University of Colorado, School Medicine
Phase IV Courses 2013-2014
Accepting Visiting Students from Allopathic and/or Osteopathic medical Schools

Anesthesiology Department

ANES 8000  Clinical Anesthesiology
Students will work one-on-one with anesthesia faculty and residents to gain further practical experience in all aspects of peri-operative care; improving skills gained in the third year and developing a deeper understanding of the breadth of anesthetic practice. Course is completed at Children’s Hospital Colorado and Denver Health.

ANES 8001  Surgery Intensive Care
The goal is to prepare MSIV's for internship by having them manage ‘their’ patients, present on multidisciplinary rounds, call consults, assist/performing procedures, discuss clinical topics & receive didactics. Honors requires clinical excellence and a written paper.

ANES 8002  ANES Subspecialties
Course exposes students to subspecialty areas in Anesthesiology. Students will attain additional experience in selected areas of anesthetic practice. Options include Acute and Chronic Pain, L&D, Cardiothoracics, Neurosurgery, Transplant, General OR, General OR at the VA, and Outpatient.

Dermatology Department

DERM 8001  Dermatology Clerkship
This course is designed to provide a broad overview of medical, surgical and pediatric dermatology. Students will become familiar with the differential diagnosis and treatment of common skin disease, and procedural dermatology including skin biopsies and cryosurgery.

DERM 8600  Research in Dermatology
Prerequisites: Special permission from the department and individual arrangements must be received.
Research elective allows the student to design and implement a basic science, clinical or epidemiologic research project relevant to dermatology or cutaneous biology. Students are expected to participate in research seminars and to present their results.

Emergency Medicine Department

For EM the residency program is handled by Denver Health Hospital and they also offer a course directly through the hospital. Please see www.denverem.org for information.

EMED 8004  Emergency Med Univ Hosp
Students are primary caregivers in a level II trauma center with a variety of patients and individual teaching time with attendings and senior residents. Ideal for students seeking instruction in the assessment and management of the undifferentiated patient.

EMED 8024  Clinical Toxicology
Introduction to medical toxicology at Rocky Mountain Poison and Drug Center. Participation in clinical service, inpatient consultative care at DHMC/UH. Conferences and didactic instruction provided weekly. Short presentations required. Exposed to fundamentals of environmental toxicology, public health concerns, occupational

Family Medicine Department

FMMD 8002  Fam Med SubI Univ Hosp
Experience CU Family Medicine! Students will be members of the inpatient service team at the Anschutz Inpatient Pavilion, take call, and have the option of spending two half days at the A.F. Williams Family Medicine Center (outpatient clinic).

FMMD 8007  Out-Patient Family Med
This course includes outpatient Family Medicine at A.F. Williams Family Medicine Center and Denver Health’s Lowry Family Medicine Clinic. Multidisciplinary faculty including pharmacologists, behavioral scientist, and experienced family physicians and residents care for a diverse group of patients.

FMMD 8010  Preventive Hlth Elective
Students will understand the role of nutrition, physical activity, and behavior change in disease prevention and treatment through experiential learning.

Medicine Department

M Edwards 8001  Medicine Subinternship
The sub-intern functions as an intern and is responsible for the admission, evaluation, and continuing care of patients under the supervision of a Resident and an Attending. Sub-internships are offered at DHMC, P/SL, UCH, VAMC and St. Joseph's Hospital.
MEDS 8003  Transfusion Medicine
Restrictions: Notification of, and approval by, course director before students starts the course.
This course is a comprehensive study of transfusion medicine, pre-transfusion testing, component preparation and storage, donor selection and testing, inventory control and blood administration. Independent study and research encouraged.

MEDS 8006  Allergy/Clin Immunology
Offered at UH and NJMC. Allergy and clinical immunology with direct patient contact in allergy and immunology clinics. Opportunities to participate in inpatient consultations, observe clinical immunology laboratory techniques, and library research.

MEDS 8007  Clinical Renal
A four-week elective course in electrolyte, hypertensive, acute and chronic renal failure, glomerular (including diabetes) disorders, and hospital services. The students will see consults on all services, learn to maintain and analyze flow sheets, review problems with residents and fellows.

MEDS 8010  Clin Gastroenterology
Students will participate in work up of both hospitalized and ambulatory patients with gastrointestinal (GI) illnesses. GI pathophysiology will be emphasized. Students attend weekly conferences in clinical gastroenterology, radiology and pathology. They are invited to observe procedures. Hospital is assigned.

MEDS 8011  Pulmonary
UCH and DVAMC. This elective offers broad experience in pulmonary and critical care medicine. Students participate in consultations, pulmonary procedures, pulmonary subspecialty conferences, attend conferences and clinics. A wide variety of pulmonary and critical care cases are seen.

MEDS 8012  Clinical Rheumatology
Students will learn how to recognize, diagnose, and treat common rheumatic disorders. Students will attend all formal teaching conferences in the Division of Rheumatology and attend 6 or more outpatient clinics each week at Denver Health, the Denver VA, and the University campus.

MEDS 8013  Endocrinology
Introduction to evaluation and management of endocrine disorders via outpatient clinics and inpatient consults at VAMC, DHMC, UCH. Endocrine-focused history-taking and physical examination with a complete problem-oriented approach to patient care. Multiple conferences and close interaction with fellows and attendings.

MEDS 8014  Hematology / Oncology
Students are exposed to a wide range of patients seen in consultation for hematologic and oncologic problems. Students may also elect to attend the numerous subspecialty outpatient clinics for patients with various

MEDS 8022  Disability Medicine
This course addresses unique considerations of providing health care to individuals with disabilities throughout their lifespan. Coursework is tailored to the student's interests, providing experience with genetic conditions and inborn errors of metabolism in addition to patients with developmental disabilities.

MEDS 8023  Medicine Consult
Medicine Consult is for students interested in learning about the medical issues of surgical patients and performing general medical consultations for non medical services. This elective will be useful to the student interested in a career in hospital medicine or surgical subspecialties.

MEDS 8025  Medical Oncology
Students will learn the basic aspects of medical oncology by evaluation of patients in the general oncology, breast, lung cancer, prostate, melanoma, leukemia and lymphoma clinics. They will attend the weekly multidisciplinary tumor conferences.

MEDS 8026  Medical Oncology Sub I
This elective is a sub-internship on the oncology unit of University Hospital. The student will function as an intern, admitting and evaluating patients. Teaching rounds will be on a daily basis with residents, oncology fellows and an attending physician.

MEDS 8029  Applied Clin Pharmacolog
This course provides fourth year medical students with a practical approach to the pharmacologic treatment of common clinical conditions. There will be three 1-hour lectures each day, ten additional hours of independent study per week, and a final examination.

MEDS 8034  Sub I Crit Care StJoseph
Student sub-internship on one-resident/one-intern team, 10 day-time alternating with 5 night-time shifts, one day off weekly. Student attends daily ICU Cardiology/Pulmonary/interdisciplinary rounds, Morning Report, and Noon conference and will enhance skills in evaluating, managing and communicating with critically ill patients and
MEds 8037  Sub I Critical Care UH
The critical care sub-internship will provide training in the care of critically ill ICU patients. Emphasized skills will include management of respiratory failure, hemodynamic instability, severe electrolyte abnormalities, gastrointestinal emergencies and common ICU procedures.

MEds 8600  Research in Medicine
Prerequisites: Special permission from the department and individual arrangements must be received.
Phase 4 medical students perform clinical, basic science or health services research under the supervision of an Internal Medicine faculty member. Project is defined with individual mentor and approved by course director. Course is graded on a pass/fail basis.

Neurology Department

Neur 8000  Neurology
This elective offers students further clinical experience with patients who have neurologic disorders. A program is prepared at one of three teaching institutions (University of Colorado Hospital, Denver Veterans Affairs Medical Center, or Denver Health Medical Center) for this rotation.

Neur 8600  Research in Neurology
Prerequisites: Special permission from the department and individual arrangements must be received.
This course will allow the student to design and conduct a research project with a member of the Neurology Faculty.

Neurosurgery Department

NSur 8014  Neurosurgery Sub I
Intensive rotation emphasizing care and management of neurosurgical patients, with close patient responsibility. Weekly conferences and lectures required and students must present a case with topic discussion. Recommended for students with interests in neurosurgery, neurology, emergency medicine and trauma surgery.

NSur 8600  Research in Neurosurgery
Prerequisites: Special permission from the department and individual arrangements must be received.
A written evaluation must be sent to Dr. Michael Handler and Lauren Buckles.

Obstetrics and Gynecology Department

Obgy 8000  General Obstetrics Sub I
Offered at DHMC only. Includes experience in outpatient high risk obstetrics, inpatient antepartum, intrapartum, postpartum, and family planning. Student works under clinical supervision of residents and attending staff.

Obgy 8001  General Gynecology Sub I
Offered at DHMC only. Includes experience in outpatient high risk obstetrics, inpatient antepartum, intrapartum, postpartum, and family planning. Student works under clinical supervision of residents and attending staff.

Obgy 8004  High Risk Maternal/Fetal
Intensive exposure to problems of high-risk obstetrics. Student will work under supervision of the Maternal-Fetal Medicine Staff. Student will attend high-risk clinics, have primary responsibility for patient care in ante partum unit under supervision of chief resident.

Obgy 8005  Gynecologic Oncology
The student will attend GYN Oncology clinics, scrub in on GYN Oncology surgical cases, and round on inpatients with the team, functioning as an acting intern. The student will attend pathology conference weekly with the team. Student will be required to perform a literature review and talk on a selected topic and will have an oral exam at the end of the rotation. Clinical research opportunities are available.

Obgy 8012  UH Gyn Sub-Internship
This course is designed to allow students to become integrally involved with the general gynecology service. Students will partake in all clinical activities of the service, including operative procedures, management of inpatient gynecology conditions, and emergency room consultation.

Obgy 8600  Research in OB/GYN
Prerequisites: Special permission from the department and individual arrangements must be received.
Restrictions: No additional

Ophthalmology Department

Opht 8000  Ophthalmology
This elective is designed for senior students seriously considering a career in Ophthalmology. Students rotate at each hospital with in-depth exposure to each subspecialty area. Students are expected to participate with in- and out-patient care, call activities, teaching rounds, conferences.
OPHT 8600 Research Ophthalmology  
Prerequisites: Special permission from the department and individual arrangements must be received.  
A final written evaluation must be mailed to Course Director who will assign the final grade.

Orthopedic Department

ORTH 8000 Orthopaedic Surgery  
This course is designed as an elective in Orthopaedic Surgery for students desiring residency training in Orthopaedics or another surgical specialty. The student will function as a "sub-intern" on a resident/faculty team in two hospital settings.

ORTH 8001 Orthopaedic Primary Care  
This course is designed as an elective in musculoskeletal medicine in route to a career in primary care or other overlapping field. The focus is on outpatient musculoskeletal medicine.

ORTH 8005 Sports Medicine  
Course provides clinical experience in musculoskeletal sports medicine. Students will primarily be based in the CU Sports Medicine Clinic and will participate in patient evaluation with considerable operative exposure as well. This is not a non-operative Sports Medicine program.

ORTH 8600 Research in Orthopedics  
Prerequisites: Special permission from the department and individual arrangements must be received.  
Provides an opportunity to participate in research at the clinical or basic science level. The student should contact the Departmental Office 3-4 months in advance to arrange a meeting with a member of the Orthopaedics faculty to define a project.

Otolaryngology Department

OTOL 8000 Clinical Otolaryngology  
For students strongly considering an ENT career. Offers in-depth clinical and operative exposure. Also useful for those seeking primary care to further hone head and neck exam skills and treatment of ENT pathology.

Pathology Department

PATH 8000 Pathology  
Optimal rotation schedule is based on student’s interests. Student usually rotates on Anatomic Pathology (AP) services (surgical, cyto-, autopsy, and pediatric pathology). Subspecialty rotations in AP (hemato-, neuro-, renal, urologic, GI, pulmonary, and molecular pathology) or Clinical Pathology (CP) (clinical chemistry, microbiology,

Pediatric Department

PEDS 8000 Pediatric Sub-Internship  
Designed for students interested in further training in pediatrics. Students function as an intern and are responsible for the admission, evaluation and continuing care of inpatients. Sub-internships are offered at Children’s Hospital Colorado and Denver Health.

PEDS 8004 Pediatric Cardiology  
The student will make rounds with the cardiology team, see consults, attend outpatient clinics, and participate in cardiac catheterizations and conferences. Evaluation of children with heart disease by history, physical examination, ECG, x-ray, echocardiography, and cardiac catheterization are stressed.

PEDS 8006 Immunology and Allergy  
Students participate in the care of outpatients at National Jewish, attend lectures, rounds and conferences. Opportunities provided to observe laboratory procedures in immunology and pulmonary physiology laboratories.

PEDS 8007 Child Abuse and Neglect  
Students learn about basic principles of child abuse and neglect. They participate in team evaluations of outpatient and inpatient child abuse cases and attend court. Held at Children’s Hospital Colorado and The Kempe Center. Primarily observational and includes independent study.

PEDS 8008 Birth Defects/Genetics  
Rotation includes experience in general genetics, inherited metabolic diseases, muscle, neurocutaneous and outreach clinics. Students will participate in diagnosis, pedigree assessment and management, complete consultations with faculty, attend conferences and visit laboratories.

PEDS 8009 Peds Infectious Disease  
This course provides experience in the pathophysiology, diagnosis, and therapy of childhood infections. Students evaluate inpatients and present cases at daily teaching rounds. Experience in the diagnostic Microbiology laboratory is provided. There is a weekly HIV/infectious diseases clinic.
PEDS 8011  Pediatric Pulmonary
Basic knowledge in pediatric pulmonary physiology and disease will be provided. The student will attend rounds, clinics, and weekly conferences and participate in hospital consultations. Students will be expected to present a case discussion on a pediatric pulmonary topic.

PEDS 8012  Pediatric Neurology
Child Neurology provides students with the opportunity to gain experience evaluating children with a wide variety of neurological problems. Students will round on hospital and clinic patients, complete assigned readings and attend Neurology grand rounds.

PEDS 8013  Pediatric Endocrinology
Patients with abnormalities of growth and sexual development, thyroid disorders, and diabetes mellitus are evaluated and treated. Extended diagnostic testing and management are conducted on ward rounds, in endocrine and diabetes clinics, and in clinical research clinics.

PEDS 8015  Neonatology Sub-I
Students actively participate in the care of critically-ill infants including work rounds, attending rounds, conferences and night call. Experiences will be gained in procedures and ventilator management. Students are assigned to University Hospital, Denver Health or Children’s Hospital.

PEDS 8018  General Academic Peds
This course offers experience in a busy, urban ambulatory pediatric clinic at Children’s Hospital. Students will learn about assessment and treatment of general pediatric illnesses and normal development and be trained in techniques for offering anticipatory guidance.

PEDS 8022  Peds Gastroenterology
This rotation is designed for students with a specific interest in pediatrics and/or gastroenterology. Students participate in pediatric gastroenterology inpatient and outpatient services, procedures and scheduled conferences.

PEDS 8024  Child Development/Behav.
Medical students will participate in the medical assessment and treatment of children with developmental and behavioral problems. They will attend lectures, participate in the seminars, and observe multidisciplinary assessments of children with developmental disorders. Primarily observational.

PEDS 8025  PEDS Emergency Medicine
Students gain experience in assessment and management of common conditions in Children's Hospital Colorado emergency department including minor emergencies, acutely ill children and traumatic diagnoses. Procedural experience at student's level, and at attending's discretion, will also be gained.

PEDS 8026  Pediatric Nephrology
Students will actively participate in the care and evaluation of patients with common pediatric renal conditions such as hematuria, proteinuria, electrolyte disturbances, chronic renal insufficiency, hypertension, hemodialysis, peritoneal dialysis, and renal transplantation.

PEDS 8027  PICU Sub-I
The student assumes responsibility for the care of critically ill children and will learn pathophysiology of critical illness, enhance skills in reporting and interpreting clinical data, and gain experience in the diagnosis and therapy of a broad spectrum of illnesses.

PEDS 8031  Pediatric Hem/Onc
Provides a good overview of pediatric hematology and oncology and exposure to a wide variety of diagnostic and therapeutic problems. Students participate in educational sessions, outpatient clinics and inpatient management.

Physical Medicine And Rehabilitation Department

PHMD 8000  Physical Med & Rehab
This elective provides experience in the diagnosis and treatment of patients with pathology of the neurologic and musculoskeletal systems. 4 different locations (VA, Denver Health, University Hospital, Children’s Hospital Colorado) allow treatment of a variety of conditions related to rehabilitation.

PHMD 8600  Research Physical Med
Written evaluation must be sent by individual instructor, with course director responsible for final grade.

Preventive Medicine Department

PRMD 8006  Dir Study Ethics/Humanit
Selected students may participate in directed scholarly work in Bioethics and Medical Humanities with specific faculty members. Opportunities such as directed literature reviews, clinical research projects, curriculum development projects, and other scholarly activities are available.
Psychiatry Department

PSYM 8000  Sub-I in Adult PSYM
Sub-interns take responsibility as primary provider for seriously ill patients, work closely with treatment team directed by an attending psychiatrist. Sub-interns assume responsibilities for care of patients that interns typically assume: performing H&Ps, writing orders, giving “bad news” when appropriate.

PSYM 8001  Prim. Care Subst. Pros.
In treatment programs, experts’ tutorials, and readings, students learn approaches to 6 common primary-care substance problems, such as addiction in pain disorders, pregnancy, smoking with tobacco-induced illness, and substance involved adolescents. Students write a paper on the 6 clinical problems.

PSYM 8003  Elective in Psychiatry
Students, in conjunction with the office of psychiatry medical student education, choose to work with patients on an inpatient psychiatry ward, outpatient clinic or other psychiatric units as a member of a treatment team.

PSYM 8004  Sub-I/Child&Adlcsnt PSYM
Evaluate and manage adolescents with psychiatric disorders. Students will be members of multidisciplinary team learning about psychopathology, psychopharmacology, psychotherapy, family therapy, and other treatment modalities. Students will learn about systems of care.

PSYM 8005  Clinical PSYM Geriatric
Evaluate and help manage geriatric patients with psychiatric illness. Students will serve as part of the inpatient geriatric team and will be responsible for 2-3 inpatients under the supervision of attendings, residents and

PSYM 8006  Clinical PSYM C/L
Consultation-Liaison Psychiatry a unique discipline within the field of psychiatry which combines knowledge of medical illnesses, psychotherapy and psychopharmacology with an ability to forge liaisons within the medical community. Evaluate and help manage patients with psychiatric disorders within medical settings.

PSYM 8007  Clinical PSYM Emer Srvs
Learn the essentials of identification, assessment, and treatment of patients with substance use disorders. Emphasis on screening and brief intervention techniques. Learn principles of detoxification for alcohol, opioids, and cocaine; interpretation of drug testing results; proper prescribing practices.

PSYM 8008  Clinical PSYM Forensic
Introduction to the interface of criminal law and psychiatry. Students will be involved in the evaluation of people entering pleas of incompetency to stand trial and not guilty by reason of insanity as well as the treatment and

PSYM 8009  Clinical PSYM Addiction
Learn the essentials of identification, assessment, and treatment of patients with substance use disorders. Emphasis on screening and brief intervention techniques. Learn principles of detoxification for alcohol, opioids, and cocaine; interpretation of drug testing results; proper prescribing practices.

PSYM 8010  Clin PSYM Eating Dsordrs
Evaluate and manage patients with eating disorders under the direction of fellows and attendings. Student will gain specific knowledge of classification, epidemiology, etiology, physiology and treatment of eating disorders.

Radiology Department

RADI 8000  Diagnostic Radiology
An introduction to the interpretation of images and the role of diagnostic imaging in patient care. Clinical observation, lectures, and independent study at UH/AOP. Only 2 days of absence permitted for any reason.

RADI 8002  Nuclear Medicine
Nuclear Medicine encompasses the various uses of radioactive compounds in medical diagnosis and therapy. Students participate in the supervision and interpretation of nuclear medicine procedures under the guidance of the staff/residents at the AOP. Students will attend daily conferences.

RADI 8007  Interventional Radiology
Interventional Radiology is the treatment of disease conditions using minimally invasive means. These procedures are performed with X-rays, US, and CT guidance. The student will round with the team, participate in procedures, and attend daily conferences. Standard student evaluation used.

RADI 8600  Research in Radiology
Students responsible for obtaining written evaluation. 2 week rotation not Honors eligible.

Radiation Oncology Department

RAON 8005  Radiation Oncology
The student will learn the basic tools and techniques of radiation oncology, evaluate patients before and after treatment, learn specialized exam techniques, participate in consultations and multi-modality cancer treatment
RAON 8600  Research RAD Oncology
This elective is designed to acquaint the student with current research developments, knowledge and techniques in radiation oncology.

Surgery Department

SURG 8000  Gen Surg Sub I Univ Hosp
Students perform intern responsibilities on General Surgical Service at University of Colorado Hospital. Students alternate night call, write orders on assigned patients, and participate in preoperative, operative and postoperative care of inpatients.

SURG 8001  Gen Surg Sub I DHMC
Acute Care Surgery Team at a Level I Trauma Center. Course emphasizes pre- and postoperative evaluation, O.R. decisions making and clinical research. Student will attend clinics, rounds, conferences and surgical procedures. A Faculty Mentor is for the research component.

SURG 8008  Cardiothoracic Surg Sub
Adult cardiac and general thoracic surgery and critical care monitoring on the Cardiothoracic Service at UH and Denver VAMC. Students will participate in preoperative, operative and postoperative care.

SURG 8010  Burn Critical Care/Surg
Acting sub-intern on Burn Service, working with Burn and related Surgical Critical Care cases. A high level of patient care responsibility, including bedside procedures, burn care and line charges. Work with attending faculty, and gain a multidisciplinary approach to burns.

SURG 8011  Hand Surgery
The students will participate in all aspects of the hand service including the emergency room, outpatient clinics, inpatient/outpatient operative and non-operative treatment. Emphasis is on acute hand and upper extremity diseases, trauma, their treatment and rehabilitation.

SURG 8012  Urology Subinternship
All students are required to rotate at hospitals, participate and perform physical exams, follow-up, clinic and surgeries. All Urology Conferences are mandatory. The Chief Resident, under supervision of the Attending, guides educational experiences.

SURG 8015  Pediatric Surgery
Student will assume major clinical responsibility for pediatric surgical patients, will work with housestaff, share patient care and work-ups, act as liaison to families, attend operations and teaching conferences, and actively participate in the surgical management of infants and children.

SURG 8019  Plastic Surgery
Students learn basic principles of wound healing, care, and management; management and reconstruction of maxillofacial trauma; head and neck cancer; congenital anomalies; tissue transplantation; cosmetic surgery; and plastic/reconstructive management of post-burn and post-surgical patients.

SURG 8021  Surgical Critical Care
Assigned to surgical ICU, work with critical care residents, fellow and staff. Students gain experience in resuscitation, hemodynamic monitoring, mechanical ventilation, nutritional support, bedside ultrasound and all aspects in care of critically ill surgical ill pts.

SURG 8030  Clinical Transplantation
Medical student will round with transplant team, which includes surgeons, nephrologists, and hepatologists. They will be exposed to all aspects of transplant care including preoperative work up, donor surgery, transplant surgery, post-operative care.