the student assume greater levels of responsibilities for the patient.
- Expand the student's skills and medical knowledge.
- Prepare the student for their residency.

UCF College of Medicine

Health Care for the Homeless
MDE 7107

Course description and goal of rotation: This experience would enable students to understand how the experience of homelessness impacts health and the ability to access health care, this experience would enable the student to participate in a program, which addresses these issues by utilizing a multidisciplinary approach to care. Blended learning experience comprised of working with interprofessional team including street outreach, peer navigators and case managers outside of the clinic setting, also working in the primary care clinic with both primary care and behavioral health providers. In addition, modules, podcasts and readings that pertain to health care for the homeless will be incorporated all in an attempt to allow the student to gain insight into the complex nature of those experiencing homelessness. Student will be responsible for presenting on homeless specific topic at the conclusion of the rotation. The student will encounter clinical conditions including various infectious diseases, chronic obstructive pulmonary disease, dermatologic diseases, cardiovascular disease and cancers. They will learn how social determinants greatly influence clinical outcomes and preventative care and gain an understanding of health disparities. The student will have the opportunity to work with an interprofessional team including behavioral health, clinical pharmacy, street outreach, case managers and peer specialists. The rotation will also incorporate trainings on motivational interviewing, trauma informed care and other webinars and podcasts addressing the nuances of health care for the homeless. The students will gain an understanding of how homelessness is a complex social problem having direct health implications. In addition, students will gain the knowledge and skills to advocate for available social, community and government resources.

Learning Objectives:

Patient Care:
The medical student is expected to provide patient care that is compassionate and will demonstrate the skills to evaluate the psychosocial components and stressors of a patient's illness. The students will understand the necessity of working with an interprofessional team to effectively address the patient's complex needs.

***Medical Knowledge*:** The medical student is expected to develop the skills and knowledge to recognize the most prevalent diseases in individuals experiencing homelessness and use the appropriate tools and resources to identify other comorbidities. The student will use evidence based approaches and adapted clinical guidelines to address various medical conditions.

***Practice Based Improvement*:** The medical student is expected to demonstrate the ability to investigate and evaluate the care of patients and to continuously improve care based on

(cont.) ongoing self and faculty evaluation. The student will use the resources available to address the socio-medical conditions and direct patients to the appropriate resources. In addition, they will identify barriers to care and devise patient centered strategies to enhance provider and patient satisfaction.

Interprofessional and Communication Skills: The medical student is expected to demonstrate communication skills that result in the effective exchange of information and collaboration. The students will regularly consult with behavioral health staff on issues that pertain to mental illness and substance use disorders. They will consult clinical pharmacy on chronic disease management strategies and advocate for housing working alongside peer support specialists, case management and the street outreach team.

Professionalism: The medical student is expected to demonstrate behaviors that reflect a commitment to continuous professional development, ethical practice.
The student will demonstrate compassion and respect towards patients many of whom have been victims of traumatic experiences and require a higher degree of sensitivity. The student will not impose their own personal belief systems on patients experiencing homelessness many of whom suffer from the stigma of severe mental illness and substance use disorders.

***Systems Based Practice*:** The medical student is expected to demonstrate an awareness of and responsiveness to the larger context of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care. The student will gain an understanding of the epidemiology of homelessness, recognizing it as a social problem with health implications. The students will also identify barriers to care including and understand the association of housing and health. Particularly as it relates to the management of chronic disease.

Learning Activities: Students will be in clinic one day a weeks and participate in clinical opportunities with behavioral health and clinical pharmacy. The student may also interface with case managers and peer navigators and work with the street outreach team when opportunities are available.

Required textbooks and articles: See attachment.

How will the student's performance be assessed? How/When will formative feedback be given? The medical student will be evaluated by his/her engagement in the entire learning opportunity including presentations, preparedness for clinic, and participation in educational conferences. Formative feedback for continuous improvement will be given throughout the rotation.
Summative Evaluation: A final written evaluation will be provided at the end of the rotation. All evaluations will be completed electronically via an online evaluation system.

UCF College of Medicine

Family Planning, Abortion, and Gynecological Care
MDE 7194

Course description and goal of rotation: Planned Parenthood provides women and men with all aspects of family planning, gynecology, STI evaluation and treatment, pregnancy testing and option counseling and abortion care. Students will have an opportunity to work with the medical director, other physicians, and nurse practitioners, as well as observe ultrasonography, abortion counselling, and other staff. There will be a weekly case discussion/high risk/didactic portion with Dr. Baill. Planned Parenthood health centers provide well-person care, STI screening and treatment, abortion and miscarriage management services, cervical cancer screening, gender affirming hormone therapy, pre-exposure prophylaxis for HIV infection, and all types of contraception including vasectomy. Physicians and nurse practitioners will partner with students to carry out clinical activities. Students will gain proficiency diagnosing and treating common gynecologic concerns and observe outpatient procedures including IUD placement, endometrial biopsies, colposcopies, no scalpel vasectomies and pregnancy counseling and termination. Students will become proficient in speculum exams, breast exams, and other aspects of the routine gynecological physical examination. There will be a half day didactic/case presentation/discussion with Dr. Baill. Online ultrasound and counseling courses, as well as texts and articles will be included as applicable to clinical experiences.

Learning Objectives:

Patient Care:
The medical student is expected to provide patient care that is compassionate, appropriate, and effective for the promotion of health, prevention of illness, and treatment of disease.
Patient care is in an outpatient setting including office procedures and basic lab facilities. Most of our patients are young women seeking family planning, cancer screening and GYN care including pregnancy termination. Menopausal health care, male contraception including no scalpel vasectomy and STI evaluation of both sexes are regular aspects of clinic care. Patients are from across the socioeconomic spectrum and many are attracted to Planned Parenthood because of its inclusivity and sensitivity to the LGBTQ community. There are opportunities to utilize medical Spanish skills.

Medical Knowledge: The medical student is expected to demonstrate medical knowledge as well as the application of this knowledge to patient care. The student will develop knowledge in the following areas: Contraceptive options, STI evaluation and treatment per CDC Guidelines, medical and surgical abortion care and counseling, cervical cancer screening and evaluation and treatment of common gynecological conditions including outpatient procedures and testing.

Practice Based Improvement: The medical student is expected to demonstrate the ability to investigate and evaluate his/her care of patients and to continuously improve care based on ongoing self-evaluation.
Patient care at Planned Parenthood is evidence based. Protocols are updated annually and as needed when breakthroughs occur. Students will be provided access to protocols, training opportunities and will be directed to key articles and reviews. We anticipate four full days of clinical experience, reading ***(cont.)*** learning assignments to be completed outside of clinical time and a half day didactic session for

practice, discussions, presentations and evaluation. One provider will oversee all didactic sessions to assess student progress (Dr. Baill).

Interprofessional and Communication Skills: The medical student is expected to demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals. Students will provide effective and professional consultation with the healthcare team, effectively develop and document patient histories, physical exams, assessments and plan of care. And communicate compassionately and clearly with patients, their loved ones and family as indicated with attention to confidentiality, and sensitivity to potential legal ramifications.

Professionalism: The medical student is expected to demonstrate behaviors that reflect a commitment to continuous professional development, ethical practice, understanding and sensitivity to diversity and a responsible attitude toward their patients, their profession, and society.
Respect, altruism, compassion and integrity are all aspects of professionalism valued at Planned Parenthood. Each of us individually and collectively benefits from identifying areas for improvement in personal performance and peer interaction.

***Systems Based Practice*:** The medical student is expected to demonstrate an awareness of and responsiveness to the larger context of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.

Learning Activities: Students will attend general family planning clinics as well as dedicated clinics for medical abortion, surgical abortion, and no scalpel vasectomy. Menopause services, male services, STI evaluation and treatment, gender affirming hormone therapy, cancer screening and common gynecological
complaints are the typical presenting patient concerns. Clinics are held between 9A -5PM M-W, F or 10A-7P Th. Specific clinic hours may vary within those hours (begin later, end earlier) at various sites (East Orlando, Kissimmee).

Required textbooks and articles: Planned Parenthood protocols will be provided to our students. Dr. Baill will select relevant articles for didactic portion and discuss with students in a weekly conference for four hours (TBA) Fridays. The Friday conference will include student case presentations and literature review of relevant topics.

How will the student's performance be assessed? How/when will formative feedback be given? The medical student will be evaluated by his/her engagement in the entire learning opportunity including presentations, preparedness for clinic, and participation in educational conferences. Formative feedback for continuous improvement will be given throughout the rotation.

Summative Evaluation: A final written evaluation will be provided at the end of the rotation. All valuations will be completed electronically via an online evaluation system.

UCF College of Medicine

Rheumatology Outpatient
MDE 7310

Course description and goals of rotation*:* This 4-week M3 elective introduces the medical student to the field of Rheumatology. The rotation provides clinical experience in the assessment and treatment of outpatients with a variety of Rheumatology disorders. The rotation is hands-on and illustrates the role of the provider of Rheumatology in the clinical setting. During the rotation, students will be assigned to an individual faculty mentor to guide them and be responsible for their daily clinical activities. By the end of the rotation it is expected that medical students will have developed a knowledge base and clinical skills allowing them to identify and manage common concerns. The student is expected to complete and EBM project during the rotation to present to the team.

Learning Objectives:

Patient Care:
The medical student is expected to provide patient care that is compassionate, appropriate, and effective for the promotion of health, prevention of illness, and treatment of disease.

Medical Knowledge: The medical student is expected to demonstrate medical knowledge as well as the application of this knowledge to patient care. The student will develop knowledge in the following areas: The common types of disorders presenting in the outpatient settings of Rheumatology.

Practice Based Improvement: The medical student is expected to demonstrate the ability to investigate and evaluate their care of patients and to continuously improve care based on ongoing self-evaluation and life-long learning.

Interprofessional and Communication Skills: The medical student is expected to demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals.

Professionalism: The medical student is expected to demonstrate behaviors that reflect a commitment to continuous professional development, ethical practice, understanding and sensitivity to diversity and a responsible attitude toward their patients, their profession, and society.

Systems Based Practice: The medical student is expected to demonstrate an awareness of and responsiveness to the larger context of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.

Learning Activities: Students will participate in daily outpatient assessment and treatment of patients with a wide of Rheumatology disorder. Student will prepare a literature review on a specialty topic and give a brief presentation.

Required textbooks and articles: Use will be made of the extensive only Rheumatology resources in the UCF Health Sciences Library.

(cont.)

How will the student's performance be assessed? How/when will formative feedback be given? The medical student will be evaluated by his/her engagement in the entire learning opportunity including presentations, preparedness for clinic, and participation in educational conferences. Formative feedback for continuous improvement will be given throughout the rotation.

Summative Evaluation: A final written evaluation will be provided at the end of the rotation. All evaluations will be completed electronically via an online evaluation system.

UCF College of Medicine

Interventional Physiatry
MDE 7580

Course description and goal of rotation: There is a growing interest for Physical Medicine and Rehabilitation and there is a lack of exposure in the core third year. This rotation would focus on musculoskeletal medicine along with interventional joint and spine based procedures to help patients with chronic pain. Goal of the rotation would be to learn clinical and radiographic anatomy and to encompass strong physical examination skills to develop a differential diagnosis. Will educate patient regarding fluoroscopic guided injections.

Learning Objectives:

Patient Care:

The medical student is expected to provide patient care that is compassionate, appropriate, and effective for the promotion of health, prevention of illness, and treatment of disease.

Medical Knowledge*:* The medical student is expected to demonstrate medical knowledge as well as the application of this knowledge to patient care. The student will develop knowledge in the following areas: Musculoskeletal examination. Reviewing spine and joint anatomy on X-ray, CT and MRI. Will review how to correlate spine and nerve anatomy with interventional based procedures.

Practice Based Improvement: The medical student is expected to demonstrate the ability to investigate and evaluate their care of patients and to continuously improve care based on ongoing self-evaluation and life-long learning. Develop a rapport with patients who suffer from chronic pain.

Interprofessional and Communication Skills*:* The medical student is expected to demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals: Demonstrate respect, compassion, integrity and altruism in relationship with patients, families and colleagues, demonstrate respect for religious beliefs, adhere to principles of confidentiality, recognize and identify areas of improvement in personal and in peer performance.

Professionalism: The medical student is expected to demonstrate behaviors that reflect a commitment to continuous professional development, ethical practice, understanding and sensitivity to diversity and a responsible attitude toward their patients, their profession, and society.

Systems Based Practice: The medical student is expected to demonstrate an awareness of and responsiveness to the larger context of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care. Learn to implement time management skills in order maintain and run a clinic.

Learning Activities:

1. Journal clubs
2. Follow up and new patient visit intakes
3. Case presentations

(cont.)

Required textbooks and articles: Rathmell – Interventional Pain

How will the student's performance be assessed? How/when will formative feedback be given? The medical student will be evaluated by his/her engagement in the entire learning opportunity including presentations, preparedness for clinic, and participation in educational conference. Formative feedback for continuous improvement will be given throughout the rotation.

Summative Evaluation: A final written evaluation will be provided at the end of the rotation. All evaluations will be completed electronically via an online evaluation system.

UCF College of Medicine

Emergency Medicine
MDE 7716

Course description and goal of rotation: This elective rotation will give students interested in pursuing a career in Emergency Medicine an excellent exposure to the breadth of this specialty's clinical practice. This elective rotation will give students interested in pursuing a career in Emergency Medicine an excellent exposure to the breadth of emergency clinical practice. The rotation will include a thorough introductory clinical orientation, clinical skills procedure lab and Emergency Ultrasound workshop. Students will complete 12 clinical shifts: 10 shifts in the adult ED and 2 in pediatric emergency medicine.

Learning Objectives:
Patient Care:
The medical student is expected to provide patient care that is compassionate, appropriate, and effective for the promotion of health, prevention of illness, and treatment of disease.

Medical Knowledge: The medical student is expected to demonstrate medical knowledge as well as the application of this knowledge to patient care. The student will develop knowledge in the following areas:

- Differential diagnosis for emergent conditions
- Assessment and management of critical, acute and subacute medical conditions
- Emergency medicine procedures

Practice Based Improvement: The medical student is expected to demonstrate the ability to investigate and evaluate their care of patients and to continuously improve care based on ongoing self-evaluation and life-long learning.
Daily faculty/resident evaluation and feedback will further allow the student to identify areas of strength and for improvement.

Interprofessional and Communication Skills: The medical student is expected to demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals.

Professionalism: The medical student is expected to demonstrate behaviors that reflect a commitment to continuous professional development, ethical practice, understanding and sensitivity to diversity and a responsible attitude toward their patients, their profession, and society.

Systems Based Practice: The medical student is expected to demonstrate an awareness of and responsiveness to the larger context of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.

Learning Activities:
1. Orientation/Clinical Synthesis shift
2. 11 Shifts
3. 6-8 patient evaluations/shift

(cont.)
4. Medical student didactics: Ultrasound, procedure workshop, simulation

5. Morning report presentation

Required textbooks and articles: Frist Aid for Emergency Medicine. Tintanelli's.

How will the student's performance be assessed? How/when will formative feedback be given? The medical student will be evaluated by his/her engagement in the entire learning opportunity including presentations, preparedness for clinic, and participation in educational conference. Formative feedback for continuous improvement will be given throughout the rotation.

Summative Evaluation: A final written evaluation will be provided at the end of the rotation. All evaluations will be completed electronically via an online evaluation system.

UCF College of Medicine

Understanding Psychopharmacology
MDE 7850

Course description and goal of rotation: Advanced understanding of the diagnosis and treatment of mental health and substance abuse disorders. Please see company website, WWW.LSBC.NET for details of organization and services provided. This rotation is to dig deeper into the treatment of severe, chronic mental illness including current practice as well as ongoing clinical trials. Students will be exposed to both inpatient and outpatient services provided in a community mental health center. Students must have a professed desire to work in mental health.

Learning Objectives:

Patient care:

The medical student is expected to provide patient care that is compassionate, appropriate, and effective for the promotion of health, prevention of illness, and treatment of disease.
Students will have direct patient care, but since we utilize an electronic medical record, documentation will be demonstrated. Students will be given both formal and informal lectures on psychopharmacology will rounding at both inpatient and outpatient facilities.

Medical Knowledge: The medical student is expected to demonstrate medical knowledge as well as the application of this knowledge to patient care. The student will develop knowledge of the common types of disorders presenting in the outpatient and inpatient settings of Psychiatry.

Practice Based Improvement: The medical student is expected to demonstrate the ability to investigate and evaluate their care of patients and to continuously improve care based on ongoing self-evaluation and life-long learning.
Board style lectures and review questions will be given weekly with specific and directed critical readings.

Interprofessional and Communication Skills: The medical student is expected to demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals. Students will gain interviewing skills as well as attend interdisciplinary treatment team meetings to foster competence and communication with peers specialists, nurses, and behavioral technicians.

Professionalism: The medical student is expected to demonstrate behaviors that reflect a commitment to continuous professional development, ethical practice, understanding and sensitivity to diversity and a responsible attitude toward their patients, their profession, and society. Cultural differences persist in psychiatric understanding/acceptance. This rotation will assist with cultural diversity.

Systems Based Practice: The medical student is expected to demonstrate an awareness of and responsiveness to the larger context of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.

(cont.)

Learning Activities:

- Daily rounds and direct patient care, Monday through Friday with no on-call or night calls.
- Weekend rounds are optional and will be discussed upon initial acceptance.

Required textbooks and articles: Use will be made of the extensive only Psychiatry resources in the UCF COM Health Sciences Library, including Psychiatry On Line.

How will the student's performance be assessed? How/when will formative feedback be given? The medical student will be evaluated by his/her engagement in the entire learning opportunity including presentations, preparedness for clinic, and participation in educational conference. Formative feedback for continuous improvement will be given throughout the rotation.

Summative Evaluation: A final written evaluation will be provided at the end of the rotation. All evaluations will be completed electronically via an online evaluation system.

UCF College of Medicine

Intensive Clinic Medicine
MDE 7941

Course description and goal of rotation: The student will encounter the most common medical conditions typically seen in inpatient and outpatient Internal Medicine and learn how to assess, develop a differential diagnosis, and treatment plan for these patients. The student will assess patients and present cases to the supervising attending physician as part of daily clinical activities. This rotation is hands-on, and by the end of the rotation, the student will be more proficient in evaluating and planning treatment for common clinical conditions seen in Internal Medicine. The student is expected to utilize the professional literature to prepare a review on a specialty topic and give a brief presentation.

Learning Objectives:
Patient care: The medical student is expected to provide patient care that is compassionate, appropriate, and effective for the promotion of health, prevention of illness, and treatment of disease.

Medical Knowledge: The medical student is expected to demonstrate medical knowledge as well as the application of this knowledge to patient care. The student will develop knowledge of the common types of disorders presenting in the outpatient and inpatient settings of Internal Medicine.

Practice Based Improvement: The medical student is expected to demonstrate the ability to investigate and evaluate their care of patients and to continuously improve care based on ongoing self-evaluation and life-long learning.

Interprofessional and Communication Skills: The medical student is expected to demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals.

Professionalism: The medical student is expected to demonstrate behaviors that reflect a commitment to continuous professional development, ethical practice, understanding and sensitivity to diversity and a responsible attitude toward their patients, their profession, and society.

Systems Based Practice: The medical student is expected to demonstrate an awareness of and responsiveness to the larger context of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.

Learning Activities: Students will participate in the daily assessment and treatment of both inpatients and outpatients under supervision of the attending physician. Students will also prepare a literature review on a specialty topic and give a brief presentation.

Required textbooks and articles: Use will be made of the extensive online Internal Medicine resources in the UCF COM Health Sciences Library

How will the student's performance be assessed? How/when will formative feedback be given?
Personal feedback at end of every day.
(cont.)

Summative Evaluation: A final written evaluation will be provided at the end of the rotation. All evaluations will be completed electronically via an online evaluation system. We can fill a standard form provided by the university.

UCF College of Medicine

Clinical Hematology and Medical Oncology
MDE 8280

Course description and goal of rotation: Rotation in outpatient setting, community oncology practice, tumor board weekly, patients with different types of malignancies and blood disorders, some patients are enrolled in clinical trials. Student will have the opportunity to take history and perform physical examination, will walk through differential diagnosis, will be asked to prepare brief presentations about certain topics related to diseases in patients who were seen in the office by the student, the student will also review peripheral smears when applicable, will have the chance to observe bone marrow biopsies and will have the opportunity to work with the research coordinators.

Learning Objectives:

Patient Care:

The medical student is expected to provide patient care that is compassionate, appropriate, and effective for the promotion of health, prevention of illness, and treatment of disease.

***Medical Knowledge*:** The medical student is expected to demonstrate medical knowledge as well as the application of this knowledge to patient care. The student will develop knowledge in the following areas: General hematology and oncology, new oncologic therapeutics, molecular genomics and role in cancer treatment.

***Practice Based Improvement*:** The medical student is expected to demonstrate the ability to investigate and evaluate their care of patients and to continuously improve care based on ongoing self-evaluation and life-long learning.

Student will have the opportunity to take history and perform exam under supervision, will present the case and will be assessed and directed towards area that need improvement in those skills, then discussion of the case will follow. There will be assignment and tasks for the student to prepare mainly to strengthen areas of weakness.

Interprofessional and Communication Skills: The medical student is expected to demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals.

Student will have the opportunity to interact with patient's family, staff and of course the patient, will also observe visits where treatment plans and decisions are made, will also see firsthand multidisciplinary approach since there will be interaction with radiation oncology.

Professionalism: The medical student is expected to demonstrate behaviors that reflect a commitment to continuous professional development, ethical practice, understanding and sensitivity to diversity and a responsible attitude toward their patients, their profession, and society.

Student will demonstrate respect to the patients and their families, the staff, no judgment and to focus on patient care regardless so the patients' belief religious or political.

***(cont.) Systems Based Practice*:** The medical student is expected to demonstrate an awareness of and responsiveness to the larger context of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.

Student will have the opportunity to interact in tumor board and outside tumor board with other specialties, (radiation oncology, pathology, radiology, surgery).

Learning Activities: Student will work in an office setting, will obtain history and perform physical examination, interpret lab tests and radiological tests, and will come with differential diagnosis.

Required textbooks and articles: none for now.

How will the student's performance be assessed? How/when will formative feedback be given? The medical student will be evaluated by his/her engagement in the entire learning opportunity including presentations, preparedness for clinic, and participation in educational conference. Formative feedback for continuous improvement will be given throughout the rotation.

Summative Evaluation: A final written evaluation will be provided at the end of the rotation. All evaluations will be completed electronically via an online evaluation system.

UCF College of Medicine

Dermatology
MDE 7257

Course description and goals of rotation: Student will learn to assess & develop a differential diagnosis and treatment plan for common conditions seen in inpatient and outpatient Dermatology. This rotation is hands-on & by the end of the rotation, the student will have a greater proficiency in evaluation and treatment of dermatologic conditions.

Learning Objectives:

Patient Care:

The medical student is expected to provide patient care that is compassionate, appropriate, and effective for the promotion of health, prevention of illness, and treatment of disease.

Medical Knowledge: The medical student is expected to demonstrate medical knowledge as well as the application of this knowledge to patient care. The student will develop knowledge in the following areas: Common types of disorders presenting in the inpatient and outpatient settings of Dermatology.

Practice Based Improvement: The medical student is expected to demonstrate the ability to investigate and evaluate their care of patients and to continuously improve care based on ongoing self-evaluation and life-long learning.

Interprofessional and Communication Skills: The medical student is expected to demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals.

Professionalism: The medical student is expected to demonstrate behaviors that reflect a commitment to continuous professional development, ethical practice, understanding and sensitivity to diversity and a responsible attitude toward their patients, their profession, and society.

Systems Based Practice: The medical student is expected to demonstrate an awareness of and responsiveness to the larger context of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.

Learning Activities:

1. The student will actively participate in the daily clinical assessment & treatment of inpatients and outpatients under supervision.
2. The student will prepare a literature review on a Dermatology topic and give a brief presentation.

Required textbooks and articles: Use will be made of the extensive online Dermatology resources in the UCF COM Health Sciences Library.

How will the student's performance be assessed? The medical student will be evaluated by his/her engagement in the entire learning opportunity including presentations, preparedness for clinic, and **(cont.)** participation in educational conferences. Formative feedback for continuous improvement will be given throughout the rotation.

Summative Evaluation: A final written evaluation will be provided at the end of the rotation. All evaluations will be completed electronically via an online evaluation system.

UCF College of Medicine

Anesthesiology
MDE 7703

Course description and goal of rotation: To teach basics of anesthesiology, clinical & technical skills, professional attitudes so that Students may gain exposure and proficiency to transition into a residency program. This is a 4-week rotation designed for 3rd and 4th year medical students.
During this rotation, students will be supervised by an attending. Students will be exposed and expected to participate in all phases of patient care in the perioperative period for surgical cases and other procedural interventions requiring the involvement of anesthesiologists. During the four weeks the education focus will progress, each week with a PBLD discussed each week.

- ***Week one**:* focuses on basic airway management, patient assessment, the operating room setup, familiarization of the anesthesia machine and standard monitors, and the induction and intubation of patients.
- ***Week two:*** focuses on refining airway skills, preoperative patient evaluation, and administration of general anesthesia and monitored anesthesia care.
- ***Week three:*** focuses on the postoperative care and recovery from anesthesia and further refining airway skills, including managing difficult airways and utilization of advanced airway equipment.
- ***Week four:*** focuses on the synthesis of all phases of the perioperative period and the clinical application of the knowledge acquired.

Learning Objectives:
Patient care: The medical student is expected to provide patient care that is compassionate, appropriate, and effective for the promotion of health, prevention of illness, and treatment of disease. Students will be involved in administering anesthetic care for patients undergoing a wide variety of procedures in the operating room and other clinical sites. Students will participate in the basic management of the patient in all phases of the perioperative period. Students will be assigned cases where the surgical procedure and/or the patient's medical history are less complicated initially, as much as possible. As students gain experience, knowledge, and skills throughout the rotation the cases assigned will increase in complexity. The students should anticipate a broad exposure to patient types and procedures.

***Medical Knowledge**:* The medical student is expected to demonstrate medical knowledge as well as the application of this knowledge to patient care. The student will develop knowledge in the following areas:
Students will demonstrate knowledge of the following topics:
1. Definition of MAC
2. ASA physical status classification system
3. Rapid sequence induction/intubation
4. The ASA difficult airway algorithm
5 . Preoperative testing guidelines
6. Perioperative cardiac evaluation for patient's undergoing non-cardiac surgery
7. Laryngeal mask airway indications/contraindications
8. Regional neuraxial anesthesia

(cont.) 9. Doses, advantages, disadvantages, pharmacodynamic/kinetic properties of commonly used drugs, including, but not limited to: a. Induction agents: Propofol, Etomidate, Ketamine
b. Neuromuscular Blocking agents: Succinylcholine, Cisatracurium, Rocuronium, Vecuronium, Pancuronium
c. Opioid Analgesics: Fentanyl, Morphine, Hydromorphone, Meperidine
d. Vasopressors: Atropine, Ephedrine, Phenylephrine, Epinephrine, Vasopressin
e. Anti-hypertensive agents: Esmolol, Labetalol, Nicardipine
f. Common perioperative medications: Midazolam, Neostigmine, Glycopyrolate, Metoclopramide, Ranitidine, Ondansetron, Droperidol
10. Mallampati classification system
11. NPO guidelines
12. Compound A
13. Machine check
14. Circle system
15. ASA Standard Monitors and monitoring guidelines
16. Invasive blood pressure monitoring
17. Central venous pressure monitoring
18. Capnography
19. Twitch monitoring
20. Extubation criteria
21. Recognition and management of common perioperative events: Hypertension, Hypotension, Tachycardia, Bradycardia, Hypoxemia , Dysrhytlunias
22. Hemodynamic responses to intubation/extubation
23. Phase 1 and 2 blockade with Succinylcholine

Practice Based Medicine: The medical student is expected to demonstrate the ability to investigate and evaluate their care of patients and to continuously improve care based on ongoing self-evaluation and life-long learning.
Students must demonstrate the ability to update their knowledge base by locating, appraising, and assimilating scientific evidence as it pertains to the patients in the operating room. Online computer access will be available in the perioperative area, so that up-to-date evidence-based medical information can be readily accessed.

Interprofessional Communication Skills: The medical student is expected to demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals. Students will learn and demonstrate the ability to communicate needs efficiently, clearly, and professionally to the hospital and OR nursing staff. This includes not only verbal skills, but also written skills (including handwriting). Furthermore, students will learn and demonstrate the ability to clearly communicate with surgeons and faculty. Students will learn and demonstrate the proper methods of calling for help and activating emergency systems. Students will also become familiar and demonstrate communication skills essential to crisis management, such as closed-loop communication.

Professionalism: The medical student is expected to demonstrate behaviors that reflect a commitment to continuous professional development, ethical practice, understanding and sensitivity to diversity and a responsible attitude toward their patients, their profession, and society.
(cont.) Students will demonstrate the ability to interact professionally with the hospital and OR staff, including but not limited to nurses, surgeons, x-ray technicians, anesthesia technologists. Furthermore,

students will maintain a professional image at all times, inclusive of exhibiting ethical behavior, especially with respect to patients and their family members.

Systems Based Practice: The medical student is expected to demonstrate an awareness of and responsiveness to the larger context of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care. Students will learn an understanding of the economics of an anesthetic, including but not limited to the cost of equipment and medications, and how they relate to other specialties and the greater hospital budget. Safety/quality issues within the department, as well as hospital wide initiatives, will be introduced and discussed. Discussions in the OR will include:

1. Efficient navigation of the hospital system
2. Correct site/side verification techniques
3. Timing and administration of prophylactic antibiotics

Learning Activities: Student will be assigned daily to one Operating room. The assignment will be communicated one day in advance so that they student will review the surgical procedure and patients charts and formulate an anesthetic plan. The first case will start at 7 am. The student should arrive 30 minutes prior the first case to be able to discuss the anesthetic plan with the assigned preceptor and help to prepare the Operating room. The student will receive direct supervision from the Staff Anesthesiologist and actively participate in perioperative management with the Anesthesiology resident or CRNA.

Required textbooks and articles: Clinical Anesthesia Procedure of the Massachusetts General Hospital, Ninth Edition, Lippincott Williams & Wilkins.

How will the student's performance be assessed? How/when will formative feedback be given? The medical student will be evaluated by his/her engagement in the entire learning opportunity including presentations, preparedness for clinic, and participation in educational conference. Formative feedback for continuous improvement will be given throughout the rotation.

1. ***Patient Care:*** Assessment tools: Direct observation, and reported on post-rotation evaluation from Faculty Direct observation, and reported on post-rotation evaluation from multiple sources such as nursing and hospital staff.

2. ***Medical Knowledge:*** Assessment tools: Direct observation and reported on post-rotation evaluation from Faculty direct observation and reported on post-rotation evaluation from multiples sources such as nursing and hospital staff. Post-rotation exam to be included in education file.

3. ***Practice-Based Learning and Improvement*****:** assessment tools: Direct observation and reported on post-rotation evaluation from Faculty direct observation and reported on post-rotation evaluation from multiple sources such as nursing and hospital staff. Presentation and discussion of pertinent topics with faculty.

(cont.) 4. ***Interpersonal and Communication Skills*****:** Assessment tools: Direct observation and reported on post-rotation evaluation from Faculty direct observation and reported on post-rotation evaluation from multiple sources such as nursing and hospital staff. Presentations and discussions with faculty.

5. ***Professionalism*:** Assessment tools: Direct observation and reported on post-rotation evaluation from Faculty direct observation and reported on post-rotation evaluation from multiple sources such as nursing and hospital staff.

6. ***System-Based Practice:*** Assessment tools: Direct observation and reported in post-rotation evaluation from Faculty direct observation and reported on post-rotation evaluation from multiple sources such as nursing and hospital staff.

Summative Evaluation: A final written evaluation will be provided at the end of the rotation. All evaluations will be completed electronically via an online evaluation system.

UCF College of Medicine

Pain Management
MDE 7822

Course description and goal of rotation: Students will be able to understand different aspects of pain medicine and observe many procedures in interventional pain management. We will discuss basics of anatomy and pharmacology related to pain medicine. Most of the procedures are done at my office using both fluoroscopic guidance and ultrasound guidance. Some procedures are done at surgery centers for implantable pain devices and can be arranged for interested students. Students will learn and observe how we approach pain management patients, history and physical exam, orders and discussion of imaging studies, decision making process and indications for referrals to other specialists. For those who cannot get exposed to radiation (Fluoroscopy) as during pregnancy will have to notify us immediately. Students will learn basics of interventional pain management including definitions, conditions we manage, procedures we offer. They will receive assignments to prepare some presentations in regard to new aspects in the field. We have interdisciplinary approach toward pain patients including Medical, Physical therapy, Injections, diagnostic blocks and implantable devices. For more information about the practice students can visit our web site and interact with us www.orlandopai n andspine.com. I am working also on some research opportunities that might be available for some students.

Learning Objectives:

Patient Care:

The medical student is expected to provide patient care that is compassionate, appropriate, and effective for the promotion of health, prevention of illness, and treatment of disease.
Our patient's populations range from 18 years old to 104, the oldest at our practice. Pain management patients they need to be approached with kindness, and understanding to their clinical issues that include pain, depression anxiety and sleep disorders.

Medical Knowledge: The medical student is expected to demonstrate medical knowledge as well as the application of this knowledge to patient care. The student will develop knowledge in the following areas: Understanding of the importance of pain as fifth vital sign, basic concepts of chronic pain conditions. Mechanisms of chronic pain. Approach to chronic pain patient. How to prevent chronic pain and how to manage it. New concepts in pain management. Effect of pain on various aspects including sleep and phycology and how to manage.
Practice Based Improvement: The medical student is expected to demonstrate the ability to investigate and evaluate their care of patients and to continuously improve care based on ongoing self-evaluation and life-long learning.
Students will have the opportunity, after observing pain consults and grasping some basic knowledge, to diagnose some chronic pain conditions and suggest management approach.

Interprofessional and Communication Skills: The medical student is expected to demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals. They can demonstrate communication skills by interacting with some pain management patients and staff. They can communicate some information to staff and family members. They will have the opportunity to educate

(cont.) patients I regard to neuromodulator and intrathecal drug delivery as very effective methods in managing both physical and psychological aspects.

Professionalism: The medical student is expected to demonstrate behaviors that reflect a commitment to continuous professional development, ethical practice, understanding and sensitivity to diversity and a responsible attitude toward their patients, their profession, and society. Students will be evaluated in regard to how can they able to advance in communicating with staff, patients and family in respectful manner.
Systems Based Practice: The medical student is expected to demonstrate an awareness of and responsiveness to the larger context of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care. They will understand evidence-based approach in managing chronic pain patients. They will be expected to present some knew concepts in research and clinical pain medicine.

Learning Activities: Case presentations and literature review and possibility of helping with some future research projects.

Required textbooks and articles: No specific pain textbooks. Essentials of pain medicine by Benzon is a great simple resource. They can read first few chapters before the rotation for best results.

How will the student's performance be assessed? How/when will formative feedback be given? The medical student will be evaluated by his/her engagement in the entire learning opportunity including presentations, preparedness for clinic, and participation in educational conference. Formative feedback for continuous improvement will be given throughout the rotation. We can develop some questionnaire before and after the rotation to evaluate knowledge.

UCF College of Medicine

Clinical Medicine and the Business of Medicine
MDE 8032

Goals of the Rotation: Specify the anticipated clinical conditions the student will encounter and the clinical knowledge and examination and procedural skills the student will be expected to learn: This rotation is designed to provide medical students with insights into the specialty of Internal Medicine with a focus on the clinical approach to diagnosis and management and how this work translates to insurance reimbursement. This will expose the student to how the medical business works so they may better understand how their employer will calcuate their salary and /or how they will be paid for their work in private practice.

Patient care: Click the box to agree to the statement below.
The medical student is expected to provide patient care that is compassionate, appropriate, and effective for promoting health, prevention of illness, and treatment of disease.

Medical Knowledge: The medical student is expected to demonstrate medical knowledge relevant to , as well as the application of this knowledge to patient care:

- multi system clinical examination and formualtion of differential diagnosis by ruling in and ruling out based on clinical investigatory findings

Practice-Based Improvement: The medical student is expected to demonstrate the ability to investigate and evaluate their care of patients and continuously improve care based on constant self-evaluation and life-long learning.

Interprofessional and Communication Skills: The medical student is expected to demonstrate interpersonal and communication skills that effectively exchange information and collaboration with patients, their families, and health professionals.

Professionalism: The medical student is expected to demonstrate behaviors that reflect a commitment to continuous professional development, ethical practice, understanding and sensitivity to diversity, and a responsible attitude toward their patient, profession, and society.

Systems-Based Practice: The medical student is expected to demonstrate an awareness of and responsiveness to the larger context of health care and the ability to call effectively on other resources in the system to provide optimal health care.

Learning Activities: Specify the level of the student's clinical responsibilities: in hospital admissions, daily rounds, literature review, learning about blling and coding practices. Patient will potentially be assigned their own patient to follow up throught the course in order that they may take ownership of the case and follow it longitudinally (outpatient-> inpatient if applicable) as much as possible in order to reap the rewards of their own clinical judgment, diagnosis, and outcome.

(cont.)
Required textbooks:

Cecil Textbook of Medicine or Harrisons Textbook of Medicine or other clinical skills based practicum tome

How will the student's performance be assessed? (All M4 Electives and Acting Internships are P/F Grading):

How/when will formative feedback be given?: Click the box to agree to the statement below.
The medical student will be evaluated by their engagement in the entire learning opportunity, including presentations, preparedness for the clinic, and participation in educational conferences. There will be a formal feedback session at mid-term and at the end of the rotation. Feedback for continuous improvement will be provided throughout the rotation.
Other:

Summative evaluation: Click the box to agree to the statement below.
A final written evaluation will be provided at the end of the rotation. All evaluations will be completed electronically via an online evaluation system.
Other: Great opportunity to obtain a strong recommendation for residency since this is elective will focus on practical skills and autonomous management of patients while being supervised

UCF College of Medicine

Pediatric Ophthalmology/Special Topics in Peds Ophthalmology

MDE 8480

This elective will offer students an introductory clinical experience into the specialty of Pediatric Ophthalmology. Students will be able to reinforce ophthalmic examination skills they have acquired in P l as well as anatomic and pathologic knowledge acquired in ophthalmic and systemic disease during the first two years of medical school.

UCF College of Medicine

Neuro-Radiology Elective
MDE 8767

The focus of the elective is to provide students an intensive exposure to various modalities used in imaging the central nervous system, with a focus on MRI or CT. Students will gain experience interpreting results. No on call-duties and no weekend coverage.

Objectives:
1. Demonstrate competence in the selection of imaging tests to evaluate central nervous system structure and physiology; demonstrate familiarity with standards of care for patients undergoing neuro-imaging procedures; demonstrate basic skills in interpretation of common neuroimaging modalities.

UCF College of Medicine

Outpatient Pain Medicine and Neurology
MDE 8823

Goals of the rotation:

- Understand the CDC guidelines for safe opioid prescribing and how to implement them in clinical practice
- Remain up-to-date about changes in state and federal laws regarding controlled medications and recent measures being undertaken at the state and federal level to combat the opioid crisis
- Be able to assess a chronic pain patient including history, focused physical exam, and formulating an assessment and plan for conditions eluding lower back pain, neck pain, radiculopathy,knee/hip/shoulder pain, fibromyalgia.
- Develop an understanding of pharmacology and indications for non-opioid pain management options including NSAIDs, muscle relaxants, anti-epileptics, TCAs/antidepressants, topical ointment, physical therapy, cognitive behavioral therapy, etc.
- Understand injectable options for chronic pain including trigger point injections,
- cervical/thoracic/lumbar epidural injections, facet injections, sacroiliac joint injections, radiofrequency ablation, spinal cord stimulators, knee injections, hip and greater trochanteric bursa injections, shoulder injections, and others.
- Appreciate how to use an ultrasound probe and fluoroscopy machine to perform various interventional procedures

UCF College of Medicine

UCF in Peru: Public Health in the Andean Region
MDE 8951

Goals of the rotation: Students will gain knowledge and examination skills through observing faculty and residents. They will be able to observe the role of providers from various specialties in the clinical setting. By the end of the rotation, it is expected that the medical students will have developed a knowledge base and skills allowing them to identify and manage common public health concerns to spark and conceptualize research ideas. They are expected to attend morning reports, grand rounds, and learning sessions.

Learning Objectives:

Patient care:
☒The medical student is expected to provide patient care that is compassionate, appropriate, and effective for promoting health, prevention of illness, and treatment of disease.
☐Other: Click here to enter text.

Medical Knowledge: The medical student is expected to demonstrate medical knowledge relevant to various specialties, as well as the application of this knowledge to patient care:

- The student will obtain and develop medical knowledge in the following areas: recognizing signs and symptoms of disease and treatments, developing and presenting a treatment plan, improve visual diagnostic skills. Depending on attending availability, rotations will be done in pediatrics, family medicine, general surgery, anesthesiology, infectious disease, community health, neurology and internal medicine.

Practice-Based Improvement: The medical student is expected to demonstrate the ability to investigate and evaluate their care of patients and continuously improve care based on constant self-evaluation and life-long learning.

- Create strategies to improve learning, skills and process of care. Develop and maintain willingness to learn from errors. Demonstrate a knowledge of managing healthcare information.

Interprofessional and Communication Skills: The medical student is expected to demonstrate interpersonal and communication skills that effectively exchange information and collaboration with patients, their families, and health professionals.

- At the end of the election the student is expected to understand Peruvian healthcare systems and the flow of information from hospital admistration to providers that translates to patient care. They should also be able to effectively document patient history and plan of care. The student will demonstrate their understanding of strengths and weaknesses of the Peruvian health system by giving a power point "position" presentation at the end of the course. The (cont.) Position presentation can be developed into a full manuscript independently by the

student later, however, this is not a requirement. The required Position power presentation will identify a scientific gap (clinical, applied public health or research) and potential area(s) of research to address the identified gap(s). Some of these topic areas may be specific to the Peruvian context, however, some may be translatable to US settings, especially in Orlando, Florida where many immigrants from South America reside and were more than a third of the population are of Latine origin.

Professionalism: The medical student is expected to demonstrate behaviors that reflect a commitment to continuous professional development, ethical practice, understanding and sensitivity to diversity, and a responsible attitude toward their patient, profession, and society.

- Students are expected to demonstrate respect for Peruvian culture and customs. They should show compassion, integrity and professionalism with colleagues and patients, adhere to principles of confidentiality, recognize areas of improvement in personal and peer performance.

Systems-Based Practice: The medical student is expected to demonstrate an awareness of and responsiveness to the larger context of health care and the ability to call effectively on other resources in the system to provide optimal health care.

- Students should be able to utilize resources to provide optimal healthcare and apply evidence-based strategies and knowledge of global health systems to prevention, diagnosis and disease management.

Learning Activities: Specify the level of the student's clinical responsibilities, e.g., admissions, daily rounds, weekly conferences, case presentations, literature review, other projects: Students will observe and may participate in daily teaching rounds and patient appointments. Students will attend and partipcate in all lectures and other course sessions. Students will prepare a scientific presentation based on global healthcare systems at the end of the course which can later be developed into an abstract/paper for publication.

Required textbooks and articles: Articles: Ruger, J. P., & Kim, H. J. (2006). Global health inequalities: an international comparison. Journal of epidemiology and community health, 60(11), 928–936. https://doi.org/10.1136/jech.2005.041954,

How/when will formative feedback be given?: Click the box to agree to the statement below.

☒ The medical student will be evaluated by their engagement in the entire learning opportunity, including presentations, preparedness for the clinic, and participation in educational conferences. There will be a formal feedback session at mid-term and at the end of the rotation. Feedback for continuous improvement will be provided throughout the rotation.

Summative evaluation:

☒ A final written evaluation will be provided at the end of the rotation. All evaluations will be completed electronically via an online evaluation system.

UCF College of Medicine

Orthopedic Elective
MDE 8570

Students will work with surgeons 1:1 apprentice type experience for inpatient and outpatient orthopedic care to include sports medicine, spine surgery, and joint replacement surgery.

Goals of rotation:

Students will gain experience in a busy orthopedic practice that includes sports medicine, spine surgery, join preservation surgery, trauma and arthoscopy. Students will learn how to examine ortho patients, gather appropriate history, create a differential diagnosis, and start a management plan. Students will learn case presentation skills. Most importantly, students will learn communication with the medical team. Students will learn and practice surgical skills for ortho surgery. Students are expected to read about the next day cases and the presenting complaint, and be prepared to present to the attending next day. Students will rotate in an outpatient clinic and also perform surgery in an inpatient location. By the end of the rotation, students are expected to have advanced knowledge and skills in orthopedics, so that they will be ready to practice in day 1 of their residency in orthopedics

Learning Objectives:
Patient care: Click the box to agree to the statement below.
☒The medical student is expected to provide patient care that is compassionate, appropriate, and effective for promoting health, prevention of illness, and treatment of disease.

Medical Knowledge: The medical student is expected to demonstrate medical knowledge relevant to orhtopedics, as well as the application of this knowledge to patient care: Student will develop knowledge in the following areas: otrhotpedic physical exam, recognize signs and symptoms of the ortho related diseases, differential diagnosis and management plan.

Practice-Based Improvement: The medical student is expected to demonstrate the ability to investigate and evaluate their care of patients and continuously improve care based on constant self-evaluation and life-long learning.
Students will develop skills of learning from errors and continuously improve their practice with the assistance of the attending.

Interprofessional and Communication Skills: The medical student is expected to demonstrate interpersonal and communication skills that effectively exchange information and collaboration with patients, their families, and health professionals.
• (cont.) Students will learn how to communicate with the entire medical team for coordination of care of a patient with othro complaints.

Professionalism: The medical student is expected to demonstrate behaviors that reflect a commitment to continuous professional development, ethical practice, understanding and sensitivity to diversity, and a responsible attitude toward their patient, profession, and society.
• Student will demonstrate respect, intergrity and altruism in relationship with patients, families and collegues.

Systems-Based Practice: The medical student is expected to demonstrate an awareness of and responsiveness to the larger context of health care and the ability to call effectively on other resources in the system to provide optimal health care.
• Student will learn how to utilize resources specific to complex care of the patients with orthopedic complaints.

Learning Activities: Specify the level of the student's clinical responsibilities, e.g., admissions, daily rounds, weekly conferences, case presentations, literature review, other projects: Students will read about the case and the management of the case the day prior to surgery. Then they will present to the attending and discuss this further. For outpatient patients, students will care for the patients, and are expected to read about the particular presenting complaint, management and differential diagnosis encountered. Then, the reading will be discussed with the attending the next day.

Required textbooks and articles: provided by the attending

How will the student's performance be assessed? (All M4 Electives and Acting Internships are P/F Grading):

How/when will formative feedback be given?: Click the box to agree to the statement below.
☒ The medical student will be evaluated by their engagement in the entire learning opportunity, including presentations, preparedness for the clinic, and participation in educational conferences. There will be a formal feedback session at mid-term and at the end of the rotation. Feedback for continuous improvement will be provided throughout the rotation.

Summative evaluation: Click the box to agree to the statement below.
☒ A final written evaluation will be provided at the end of the rotation. All evaluations will be completed electronically via an online evaluation system

UCF College of Medicine

Pharmacovigilance and Adverse Drug Reaction Reporting
MDE 8365

95% of the course will be asynchronous with students completing modules and reading then at the end of the course, the student will meet the instructor to discuss the case and the adverse drug reaction report. The instructor will have predetermined regular office hours 1 h/ week where the students may work one to one.

For non-patient care rotations, describe the student's typical learning activities and responsibilities. The course materials (i.e. reading, watching videos) will be completed at the student`s own pace. However, the assignments must be submitted each week on a timely basis**.**

Describe the expected level of supervision of students by faculty and residents: ☐Direct Supervision ☐Indirect Supervision ☒The direct supervision will be given by the instructor during office hours via Zoom meetings.

Goals of the Rotation: Specify the anticipated clinical conditions the student will encounter and the clinical knowledge and examination and procedural skills the student will be expected to learn: This rotation is designed to provide medical students with insights into the specialty of **Pharmacology.**
•Drugs approved by the U.S. Food and Drug Administration (FDA) for sale in the United States must be safe and effective - which means that the benefits of the drug must be greater than the known risks. However, both prescription and over the counter (OTC) drugs have side effects. The adverse reactions are unwanted effects that are possibly related to the drug.
•Under-reporting of adverse reactions is a global problem. FDA's MedWatch is a program for reporting serious problems with human medical products including drugs. Both consumers and health professionals may use different forms to report. The quality of the report is a confounding factor for identifying the causality relationship between the drug and the adverse effect.
•This aim of the course is to help the students, as both consumers and health professionals, learn to identify the adverse reactions (based on their pharmacological knowledge) and report them to FDA via online forms.
•The students learn pharmacology throughout their clinical rotations. However, translating the theoretical knowledge into clinical practice is essential for good clinical practice. The cases in the course will serve as a basis for problem-based learning of patient safety. They aim to improve decision-making skill via critical thinking.
•The students who complete this course will have a global impact in health care by developing practical skills on the safe use of medicines.

Learning Objectives: Please group these under the following headings:
Patient care: Click the box to agree to the statement below.
☒The medical student is expected to provide patient care that is compassionate, appropriate, and effective for promoting health, prevention of illness, and treatment of disease.
☐Other: Click here to enter text.

(Cont.)

Medical Knowledge: The medical student is expected to demonstrate medical knowledge relevant to Pharmacology, as well as the application of this knowledge to patient care:
The students will earn medical knowledge on the following:

- History of pharmacovigilance (Thalidomide disaster…)
- Definitions (side effect vs adverse effect vs serious adverse effect vs adverse event)
- Signal Detection and Type A, B and C adverse drug reactions
- Assessment of adverse reaction causality by Naranjo Scale
- Post marketing drug surveillance policies, withdrawal from market
- National pharmacovigilance systems and FDA Med Watch, WHO-Int/ Europe Uppsala Monitoring Center
- Role of the health professionals in detecting and reporting adverse drug reaction (ADR)
- Components of a report and filling out the ADR reporting forms based on case studies.

Practice-Based Improvement: The medical student is expected to demonstrate the ability to investigate and evaluate their care of patients and continuously improve care based on constant self-evaluation and life-long learning.

- In addition to the medical knowledge mentioned above, the students will obtain practical knowledge on the side effects of the drugs. They are going to learn to identify the adverse event vs serious adverse event and how to manage them in the light of evidence-based medicine. The students will be using the pharmacological knowledge that they have previously learned and prepare an adverse drug reaction report form based on the patient's case. They will use their critical thinking skills based on the evidence given. Furthermore, to be valid, FDA reports require certain components. The students will learn to fill out the forms in the detail necessary to make them quality reports. The quality of the forms is as important as the number of reports per year.

Interprofessional and Communication Skills: The medical student is expected to demonstrate interpersonal and communication skills that effectively exchange information and collaboration with patients, their families, and health professionals.

- The students are expected to identify the adverse effects and report them via FDA forms. The forms require certain components to be written in such detail to ensure the overall quality of the forms. Therefore the aim of the course is not just the give the students the knowledge of the drug reaction, but also teaching effective communication of this reaction by means of filling out the form properly.

Professionalism: The medical student is expected to demonstrate behaviors that reflect a commitment to continuous professional development, ethical practice, understanding and sensitivity to diversity, and a responsible attitude toward their patient, profession, and society.

- The student will gain Adverse Drug Reaction Reporting skills with this course. They are expected to implement this skill in their clinical practice throughout their professional life. Increasing the number of adverse reaction records is important for recognizing adverse effects in the community. The quality of the forms is essential as well. It is anticipated that the students who have completed this course will be able to produce quality reports.

Systems-Based Practice: The medical student is expected to demonstrate an awareness of and responsiveness to the larger context of health care and the ability to call effectively on other resources in the system to provide optimal health care.

(Cont.)
• The student will practice case management within the scope of good clinical practice elements such as patient safety and pharmaceutical care. The management of the case requires that they use their systems-based knowledge and make decisions with evidence-based medicine guidelines.

Learning Activities: Specify the level of the student's clinical responsibilities, e.g., admissions, daily rounds, weekly conferences, case presentations, literature review, other projects: The students are required to read the literature, guidelines, and watch videos at their own pace. However, they need to do additional research to manage the patient cases assigned to them by the instructor. These cases will require that the students refer to pharmacology books, conduct research on drug interactions, evaluate patient's sociodemographic history, manage the case as a whole, and then fill out the FDA Adverse Drug Reaction Report and submit via Canvas.

Required textbooks and articles: All textbooks and articles for Elective and Acting Internship courses must be provided by the faculty member to the students.

No textbook is required. All the reading materials and cases are provided by the instructor.
The instructor Dr. Toklu is an internationally known expert in the field of pharmacovigilance and rational use of medicine. She has published 6 articles and 2 books on this topic. She has served on a number of education boards; and helped hospitals to establish pharmacovigilance systems.

The materials for the course include FDA Websites, WHO Guideline, PubMed articles and educational videos on Youtube.

- FDA MedWatch Adverse Drug Reaction Reporting Forms

https://www.fda.gov/safety/medical-product-safety-information/medwatch-forms-fda-safety-reporting

- FDA Adverse Drug Reactions Educational Websites

https://www.fda.gov/drugs/information-consumers-and-patients-drugs/finding-and-learning-about-side-effects-adverse-reactions

- World Health Organization Guidelines

https://www.who.int/publications/i/item/10665-42493
https://www.who.int/publications/i/item/9789241508254

- PubMed Articles on ○ Pharmacovigilance, Herbavigilance, Cosmetovigilance, Nutrivigilance

How will the student's performance be assessed? (All M4 Electives and Acting Internships are P/F Grading):
How/when will formative feedback be given?: Click the box to agree to the statement below.
☒ The medical student will be evaluated by their engagement in the entire learning opportunity, including presentations, preparedness for the clinic, and participation in educational conferences. There will be a formal feedback session at mid-term and at the end of the rotation. Feedback for continuous improvement will be provided throughout the rotation.

☒ Other: The students are required to complete the assignments on Canvas. A final grade will be earned as a result of the completion of the assignments. The instructor will give feedback for the assignments.

Summative evaluation: Click the box to agree to the statement below.

☒ A final written evaluation will be provided at the end of the rotation. All evaluations will be completed electronically via an online evaluation system.

☒ Other: The students are required to complete the assignments on Canvas. The final assignment is to fill out a "Adverse Drug Reaction Report" based on the given Patient Case. A final grade will be earned as a result of the completion of the assignments. The instructor will give feedback for the assignments.

UCF College of Medicine

Minimally Invasive Gynecological Surgery
MDE 8169

Students will acquire knowledge and skill focused on gynecologic surgical care. They will evaluate and manage patients with chronic pelvic pain, incontinence/prolapse, and benign gynecological conditions.

Goals of the Rotation: This rotation is designed to provide medical students with insights into the specialty of Minimally Invasive Gynecologic Surgery. The goal of the rotation is for the student to acquire knowledge and skills in ambulatory and minimally invasive gynecologic surgery in preparation to starting a residency in Obstetrics and Gynecology. The rotation has three specific aims : (1) to acquire/practice skills necessary for preoperative evaluation of patients undergoing gynecologic surgery (2) to demonstrate the ability to perform a hypothesis driven and evidence-based assessment and plan of patients with chronic pelvic pain in the outpatient setting(3) to present and document patient encounters in an ambulatory gynecology setting.

Learning Objectives: Please group these under the following headings:

Patient care: Click the box to agree to the statement below.

☒The medical student is expected to provide patient care that is compassionate, appropriate, and
effective for promoting health, prevention of illness, and treatment of disease.

- Completes a hypothesis driven comprehensive women's medical interview and perform an accurate physical examination
- Formulates and prioritizes evidence based differential diagnosis for patients
- Gathers and reports clinical information in preparation for surgery
- Demonstrates basic skills in positioning, draping, knot tying and suturing
- Demonstrates ability to find reputable, evidence-based information on contraception choices.

Medical Knowledge: The medical student is expected to demonstrate medical knowledge relevant to Gynecology, as well as the application of this knowledge to patient care:

- Identifies normal anatomy relevant to physical examination, imaging, and surgery
- Demonstrates knowledge of physiology of reproduction
- Applies knowledge to develop a basic differential diagnosis based on patient symptoms and history

Practice-Based Improvement: The medical student is expected to demonstrate the ability to investigate and evaluate their care of patients and continuously improve care based on constant self-evaluation and life-long learning.

- Demonstrates how to access and use available evidence
- Incorporates patient centered and trauma informed care
- Identifies gaps between expectations and actual performance

Interprofessional and Communication Skills: The medical student is expected to demonstrate interpersonal and communication skills that effectively exchange information and collaboration with patients, their families, and health professionals.

- Demonstrates respect and establishes rapport with patients and patients families
- Implements trauma informed care approach in patient communication
- Demonstrates basic understanding of the informed consent process
- Understands and respect the role and function of the interprofessional team members
- Accurately records information in the patient record
- Safeguards patient personal health information

Professionalism: The medical student is expected to demonstrate behaviors that reflect a commitment to continuous professional development, ethical practice, understanding and sensitivity to diversity, and a responsible attitude toward their patient, profession, and society.

- Identifies and describe potential triggers for professionalism lapses
- Demonstrates knowledge of ethical principles
- Takes responsibility for failure to complete responsibilities and identifies potential contributing factors
- Recognizes status of personal and professional well-being

Systems-Based Practice: The medical student is expected to demonstrate an awareness of and responsiveness to the larger context of health care and the ability to call effectively on other resources in the system to provide optimal health care.

- Demonstrates knowledge of patient safety
- Demonstrates knowledge of care coordination
- Demonstrates knowledge of health needs of the Veteran population
- Identifies key components of the complex health care system

Learning Activities: Specify the level of the student's clinical responsibilities, e.g., admissions, daily rounds, weekly conferences, case presentations, literature review, other projects: .

- Schedule
  - Monday-Friday from 0700 to 1730
  - Clinic: Monday and Wednesday
  - Operating Room: Tuesday, Thursday, Friday (student to arrive 0630 to evaluate the patient and be ready to discuss the treatment plan)
  - Preoperative Conference Wednesday afternoon.
- Outpatient/inpatient clinical experience
  - Gather history and perform physical examination of patients in the ambulator gynecology clinic under supervision of a faculty or fellow.
  - Evaluate gynecological and chronic pelvic pain patients in the outpatient clinic
  - Provide contraception counseling and gynecological preventive care
  - Perform, under supervision, preoperative and post operative assessment and coordination of care in the inpatient and outpatient setting
  - Write patient notes or H&P write ups of patient encounters
  - Collaborate with other health care team members in providing care
  - Participate in weekly preoperative conference case discussions
- Simulation

- Wednesday or Friday Afternoons
- Perform task on the laparoscopic task trainer and demonstrate specific procedural skills (Suturing and knot tying, etc.)

• Clinical presentation

- Prepare 1 presentation on a topic encountered in the clinical setting such as:

・ Ambulatory gynecology
・ Minimally invasive gynecologic surgery
・ Preoperative/postoperative care

Required textbooks and articles: All textbooks and articles for Elective and Acting Internship courses must be provided by the faculty member to the students.
ACOG Committee Opinions
ACOG Practice Bulletins
UpToDate
Lamvu et. al., Chronic Pelvic Pain in Women: A Review. JAMA.

How will the student's performance be assessed? (All M4 Electives and Acting Internships are P/F Grading):

How/when will formative feedback be given?: Click the box to agree to the statement below.

☒ Direct observation with feedback: The medical student will be observed and provided with specific feedback based on their performance in patient care, interpersonal and communication skills, professional behavior with patients and staff, ability to improve in response to feedback, and to work in a health professional team . Continuous, immediate feedback will be provided throughout the rotation in the context of all learning activities. There will be a formal feedback session at mid-term and at the end of the rotation.

Summative evaluation: Click the box to agree to the statement below.

☒ A final written evaluation with narrative comments of the overall student performance will be provided and discussed with the student at the end of the rotation. All evaluations will be completed electronically via an online evaluation system.

UCF College of Medicine

Pediatric Nutrition through the Special Supplemental Nutritional Program for Women, Infants, and Children (WIC): Discerning Partnerships Among Health Professionals and Communities

MDE 8434

Students participate in nutritional assessments of women and young children to provide screening, identify nutritional concerns, and gain foundational knowledge/skills related to childhood nutrition in collaboration with Orange County Department of Health WIC Services.

Goals of the Rotation: This rotation is designed to provide medical students with insights and foundational knowledge into the specialty of early childhood nutrition recognizing those aspects of maternal care which directly influence the newborn, infant, and child nutritional well-being through the 1000 Day Window of Opportunity.

- The Women, Infants, and Children (WIC) program is a federal assistance program in the United States that aims to provide nutrition education, healthy food, and support to low-income pregnant women, new mothers, and young children. The program is designed to address nutritional deficiencies, promote healthy eating habits, and improve overall health outcomes for this vulnerable population. It is the goal of this rotation for the medical student to actively participate in the nutritional assessment and education of WIC clients to enhance the students' understanding of healthy eating habits and the importance of proper nutrition during critical developmental stages such as pregnancy, lactation, infancy, and early childhood, and to provide anticipatory guidance to prevent nutrition related morbidity and mortality. Students will be assigned and supervised by WIC personnel in the client intake process at Orange County Department of Health WIC Services. Students will also complete self-directed learning assignments and independent learning activities to advance their knowledge in the area of early childhood nutrition

Learning Objectives: Please group these under the following headings:

Patient care: Click the box to agree to the statement below.

☒The medical student is expected to provide patient care that is compassionate, appropriate, and effective for promoting health, prevention of illness, and treatment of disease.

Medical Knowledge: The medical student is expected to demonstrate medical knowledge relevant to pediatric nutrition, as well as the application of this knowledge to patient care:

- Understand the physical growth, developmental skills, nutritional needs, and feeding patterns of early, middle, and late infancy and early childhood

- Identify common nutritional concerns, the nutritional screening and assessment process, and anticipatory guidance related to infant and early childhood nutrition and medical complications related to nutrition

• Understand how to interpret growth charts and identify signs of nutritional deficiencies or excesses.

• Identify Key Indicators of Nutrition Risk for Infants, Children, and Adolescents

• Describe the impact of food insecurity on children and families in Orange County, in Florida, and in the United states

• Describe the role of pediatric health care professionals in screening and identifying children at risk for food insecurity and in identifying and connecting families to needed community resources

• Identify Federal Nutrition Assistance Programs including target populations, funding sources, and services provided

Practice-Based Improvement: The medical student is expected to demonstrate the ability to investigate and evaluate their care of patients and continuously improve care based on constant self-evaluation and life-long learning.

• Identify Strategies for Health Professionals to Promote Healthy Eating Behaviors

Interprofessional and Communication Skills: The medical student is expected to demonstrate interpersonal and communication skills that effectively exchange information and collaboration with patients, their families, and health professionals.

• Encourage partnerships among health professionals, families, and communities to promote the nutrition status of infants, children, and adolescents.

Professionalism: The medical student is expected to demonstrate behaviors that reflect a commitment to continuous professional development, ethical practice, understanding and sensitivity to diversity, and a responsible attitude toward their patient, profession, and society.

• Use the knowledge of one's own role in different teams and settings and the roles of other health professionals to assess and address the healthcare needs of patients and populations

• Demonstrate respect, compassion, accountability, dependability, and integrity when interacting and communicating with patients, families, colleagues, and teams in high stress environments.

• Demonstrate respectful and empathetic interactions with diverse populations, regardless of the nature of the patient’s presenting problems, personal characteristics, or cultural background in various health care settings

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Systems-Based Practice: The medical student is expected to demonstrate an awareness of and responsiveness to the larger context of health care and the ability to call effectively on other resources in the system to provide optimal health care.

- Describe the roles of health professionals in delivering nutrition services within the community.
- Identify opportunities for coordination and collaboration between health professionals and the community a related to early childhood nutrition
- Identify Federal Nutrition Assistance Programs including the target population, who qualifies, funding agency, and service provided.
- Understand the health benefits of the WIC program in the State of Florida

Learning Activities: Specify the level of the student's clinical responsibilities, e.g., admissions, daily rounds, weekly conferences, case presentations, literature review, other projects: CLINICAL RESPONSIBILITIES: The student will participate in the intake and screening process of families through the WIC certification and recertification process at the Orange County Department of Health under the supervision of registered dieticians, physicians, public health providers. They will practice gathering a detailed dietary history in children and families from birth to 5 years of age. They will interpret growth curves, identify at risk patients, and provide anticipatory guidance to clients. The students will not have any documentation responsibilities and will not have access to the WIC electronic record. NON-CLINICAL ACTIVITIES: The student will complete The Florida Nutrition Training Guide Nutrition Education Series as an independent learning activity. This will include the basic module, infant module, child module, and breastfeeding module. The learner will attend the weekly Orange County Department of Health Epidemiology Team meeting every Tuesday. The student will independently explore areas related to childhood nutrition through weekly grocery shopping and label reading field trip and scavenger hunt, a baby feeding products hands on activity, completion of the SPENT poverty simulator. In addition, students will initiate their own self-directed learning and exploration of childhood nutrition, the history and regulatory issues related to implementation of the WIC program, growth curve interpretation scenarios, literature searches (related to the 1000 Day Window of Opportunity, The Ellyn Satter Institute…), participate in a lactation consultation…based on their own diagnosed needs and formulated goals.

Required textbooks and articles: All textbooks and articles for Elective and Acting Internship courses must be provided by the faculty member to the students.

- Kleinman RE and Greer FR, Pediatric Nutrition. American Academy of Pediatrics. https://ebookcentral-proquest-com.ezproxy.med.ucf.edu/lib/medlibucf-ebooks/reader.action?docID=5969511
- The Florida Nutrition Training Guide Nutrition Education Series PDF (provided to learner)
- Bright Futures Nutrition 3rd Edition Pocket Guide. https://downloads.aap.org/AAP/PDF/Bright%20Futures/BFNutrition3rdEdPocketGuide.pdf
- Raymond, J. L., & Morrow, K. (2023). Krause and Mahan's Food and the Nutrition Care Process, 16th edition. Elsevier. Available at WIC sites

- The Ellyn Satter Institute, https://www.ellynsatterinstitute.org/
- Electronic Code of Federal Regulations Title 7 Subtitle B Chapter II Subchapter A Part 246. https://www.ecfr.gov/current/title-7/subtitle-B/chapter-II/subchapter-A/part-246
- Florida Health/Programs and Services/WIC https://www.floridahealth.gov/programs-and-services/wic/index.html
- Sugar Shocker https://www.yumpu.com/en/document/read/25198827/sugar-shocker-pdf-capital-health

How/when will formative feedback be given?: Click the box to agree to the statement below.

☒ The medical student will be evaluated by their engagement in the entire learning opportunity, including presentations, preparedness for the clinic, and participation in educational conferences. There will be an informal feedback session at mid-term and at the end of the rotation. Feedback for continuous improvement will be provided throughout the rotation.

Summative evaluation: Click the box to agree to the statement below.

☒ A final written evaluation will be provided at the end of the rotation. All evaluations will be completed electronically via an online evaluation system.

UCF College of Medicine

Internal Medicine Hospitalist Clinical Rotation
MDE 8204

Brief Description: This is a clinical 4-week elective for students who want an additional experience in inpatient internal medicine as a hospitalist.

Goals of the rotation:

- Demonstrate patient-centered care with professionalism and empathy.
- Develop differential diagnoses and formulate evidence-based treatment plans for assigned patients.
- Conduct targeted research to address specific patient care inquiries, and effectively communicate findings to the attending hospitalist.
- Manage patients throughout their hospital stay, from admission to discharge. under the guidance of faculty members.
- Work a five-day week, actively participating in daily sign-outs and accepting transfers of overnight patients for ongoing care.
- Admit an average of one patient daily, with a maximum daily patient cap of five, ensuring thorough management and follow-up.
- Round with attending physicians on inpatient medical wards. refining oral presentation skills for both new patient evaluations and follow-up visits.
- Assist in performing bedside procedures as assigned, gaining hands-on procedural experience.
- Engage in interdisciplinary discussions with consultants and healthcare team members to optimize patient care strategies.

UCF College of Medicine

Artificial Intelligence (AI) in Healthcare: A New Frontier for Medical Students
MDE 80983

Brief Description (25 words maximum): This course offers graduate / medical students engaging lectures, interactive exercises, and real-world case studies to explore how diverse applications of AI are impacting the future of healthcare.

For non-patient care rotations, describe the student's typical learning activities and responsibilities. In this course, students will be required to attend class weekly, to participate in interactive lectures, and to complete online activities in groups. Students will also be responsible for completing any assigned asynchronous reading and activities. Evaluation will be based on a final examination on all potential topics discussed in class.

Describe the expected level of supervision of students by faculty and residents: ☒Direct Supervision ☒Indirect Supervision ☒Synchronous activities include weekly classroom meeting for interactive lectures and a hands-on practicum. Additional reading and assignments may be assigned asynchronously.

Goals of the Rotation: Specify the anticipated clinical conditions the student will encounter and the clinical knowledge and examination and procedural skills the student will be expected to learn:

This rotation is designed to provide medical students with insights into the reality of **Artificial Intelligence (AI)** in the medical field. Students will learn how AI can:

- Improve diagnostic accuracy through image analysis and medical record review
- Leverage patient data to personalize treatment plans
- Design drugs and predict individual responses to therapies
- Streamline workflows and administrative processes and improve patient access to care
- Support clinical decision-making by providing real-time insights and recommendations

Learning Objectives: Please group these under the following headings:

Patient care: Click the box to agree to the statement below.

☒The medical student is expected to provide patient care that is compassionate, appropriate, and effective for promoting health, prevention of illness, and treatment of disease.

☐Other: Click here to enter text.

Medical Knowledge: The medical student is expected to demonstrate medical knowledge relevant to Artificial Intelligence (AI), as well as the application of this knowledge to patient care:

By the end of this course, students will have a critical understanding of AI in healthcare and its potential impact on their future practice of medicine. Students will be able to:

• Identify and evaluate AI-powered tools and technologies most relevant to their field of interest

• Critically assess the ethical and medico-legal implications of AI in healthcare

• Effectively collaborate with AI systems to enhance diagnostic and therapeutic decision-making

• Contribute to the development of AI-driven workflows for improving healthcare delivery

12

Practice-Based Improvement: The medical student is expected to demonstrate the ability to investigate and evaluate their care of patients and continuously improve care based on constant self-evaluation and life-long learning.

• Identify areas for improvement and implement strategies to enhance learning, skills, and process of care

• Develop and maintain a willingness to learn from errors

• Demonstrate an ability to use AI and related methodologies to access and manage information, to support patient care decisions

Interprofessional and Communication Skills: The medical student is expected to demonstrate interpersonal and communication skills that effectively exchange information and collaboration with patients, their families, and health professionals.

• Provide effective and professional communication with other students and faculty

• Effectively document experience with AI and impressions of new technology

• Effectively communicate about AI any guest patients or lecturers

Professionalism: The medical student is expected to demonstrate behaviors that reflect a commitment

to continuous professional development, ethical practice, understanding and sensitivity to diversity, and a responsible attitude toward their patient, profession, and society.

• Demonstrate respect, compassion, integrity, and altruism in relationship with patients, families, and colleagues

• Demonstrate respect for religious beliefs

• Adhere to principles of confidentiality

• Recognize and identify areas of improvement in personal and in peer performance.

Systems-Based Practice: The medical student is expected to demonstrate an awareness of and responsiveness to the larger context of health care and the ability to call effectively on other resources in the system to provide optimal health care.

• Explore how AI resources may be leveraged to provide more optimal healthcare

• Recognize limitations and opportunities regarding the use of AI for individual patient care

• Apply evidence-based, cost-conscious AI strategies to prevention, diagnosis, and disease management.

• Understand how 'Responsible AI' can be ethically developed and medicolegal implications of its abuse

Learning Activities: Specify the level of the student's clinical responsibilities, e.g., admissions, daily rounds, weekly conferences, case presentations, literature review, other projects:

Students have no clinical responsibilities for this course. Students will be expected to attend weekly lectures/discussions that are intended to be interactive. At the end of every class, students will work together on various practicum and in small groups.

This course explores the rapidly evolving field of artificial intelligence (AI) in healthcare and its impact on the future of medical practice. Through lectures, discussions, and practical exercises, students will gain a comprehensive understanding of how AI is being used in various healthcare domains, its potential benefits, and challenges, including how it will shape their future careers as medical professionals. The course spans 4 weekly lectures, each with a specific theme and practical component. Following is a draft curriculum of specific learning activities with references suggested for further readings.

Week 1: Lecture: Introduction to AI in Healthcare

- What is AI and how does it work?

- The current state of AI in healthcare
- Ethical considerations of AI in healthcare
- Impact of AI on healthcare workforce

Readings:

- Artificial Intelligence in Healthcare: Past, Present and Future:

https://pubmed.ncbi.nlm.nih.gov/29507784/

- The Ethics of Artificial Intelligence in Healthcare:

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8826344/

Practicum:

- Practical session for prompt engineering with LLMs
- Assemble teams to research and present a case study on an existing AI application in healthcare.

Here are a few starting points:

o https://www.nejm.org/ai-in-medicine

o https://www.fda.gov/medical-devices/software-medical-device-samd/artificialintelligence-

and-machine-learning-aiml-enabled-medical-devices

Week 2: Lecture: AI for Diagnosis and Treatment

- AI-powered medical imaging analysis
- AI-driven clinical decision support systems
- Personalized medicine and AI
- Challenges and limitations of AI in diagnosis and treatment

Readings:

- Deep Learning for Medical Image Analysis:

http://www.ncbi.nlm.nih.gov/pmc/articles/pmc5479722/

- Clinical Decision Support Systems: Benefits, risks, and strategies for success:

http://www.ncbi.nlm.nih.gov/pmc/articles/pmc7005290/

- Opportunities and Challenges for ChatGPT and Large Language Models in Biomedicine and

Health: https://www.ncbi.nlm.nih.gov/pmc/articles/pmid/37904734/

Practicum: Apply AI to a real medical school teaching case

- Group exercise to use a Large Language Model (LLM) to work through a teaching case. Explore how it can assist with:
  - o Information retrieval and synthesis: Accessing relevant medical literature and summarizing key findings.
  - o Differential diagnosis generation: Assisting in generating and prioritizing potential diagnoses based on patient data.
  - o Treatment plan exploration: Analyzing various treatment options and potential outcomes.
- Individual Reflection: Critically evaluate the LLM's output, considering its strengths and limitations in a clinical setting.

Week 3: AI for Healthcare Operations and Management

- AI for electronic health record (EHR) analysis and data mining
- AI-powered chatbots and virtual assistants in healthcare
- Optimizing healthcare workflows with AI
- The role of AI in public health and disease surveillance

Readings:

- Artificial Intelligence for Electronic Health Records
- Chatbots and Virtual Assistants in Healthcare
- Optimizing Healthcare Workflows with Artificial Intelligence

Practicum:

- Interact with an AI-powered solution to address a specific challenge in healthcare operations or management. Students will be put “in the loop” to curate clinical data necessary for training, testing and validation of technology being developed.

Week 4: The Future of AI in Healthcare: Preparing for Your Career

- Emerging trends in AI healthcare
- The impact of AI on medical education and training
- Developing the skills needed for an AI-driven healthcare future
- Alternative Career opportunities in AI healthcare

Readings:

- Emerging Trends in Artificial Intelligence in Healthcare
- The Future of Medical Education in the Age of AI: https://pubmed.ncbi.nlm.nih.gov/29095704/
- Developing the Skills You Need for an AI-Driven Future

Practical Component:

Develop a personal action plan to prepare for your career in an AI-driven healthcare landscape. Feel

free to use LLMs and everything you have learned in this course to help complete this assignment.

Required textbooks and articles: All textbooks and articles for Elective and Acting Internship courses must be provided by the faculty member to the students.

• Personal devices to access digital materials are required (iPad, Mac, PC, etc.).

How/when will formative feedback be given?: Click the box to agree to the statement below.

☒ The medical student will be evaluated by their engagement in the entire learning opportunity, including presentations and participation in educational conferences. There will be a formal feedback session at the end of the rotation, and feedback for continuous improvement will be provided throughout the rotation.

☐ Other: Click here to enter information regarding how the student will receive formative feedback.

Summative evaluation: Click the box to agree to the statement below.

☒ A final written evaluation will be provided at the end of the rotation. All evaluations will be completed electronically via an online evaluation system.

☐ Other: Click here to enter information regarding how the student will receive a summative evaluation.

This course follows core policy statements for UCF courses:

The entire policy can be viewed at the following link: https://med.ucf.edu/media/2018/07/General-Syllabus-Information-for-All-MD-Modules-and-Clerkships-1.pdf

• Academic integrity statement including definition(s) of and consequences for academic misconduct

• Statement directing students needing accommodations to work with faculty and with Student Accessibility Services to ensure equal access to educational activities

• Statement regarding emergency procedures and campus safety, encouraging students to be aware of their surroundings and familiar with actions to take in various types of emergencies

• Statement regarding accommodations for active duty military students

UCF College of Medicine

Pediatric Neuroscience-Neurology Elective
MDE 8800

Brief Description: Understand function, evaluation and management of nervous system disorders, utilizing clinical localization, imaging correlates and functional neurology.

Goals of the rotation:

This rotation is designed to provide medical students with insights into the specialty of Pediatric Neurology.

• Learn neurological and developmental histories & exams, MRI and clinical correlation, observe EEGs

• Conditions: Epilepsy, Neuromuscular disorders, brain tumors, neuro-immunology including MS, brain trauma, malformation of brain, peripheral nervous system disorders, headache & migraine, developmental delay and autism

Learning Objectives:

☒The medical student is expected to provide patient care that is compassionate, appropriate, and effective for promoting health, prevention of illness, and treatment of disease.

Medical Knowledge:

The medical student is expected to demonstrate medical knowledge relevant to Pediatric Neurology, as well as the application of this knowledge to patient care:

• Learn types of brain imaging studies including MRI imaging parameters, CSF changes seen with neurological disorders including MS,

• Learn approaches to treating neurological disorders (including all listed above)

Practice-Based Improvement:

The medical student is expected to demonstrate the ability to investigate and evaluate their care of patients and continuously improve care based on constant self-evaluation and life-long learning.

• Learn from resident continuity clinic how neurological disorders evolve, apply neuro journal club and case conference learning to best practice and evidence based care in neurology. Have pointers to how and why neurological findings on exam are important and guide treatment.

Interprofessional and Communication Skills:

The medical student is expected to demonstrate interpersonal and communication skills that effectively exchange information and collaboration with patients, their families, and health professionals.

• Learn how consultation services help primary care providers as well as what neurological therapeutic plans mean and how they can be used to guide primary care providers practice

Professionalism: The medical student is expected to demonstrate behaviors that reflect a commitment to continuous professional development, ethical practice, understanding and sensitivity to diversity, and a responsible attitude toward their patient, profession, and society.

• Learn to be an advocate for patients and their families, learn challenges that disadvantaged patients experience and how to overcome them.

Systems-Based Practice:

The medical student is expected to demonstrate an awareness of and responsiveness to the larger context of health care and the ability to call effectively on other resources in the system to provide optimal health care.

• Learn how EMR can be effectively utilized to optimize neurological management and care, learn what and how to use consultation services.

Learning Activities:

Specify the level of the student's clinical responsibilities, e.g., admissions, daily rounds, weekly conferences, case presentations, literature review, other projects: Students actively participate in all in- and out-patient care. Resident rounds at 8am on in-pt service with students actively obtaining history and have their neuro-exam proctored. This care involves the Neuro-ICU, Neonatal ICU, Cardiac-CCU, Peds-ICU. Interact with neurosurgeons and pediatric hospitalists in care for pts. Participate on attending rounds at 10:30am and at 1pm. See pts in ER and in clinic. They will be asked to prepare lit review on specific disease entities seen and treated and present to the team their findings

UCF College of Medicine

Public Health with the Orange County Department of Health Elective
MDE 8102

Brief Description: 4-week elective rotation with the Public Health Clinical Services at the Florida Department of Health in Orange County. The student will spend time in clinical areas such as HIV, TB, and STI. The student will also have the opportunity to rotate with local Epidemiology staff to learn about surveillance, reportable diseases, and investigation of possible outbreaks.

Goals of the Rotation:

This rotation is designed to provide medical students with insights into the specialty of Public Health, Infectious Disease.

During this rotation, students will learn the outpatient management of tuberculosis, HIV, STI. They will work with the attending one-on -one to see patients that came in for management of acute and chronic conditions. They will examine patients, take a full comprehensive history, present to the attending, and discuss an assessment and plan. Students will discuss evidence based medicine concepts with the attending. The student will also have the opportunity to rotate with local Epidemiology staff to learn about surveillance, reportable diseases, and investigation of possible outbreaks.

• Sunshine Care Center is a Ryan White funded HIV Clinic:

*Students will learn of the Primary Care of people living with HIV.

*Rapid initiation Clinic-same day or recent HIV diagnosis linkage to care and ARV medications.

*Wellness Clinic provides annual history and physical updates, anal/cervical paps, referrals for Specialty providers and age specific screenings like mammograms, Colonoscopies, Anoscopies.

*HIV recommended vaccinations.

*HIV Part D Clinic management of ARV Medications in pregnant females with HIV.

• TB Clinic: Local Orange County TB Control Program:

*Student will learn about basic concepts on the clinical management of individuals with Tuberculosis, including diagnosis, Infection control, treatment of Latent TB and active TB cases.

*Student will have the opportunity to observe the daily Cases discussion and the interaction of the entire TB Team including the TB Control Physician, Disease

Intervention Specialist, TB Nurse Case Managers, and the provision of treatment by Direct Observe Therapy.

*Participate in contacts investigations discussions with TB Staff.

*Importance of TB Surveillance and reporting.

• STI and Prevention Clinic:

*Student will learn the basic concepts on the clinical management of people with STI's.

*Student will learn the about venereal disease screenings and treatment.

*Student will learn the basic of HIV Prevention with Pre-exposure prophylaxis.

• Epidemiology Department:

*Student will have the opportunity to rotate with the local Epidemiology staff and learn about surveillance, Reportable diseases, and Epidemiological investigations of possible community outbreaks.

If the student is interested in a broader Public Health experience. There are options to have time with other Departments like Environmental Health, Woman's Health-Family planning clinic, WIC Department and Refugee Health Clinic.

Learning Objectives:

Patient care:

☒The medical student is expected to provide patient care that is compassionate, appropriate, and effective for promoting health, prevention of illness, and treatment of disease.

Medical Knowledge: The medical student is expected to demonstrate medical knowledge relevant to Tuberculosis, as well as the application of this knowledge to patient care:

• Medical student will develop evidence-based health promotion and disease prevention plans for outpatient primary care visits

• Medical student will propose plans for the evaluation and management of patients with tuberculosis

Practice-Based Improvement: The medical student is expected to demonstrate the ability to investigate and evaluate their care of patients and continuously improve care based on constant self-evaluation and life-long learning.

• Medical student will perform a literature search to answer questions regarding current evidence for the prevention or management of an outpatient primary care presentation.

Interprofessional and Communication Skills: The medical student is expected to demonstrate interpersonal and communication skills that effectively exchange information and collaboration with patients, their families, and health professionals.

• Medical student will demonstrate competency in elicitation of history, physical examination and critical thinking skills in outpatient primary care.

• Medical student will document outpatient progress notes in a manner that includes appropriate data and reflects clinical decision-making process.

• Medical student will demonstrate sensitivity, respectfulness and inclusion of different cultural normative standards, socioeconomic background, gender, race/ethnicity and disabilities in clinical care

Professionalism: The medical student is expected to demonstrate behaviors that reflect a commitment to continuous professional development, ethical practice, understanding and sensitivity to diversity, and a responsible attitude toward their patient, profession, and society.

• Medical student will demonstrate professional behaviors towards peers, faculty, staff, health care team members, and patients, in all learning and clinical encounters with regards to reliability and responsibility, self- improvement and adaptability, upholding ethical principles, and commitment to scholarship.

Systems-Based Practice: The medical student is expected to demonstrate an awareness of and responsiveness to the larger context of health care and the ability to call effectively on other resources in the system to provide optimal health care.

• Medical students will discuss the role of team members, consultants and other key personnel in the care of the patient.

Learning Activities: Specify the level of the student's clinical responsibilities, e.g., admissions, daily rounds, weekly conferences, case presentations, literature review, other projects: Students will participate in the assessment and management of patients, with an emphasis on tuberculosis in outpatient office setting. Students will meet with their assigned preceptor at the beginning of the rotation and discuss student's current knowledge & skills and their specific learning goals, as well as expectations from the preceptor and appointment time for feedback and evidence-based discussions. Students are expected to perform history and physicals, develop assessment and plans, document encounters in the medical record section assigned to students, and present findings to the preceptor. Students will initially perform history and physicals under the supervision of the faculty. When faculty considers the student competent in these skills, student will perform history and physicals independently. Student will always be directly supervised by faculty when performing any office procedure. Students are expected to read evidence-based information about each of their patient's condition and present to the faculty for discussion. Faculty will supervise the student's active participation in clinical patient encounters with one-on-one instruction and periodic feedback (once a week.

UCF College of Medicine

Inpatient Gastroenterology & Hepatology Subspecialty Elective
MDE 8900 (Pending State Code)

Brief Description (25 words maximum): Each student actively participates in the evaluation of patients with a wide spectrum of gastroenterology and hepatology diseases. Students work in the hospital service with no night or weekend call. Students will learn more about common inpatient GI/Hepatic pathophysiology. Emphasis is placed on clinical gastroenterology and hepatology consultations, and endoscopic cases. Students will become acquainted with upper endoscopy, colonoscopy, EUS and ERCP.

Goals of the Rotation: This rotation is designed to provide medical students with insights into the specialty of **Gastroenterology and Hepatology with an Inpatient Focus.**

- The goals of the rotation include understanding common gastroenterology and hepatology pathophysiologic diseases that are commonly encountered in-hospital. Students will also understand the role of endoscopy in managing commonly encountered inpatient consultations.

The medical student is expected to demonstrate medical knowledge relevant to Gastroenterology and Hepatology, as well as the application of this knowledge to patient care:

- Recognize diagnosis and management of commonly encountered in-hospital GI and Hepatology cases.
- Understand the role of endoscopy.
- Interpret abdominal imaging: i.e. plain x-rays, fluoroscopy (barium) studies, ultrasound studies, computed tomography studies, magnetic resonance studies, and nuclear studies.

Practice-Based Improvement: The medical student is expected to demonstrate the ability to investigate and evaluate their care of patients and continuously improve care based on constant self-evaluation and life-long learning.

- Students will learn how to obtain a targeted history and physical examination in GI/Hepatology
- Students will learn how to synthesize important diagnostic testing and its involvement in the management of disease
- Students will learn how to formulate a differential diagnosis in GI/hepatology

Interprofessional and Communication Skills: The medical student is expected to demonstrate interpersonal and communication skills that effectively exchange information and collaboration with patients, their families, and health professionals.

- Communicate an interdisciplinary fashion with nurses, endoscopists, and primary inpatient teams

Professionalism: The medical student is expected to demonstrate behaviors that reflect a commitment to continuous professional development, ethical practice, understanding and sensitivity to diversity, and a responsible attitude toward their patient, profession, and society.

- Students will learn how to respect and interact with veterans

Systems-Based Practice: The medical student is expected to demonstrate an awareness of and responsiveness to the larger context of health care and the ability to call effectively on other resources in the system to provide optimal health care.

- Students will learn more about cost-effective management of inpatient care from a specialty perspective

Learning Activities: Specify the level of the student's clinical responsibilities, e.g., admissions, daily rounds, weekly conferences, case presentations, literature review, other projects: Students will participate in daily rounds. They will be required to attend Tuesday PM GI didactics. They will be expected to present teaching points to the team on a weekly basis.

Required textbooks and articles: All textbooks and articles for Elective and Acting Internship courses must be provided by the faculty member to the students. None

UCF College of Medicine

Foundations of Obesity Medicine: A Multidisciplinary Perspective
MDE 8900 (Pending State Code)

Brief Description: This virtual asynchronous elective in Obesity Medicine explores prevention, diagnosis, and management, emphasizing a multidisciplinary perspective through interactive modules, self-assessment, case studies, and reflective learning.

Goals of the Rotation: Specify the anticipated clinical conditions the student will encounter and the clinical knowledge and examination and procedural skills the student will be expected to learn: This rotation is designed to provide medical students with insights into the specialty of clinical medicine.

This self-directed online elective in Obesity Medicine equips students with the knowledge and skills in obesity medicine. Emphasizing a primary care perspective, the course also explores obesity-related comorbidities across various medical specialties. Through interactive modules, self-assessment exercises, and reflective activities, students will engage in independent learning to integrate evidence-based approaches into diverse clinical settings. The goals of this elective are to develop a comprehensive understanding of the pathophysiology, epidemiology, and clinical implications of obesity; gain proficiency in evidence-based strategies for its prevention, diagnosis, and treatment, including lifestyle interventions, pharmacotherapy, and surgical options; recognize the impact of obesity on various organ systems and its role in comorbid conditions across multiple specialties; enhance clinical decision-making skills through case-based learning and self-assessment exercises; and reflect on personal biases and societal factors influencing obesity care to foster a patient-centered approach.

Patient care:

- Demonstrate the ability to independently assess a patient case by gathering relevant clinical information, formulating a prioritized differential diagnosis, and developing an evidence-based management plan, incorporating current guidelines and patient-specific factors to ensure high-quality, patient-centered care of obesity.

Medical Knowledge: The medical student is expected to demonstrate medical knowledge relevant to clinical medicine, as well as the application of this knowledge to patient care:

• Integrate foundational and advanced medical knowledge to analyze complex clinical cases, critically evaluate diagnostic and therapeutic options, and apply evidence-based guidelines to formulate appropriate patient management strategies for obesity.

Practice-Based Improvement: The medical student is expected to demonstrate the ability to investigate and evaluate their care of patients and continuously improve care based on constant self-evaluation and life-long learning.

• Demonstrate the ability to critically self-assess clinical knowledge and performance, identify areas for improvement, and implement evidence-based strategies for continuous learning and skill development to enhance patient care outcomes.

Interprofessional and Communication Skills: The medical student is expected to demonstrate interpersonal and communication skills that effectively exchange information and collaboration with patients, their families, and health professionals.

- Demonstrate the ability to effectively communicate clinical findings, reasoning, and management plans to faculty mentors and peers through case discussions, presentations, and written reflections, while actively seeking and incorporating feedback to enhance self-directed learning and patient care.

Professionalism: The medical student is expected to demonstrate behaviors that reflect a commitment to continuous professional development, ethical practice, understanding and sensitivity to diversity, and a responsible attitude toward their patient, profession, and society.

- Exhibit accountability, self-motivation, and ethical responsibility in self-directed learning by setting personal learning goals, seeking constructive feedback, reflecting on progress, and demonstrating respect and professionalism in all interactions with faculty, peers, and healthcare team members.

Systems-Based Practice: The medical student is expected to demonstrate an awareness of and responsiveness to the larger context of health care and the ability to call effectively on other resources in the system to provide optimal health care.

- Demonstrate the ability to navigate and utilize healthcare resources effectively by integrating knowledge of healthcare systems, evidence-based guidelines, and patient-centered considerations into self-directed learning, ensuring efficient, high-quality, and cost-conscious patient care in preparation for residency.

Learning Activities: Specify the level of the student's clinical responsibilities, e.g., admissions, daily rounds, weekly conferences, case presentations, literature review, other projects: Throughout the course, students are expected to: 1. Structured Self-Assessment and Goal Setting: At the beginning of the elective, students will perform a self-assessment to identify gaps in their medical knowledge. Based on this assessment, they will outline personalized learning objectives and strategies for achieving them (including the self-learning modules provided). 2. Independent Case-Based Learning and Literature Review- Students will complete self-learning modules with assessment items and/or engage in critical appraisal of journal articles, guidelines, and online medical resources relevant to their learning objectives. 3. Self-Reflection-students will reflect and submit an essay to summarize their self-directed learning journey, highlighting key takeaways for their transition to their specialty residency and independent practice.

UCF College of Medicine

Evidence-Based Health Promotion: Learning, Applying, and Emerging Insights
MDE 8900 (Pending State Code)

Brief Description: This virtual asynchronous elective provides an in-depth exploration of health promotion interventions with high and moderate-high certainty of evidence, focusing on their effectiveness, mechanisms of action, practical application, and review of emerging data.

Goals of the Rotation: This virtual asynchronous elective provides an in-depth exploration of evidence-based health promotion interventions, selected based on their high or moderate-high certainty of effectiveness according to the United States Preventive Services Task Force criteria. Through engaging content, self-paced learning, and interactive practice opportunities, students will critically evaluate the effectiveness of these interventions, understand their mechanisms of action, and analyze emerging data to refine best practices in health promotion. This course empowers students with the knowledge and skills to assess, apply, and critically appraise interventions that have demonstrated effectiveness across various populations. By integrating theory with hands-on practice, students will gain a comprehensive understanding of how to implement these strategies in for personal and patient health promotion. By the end of this elective, students will: understand the scientific basis of health promotion interventions, including their underlying mechanisms and impact on physical and mental health; critically evaluate the effectiveness of these interventions using meta-analyses, systematic reviews, and placebo-controlled studies; apply interventions in practice through experiential learning activities, self-assessments, and reflective exercises; analyze emerging research to assess how new evidence refines and enhances current best practices in health promotion; develop critical appraisal skills to distinguish high-quality evidence from lower-certainty findings and interpret how evolving data can influence health promotion strategies. This course is ideal for students interested in preventive medicine, public health, primary care, and behavioral health, offering a strong foundation in evidence-based strategies that can be applied across multiple specialties.

Patient care:

- Apply evidence-based health promotion interventions to enhance self and patient well-being, prevent chronic diseases, and support behavioral change across diverse clinical settings.

Medical Knowledge: The medical student is expected to demonstrate medical knowledge relevant to clinical medicine, as well as the application of this knowledge to patient care:

- Demonstrate an understanding of the mechanisms, effectiveness, and clinical applications of validated health promotion interventions based on high-certainty evidence.

Practice-Based Improvement: The medical student is expected to demonstrate the ability to investigate and evaluate their care of patients and continuously improve care based on constant self-evaluation and life-long learning.

• Critically evaluate emerging research on health promotion interventions and integrate new findings to refine clinical practices and patient education strategies.

Interprofessional and Communication Skills: The medical student is expected to demonstrate interpersonal and communication skills that effectively exchange information and collaboration with patients, their families, and health professionals.

• Effectively communicate the benefits and implementation strategies of health promotion interventions to patients, colleagues, and interdisciplinary healthcare teams.

Professionalism: The medical student is expected to demonstrate behaviors that reflect a commitment to continuous professional development, ethical practice, understanding and sensitivity to diversity, and a responsible attitude toward their patient, profession, and society.

• Recognize and address potential biases and barriers in health promotion, ensuring culturally competent, patient-centered care that respects individual preferences and social determinants of health

Systems-Based Practice: The medical student is expected to demonstrate an awareness of and responsiveness to the larger context of health care and the ability to call effectively on other resources in the system to provide optimal health care.

• Identify how health promotion interventions align with broader healthcare systems, including preventive care initiatives, public health strategies, and policy-driven wellness programs

Learning Activities: 1.Explore Evidence-Based Health Promotion Interventions – Engage in a comprehensive review of the scientific literature to understand the mechanisms, effectiveness, and practical applications of ten validated health promotion interventions. Students will also practice applying these interventions through self-assessments, reflective exercises, and experiential learning activities. 2. Critically Analyze Emerging Research – Identify and summarize one peer-reviewed publication on new or evolving data related to health promotion interventions. This exercise will enhance students' ability to evaluate scientific evidence, assess its implications for clinical practice, and contribute to the continuous refinement of health promotion strategies.

UCF College of Medicine

Foundations of Tobacco Treatment
MDE 8900 (Pending State Code)

Brief Description:
This virtual asynchronous elective course in Tobacco Treatment
equips medical students with the knowledge and skills needed to effectively assess and treat tobacco dependence in diverse clinical settings. The course emphasizes evidence-based behavioral and pharmacologic interventions, with a focus on patient-centered care, relapse management, and tailoring treatment for special populations.

Goals of the Rotation: This rotation is designed to provide medical students with insights into the tobacco treatment. The primary goal of this self-directed online course is to equip medical students with the foundational knowledge and practical skills needed to assess and treat tobacco and nicotine dependence across diverse clinical settings. Students will learn evidence-based approaches to counseling and pharmacotherapy, develop strategies for supporting patients through relapse and long-term quit attempts, and gain confidence in tailoring treatment plans for individuals using a variety of tobacco products. The course also emphasizes the importance of patient-centered communication, cultural humility, and the integration of tobacco treatment into routine medical care. Through interactive learning, case-based discussions, and applied teaching projects, students will be prepared to take an active role in tobacco cessation efforts as future physicians.

Patient care:

- As part of the course, students will prepare educational materials to support tobacco screening and treatment in clinical or community settings. This may include presentations, workshops, counseling scripts, or brief training videos focused on evidence-based smoking cessation strategies.
- Example topics include how to select appropriate nicotine replacement therapy (NRT), how to conduct a brief tobacco intervention, or how to address common patient concerns about quitting. Materials should be concise, accurate, and appropriate for the intended audience (e.g., peers, patients, clinical teams)
- The medical student is expected to demonstrate the ability to independently assess a patient's history of tobacco use, determine their stage of readiness to quit, and develop a cessation plan that aligns with the patient's goals and level of motivation.

Medical Knowledge: The medical student is expected to demonstrate medical knowledge relevant to clinical medicine, as well as the application of this knowledge to patient care:

- Demonstrate medical knowledge relevant to counseling and clinical care, and apply this knowledge effectively in the context of smoking cessation treatment.

Practice-Based Improvement:

- Demonstrate the ability to reflect on and evaluate their approach to tobacco use assessment

and cessation counseling, incorporate feedback, and apply evidence-based resources to improve the effectiveness of their care.

• Engage in continuous learning to stay current with emerging treatments, guidelines, and strategies for helping patients quit tobacco use..

Interprofessional and Communication Skills: The medical student is expected to demonstrate interpersonal and communication skills that effectively exchange information and collaboration with patients, their families, and health professionals.

• Demonstrate effective interpersonal and communication skills by clearly and compassionately discussing tobacco use with patients and their families, assessing readiness to quit, and collaborating with healthcare team members to develop and implement cessation plans.

• Be able to adapt communication strategies to fit the patient's level of understanding, cultural background, and motivational state.

Professionalism: The medical student is expected to demonstrate behaviors that reflect a commitment to continuous professional development, ethical practice, understanding and sensitivity to diversity, and a responsible attitude toward their patient, profession, and society.

• Exhibit accountability, self-motivation, and ethical responsibility in self-directed learning by setting personal learning goals, seeking constructive feedback, reflecting on progress, and demonstrating respect and professionalism in all interactions with faculty, peers, and healthcare team members.

Systems-Based Practice: The medical student is expected to demonstrate an awareness of and responsiveness to the larger context of health care and the ability to call effectively on other resources in the system to provide optimal health care.

• Demonstrate the ability to navigate and utilize healthcare resources effectively by integrating knowledge of healthcare systems, evidence-based guidelines, and patient-centered considerations into self-directed learning, ensuring efficient, high-quality, and cost-conscious smoking cessation care.

Learning Activities: Throughout the course, students are expected to: 1. Structured Self-Assessment and Goal Setting: At the beginning of the course, students will complete a self-assessment focused on their current understanding of tobacco dependence, cessation strategies, and patient communication. Based on this assessment, students will define personalized learning goals related to evidence-based tobacco treatment and identify strategies for addressing knowledge gaps, including use of assigned self-learning modules. 2. Independent Case- Based Learning and Literature Review: Students will engage in case-based learning activities and complete self-directed modules that include clinical scenarios involving tobacco use and cessation. In addition, students will review current clinical guidelines, key journal articles, and high-quality online resources to critically appraise the evidence underlying pharmacologic and behavioral treatment options for tobacco use. 3. Self-Reflection on Learning and Clinical Application: At the conclusion of the course, students will submit a reflective essay summarizing their learning experience. This reflection should highlight key insights related to tobacco treatment, describe how their knowledge and confidence in this area have evolved, and identify ways in which they plan to apply these skills during residency and in their future clinical practice.

UCF College of Medicine

Approved COM Courses

Elective Course Descriptions

UCF College of Medicine

Programming for Biomedical Data Science with Python
MDE 8900 (Pending State Code)

Brief Description: Hands-on Python course using Google Colab to analyze and visualize biomedical data; covers programming basics, control flow, data structures, NumPY, Pandas.

Goals of the Rotation:

This rotation is designed to provide medical students with insights into the specialty of computational health sciences, which provides students with general skills applicable across all medical specialties and research domains.
This elective introduces medical students to core computational methods used in biomedical research, taught through hands-on Python programming in Google Colab. Students will:

- Acquire fundamental programming skills for data cleaning, analysis, and visualization.
- Apply reproducible workflows using open-source tools and notebooks.
- Develop an understanding of data handling, privacy considerations, and responsible use of biomedical data.

By the end of the course, students will build and present a small, reproducible data analysis pipeline using real biomedical datasets, providing a strong foundation for future coursework or research in artificial intelligence and data-driven medicine

Patient care:

- Apply computational methods that support high-quality, evidence-based clinical decision-making using de-identified data; articulate appropriate and ethical translation of algorithms into clinical workflows

Medical Knowledge: The medical student is expected to demonstrate medical knowledge relevant to the foundational domain of Biomedical Informatics and data-driven approaches that support evidence-based medicine, as well as the application of this knowledge to patient care:

- Understand Python syntax (variables, data types, operators).
- Apply control structures (if/elif/else, loops) and functions.
- Use lists, tuples, and dictionaries for biological data.
- Perform numerical computing with NumPy arrays and basic statistics.
- Manipulate and analyze data with Pandas DataFrames.
- Create visualizations with Matplotlib (line, scatter, histogram, customized plots).
- Discuss ethical and privacy principles in biomedical AI and data use

Practice-Based Improvement: The medical student is expected to demonstrate the ability to investigate and evaluate their care of patients and continuously improve care based on constant self-evaluation and life-long learning.

- - Debug and interpret Python errors systematically.
- - Maintain clean and well-documented notebooks.
- - Reflect on progress through weekly code reviews and feedback

Interprofessional and Communication Skills: The medical student is expected to demonstrate interpersonal and communication skills that effectively exchange information and collaboration with patients, their families, and health professionals.

- - Share and collaborate in Colab environment (commenting and peer feedback).
- - Present code and results clearly to multidisciplinary audiences.

Professionalism: The medical student is expected to demonstrate behaviors that reflect a commitment to continuous professional development, ethical practice, understanding and sensitivity to diversity, and a responsible attitude toward their patient, profession, and society.

- Adhere to ethical and data privacy standards.
- Demonstrate respect, timeliness, and accountability in collaborative work

Systems-Based Practice: The medical student is expected to demonstrate an awareness of and responsiveness to the larger context of health care and the ability to call effectively on other resources in the system to provide optimal health care.

- Recognize how data science supports evidence-based care and research.
- Evaluate limitations and bias in clinical datasets and algorithms.

Learning Activities:

Week 1: Introduction to Google Colab & Python Basics: Notebook setup, variables, data types, operators
Week 2: Control Flow & Functions: if/elif/else, loops, functions, mini-project
Week 3: Data Structures & NumPy: lists, tuples, dictionaries, arrays, statistics, debugging
Week 4: Pandas & Data Visualization: importing/cleaning data, plotting, final mini-project Presentation

Instructor-provided Colab notebooks and datasets hosted at:

https://github.com/AI-MIND-Lab/MedPython