

CALIFORNIA NORTHSTATE UNIVERSITY



Fourth Year Elective and Sub-Internship Catalogue 2019 – 2020

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AAMC Medical Specialties

AAI: ALLERGY AND IMMUNOLOGY

CLINICAL & LABORATORY IMMUNOLOGY

ANE: ANESTHESIOLOGY

ADULT CARDIOTHORACIC ANESTHESIOLOGY
CRITICAL CARE MEDICINE
OBSTETRIC ANESTHESIOLOGY
PAIN MEDICINE
PEDIATRIC ANESTHESIOLOGY
PALLIATIVE MEDICINE

DER: DERMATOLOGY

DERMATOPATHOLOGY
PROCEDURAL DERMATOLOGY

EME: EMERGENCY MEDICINE

MEDICAL TOXICOLOGY
PEDIATRIC EMERGENCY MEDICINE
SPORTS MEDICINE
PALLIATIVE MEDICINE

FAM: FAMILY MEDICINE

GERIATRIC MEDICINE
SPORTS MEDICINE
FAMILY PRACTICE
GERIATRIC MEDICINE
PALLIATIVE MEDICINE

INT: INTERNAL MEDICINE

ADVANCED HEART FAILURE & TRANSPLANT
CARDIOLOGY
CARDIOVASCULAR DISEASE
CLINICAL CARDIAC ELECTROPHYSIOLOGY
CRITICAL CARE MEDICINE
ENDOCRINOLOGY, DIABETES & METABOLISM
GASTROENTEROLOGY
GERIATRIC MEDICINE
HEMATOLOGY
HEMATOLOGY & ONCOLOGY
INFECTIOUS DISEASE
INTERVENTIONAL CARDIOLOGY
NEPHROLOGY
ONCOLOGY
PULMONARY DISEASE

PULMONARY DISEASE & CRITICAL CARE MEDICINE
RHEUMATOLOGY
SPORTS MEDICINE
TRANSPLANT HEPATOLOGY
INTERNAL MEDICINE-PEDIATRICS
PALLIATIVE MEDICINE

MEG: MEDICAL GENETICS

BIOCHEMICAL GENETICS
MOLECULAR GENETIC PATHOLOGY

NSG: NEUROSURGERY

ENDOVASCULAR SURGICAL NEURORADIOLOGY

NEU: NEUROLOGY

CHILD NEUROLOGY
CLINICAL NEUROPHYSIOLOGY
ENDOVASCULAR SURGICAL NEURORADIOLOGY
NEUROMUSCULAR MEDICINE
PAIN MEDICINE
SLEEP MEDICINE
PALLIATIVE MEDICINE

OBG: OBSTETRICS & GYNECOLOGY

FEMALE PELVIC MEDICINE & RECONSTRUCTIVE
SURGERY
OPHTH: OPHTHALMOLOGY
OPHTHALMIC PLASTIC & RECONSTRUCTIVE
SURGERY
PALLIATIVE MEDICINE

ORTH: ORTHOPEDIC SURGERY

ADULT RECONSTRUCTIVE ORTHOPEDICS
FOOT & ANKLE ORTHOPEDICS
HAND SURGERY
MUSCULOSKELETAL ONCOLOGY
ORTHOPEDIC SPORTS MEDICINE
ORTHOPEDIC SURGERY OF THE SPINE
ORTHOPEDIC TRAUMA
PEDIATRIC ORTHOPEDICS

OTO: OTOLARYNGOLOGY

OTOLOGY - NEUROTOLOGY
PEDIATRIC OTOLARYNGOLOGY

HEAD AND NECK SURGERY

PATH: PATHOLOGY-ANATOMIC & CLINICAL

BLOOD BANKING - TRANSFUSION MEDICINE
CHEMICAL PATHOLOGY
CYTOPATHOLOGY
FORENSIC PATHOLOGY
HEMATOLOGY
MEDICAL MICROBIOLOGY
NEUROPATHOLOGY
PEDIATRIC PATHOLOGY

PED: PEDIATRICS

ADOLESCENT MEDICINE
CHILD ABUSE PEDIATRICS
DEVELOPMENTAL-BEHAVIORAL PEDIATRICS
NEONATAL-PERINATAL MEDICINE
PEDIATRIC CARDIOLOGY
PEDIATRIC CRITICAL CARE MEDICINE
PEDIATRIC EMERGENCY MEDICINE
PEDIATRIC ENDOCRINOLOGY
PEDIATRIC GASTROENTEROLOGY
PEDIATRIC HEMATOLOGY-ONCOLOGY
PEDIATRIC INFECTIOUS DISEASES
PEDIATRIC NEPHROLOGY
PEDIATRIC PULMONOLOGY
PEDIATRIC RHEUMATOLOGY
PEDIATRIC SPORTS MEDICINE
PEDIATRIC TRANSPLANT HEPATOLOGY
PALLIATIVE MEDICINE

PMR: PHYSICAL MEDICINE & REHABILITATION

NEUROMUSCULAR MEDICINE
PAIN MEDICINE
SPINAL CORD INJURY MEDICINE
SPORTS MEDICINE
PALLIATIVE MEDICINE

PLS: PLASTIC SURGERY

CRANIOFACIAL SURGERY

HAND SURGERY

PSY: PSYCHIATRY

ADDICTION PSYCHIATRY
CHILD & ADOLESCENT PSYCHIATRY
FORENSIC PSYCHIATRY
GERIATRIC PSYCHIATRY
PALLIATIVE MEDICINE

RONC: RADIATION ONCOLOGY

RAD: RADIOLOGY

ABDOMINAL RADIOLOGY
CARDIOTHORACIC RADIOLOGY
ENDOVASCULAR SURGICAL NEURORADIOLOGY
MUSCOSKELETAL RADIOLOGY
NEURORADIOLOGY
NUCLEAR RADIOLOGY
PEDIATRIC RADIOLOGY
VASCULAR & INTERVENTIONAL RADIOLOGY
NUCLEAR MEDICINE
PALLIATIVE MEDICINE

SUR: SURGERY

COLON & RECTAL SURGERY
HAND SURGERY
PEDIATRIC SURGERY
SURGICAL CRITICAL CARE
VASCULAR SURGERY
CARDIOTHORACIC SURGERY
THORACIC SURGERY
PEDIATRIC CARDIOTHORACIC SURGERY
SURGICAL ONCOLOGY
TRANSPLANT SURGERY
TRAUMA SURGERY
SURGICAL CRITICAL CARE
ACUTE CARE SURGERY
PALLIATIVE MEDICINE

URO: UROLOGY

PEDIATRIC UROLOGY

CNUCOM Electives & Sub-Internships

ALLERGY AND IMMUNOLOGY

AAI 810-01 Allergy/Asthma/Immunology

Number of Students: 1/Rotation

Locations: Kaiser South Sacramento

Course Director: Dr. Marc Ikeda

Offered as: 2 or 4-week rotation

General Description: Office based allergy practice that will help the learner to manage allergic diseases from rhinitis, asthma, food allergies, primary immunodeficiency, angioedema, and anaphylaxis. Additional areas for longer options (if multiple rotation lengths are offered) include spirometry, skin testing, allergy injections, drug desensitization, and care of anaphylaxis. Course objective: Demonstrate knowledge pertaining to the management of allergic diseases including rhinitis, asthma, food allergies, primary immunodeficiency, angioedema and anaphylaxis.

AAI 812 Allergy & Immunology

Number of Students: 2-4/Rotation

Locations: Allergy Medical Group of Northern Area – Sacramento Clinic; Roseville Clinic

Course Director: Sunil P. Perera, MD., Mudita Gogna, MD.

Offered as: 4-week rotation

General Description: To orient students how to obtain problem focused history from patients with atopic disease focused physical exam, basic information of following diseases, and learning about basic atopic diseases, allergic rhinitis, sinusitis, asthma, urticarial, angioedema, food allergy/intolerance, drug allergy, insect allergy, environmental sensitivity. Identify focused historical and physical exam findings in patients with atopic disease. Demonstrate knowledge about basic atopic diseases, allergic rhinitis, sinusitis, asthma, urticarial, angioedema, food allergy/intolerance, drug allergy, insect allergy, and environmental sensitivity. Apply guidelines for management and follow up of basic atopic diseases. Face to face interaction with patients with atopic disease.

ANESTHESIA

ANE 810-01 Anesthesia

Number of Students: 4/Rotation

Locations: Kaiser South Sacramento

Course Director: Kenny Hu, MD.

Offered as: 2 or 4-week rotation

General Description: Students seeking to increase their knowledge of anesthesiology and perioperative medicine will actively participate in the anesthetic care of surgical patients. Progressive and increased responsibility for pre-, intra-, and postoperative patient management will be assumed by the student under the direction of an anesthesiologist. The student will participate fully in the perioperative anesthetic care of a healthy patient during uncomplicated surgery. Students will participate in the department's didactic conferences; reading is required to meet learning objectives. Perform pre-anesthetic evaluation, present an organized summary of findings, and develop a rational plan of anesthetic management. Discuss effects of surgery and anesthesia on common medical conditions and execute plans to manage these conditions perioperatively. Conduct the intraoperative administration of anesthesia demonstrating knowledge of anesthetic pharmacology. Perform peripheral venous, cannulation, bag and mask airway management, endotracheal intubation.

ANE 810-02 Anesthesia

Number of Students: 4/Rotation

Locations: Sutter Medical Center, Sacramento

Course Director: Rohith Piyaratna, MD

Offered as: 2 or 4-week rotation

General Description: Students seeking to increase their knowledge of anesthesiology and perioperative medicine will actively participate in the anesthetic care of surgical patients. Progressive and increased responsibility for pre-, intra-, and postoperative patient management will be assumed by the student under the direction of an anesthesiologist. The student will participate fully in the perioperative

anesthetic care of a healthy patient during uncomplicated surgery. Students will participate in the department's didactic conferences; reading is highly recommended to meet learning objectives. Perform pre-anesthetic evaluations. Develop an organized summary of findings. Develop a rational plan of anesthetic management. Demonstrate knowledge of the effects of surgery and anesthesia on common medical conditions. Apply guidelines to manage these medical conditions perioperatively. Conduct the intraoperative administration of anesthesia demonstrating knowledge of anesthetic Pharmacology and Physiology. Perform peripheral venous cannulation, bag and mask airway management, endotracheal intubation. Have a rudimentary understanding of BLS (Basic Life Support) and ACLS (Advanced Cardiac Life Support).

ANE 811 The Art and Practice of Anesthesiology and Pain Medicine

Number of Students: 2/Rotation

Locations: Sutter Roseville Medical Center

Course Director: Anthony Kong, MD

Offered as: 2 or 4-week rotation

General Description: Introduction to the field of anesthesiology and pain medicine. Understand basic pre-operative principles to optimize patients for surgery. Able to weigh the risks and benefits of drugs used and actions taken for the patients. Development of confidence, rapport, professionalism and teamwork in the operative arena. Understand the meaning of "Primum non nocere." and the concept of evidence based medicine. Demonstrate clinical skills include basic airway management, physiological monitoring, sedation and pain management. Demonstrate knowledge of basic anesthetic agents, intra-operative and pain medications. Perform a critical review of basic and clinical anesthesia literature. Describe different anesthetic techniques from lines placement to regional and neuraxial anesthesia. Apply techniques in stabilizing an unstable patient.

DERMATOLOGY

DER 810-1 Dermatology

Number of Students: 1-2/Rotation
Locations: Kaiser South Sacramento
Course Director: Jasdeep Sharma, MD
Offered as: 2 or 4-week rotation

General Description: This elective is customized to the specific interests of the 4th year medical student interested to learn more about medical surgical dermatology. The student will be exposed to medical dermatology encounters with patients having primary skin disease, to include immunobullous diseases, contact dermatitis, connective tissue diseases, congenital skin disease, skin cancer, and infectious diseases, as well as medically-complicated patients displaying dermatologic manifestations of systemic disease or therapy.

DER 810-2 Dermatology

Number of Students: 1-2/Rotation
Locations: Kaiser Permanente - Fresno
Course Director: Alan Blankenship, MD, PhD, FAAD, DABD
Offered as: 4-week rotation

General Description: This elective is customized to the specific interests of the 4th year medical student interested to learn more about medical and surgical aspects of dermatology. The student will be exposed to medical dermatology encounters with patients having primary skin disease, to include immunoblots diseases, contact dermatitis, connective tissue diseases, congenital skin disease, skin cancer, and infectious diseases, as well as medically-complicated patients displaying dermatologic manifestations of systemic disease or therapy.

EMERGENCY MEDICINE

EME 801 Emergency Medicine Sub-I

Number of Students: 1-2/Rotation
Locations: Multiple
Course Director: Leonard Ranasinghe MD, PhD and James Lee MD
Offered as: 4-week rotation

General Description: To provide an opportunity for students who have an interest in pursuing a career in emergency medicine or a related specialty to function at an intern-like capacity in an emergency department with expanded experience and responsibility. To provide additional exposure to the diverse spectrum of clinical problems encountered in the emergency department, with emphasis on direct patient management. Rapid and appropriate evaluation and treatment of the undifferentiated patient. Improved history and physical examination skills. Exposure to emergency medicine. Improvement of techniques of suturing, resuscitation, IVs, LPs, and airway management. Exposure to pre-hospital care and the paramedic system. Enhance teamwork skills.

EME 810-01 Emergency Medicine

Number of Students: 1-2/Rotation
Locations: Kaiser South Sacramento
Course Director: Virag Shah, MD
Offered as: 4-week rotation

General Description: Exposure of the medical student to patients with complaints covering all age and all subspecialties who present to the Emergency Department. Will have first contact responsibility to perform a history and physical exam on each of his/her patients. Will discuss each case with an Emergency Department physician prior to ordering lab work, x-rays, medicines or consultation. Will discuss each case with an Emergency Department physician prior to patient's treatment and disposition. Will be actively involved in patient's education concerning discharge instruction (prescription, home care, etc.), and appropriate physician follow up. To be able to rapidly assess acutely ill patients in an emergency setting. To develop a focused H&P for emergency complaints. To deduct a reasonable differential diagnosis in

critically ill patients. To develop an orderly approach to emergency stabilization and management priorities in unstable and critically ill patients.

EME 810-02 Emergency Medicine

Number of Students: 4/Rotation
Locations: AHMC – Los Angeles
Course Director: Andy Shen, MD
Offered as: 4-week rotation

General Description: To provide an opportunity for students who have an interest in pursuing a career in emergency medicine or a related specialty. To function at a higher level than a clerkship student. This should be considered as an opportunity to function as an intern-like capacity in an emergency department (ED). Develop a systematic approach to an undifferentiated patient. Formulate rapid approach to common illnesses that present in

emergency department. Recognize the need for and appropriateness of consultation and/or specialty referral. Demonstrate knowledge of the initial steps of BCLS (and ACLS) in the pulseless patient. Demonstrate the primary and secondary survey in the trauma patient. Perform and become familiar with common procedures (suturing, chest tube insertion, bedside ultrasound, lumbar puncture, intubation, thoracentesis, and paracentesis). Understand informed consent for treatment, procedures and refusal of treatment. Learn to differentiate between tests which must be obtained immediately as an inpatient versus those which be performed later in an outpatient setting. Demonstrate knowledge of patient safety codes of practice: universal protocol for procedures; when to transfer a patient to a higher-level facility; EMTALA law. Develop a knowledge of the common quality initiatives (i.e. ED throughput measures, ED clinical process (AMI, stroke, sepsis) and patient safety protocols.

FAMILY MEDICINE

FAM 810-01 Family Medicine Elective

Number of Students: 1-2/Rotation
Locations: Forest Hill Medical Center
Course Director: Blaise DeSouza MD
Offered as: 2 or 4-week rotation

General Description: Demonstrate an effective approach to the wellness visit for a patient of any age or gender. Develop the skills to acquire historical information, perform a physical examination and to communicate such findings with clinical reasoning skill. Demonstrate an effective approach to the hospitalized patient. Demonstrate an effective approach to the patient presenting to the emergency department. Discuss the principles of Family Medicine and its role in the health care system. Demonstrate an effective approach to the evaluation and initial management of acute and chronic illnesses commonly seen in an outpatient office setting. Gather information, formulate reasonable differential diagnoses, and plans for initial evaluation

and management of common presentation encountered in the outpatient office setting. Manage follow-up visit for patients presenting with one or more chronic illnesses. Demonstrate competency in the elicitation of the history and performance of the physical examination. Demonstrate competency in understanding evidence-based health promotion/disease prevention plans for patients of any age and either gender. Discuss the role of Family Medicine physicians within any health care system.

FAM 810-02 Family Medicine Elective

Number of Students: 1-2/Rotation
Locations: Western Sierra Medical Clinic
Course Director: Christina Lasich, MD
Offered as: 2 or 4-week rotation

General Description: Understand the principles of family medicine care. Understand the role of Family

Medicine physicians within any health care system. Demonstrate an effective approach to the evaluation and initial management of acute and chronic illnesses commonly seen in an outpatient office setting. Demonstrate an effective approach to the wellness visit for a patient of any age or gender. Develop the skills to acquire historical information, perform a physical examination and to communicate such findings with clinical reasoning skill. Gather information, formulate reasonable differential diagnoses, and plans for initial evaluation and management of common presentation encountered in the outpatient office setting. Manage follow-up visit for patients presenting with one or more chronic illnesses. Demonstrate competency in the elicitation of the history and performance of the physical examination. Demonstrate competency in understanding evidence-based health promotion/disease prevention plans for patients of any age and either gender. Discuss the principles of Family Medicine and its role in the healthcare system.

FAM 810-03 Family Medicine Elective

Number of Students: 2/Rotation

Locations: Kaiser Hospital, Walnut Creek

Course Director: Chantal L. Morrison DO

Offered as: 4-week rotation

General Description: Demonstrate an effective approach to the wellness visit for a patient of any age or gender. Develop the skills to acquire historical information, perform a physical examination and to communicate such findings with clinical reasoning skill. Demonstrate an effective approach to the hospitalized patient. Demonstrate an effective approach to the patient presenting to the emergency department. Discuss the principles of Family Medicine and its role in the health care system. Demonstrate an effective approach to the evaluation and initial management of acute and chronic illnesses commonly seen in an outpatient office setting. Gather information, formulate reasonable differential diagnoses, and plans for initial evaluation and management of common presentation encountered in the outpatient office setting. Manage follow-up visit for patients presenting with

one or more chronic illnesses. Demonstrate competency in the elicitation of the history and performance of the physical examination. Demonstrate competency in understanding evidence-based health promotion/disease prevention plans for patients of any age and either gender. Discuss the role of Family Medicine physicians within any health care system.

FAM 810-04 Family Medicine Elective

Number of Students: 2/Rotation

Locations: Kaiser Permanente, Antioch CA

Course Director: Maung Wai, M.D., FAAFP

Offered as: 4-week rotation

General Description: Demonstrate an effective approach to the wellness visit for a patient of any age or gender. Develop the skills to acquire historical information, perform a physical examination and to communicate such findings with clinical reasoning skill. Demonstrate an effective approach to the hospitalized patient. Demonstrate an effective approach to the patient presenting to the emergency department. Discuss the principles of Family Medicine and its role in the health care system. Demonstrate an effective approach to the evaluation and initial management of acute and chronic illnesses commonly seen in an outpatient office setting. Gather information, formulate reasonable differential diagnoses, and plans for initial evaluation and management of common presentation encountered in the outpatient office setting. Manage follow-up visit for patients presenting with one or more chronic illnesses. Demonstrate competency in the elicitation of the history and performance of the physical examination. Demonstrate competency in understanding evidence-based health promotion/disease prevention plans for patients of any age and either gender. Discuss the role of Family Medicine physicians within any health care system.

FAM 810-05 Family Medicine Elective

Number of Students: 1-2/Rotation

Locations: Stewart Medical Clinic - Alhambra, CA

Course Director: John Stewart, M.D.

Offered as: 4-week rotation

General Description: Demonstrate an effective approach to the evaluation and initial management of acute and chronic illnesses commonly seen in an outpatient office setting. Demonstrate an effective approach to the wellness visit for a patient of any age or gender. Discuss the principles of family medicine care. Develop the skills to acquire historical information, perform a physical examination and to communicate such findings with clinical reasoning skill. Gather information, formulate reasonable differential diagnoses, and plans for initial evaluation and management of common presentation encountered in the outpatient office setting. Manage follow-up visit for patients presenting with one or more chronic illnesses. Demonstrate competency in the elicitation of the history and performance of the physical examination. Demonstrate competency in understanding evidence-based health promotion/disease prevention plans for patients of any age and either gender. Discuss the role of Family Medicine physicians within any health care system.

FAM 810-07 Family Medicine Elective

Number of Students: 1-2/Rotation

Locations: Elevation Physicians

Course Director: Jeffrey Hill, DO

Offered as: 4-week rotation

General Description: Provision of an outstanding learning experience with exposure to the breath of Family Medicine. Become acquainted with the presentation and initial management of acute medical problems that present to the outpatient office setting. Become acquainted with the presentation and management of chronic medical problems that present to the outpatient office setting. Gain experience and further familiarity with the approach to conducting wellness visits for patients of any age. Continue to develop proficiency

with acquiring and recording patient data via history taking and the performance of physical examinations. Develop reasoning and communication skills relevant to the medical management of patients. Hospital and office-based contact with patients in a primary care setting.

FAM 810-08 Family Medicine Elective

Number of Students: 1-2/Rotation

Locations: Cameron Park

Course Director: Hayne Kelada, MD.

Offered as: 4-week rotation

General Description: Demonstrate an effective approach to the evaluation and initial management of acute and chronic illnesses commonly seen in an outpatient office setting. Demonstrate an effective approach to the wellness visit for a patient of any age or gender. Discuss the principles of family medicine care. Develop the skills to acquire historical information, perform a physical examination and to communicate such findings with clinical reasoning skill. Gather information, formulate reasonable differential diagnoses, and plans for initial evaluation and management of common presentation encountered in the outpatient office setting. Manage follow-up visit for patients presenting with one or more chronic illnesses. Demonstrate competency in the elicitation of the history and performance of the physical examination. Demonstrate competency in understanding evidence-based health promotion/disease prevention plans for patients of any age and either gender. Discuss the role of Family Medicine physicians within any health care system.

FAM 812 Family Medicine Psychiatry Elective

Number of Students: 1-2/Rotation

Locations: Michelina Medical Care Corp. Inc., Rosewood Care Center, Willow Glen Care Center, Adventist + Rideout Hospital, Cirby Hills Behavioral Health, North Valley Behavioral Health

Course Director: Richard Brouette, MD

Offered as: 4-week rotation

General Description: Develop a broad view of the patient as an inseparable combination of mind, body, and soul. List the challenges of extending medical care to the person with mental illness. See how medical care has to be adapted to meet the person with mental illness where they live: Board and Care, Mentally Health Recovery Center, Psychiatric Health Facility, and Med-Psych Unit. Describe the legal boundaries created by licensing in each of these care settings. Med-Psych care in the mainstream care environment: Clinic, General Medical Ward, Critical Care Unit.

FAM 813 Integrative Medicine

Number of Students: 2/Rotation

Locations: Pacific Peart, La Jolla CA

Course Director: Mimi Guaneri MD, et al

Offered as: 4-week rotation

General Description: Identify the primary healthcare goals using the approach of Integrative Medicine. Compare similarities and differences of diagnosis and treatment plans in conventional and integrative medicine. Demonstrate knowledge of complementary treatment modalities and their application to individual patient care plans. Prepare a comprehensive patient history with Integrative Medicine approach. Apply Integrative Medicine approach to patient evaluation and treatment plan. Clinical experiences with multiple practitioners including MDs and complementary medicine practitioners. Didactics sessions will be offered during rotation schedule varying on month of rotation.

INTERNAL MEDICINE

INT 801 Internal Medicine Sub-I

Number of Students: 2/Rotation

Locations: Highland Hospital - Alameda Health System

Course Director: Archana Sridhar, MD and Jennifer Hughes, MD

Offered as: 4-week rotation

General Description: Students will serve as a sub-intern on an in-patient internal medicine wards team. Each team will also consist of a senior resident, two interns, a third-year medical student, and an attending physician. As a sub-intern, the student will be responsible for managing about 3-5 patients at a time. Clinical responsibilities include interviewing and examining their patients both on the day of admission and on subsequent days (pre-rounding), writing a daily progress (SOAP) note for their patients, presenting their patients to the team on morning rounds, and executing patient-care related tasks pertinent to their patients. In addition, the student will be expected to participate in sign-out at 6pm to hand off their patients to the overnight physician. Sub-interns will work 6 days/week and will

have one day off per week that they will arrange beforehand with the senior resident on their team. They are expected to be present during all admitting (call) and post-call days. Sub-interns are not expected to take overnight call.

INT 802 Inpatient Medicine Sub-I

Number of Students: 2/Rotation

Locations: Kaiser South Sacramento

Course Director: Gary Chu, MD

Offered as: 4-week rotation

General Description: The major goal of the Medicine Subinternship is to construct the clinical environment for the senior student to develop inpatient case management responsibilities in the broad field of internal medicine that will allow confident transition to resident level responsibilities in all disciplines. The student will be directly supervised by faculty attending. Procedures required by the patient, will be performed by the student depending on experience and safety. Students will

be required to keep a log of their patients, listing dates seen and diagnoses.

INT 815 Internal Medicine Outpatient Elective

Number of Students: 2/Rotation

Locations: Prima Medical Group, San Rafael, CA

Course Director: Joseph Habis, MD

Offered as: 4-week rotation

General Description: Students will be able to gather a medical history, perform a physical examination, interpret common diagnostic tests, prioritize a differential diagnosis, and recommend and execute a management plan for common in-patient internal medicine patient presentations. Students will be able to organize and communicate their clinical thinking both in the form of written notes and oral presentations. Students will be able to communicate and collaborate in an inter-professional team of other healthcare providers, out-patient providers, consultants, RNs, and ancillary staff. Students will be able to communicate effectively with patients and caregivers. Students will transition patients safely across the healthcare system. Students will serve as

a sub-intern on an outpatient internal medicine team. Clinical responsibilities include interviewing and examining their patients, writing a SOAP note for their patients, presenting their patients to the attending physician, and executing patient-care related tasks pertinent to their patients.

INT 817 Internal Medicine Elective

Number of Students: 2/Rotation

Locations: Reddy Medical Group – Fresno, CA

Course Director: Kiran Reddy, M.D.

Offered as: 2 or 4-week rotation

General Description: Learn comprehensive management and prevention of multiple chronic medical diseases including Diabetes Mellitus II, Coronary Artery Disease, Hypertension, Asthma, Fibromyalgia, Depression, Menopause. Students will assume responsibilities quite similar to those of an intern, although with fewer patients. The student will be a member of a general medicine ward service consisting of an attending physician, residents, interns, and usually one "third year" student. Attending Rounds are made daily.

CARDIOLOGY

CAR 810 Cardiology Clinical Rotation

Number of Students: 4/Rotation

Locations: Sutter Medical Center - Sacramento

Course Director: Sailesh Shah, MD., Malcom McHenry, MD.

Offered as: 4-week rotation

General Description: Fundamentals of cardiac anatomy and physiology – working knowledge of common cardiac disease states – cardiac pharmacology interpretation of cardiac diagnostic studies (ECG, Echo, Stress testing and Nuclear imaging) – cardiac history and physical examination. Experience in viewing cardiac procedures; EP studies, ablations, heart cath intervention, device implantation, transesophageal echo, cardio version.

Twelve lectures: ECG, Echo, coronary anatomy and physiology, methods for evaluating cardiac disease, valvular heart disease, guideline: lipids, hypertension, risk factors, arrhythmia including ablation therapy, atrial fibrillation, peripheral vascular disease (arterial and venous), devices including resynchronization therapy, CAD diagnosis and treatment, treatment of CHF.

CAR 811-01 Cardiology Elective

Number of Students: 2/Rotation

Locations: The Chinese Hospital, San Francisco, CA

Course Director: Gustin Ho, MD, FACP

Offered as: 2 or 4-week rotation

General Description: This course is designed to give the student a broad exposure to cardiology, while concentrating at the same time on individual patient evaluation and management. Students see patients both at the hospital and outpatient setting; daily electrocardiogram round; Observe cardiac procedure; morning round in the hospital. If time permits, student will attend cardiac round at other bay area hospital, including UCSF and CPMC.

CAR 811-02 Cardiology Elective

Number of Students: 2/Rotation
Locations: Kaiser South Sacramento
Course Director: Howard Dinh, MD.
Offered as: 4-week rotation

General Description: Student will work with faculty attending to evaluate and manage cardiac patients in both an outpatient and inpatient setting. Students will be introduced to reading EKG's, echo, and observe cardiac catheterization and transesophageal echo.

CAR 811-03 Cardiology Elective

Number of Students: 2/Rotation
Locations: Sutter Medical Center, Sacramento
Course Director: John Chin, MD
Offered as: 4-week rotation

General Description: Overview of Cardiology. Students will be exposed to a wide range of cardiology experiences including inpatient consultation and procedures, as well as advanced heart failure and transplant clinical committee meetings, and outpatient office setting. They will be expected to have some initiative and ask questions and as such will "get out of it what they put into it." Students will be quizzed on differential diagnoses and treatment plans. Each student will be assigned one topic during the course of the rotation that they are expected to present prior to the completion of the rotation, hopefully tying in to one of the patients that they saw.

CAR 811-04 Cardiology Elective

Number of Students: 2/Rotation
Locations: California Heart Associates and Area Hospitals
Course Director: Lakhjit S. Sandhu, MD.
Offered as: 4-week rotation

General Description: This course is designed to give the students a broad exposure to cardiology, while concentrating at the same time on individual patient evaluation and management. Students will see patients both at the hospital and outpatient setting daily electrocardiogram round; observe cardiac procedures; morning rounds in the hospital; if time permits, students will attend Cardiac rounds. Acquire experience in working up patients with cardiovascular disease. Focus in the fundamentals, history taking, cardiovascular examination (especially auscultation ability). Demonstrate knowledge of the pathophysiology, natural history appropriate diagnostic workup, and therapeutic approach to valvular heart disease, ischemic heart disease, cardiomyopathies, and recurrent arrhythmias, both supraventricular and ventricular. Demonstrate knowledge of the pharmacology drugs, antihypertensive agents, and anticoagulation. Evaluate and management of complex in-patient problems: recurrent chest pain, low cardiac output states, cardiac murmur evaluation, and bacterial endocarditis. Demonstrate firm comprehension of EKG interpretation. Describe the details of cardiovascular techniques such as echocardiograms, 24 hours Holter monitor, heart catheterization and exercise testing. Manage patient in ICU setting, including theory of ventilator, hemodynamic monitoring and presser for pressure support.

CAR 811-05 Cardiology Elective

Number of Students: 2/Rotation
Locations: Kaiser Redwood City
Course Director: Xiushui M. Ren, MD
Offered as: 4-week rotation

General Description: This course is designed to give the students a broad exposure to cardiology, while concentrating at the same time on individual patient

evaluation and management. Students will see patients both at the hospital and outpatient setting daily electrocardiogram round; observe cardiac procedures; morning rounds in the hospital; if time permits, students will attend Cardiac rounds. Acquire experience in working up patients with cardiovascular disease. Focus in the fundamentals, history taking, cardiovascular examination (especially auscultation ability). Demonstrate knowledge of the pathophysiology, natural history appropriate diagnostic workup, and therapeutic approach to valvular heart disease, ischemic heart disease, cardiomyopathies, and recurrent

arrhythmias, both supraventricular and ventricular. Demonstrate knowledge of the pharmacology drugs, antihypertensive agents, and anticoagulation. Evaluate and management of complex in-patient problems: recurrent chest pain, low cardiac output states, cardiac murmur evaluation, and bacterial endocarditis. Demonstrate firm comprehension of EKG interpretation. Describe the details of cardiovascular techniques such as echocardiograms, 24 hours Holter monitor, heart catheterization and exercise testing. Manage patient in ICU setting, including theory of ventilator, hemodynamic monitoring and presser for pressure support.

ENDOCRINOLOGY

END 810 Endocrinology

Number of Students: 2/Rotation

Locations: Sutter Medical Center, Sacramento

Course Director: William Cushard, MD.

Offered as: 4-week rotation

General Description: Understand real life experiences of an endocrinologists and learn the clinical utilities and techniques related to endocrinology and metabolism. Describe the disease process in patients by integration of clinical findings (history and physical) with laboratory tests. Explain the pathogenesis and pathophysiology of diseases of the pituitary, thyroid, parathyroid, adrenal, pancreas (endocrine), and reproductive organs. Outline the

function of the endocrine organ and explain the metabolism of their hormones and their effects on the body. Develop adequate experience with the use of insulin, thyroid hormones, corticosteroids, and other related therapeutic agents. Develop adequate experience in endocrine related surgery and diagnostic procedures such as thyroid needle biopsy, vascular ultrasound in diabetic patients, and bone mineral density testing. Observe weight loss surgery, interventional radiology kyphoplasty, endovascular surgery for arterial disease, fine needle biopsy of thyroid, preparation of surgical pathology specimens and microscopic interpretation of thyroid cancer, performance and interpretation of vascular ultrasound (who was Christian Doppler?) and others.

GASTROENTEROLOGY

GST 810 Gastroenterology

Number of Students: 2/Rotation

Locations: Mercy San Juan Medical Center

Course Director: Kuldip Sandhu M.D. FACP AGAF

Offered as: 4-week rotation

General Description: Students will gain experience and knowledge about the specialty of

Gastroenterology and the conditions that specialists in this field are involved in diagnostic, management and treatment of. Demonstrate the pertinent aspects of the history and physical exam findings in patients with gastroenterological conditions. Explain the appropriate evaluative steps for patients with gastroenterological symptoms. Illustrate knowledge about common gastroenterological diseases and their treatment and management. The student

should read specifically about GI bleeding, pancreatitis, alcoholic liver disease and biliary disease including cholecystitis and common bile duct stones.

GST 811 Gastroenterology

Number of Students: 2/Rotation

Locations: Kaiser Morse and Sacramento

Course Director: Linda Lee, MD

Offered as: 4-week rotation

General Description: Students will gain experience and knowledge about the specialty of

Gastroenterology and the conditions that specialists in this field are involved in diagnostic, management and treatment of. Demonstrate the pertinent aspects of the history and physical exam findings in patients with gastroenterological conditions. Explain the appropriate evaluative steps for patients with gastroenterological symptoms. Illustrate knowledge about common gastroenterological diseases and their treatment and management. The student should read specifically about GI bleeding, pancreatitis, alcoholic liver disease and biliary disease including cholecystitis and common bile duct stones.

HEMATOLOGY AND ONCOLOGY

HEM 810 Hematology and Oncology

Number of Students: 2/Rotation

Locations: Hematology and Oncology Associates of Northern California

Course Director: M. Javeed, MD

Offered as: 2 or 4-week rotation

General Description: Approach to a patient with Hem-Onc ailments, history taking, relevant physical

exam, interpretation of common blood tests, reviewing smears if needed, discussing imaging results and making a sound provisional diagnosis. Outline the pertinent history and physical exam considerations in patients with hematologic and oncologic diseases. Demonstrate knowledge about patients with hematology and oncology related diseases. Interpret common blood test results and their indications. Demonstrate knowledge about blood smear findings.

INFECTIOUS DISEASE

INF 810-01 Infectious Disease

Number of Students: 2/Rotation

Locations: Kaiser Sacramento and Morse

Course Director: Lenora Lee, MD

Offered as: 2-week rotation

General Description: Learn about common infectious diseases and how to treat them. Learn about HIV care. Understand the importance of antimicrobial stewardship and the judicious use of antimicrobials. To show an understanding of how to identify, diagnose and treat various bacterial, viral, fungal

infections. Infer how to diagnose and treat various orthopedic/bone infections, neutropenic fevers, bacteremias. Demonstrate an understanding of management of infections in an immunocompromised host. Infer how to manage and counsel HIV patients. Show an understanding of the principles behind antimicrobial stewardship. Clinical and inpatient consultations in both Sacramento and Roseville, no procedures.

INF 810-02 Infectious Disease

Number of Students: 2/Rotation
Locations: Kaiser South Sacramento
Course Director: Andrew McNeil, MD
Offered as: 2 or 4-week rotation

General Description: Learn about common infectious diseases and how to treat them. Learn about HIV care. Understand the importance of antimicrobial stewardship and the judicious use of antimicrobials. To show an understanding of how to identify, diagnose and treat various bacterial, viral, fungal infections. Infer how to diagnose and treat various orthopedic/bone infections, neutropenic fevers, bacteremias. Demonstrate an understanding of management of infections in an immunocompromised host. Infer how to manage and counsel HIV patients. Show an understanding of the principles behind antimicrobial stewardship.

INF 812 Infectious Diseases Clerkship

Number of Students: 2/Rotation
Locations: Kaiser Permanente Medical Center, Modesto
Course Director: Razeq A. Shetab, M.D.
Offered as: 4-week rotation

General Description: This Infectious Disease clerkship is scheduled with a preceptor who is an expert in this field. The student will experience the day to day activities of clinicians as he/she assists in the care of their patients. Exposure to patients in the

clinic and hospital setting will give the student opportunity to practice interview and documentation skills. The student may be given the opportunity to participate in procedures as the preceptor determines his/her readiness. The curriculum for this rotation is based on nationally recognized curriculum modified for fourth year elective focus from the Clerkship Directors for Internal Medicine. Clinical experiences includes: 1. Interpretation of culture and sensitivity data on: sputum, urine, blood, wound and quantitative burn cultures. 2. Interpretation of serology studies: viral diseases (HIV, hepatitis, EBV, CMV, others), syphilis, Lyme disease, etc. 3. Preparation and interpretation of gram stains and AFB smears. 4. The spectrum, pharmacokinetics, side effects and toxicities along with the dosing of the major classes of antibiotics and antiviral. 5. Core Infectious Disease Out-Patient: Sinusitis Otitis Community acquired pneumonia Urinary tract infections Hepatitis Sexually Transmitted Diseases HIV disease Opportunistic HIV infection Osteomyelitis Diabetic foot infection Cutaneous infections. 6. Core Infectious Disease In-Patient: Nosocomial pneumonia, Decubitus skin ulcers, Drug eruptions, Fever and Fever of Unknown Origin, Nosocomial infections, Sepsis/sepsis syndrome. Surgical wound infection, Fungemia. Catheter related infections. Osteomyelitis. Infections in trauma patients. Infections in transplant patients. Complicated and uncomplicated intraabdominal infections, Meningitis, encephalitis and other central nervous system infections. Endocarditis: diagnosis, treatment and prophylaxis. Bacteremia: staph species, enterococcus species, others.

PALLIATIVE MEDICINE

INT 810-01 Palliative Medicine

Number of Students: 2/Rotation
Locations: Kaiser Permanente Modesto Medical Center
Course Director: TBD
Offered as: 4-week rotation

General Description: Palliative Medicine is an essential component of medical care for patient with a life limiting illness. This course provides medical students and residents a framework in which to effectively to acquire Palliative Care knowledge and skill sets necessary to care for serious ill patients and their families. Inpatient and outpatient Palliative Care experiences, pain management, disclosing

serious news, offering prognostic information, disease trajectory, addressing goals of care, conducting family conference, home visits (optional). Mandatory Palliative Care didactic lecture given by preceptor in the first week of the rotation. Each student is required to give a presentation on a Palliative Care topic of his/her choice (can be in a form of topic or journal club presentation).

INT 810-02 Palliative Medicine

Number of Students: 2/Rotation

Locations: Mercy San Juan Medical Center

Course Director: Hari Nagaraj, MD

Offered as: 2 or 4-week rotation

General Description: Palliative Medicine is an essential component of medical care for patient with a life limiting illness. This course provides medical students and residents a framework in which to effectively to acquire Palliative Care knowledge and skill sets necessary to care for serious ill patients and their families. Inpatient and outpatient Palliative Care experiences, pain management, disclosing serious news, offering prognostic information, disease trajectory, addressing goals of care, conducting family conference, home visits (optional). Mandatory Palliative Care didactic lecture given by preceptor in the first week of the rotation. Each student is required to give a presentation on a Palliative Care topic of his/her choice (can be in a form of topic or journal club presentation).

INT 811 Introduction to Palliative Medicine

Number of Students: 2/Rotation

Locations: Kaiser Sacramento & Roseville Hospitals

Course Director: George Gallardo, MD

Offered as: 4-week rotation

General Description: Course goals are to provide the medical student with a foundation in the principles of Palliative Medicine, particularly communication skills, pain and symptom management, and care of the dying patient. Demonstrate proper communication skills, particularly between providers and patients/families. Demonstrate the ability to organize and conduct a family meeting. Discover the basics of pain and symptom management. Improve prognostic awareness. Demonstrate the basic skills of care for the dying patient. Clinical experiences includes: Hospital-based care, following patients on the in-patient Palliative Medicine team and Hospice-based care, spending several days with hospice care providers in the community. Four core lectures to be provided by the Palliative Medicine faculty during the 4 week rotation to the students; Opportunity for reflection on what it means to care for the very ill and dying.

INT 812 Palliative Medicine and Hospice Medicine

Number of Students: 2/Rotation

Locations: Methodist Hospital Southern California

Course Director: Michael Cortez, MD.

Offered as: 2 or 4-week rotation

General Description: Students will learn to integrate medical scientific methodology and practice with their patients psychosocial issues to develop plans to maximize patients and family quality of life. Integrate solutions and approaches to improve quality of life for a wide variety of challenging patients. Develop hands-on experience, including care clarification and explanation, with patients with difficult medical issues and patients who require end-of-life care. Practice patient care in wide arrays of disciplines to form an integrated care plan to optimize quality of life. Clinical experiences includes: In-patient / out-patient (Home) rounds.

SPORTS MEDICINE

SPM 814 First Degree Care Sports Medicine

Number of Students: 2/Rotation

Locations: Rocklin Family Practice and Sports Medicine

Course Director: Bill S. Chima, M.D.

Offered as: 4-week rotation

General Description: Improve and acquire high skills in MSK exams / OX / Injections / Fracture & concussion management / XRAY interpretation. Demonstrate and describe basic structures and functioning of body joints. Demonstrate proper injections technique. Observe and manage fractures and concussions. Acquire high skills in XRAY interpretation.

PULMONARY

PUL 801-01 Pulmonary & Critical Care Medicine Sub-I

Number of Students: 2/Rotation

Locations: Sutter Sacramento Medical Center

Course Director: Muhammad Afzal, M.D.

Offered as: 2 or 4-week rotation

General Description: This rotation offers an opportunity for a 4th-year student to work jointly with a faculty attending to evaluate and manage critically ill medical and surgical patients. Typical patient diagnoses include myocardial infarction and cardiac arrest, acute respiratory failure (asthma, COPD, pneumonia, ARDS), delirium and coma, stroke, severe sepsis, toxic ingestions, diabetic ketoacidosis, cardiogenic and septic shock, renal and hepatic failure, and post-operative co-management. A comprehensive evidence-based management approach based in physiology will be taught. Students will be responsible for patient evaluations and notes and will progress to performance of diagnostic and therapeutic procedures as appropriate. Students will become familiar with basic mechanical ventilator management and arterial blood gas interpretation, and the value of a multi-professional team approach to the care of the critically ill.

PUL 801-02 Pulmonary & Critical Care Medicine Sub-I

Number of Students: 2/Rotation

Locations: Mercy San Juan Hospital

Course Director: Peter Murphy, M.D.

Offered as: 2 or 4-week rotation

General Description: This rotation offers an opportunity for a 4th-year student to work jointly with a faculty attending to evaluate and manage critically ill medical and surgical patients. Typical patient diagnoses include myocardial infarction and cardiac arrest, acute respiratory failure (asthma, COPD, pneumonia, ARDS), delirium and coma, stroke, severe sepsis, toxic ingestions, diabetic ketoacidosis, cardiogenic and septic shock, renal and hepatic failure, and post-operative co-management. A comprehensive evidence-based management approach based in physiology will be taught. Students will be responsible for patient evaluations and notes and will progress to performance of diagnostic and therapeutic procedures as appropriate. Students will become familiar with basic mechanical ventilator management and arterial blood gas interpretation, and the value of a multi-professional team approach to the care of the critically ill.

**PUL 801-03 Pulmonary & Critical Care
Medicine Sub-I**

Number of Students: 2/Rotation
Locations: Sutter Roseville Medical Center
Course Director: Vanessa Walker, D.O.
Offered as: 2 or 4-week rotation

General Description: This rotation offers an opportunity for a 4th-year student to work jointly with a faculty attending to evaluate and manage critically ill medical and surgical patients. Typical patient diagnoses include myocardial infarction and cardiac arrest, acute respiratory failure (asthma, COPD, pneumonia, ARDS), delirium and coma, stroke, severe sepsis, toxic ingestions, diabetic ketoacidosis, cardiogenic and septic shock, renal and hepatic failure, and post-operative co-management. A comprehensive evidence-based management approach based in physiology will be taught. Students will be responsible for patient evaluations and notes and will progress to performance of diagnostic and therapeutic procedures as appropriate. Students will become familiar with basic mechanical ventilator management and arterial blood gas interpretation, and the value of a multi-professional team approach to the care of the critically ill.

PUL 810 Pulmonary & Critical Care

Number of Students: 2/Rotation
Locations: Kaiser South Sacramento
Course Director: Gregory Marelich, MD
Offered as: 4-week rotation

General Description: This rotation offers an opportunity for a 4th-year student to work jointly with a faculty attending to evaluate and manage critically ill medical and surgical patients. Typical patient diagnoses include myocardial infarction and cardiac arrest, acute respiratory failure (asthma, COPD, pneumonia, ARDS), delirium and coma, stroke, severe sepsis, toxic ingestions, diabetic ketoacidosis, cardiogenic and septic shock, renal and hepatic failure, and post-operative co-management. A comprehensive evidence-based management approach based in physiology will be taught.

Students will be responsible for patient evaluations and notes and will progress to performance of diagnostic and therapeutic procedures as appropriate. Students will become familiar with basic mechanical ventilator management and arterial blood gas interpretation, and the value of a multi-professional team approach to the care of the critically ill.

PUL 811 Pulmonary & Critical Medicine

Number of Students: 2/Rotation
Locations: Simi Valley Hospital & Los Robles
Regional Medical Center
Course Director: Duc Nguyen, MD
Offered as: 4-week rotation

General Description: Learn how to manage respiratory diseases both inpatient and outpatient. Manage COPD, asthma, pneumonia. Manage critical patients in the ICU. Students will learn how to manage sepsis, stroke, and many other critical illnesses in the ICU.

**PUL 812 Pulmonary & Critical Care & Sleep
Medicine**

Number of Students: 2/Rotation
Locations: Mercy San Juan Med. Center & Mercy
Sleep Lab
Course Director: Hari Nagaraj, MD
Offered as: 4-week rotation

General Description: This rotation offers an opportunity for a 4th-year student to work jointly with a faculty attending to evaluate and manage critically ill medical and surgical patients. Typical patient diagnoses include myocardial infarction and cardiac arrest, acute respiratory failure (asthma, COPD, pneumonia, ARDS), delirium and coma, stroke, severe sepsis, toxic ingestions, diabetic ketoacidosis, cardiogenic and septic shock, renal and hepatic failure, and post-operative co-management. A comprehensive evidence-based management approach based in physiology will be taught. Students will be responsible for patient evaluations and notes and will progress to performance of

diagnostic and therapeutic procedures as appropriate. Students will become familiar with basic mechanical ventilator management and arterial blood gas interpretation, and the value of a multi-professional team approach to the care of the critically ill. Clinical experiences includes: Hospital Ward/ICU.

PUL 813 Pulmonary & Critical Care

Number of Students: 2/Rotation

Locations: AHMC

Course Director: Than Htaik Kyaw, MD.

Offered as: 4-week rotation

General Description: This rotation offers an opportunity for a 4th-year student to work jointly

with a faculty attending to evaluate and manage critically ill medical and surgical patients. Typical patient diagnoses include myocardial infarction and cardiac arrest, acute respiratory failure (asthma, COPD, pneumonia, ARDS), delirium and coma, stroke, severe sepsis, toxic ingestions, diabetic ketoacidosis, cardiogenic and septic shock, renal and hepatic failure, and post-operative co-management. A comprehensive evidence-based management approach based in physiology will be taught. Students will be responsible for patient evaluations and notes and will progress to performance of diagnostic and therapeutic procedures as appropriate. Students will become familiar with basic mechanical ventilator management and arterial blood gas interpretation, and the value of a multi-professional team approach to the care of the critically ill.

RENAL

REN 810-1 Nephrology

Number of Students: 2/Rotation

Locations: Kaiser Medical Center Roseville

Course Director: Jignesh Patel, MD

Offered as: 2-week rotation

General Description: Basics of Renal disease, Acute Kidney Injury, Chronic Kidney Disease, Hypertension, Electrolyte abnormalities and introduction to dialysis and kidney transplant. Make use of above topics to achieve a sound knowledge in renal physiology. Clinical experiences includes: See Office and Hospital patients. Didactic sessions will be 2-3 per week during noon meetings.

General Description: Basics of Renal disease, Acute Kidney Injury, Chronic Kidney Disease, Hypertension, Electrolyte abnormalities and introduction to dialysis and kidney transplant. Make use of above topics to achieve a sound knowledge in renal physiology. Clinical experiences includes: See Office and Hospital patients. Didactic sessions will be 2-3 per week during noon meetings.

REN 810-3 Nephrology

Number of Students: 2/Rotation

Locations: Capital Nephrology Medical Group

Course Director: David Pai, M.D.

Offered as: 2 or 4-week rotation

General Description: Basics of Renal disease, Acute Kidney Injury, Chronic Kidney Disease, Hypertension, Electrolyte abnormalities and introduction to dialysis and kidney transplant. Make use of above topics to achieve a sound knowledge in renal physiology. Clinical experiences includes: See Office and Hospital patients. Didactic sessions will be 2-3 per week during noon meetings.

REN 810-2 Nephrology

Number of Students: 2/Rotation

Locations: Modesto Kidney Medical Group, Modesto, CA

Course Director: Ge Yuqiang, MD

Offered as: 4-week rotation

NEUROLOGY

NEU 810 Clinical Neurosciences Elective

Number of Students: 6/Rotation

Locations: CNUCOM

Course Director: Forshing Lui, MD

Offered as: 4-week rotation

General Description: Build the understanding of neurology through better understanding of more basic clinical neurosciences. Apply and demonstrate basic neurosciences theory and principles in clinical application. Utilize the literature and apply the knowledge for evidence based practice. Apply self-directed learning methodologies to clinical practice. Create and propose teaching sessions and tutorials for other medical students. Regular meeting with the preceptor to discuss learning and teaching activities. Regular self-directed learning activities with literature search and understanding.

NEU 811 Clinical Neurology Elective

Number of Students: 2/Rotation

Locations: Kaiser Morse

Course Director: Rochelle Frank, MD, Suketu Khandhar, MD

Offered as: 4-week rotation

General Description: Improve the understanding of neurology in the clinical setting, inpatient and/or ambulatory. Deepen and expand Neurology skills and knowledge acquired in 3rd year clerkship. Apply knowledge of basic & clinical sciences into medical practice. Obtain and deliver a complete clear, concise, and thorough oral & written presentation of a patient's history and examination in a more advanced setting. Distinguish normal from abnormal findings and the ability to localize the likely sites of lesion in the nervous system from available clinical information. Utilize and interpret common tests used in diagnosing neurologic disease. Formulate a differential diagnosis based on clinical information,

lesion localization, and relevant historical and demographic features. Demonstrate an awareness of the principles underlying a systematic approach to the management of common neurologic diseases and prepare organized management plan. Demonstrate professionalism in all aspects of patient care. Differentiate Neurologic Subspecialties and their applications. Operate as contributing team member in management of neurologic disorders. Clinical Neurology experiences in both inpatient and outpatient settings. Different areas of neurology will be offered including adult and pediatric neurology and general and subspecialty opportunities. Schedule will be customized by student request in available general and subspecialty areas. Regular meeting with the preceptor to discuss learning and teaching activities. Regular rounding and follow-up of patients in different clinical settings.

NEU 813 Pediatric Neurology Elective

Number of Students: 1/Rotation

Locations: Sutter Roseville

Course Director: Rochelle Frank, MD, Michael G. Chez, M.D

Offered as: 2 or 4-week rotation

General Description: Clinical experience in Pediatric Neurology. Improve the understanding of neurology with expansion to Pediatric Neurology in the clinical setting, inpatient and/or ambulatory. Deepen and expand Neurology skills and knowledge acquired in 3rd year clerkship. Focus of Clinical Pediatric Neurology experiences in both inpatient and outpatient settings. Different settings of Pediatric Neurology will be offered. Schedule will be customized by student request in available locations. Regular meeting with the preceptor to discuss learning and teaching activities. Regular rounding and follow-up of patients in different clinical settings.

NEUROSURGERY – NSG

NSG 880S Neurosurgery

Number of Students: 1/Rotation

Locations: Mercy General Hospital, Sutter General Hospital

Course Director: Michael Chan MD

Offered as: 4-week rotation

General Description: The student will be exposed to the breadth of neurosurgery pathologies such as brain tumors, vascular lesions, pain syndromes, spinal deformities, trauma of the brain or spine. The student will have the opportunity to work in the clinic as well as in the operating room and assist on

neurosurgical operations. It is recommended that the student has a strong interest in the surgical specialties for this rotation. Apply knowledge of neuroanatomy to describe etiopathogenesis and management of neurosurgical disorders. Apply knowledge of neuroanatomy to interpret neuro-radiological findings. Explain the mechanisms of traumatic brain injuries and outline their management. Outline the clinical course including management of common neurosurgical problems including tumors, stroke, and spinal disease. Clinical experiences includes: Assist in surgery, round in the hospitals, evaluate patient in the clinic.

OB/GYN

OBG 810 Clinical OB-GYN Elective

Number of Students: 1/Rotation

Locations: Multiple

Course Director: Jean-Claude Veille, MD

Offered as: 4-week rotation

General Description: Improve the understanding of Ob-Gyn in the clinical setting, inpatient and/or ambulatory. Deepen and expand Ob-Gyn skills and knowledge obtained during their 3rd year clerkship.

Explore selected subspecialties in Ob-Gyn [Oncology, MFM, Infertility, UroGyn, and Family Planning] in greater depth. Continue to refine such areas as professionalism, communication and collaboration. Acquire skills in patient management as part of the Ob-Gyn team under supervision by the preceptor. Regular meeting with the preceptor to review the clinical presentation and the clinical management and if appropriate be involved with Residents in morning rounds, follow-up of patients and be involved in the discharge process.

OPHTHALMOLOGY

OPH 810 Ophthalmology Clerkship

Number of Students: 2/Rotation

Locations: Martel Eye Medical Group, Retinal Consultants

Course Director: James Martel, MD; Joseph Martel, MD; David Telander, MD

Offered as: 4-week rotation

General Description: Students are expected to develop the basic skills of medical problem solving, basic science integration, case management, procedural competence, and professional behavior as it pertains to the field of ophthalmology. Interpret how to function as a physician in an Ophthalmology setting including: Choose the appropriate and necessary level of responsibility and commitment to patient care. Develop a compassionate approach to

patient care. Take part in a health care team effectively. Develop and improve clinical skills (history taking, physical exam, oral and written presentation, diagnostic reasoning, procedures). Develop a successful approach to solving patient-based problems. Students will observe, participate, and manage in the care of clinical patients. Students will observe and assist the preceptor in surgeries.

OPH 811 Ophthalmology

Number of Students: 1/Rotation

Locations: Ophthalmic Surgeon San Jose, Eye Surgery San Jose

Course Director: Randal Pham, MD

Offered as: 4-week rotation

General Description: Students are expected to develop the basic skills of medical problem solving, basic science integration, case management, procedural competence, and professional behavior as it pertains to the field of ophthalmology. Interpret how to function as a physician in an Ophthalmology setting including: Choose the appropriate and necessary level of responsibility and commitment to patient care. Develop a compassionate approach to patient care. Take part in a health care team effectively. Develop and improve clinical skills (history taking, physical exam, oral and written presentation, diagnostic reasoning, procedures). Develop a successful approach to solving patient-based problems. Students will observe, participate, and manage in the care of clinical patients. Students will observe and assist the preceptor in surgeries.

ORTHOPEDIC SURGERY

ORT 880S Ortho Spine

Number of Students: 1/Rotation

Locations: Sutter Medical Center Sacramento

Course Director: Mark Hambly, MD

Offered as: 4-week rotation

General Description: See and evaluate patients in office, observe surgery, make rounds. Develop experience in understanding medical and surgical options for patients with spine disorders. Evaluate patients with spine conditions. Understand decision making in operative and non-operative care.

ORT 881S-01 Orthopedic Surgery

Number of Students: 2/Rotation

Locations: Mercy San Juan Hospital

Course Director: Hunter Greene, MD

Offered as: 4-week rotation

General Description: General observations and interactions with patients. Rounds in the hospital and observation in surgery. Extend knowledge in orthopedic anatomy and physical exam skills of the

extremities. Build basic surgical skills. Clinical Experiences includes: Office, OR, rounding, surgery center.

ORT 881S-02 Orthopedic Surgery

Number of Students: 1/Rotation

Locations: Kaiser Roseville

Course Director: Robert Burger, MD

Offered as: 4-week rotation

General Description: The student will be able to develop skills in the Orthopedic Surgery Department by examining and supporting the residents and faculty. The student will be able to make use of the outpatient clinic, emergency room, ambulatory surgery, and the main operating room. Demonstrate clinical skills including performing a thorough musculoskeletal exam, musculoskeletal imaging interpretation and orthopedic operative skills. Demonstrate knowledge of common musculoskeletal pathologies and management options. Demonstrate the ability to critically review basic and clinical orthopedic literature. Apply the

required knowledge and skills in operative and non-operative orthopedic management. Students will be able to evaluate patients in the occupational medicine clinic, emergency department, pre-operatively and post-operatively. Special emphasis will be made on a thorough musculoskeletal exam and discussing management options with patients.

ORT 882S Orthopedic and Podiatry

Number of Students: 2/Rotation

Locations: Kaiser South Sacramento

Course Director: David Manske, MD.

Offered as: 4-week rotation

General Description: The student will be able to develop skills in the Orthopedic Surgery Department by examining and supporting the residents and faculty. The student will be able to make use of the outpatient clinic, emergency room, ambulatory surgery, and the main operating room. To show students to the field of orthopedics and its various subspecialties and research opportunities. To demonstrate a general feel for the training involved in Orthopedics. To show basic orthopedic skills such as x-ray interpretation, splinting and casting techniques, suturing techniques, physical exam. To extend the student knowledge of anatomy as it applies to musculoskeletal conditions, and to introduce student to orthopedic treatments and the medical decision making process. Clinic/OR

OTOLARYNGOLOGY - ENT

OTO 813 Otolaryngology Elective

Number of Students: 1/Rotation

Locations: Sacramento, Roseville, Carmichael

Course Director: Michael J. Kearns, MD, FACS

Offered as: 2 or 4-week rotation

General Description: Develop an understanding of the diagnosis and treatment of many common otolaryngology diseases. Improve examination skills. Develop recognition of head and neck pathology. Demonstrate the understanding of when to refer for specialty opinion. On site experience at one of three SacENT offices as well as surgery centers and hospitals in Sacramento and Roseville areas.

The student develop skills in the clinic, hospital and operating room. Learn the basic anatomy and surgical anatomy of the head and neck, including surface and internal anatomy. Learn the embryologic foundations of pediatric otolaryngologic disorders. Recognize signs and symptoms of pediatric otolaryngologic disorders. Use appropriate tests and evaluation methods for pediatric otolaryngologic disorders. Complete a comprehensive history and physical examination. Develop a diagnosis for pediatric otolaryngologic disorders. Demonstrate and describe the surgical and nonsurgical management of pediatric otolaryngologic disorders. Student will accompany physician and participate in clinic in the evaluation of head and neck surgery patients.

OTO 814 Pediatric Otolaryngology

Number of Students: 2/Rotation

Locations: Kaiser Roseville Women and Children's Center

Course Director: Brian Rubinstein, MD

Offered as: 2-week rotation

General Description: Two week rotation includes the analyzing of pediatric otolaryngology problems presented to specialist for diagnosis and treatment.

OTO 881S Otolaryngology - Head and Neck Surgery

Number of Students: 2/Rotation

Locations: Kaiser Modesto and Stockton

Course Director: Dr. Phyllis Peng, Dr. Mark Bitgood, Dr. Ji-Eon Kim; pending: Dr. Elizabeth Lai, Dr.

Maricel Cubangbang, Dr. Chris Whang, Dr. Bumni Ajose, Dr. Kenneth Mak

Offered as: 4-week rotation

General Description: The objective of this course is to give a broad exposure to the clinical and surgical aspects of otolaryngology. Students will become acquainted with the experience of outpatient office, operating room care, and overall integrated care between patients, general otolaryngologists, and other health care providers including primary care, audiology, and speech therapy. In the office, students will have the opportunity to obtain focused history, perform a complete head and neck exam, formulate differential diagnosis, and management plan. In the operating room, students will perform chart reviews prior to surgery and be knowledgeable about relevant surgical anatomy and treatment options for common surgical disorders like otitis media, sinusitis, pediatric obstructive sleep apnea, and thyroid disorders. At the end of the rotation, the student will be expected to present a topic that was encountered during the rotation. Define a focused Head and Neck history. Take part in a comprehensive head and neck exam including otoscopy/microscopy, anterior rhinoscopy, oral/throat, and neck exam. Test for differential diagnosis and management plan of common ENT disorders including otalgia, nasal obstruction, neck mass, and hoarseness. Identify the basics of head and neck anatomy. Be able to identify and

distinguish pediatric obstructive sleep apnea, otitis media, sinusitis, hoarseness, and thyroid disorders. Demonstrate basic surgical techniques including suturing and knot tying. Outpatient clinic, outpatient clinic procedures, operating room, audiology, lunch sessions, interdepartmental monthly meetings (Head and Neck surgery, audiology, and speech therapy).

OTO 882S Head and Neck Surgery

Number of Students: 1/Rotation

Locations: Kaiser Roseville

Course Director: Vishal Doctor, MD

Offered as: 4-week rotation

General Description: Understanding common head and neck pathologies and management strategies. Become competent with the head and neck exam and identification of normal anatomy. Understanding of head and neck surgical anatomy. Familiarity with common head and neck pathology and basic management strategies. Familiarity with common head and neck emergencies basic management strategies. Students will work with staff surgeons in clinic and operating room. Clinic/OR/Head and Neck MDC

PHYSICAL MEDICINE & REHABILITATION

PMR 810-01 Physical Medicine and Rehabilitation (PM&R)

Number of Students: 2/Rotation

Locations: Kaiser South Sacramento

Course Director: TBD

Offered as: 4-week rotation

General Description: This elective provides a custom designed experience in the field of Physical Medicine and Rehabilitation based on the interests of the individual student. Students can elect for a broad exposure to the field, or concentrate in a specific area including outpatient, acute inpatient, subacute

inpatient, trauma, and electromyography testing. This elective is recommended for students contemplating a career in physical medicine and Rehabilitation as well as those anticipating a career in primary care. Maximize neurological and musculoskeletal history and examination skills. Examine patients, write notes and orders under the supervision of an attending. Demonstrate initial consults and follow-up in conjunction with an attending physician. Extend an appreciation for the role that physical medicine and rehabilitation plays in the comprehensive management of disabled patients.

PMR 810-02 Physical Medicine and Rehabilitation (PM&R)

Number of Students: 2/Rotation

Locations: Kaiser Sacramento and Roseville

Course Director: Steven T. Chan, MD

Offered as: 4-week rotation

General Description: Understand the diversity and scope of PM&R practice (neurologic rehab, musculoskeletal, spine, interventional procedures, electrodiagnostic tests, inpatient and outpatient care). Demonstrate competency in basic neurologic, spine and functional examinations. Complete a history, physical exam and functional assessment on individuals with disabilities. Develop strategies to reduce the risk of secondary complications for the disabled individual (contractures, skin breakdown,

DVT, etc). Develop the process of adaptation to disability and reintegration of the disabled patient into the family, community and workplace. Develop basic spine diagnoses, spine exam and management/treatment options. Develop the skill of electrodiagnostic tests in the medical workup process. Clinical experiences includes: Spine clinic appointments (Kaiser Sacramento and Roseville); Injection Risk Orientation (Kaiser Roseville); and outpatient physical therapy appointments. Interventional spine procedures – fluoroscopy and ultrasound-guided (Kaiser Ros). Electrodiagnostic clinic appointments (Kaiser Sac, Ros). Neurorehab clinic appointments (Kaiser Sac, Ros); amputee clinic; and outpatient physical, occupational, speech therapy appointments. Hospital consultations, neuro-ICU and stroke rounds, inpatient therapy sessions (Kaiser Sac).

PEDIATRICS

PED 810 Pediatric Cardiology

Number of Students: 1/Rotation

Locations: Capital Pediatric Cardiology Associates, Sutter Medical Center, Sutter Roseville, Mercy San Juan, Mercy Folsom, Methodist

Course Director: Stanley Wright, M.D., Naveen Manohar, M.D., James Hill, M.D.

Offered as: 4-week rotation

General Description: Develop understanding of cardiovascular physiology and pathophysiology of both congenital and acquired heart disease in outpatient and inpatient environments. Gain exposure to both noninvasive and invasive methods used in diagnosing and treating congenital and acquired heart disease in the pediatric population. Develop skills in obtaining a history and performing a physical examination focused on the cardiovascular system. During the pediatric cardiology rotation, students will be under the direct supervision of pediatric cardiologists in both the outpatient and inpatient setting. Students will attend either morning or afternoon clinic, participate in obtaining a history and perform a physical

examination on patients in clinic. In addition, they will participate in the selection of appropriate tests and participate in the interpretation of those tests. Students will join pediatric cardiologists on their inpatient rounds seeing patients in Nursery, NICU, Pediatric Ward, and PICU. Students will also have the opportunity to observe cardiac catheterization for diagnostic and interventional procedures as well as observe pediatric electrophysiology studies and catheter ablations of rhythm disorders. Students will also have the opportunity to observe cardiothoracic surgery of neonates, infants, children and adolescents and adults with congenital heart disease. In addition to clinics, students will have the opportunity to attend pediatric cardiovascular presurgical and catheterization conferences in addition to participating in teaching conferences.

PED 816 Med-Peds

Number of Students: 1/Rotation

Locations: San Diego Internal Medicine and Pediatrics Associates

Course Director: Karim Mansour, MD

Offered as: 4-week rotation

General Description: To gain exposure to the combined field of internal medicine and pediatrics. Develop clinical experience through in a setting that is unique to internal and pediatric medicine which is proctored by a physician who is board certified in both internal medicine pediatrics. Assume a role where students are responsible for making initial evaluations, carrying out diagnostic procedures and provide ongoing management of patients. Clinical experiences includes: History-taking, physical examination, diagnostic procedures and patient management.

PED 817 Peds-Heme-Onc

Number of Students: 1/Rotation

Locations: Kaiser Roseville

Course Director: Kent Jolly, MD

Offered as: 4-week rotation

General Description: To gain exposure to the field of hematology-oncology. Provides exposure in a setting that is unique to pediatric hematology oncology which is proctored by a physician who has specialized in the field. The student should assume a role where they are responsible for making initial evaluations, carrying out diagnostic procedures and provide ongoing management of patients. History-taking, physical examination, diagnostic procedures and patient management

PATHOLOGY

PTH 810 Pathology

Number of Students: 1/Rotation

Locations: Hospital Laboratory

Course Director: Anna Wong, MD.

Offered as: 4-week rotation

General Description: Understand the role of pathology, appropriate utilization of lab tests. Understand the behind the scenes work that is involved in clinical laboratory result reporting. Demonstrate the functions of a community pathologist: Anatomic pathology: frozen sections,

intraoperative consultation, hospital slide review and special studies, gross examination of surgical specimens. Clinical lab management: take part in the hematology, blood bank, chemistry, attend hospital lab meetings as appropriate, lab management. The field of pathology differs from the more traditional fields of medicine. The rotation will be modified to accommodate for the interest of the student in the field of pathology. Patient care will include gross examination of surgical specimens, intraoperative consultations and slide review of hospital cases. These results will be correlated with the clinical information.

PLASTIC SURGERY

PLS 801S UC Davis Plastic Surgery Acting Internship

Number of Students: 1/Rotation

Locations: UC Davis Medical Center

Course Director: Michael S. Wong, MD

Offered as: 4-week rotation

General Description: Gain a greater appreciation of Plastic Surgery, as the surgical specialty that restores, reconstructs, or alters the human body in response to congenital or acquired deformities following trauma, weight changes, or the natural aging process. It encompasses many specialty areas including craniofacial, hand, microsurgery, breast and aesthetic surgery. Elective is flexible with

primary emphasis on reconstructive and aesthetic surgery at the University Hospital with opportunities for assisting in the operating room. The rotation also includes Trauma call to provide experience with the evaluation and management of maxillofacial and hand trauma with opportunities for suturing of lacerations as well as closed reduction and splinting of common hand fractures. To expand the exposure to the specialty of Plastic and Reconstructive Surgery through daily clinical experiences as an integral part of the University Plastic Surgery Team as well as weekly didactic sessions. Clinical experiences gained through pre-rounding, morning report, clinical rounds, surgeries, out-patient clinics, and consultations in all settings.

PLS 880S Plastic Surgery

Number of Students: 1/Rotation

Locations: AHMC San Gabriel Valley Hospital

Course Director: Lawton Tang, MD

Offered as: 2 or 4-week rotation

General Description: The specialty of plastic and reconstructive surgery is that branch of surgery

concerned with the restoration of normal form and function. It is a varied specialty involving adults and children and encompassing a wide range of conditions in different parts of the body. One of the most interesting aspects of the specialty is the frequency with which plastic surgeons relate with surgeons from other specialties such as general surgery, orthopedics, otorhinolaryngology, and maxillofacial surgery. In these cases, the reconstructive techniques that plastic surgeons have at their disposal are recognized. The specialty is also closely associated with aesthetic surgery where body parts are surgically altered to bring about an improvement in appearance. Major research areas include wound healing and scar management. The specialty is known for the innovations and advances it has brought to the practice of surgery in general. This includes the use of microsurgical techniques, the understanding of the blood supply of the skin and soft tissues allowing the introduction of many types of flap used in clinical practice, and the introduction of tissue engineering methods in the development of skin substitutes. The student will participate in clinical services interacting with and observing the faculty.

PSYCHIATRY

PSY-M 810 Outpatient Psychiatry Elective

Number of Students: 1/Rotation

Locations: Kaiser Permanente Central Valley

Course Director: Nestor Riel, MD

Offered as: 4-week rotation

General Description: This course is designed for 4th year medical students who would like to have additional exposure to the practice of Psychiatry, for example, those who are considering applying for Psychiatry Residency. The goal is to have more in-depth knowledge and experience with aspects of psychiatric practice, including patient care, consultation, and administration. Clinical experiences include: Interviewing psychiatric patients for initial assessment and follow-up; Treatment planning with clinical preceptor;

Discussion of cases with other mental health clinicians; Observing consultation with other medical providers.

PSY-M 811 Psychiatry Elective

Number of Students: 2/Rotation

Locations: Sierra Vista Hospital

Course Director: Edgar Catingub, MD

Offered as: 4-week rotation

General Description: The focus of this elective will be on interviewing skills and documentation. Specifically for fourth year, the focus would be on independence and autonomy. This would include researching unique aspects of the student's patient's presentation, and presenting/utilizing that

information directly for patient care. There would be more of an expectation for the independent treatment planning, as well as independent

interactions with case management and patient's families.

RADIOLOGY/NUCLEAR MEDICINE

RAD 810-02 Radiology Elective

Number of Students: 2/Rotation

Locations: AHMC

Course Director: James Lin, MD.

Offered as: 4-week rotation

General Description: Students will gain experience and knowledge about the specialty of Radiology; indications, interpretations, and common interpretation errors. After the 4-week rotation through various sections of the department, student(s) should be able to: 1. Explain the basic principles of radiography and identify basic daily routine clinical radiographic examination and interpretation of common diseases-pathologies. 2. Explain the basic principles of computed tomography (CT) and magnetic resonance imaging (MRI). Its daily routine clinical examinations including appropriate indications and grasp basic cross-sectional anatomy as well as common pathologic conditions/diseases. 3. Explain the basic principles of fluoroscopy and basic daily routine clinical fluoroscopic examinations and procedures. 4. Explain the basic principles of nuclear medicine as its daily routine clinical examination and interpretation. 5. Explain the basic principles of interventional radiography and its daily routine clinical examinations and procedures.

RAD 810-03 Radiology Elective

Number of Students: 2/Rotation

Locations: Oroville Hospital

Course Director: Richard Levey, MD

Offered as: 4-week rotation

General Description: Students will gain experience and knowledge about the specialty of Radiology, its indications, interpretations, common interpretation errors and its role in the medical enterprise. After the

4-week rotation through various sections of the department, student(s) should be able to: 1. Explain the basic principles of radiography and identify basic daily routine clinical radiographic examinations and interpretation of common diseases-pathologies. 2. Explain the basic principles of computed tomography (CT) and magnetic resonance imaging (MRI) its daily routine clinical examinations including appropriate indications and grasp basic cross-sectional anatomy as well as common pathologic conditions/diseases. 3. Explain the basic principles of fluoroscopy and basic daily routine clinical fluoroscopic examinations and procedures. 4. Explain the basic principles of nuclear medicine and its daily routine clinical examinations and interpretation. 5. Explain the basic principles of interventional radiography and its daily routine clinical examinations and procedures. Clinical experiences includes: Daily clinical work load as full participant rotating through all departmental sections.

RAD 811-01 Interventional Radiology

Number of Students: 2/Rotation

Locations: Kaiser South Sacramento

Course Director: Farhad Farzanegan, MD.

Offered as: 2 or 4-week rotation

General Description: Understand the basic technical principles of image-guided procedures using fluoroscopy, ultrasound, and CT and application into intervention in organ systems. Students are exposed to a wide range of procedures performed by a practicing Interventional Radiologist. Understand the clinical principles of interventional radiography as applied to disease processes and importance of active patient management. Develop mastery of arterial and venous anatomy. Demonstrate familiarity with use of ultrasound and ultrasound

guided needle access. Develop mastery of Seldinger technique. Demonstrate familiarity with use of guide wires, catheters, and microcatheter systems. Demonstrate familiarity with angioplasty equipment, stents, and embolic agents. Demonstrate understanding of clinical role of IR in caring for the critically ill patient. Develop advanced understanding of interventional oncology especially in treatment of hepatocellular carcinoma. Demonstrate familiarity with venous and arterial interventions. Develop understanding of clinical role of IR in caring for patients in the outpatient setting. Students will work with other residents/fellows.

RAD 811-02 Interventional Radiology

Number of Students: 2/Rotation

Locations: AHMC Whittier Hospital

Course Director: Bay Ngo, MD

Offered as: 4-week rotation

General Description: This course is designed to provide the student with a better understanding of the central role of interventional radiology in the evaluation and management of patients through participation in reading room readouts, radiology call, case presentations, interactive labs, and observation of the various imaging modalities and procedures. Learning objectives includes: Explain the spectrum of diagnostic imaging (e.g., ultrasound, CT, MR, nuclear medicine, angiography, and conventional radiology) and diagnostic and therapeutic image-guided interventional techniques. Extend the appreciation for the role of the radiologist as consultant to the clinician and importance of providing detailed clinical information in the radiology consult. Extend the appreciation for the fundamental role and value of imaging to provide timely, accurate, and actionable diagnostic information regarding a patient's medical condition. Identify the indications and appropriateness of imaging studies for common clinical problems. Elaborate the risks of medical imaging (including radiation induced cancer, MRI safety, contrast nephropathy, and contrast reactions). Construct the appropriate sequencing of exams and the limitations of diagnostic imaging tests, including cost-effectiveness of imaging studies. Apply basic

interpretive skills to evaluate common imaging studies – predominantly plain films and CT. Take part in imaging interpretation, including basic study identification, recognition of normal radiographic and cross-sectional anatomy, and common pathology as depicted on common studies. Explain how common procedures and imaging are performed. Utilize the PACS system to retrieve and review images.

RAD 812 In-house Radiology Elective

Number of Students: TBD/Rotation

Locations: CNUCOM

Course Director: Randall Enstrom, MD.

Offered as: 4-week rotation

General Description: Students will understand the basics and important normal and abnormal imaging findings in X-ray, CT, MRI and other imaging modalities. Imaging case discussions and presentations. Different imaging modalities and their basic principles. Imaging findings in common and important pathological entities.

RAD 816 Nuclear Medicine, Molecular Imaging and Theranostics

Number of Students: 2/Rotation

Locations: Kaiser Roseville and Sacramento

Course Director: David Ng MD, FACP, FACNM with assistance from Erno Gyetvai MD, Andrew Klonecke MD, Judy Nguyen MD and Kit Tittiranonda MD

Offered as: 2 or 4-week rotation

General Description: Transition a MS4 to Intern/Resident Physician. Demonstrate knowledge of Nuclear Medicine items which pertain to USMLE Step 2. Demonstrate the ability to tackle what is the next step imaging test asked on standardized examinations. Demonstrate the ability to manage Hyperthyroid patients. Demonstrate the ability to gather a focused history on patients with Hyperthyroidism. Describe the appropriate utilization of cardiac imaging guidelines. Describe Fleishner criteria for management of pulmonary nodules (both solid and subsolid). Demonstrate the

knowledge of basics of PET, molecular imaging and theranostics. Students will be under supervision of preceptor in the reading room and Thyroid clinic. Student will observe technologist acquiring images.

RAD 817 Dignity Hospital Radiology

Number of Students: 2/Rotation

Locations: Mercy San Juan Medical Center

Course Director: Brian Fellmeth, MD

Offered as: 2 or 4-week rotation

General Description: Understand the role of Diagnostic Imaging and Interventional Radiology in patient management. For those considering a career in Radiology, acquire insight on what the practice of Radiology is all about. Interpret patient's imaging studies as a non-radiologist. Utilize and prioritize imaging services efficiently as a consultation resource. Develop awareness about the hazards of exposure to ionizing radiation for diagnostic purposes. Identify interventional radiological procedures available to solve clinical problems. Describe the components of a radiologic report and explain the limitations related to what can and

cannot be predicted. Shadow the activities of one of the 4 on site Radiologists. The student will be given the flexibility to choose which Radiologist to work with depending on their specific interests. Switching from one to the other during the day is acceptable if not encouraged.

RAD 818 Neuroradiology

Number of Students: 2/Rotation

Locations: Kaiser Sacramento

Course Director: Anna Nidecker, MD., Jonathan Hartman, MD., et al

Offered as: 4-week rotation

General Description: Understand and learn neuroradiology as an extension of general radiology. Apply and understand neuroanatomy through neuroimaging. Apply and understand theories and practice of different neuroradiological entities. Apply and understand neuropathology through neuroimaging. Analyze cost-effectiveness of different neuroimaging entities. Regular learning and interaction on clinical sites with the preceptors.

SURGERY

SUR 801S-1 Surgery Sub-I

Number of Students: 3/Rotation

Locations: Multiple

Course Director: Scott Braley, MD

Offered as: 4-week rotation

General Description: This elective will give the student the opportunity to participate, as a sub-intern, in the care of the general surgical patient. The student should choose between working on one of three services which is preferred, (including Colorectal, GI/Oncology, and Trauma-Critical Care) pending availability. You will function as a sub-intern, taking care of patients particularly assigned to you. In-house call one night in four, including weekends. Obtain informed consent for surgical procedures. Demonstrate a working knowledge of the

preoperative preparation and postoperative management of surgical patients including discharge planning. Demonstrate knowledge of various surgical procedures, including their indications, non-surgical alternatives, risks, benefits and their expected outcomes. Demonstrate an advanced understanding of the performance of common surgical procedures and participate actively in their performance. Demonstrate a working knowledge of basic surgical techniques including patient positioning, suturing and assisting. Develop a knowledge of the common quality initiatives (i.e. deep vein thrombosis, healthcare associated infections and patient safety protocols).

SUR 801S-2 Surgery Sub-I

Number of Students: 2/Rotation

Locations: San Joaquin General Hospital

Course Director: Dinesh Vyas, MD

Offered as: 4-week rotation

General Description: The student will participate, as a sub-intern, in the care of the general surgical patient primarily in the inpatient setting of SJGH. The student will work with any or all three services: Colorectal, GI/Oncology, and Trauma-Critical Care pending availability. The student will function as a sub-intern, taking care of patients particularly assigned to the student where he/she has primary responsibility for a panel of patients with an overall patient load similar to that of a PGY-1 resident. Required in-house call one night in four, including weekends. Describe and outline the treatment and diagnosis of patients who have colorectal diseases, anorectal disorders, GI tract emergencies, and traumatic injuries. Manage patients with lower GI surgical diseases and traumatic injuries. Manage patients in clinic and on the ward and discuss management with staff. Observe and assist in patient surgery in the Operating Room. Assist with minor procedures on the ward. Attend teaching conferences, Morbidity and Mortality Conferences, Tumor Board, etc.

SUR 882S Trauma Surgery Elective

Number of Students: 2/Rotation

Locations: Mercy San Juan Hospital

Course Director: Amir Amiri, MD

Offered as: 4-week rotation

General Description: The Trauma Team responds to trauma resuscitations and is involved with immediate evaluation and management of critically injured patients in the emergency department. Students should demonstrate the initial evaluation and management of the trauma patient and basic principles of resuscitation in the emergency department and in the ICU/trauma ward. The student will also demonstrate the familiarity with physiology, management and outcome of multiple organ dysfunctions. Students will gain exposure to

procedure: central access, chest tube placement, wound debridements, tracheostomies, laceration repairs, etc. Students will be make use of the exposure to complex and difficult decision making involving the injured patient. Participate in the team caring for patients in floor and ICU rounds, OR cases, ER evaluations & ER/ICU/ward procedures. Students are expected Monday- Friday. Morning sign out starts at 6:30 am, multidisciplinary rounds at 8:00 am on the ward, followed by trauma ICU rounds. Students are expected to attend trauma department monthly meetings and case review. Specific dates and times will be provided at the beginning of each rotation.

CAR 880S Cardiovascular Surgery

Number of Students: 2/Rotation

Locations: Sutter Medical Center, Sacramento

Course Director: Robert Kincade, MD.

Offered as: 4-week rotation

General Description: Interpret cardiovascular pathophysiology and develop basic surgical skills. Clinical experiences includes: Pre assessment, operative experience, and post-operation care. Didactic Sessions held once a week in addition to cath, ECHO, and transplant conferences.

CAR 881S Cardiothoracic Surgery

Number of Students: 2/Rotation

Locations: Mercy San Juan Hospital

Course Director: Costanzo DiPerna, MD

Offered as: 4-week rotation

General Description: Students will be able to work with the cardiothoracic team led by Dr. DiPerna to gain exposure and knowledge about cardiothoracic surgery and the different conditions where this surgery is needed as well as pre- and post-operative management of patients. Analyze Lung Cancer, Esophageal Cancer, Thymus cancer, Airway Disease, Esophageal Reflux Disease, Diaphragm Disease, Chest wall issues, critical care for surgery, Lung Screening, Management of Stage IV cancers, Interventional Bronchoscopy and Esophagostomy.

Clinical experiences includes: Rounds, seeing patients, consults, surgery.

UROLOGY

URL 810-01 Urology Elective

Number of Students: 2/Month

Locations: Roseville, CA

Course Director: David Couillard, MD

Offered as: 4-week rotation

General Description: Obtain Informed consent for urological procedures. Demonstrate a working knowledge of the preoperative preparation and postoperative management of urological patients, including discharge planning. Demonstrate

knowledge of various urological procedures, including their indications, non-surgical alternatives, risks, benefits and their expected outcomes. Demonstrate an advanced understanding of the performance of common urological procedures and participate actively in their performance. Demonstrate a working knowledge of basic surgical techniques, including patient positioning, suturing and assisting. Develop a knowledge of the common quality initiatives (i.e. deep vein thrombosis, infection that promote improved patient outcomes. and patient safety protocols).

INTERDISCIPLINARY ELECTIVES

MED 810 OSCE Program Assistance

Number of Students: 4/Session

Locations: CNUCOM

Course Director: Rudolph Holguin, MD

Offered as: ONLY Tuesdays and Thursdays, 3 sessions

General Description: Review and improve history taking, physical exam and presentation skills by teaching and mentoring M1 & M2 students during their Medical Skills courses. Practice and demonstrate history taking, physical examination, and clinical presentation skills by teaching and mentoring M1 and M2 students during their Medical Skills course. Develop course related organizational skills to enhance the learning environment for M1 & M2 students during their Medical Skills course. Improve teaching skills for M1 & M2 students during their Medical Skills course. Apply self-directed learning methodologies to clinical skills.

COM 901 Honors Medical Research

Number of Students: ∞

Offered as: 4-week rotation

General Description: Students must have a minimum of one faculty advisor, who must be a COM faculty, and can also have a non-COM faculty/community physician supervisor with whom the research is conducted. The supervisor should be familiar with research in the relevant discipline(s), to ensure that the direction and monitoring of the student's progress is informed by up to date subject knowledge and research developments. Breadth of experience and knowledge of the supervisor will mean that the student always has access to someone with experience of supporting research student(s) through to successful completion of their scholarly project. The students and supervisor must arrive to an agreement regarding the research topic, the timeline, and the amount of contact time for the progress of the project. The students are responsible for taking the CITI courses (a basic course for all

students, and a more oriented course for those students that need IRB approval). The students are responsible for other aspects of the project, including enlisting the aid of any required supervisor, coordinating communication with the supervisor and the Course Director, helping the supervisor in obtaining the necessary protocol approvals (IRB, IACUCC, IBC) if needed, developing the hypothesis of work, performing the planned study, preparing a document with the results, data analysis, and conclusions, and preparing the poster for the Research Day.

COM 903 Leadership - (2.0 credit hrs)

Number of Students: TBD

Locations: CNUCOM

Course Director: Louise F. Glaser, MD

Offered as: 2-week rotation

General Description: Given the complex and demanding environment of healthcare, effective leadership is often required to meet these challenges. This course is designed to provide you with tools to give you access to being who you, need to be, to be a leader, and to exercise leadership effectively as you encounter each of these challenges. This course is a leadership laboratory in which you will discover that leadership does not always mean a position, a title, time, money, influence, or any of the traits typically "required" to be a leader or produce the results of a leader. Instead of more knowledge about leadership, you will gain access to actually being a leader and effectively exercising leadership as your natural self-expression, in any situation and under any circumstances.

COM 904 Healers Art - (0.5 credit hrs)

Number of Students: TBD

Locations: CNUCOM

Course Director: Louise F. Glaser, MD, Rochelle Frank, MD

Offered as: TBD

General Description: The Healers Art Course is a defined curriculum created in 1991 by Dr. Rachel

Remen (Professor, UCSF School of Medicine) is currently being taught in over 90 medical schools. The purpose of the course is to explore the human dimension of health care including learning self-care strategies and recognizing the value of service. Topics covered will include defining an individual's purpose and commitment in medicine, tools to deal with grief and loss, recognizing awe and mystery in the practice of medicine, and open dialogue about mission and service. The course and its small group discussions offer an opportunity for open dialogue, depth of discussion and interaction with faculty that is unique and not available in other areas of the curriculum.

COM 906 United States Armed Services Officer Training

COM 907 Endocrinology Teaching Assistant

Number of Students: 3/Rotation

Locations: CNUCOM

Course Director: Floyd Culler, MD, Mark Sheffield, MD

Offered as: 4-week rotation

General Description: Time flexibility for travel to residency interviews. Participate in endo teaching, Students Interactive Learning Sessions (SILS) facilitation, and Clinical Case Based Learning (CCBL) facilitation during M2 fall Endo course. Re-exposure to endocrine M2 course content through participation in weekly review sessions. Exposure to different teaching pedagogies. Students will serve as facilitators for all SILS and CCBL sessions (2hr ea). This involves guiding M2's through case analysis (if they are stalled) as well as directing M2's to choose CCBL learning objectives which are chosen by the endocrine faculty as ideal. Students will aid in the preparation and presentation of all review sessions (2 hours each). Students will assist with review sessions by practice question selection and by helping present answers as well as selected review topics. Students will facilitate Jeopardy game activities. Jeopardy games will be held in the first 45 minutes of the weekly reviews. Students will help coordinate SILS learning exercises with students and faculty presenters. Students may attend all regular course lectures as needed. Students must complete

facilitator training with Dr. Ely for three days (2 hrs ea) = 6 hrs of facilitator training.

COM 908 Cardiovascular & Pulmonary TA

Number of Students: 2/Rotation

Locations: CNUCOM

Course Director: Darilyn Falck, MD, Tracy Yarbrough, MD

Offered as: 2 or 4-week rotation

General Description: Assist with CVP teaching, Clinical Case Based Learning (CCBL) facilitation, and Team Based Learning facilitation during M1 spring CVP Course. Reinforcement of CVP M1 course content, particularly the relevant basic biomedical sciences, through participation in teaching, CCBL and TBL sessions, and peer led review sessions. Improve teaching skills through the planning and delivery of mini-lectures and focused review of specific topics. Oversee development of Impact of CVP Disease Project. Assist with integration of on-line resources to enhance student learning. Understand and apply different teaching pedagogies. Students will serve as facilitators for at least 3 TBL sessions (2 hours each). This involves assisting students during the team based learning sessions. If the elective occurs during the latter half of the course, then the student can participate in the CCBL sessions. This involves guiding M1's through case analysis (if they are stalled) as well as directing M1's to choose optimal CCBL learning objectives. Students will aid in the preparation and presentation of all review sessions (2 hours each), including formative quiz review sessions. Students will assist with review sessions by practice question selection and by helping present answers as well as selected review topics. Students will help coordinate TBL learning exercises with students and faculty. Students may attend all regular course lectures. Students must complete facilitator training with Dr. Ely for three days (2 hours each).

COM 909 Behavioral Medicine TA TBD

Number of Students: 2/Rotation

Locations: CNUCOM

Course Director: Martin Rubin, MD

Offered as: 4-week rotation

General Description: *(Draft in Progress)*

HLT 810 Wellness - Leadership, Healers Art, Mindfulness and Compassionate Conversations

Number of Students: 10-15, or more with notice

Locations: CNUCOM

Course Director: Louise Glaser, MD and Rochelle Frank, MD

Offered as: 4-weeks rotation in March

General Description: This course includes: Being a Leader (Glaser), Healers Art (Frank), Mindfulness and Meditation (Gerriets/Glaser) and Compassionate Conversations/Reflective writing (pending). The components of the elective are intentionally symbiotic and will allow for each of you to expand your capacity for self-care, self-reflection, and clarity, intention and integrity in your being and actions as leaders for yourself, your family and friends and in your career. Skills introduced in the course will also provide you ways to maintain compassion with yourself and patients throughout your career. There will be some assignments to enhance the value of the course content including some reflective writing, some mindfulness practices and a Leadership Project. The leadership project is an opportunity to look at and make an impact on something in your own life that matters to you: increase your performance in some area of life, alter something that is not working as well as you'd like, something that you have always wanted to do and never quite got it done, an upgrade to relationships with family or friends, an increase your level of health or fitness and more.