## PHASE I – REQUIRED CURRICULUM FALL SEMESTER 2007

### IDPT 5000  Foundations Doctoring I  1.6 cr.
Course Director, Wendy Madigosky, M.D. Course Coordinator, Tina Roquemore, 303-315-1546.
The course is designed to expose students to basic clinical skills necessary for physicians. The course includes a weekly preceptorship along with instruction in physical exam, communication skills and professionalism.

### IDPT 5001  Human Body  7.0 cr.
This course covers the anatomy and embryology of the back, extremities, trunk, head and neck. Students will dissect human cadavers and study computer generated cross-sections and radiological images. Clinical case discussions will be integrated with physical exam material.

### IDPT 5002  Molecules to Medicine  8.0 cr.
Course Director, Robert Low, M.D., Ph.D., 303-724-4307
Molecules to medicine is an integrated approach to cell biology, biochemistry, molecular biology and human genetics presented in a context that emphasizes clinical issues.

### IDPT 5015  Basic Card Life Support  0.3 cr.
Course Director, Todd Larabee, M.D. 303-372-5500. Course Coordinator, Cathy Maciel, 303-372-5500.
Course will be taught along American Heart Association (AHA) guidelines utilizing lecture, video, demonstrations on mannequins and a practice session. Students will read the required text prior to course, pass a written examination, and demonstrate performance skills essential to BCLS.

### IDPT 5090  Mentored Scholarship  0.6 cr.
Course Director, Richard L. Byyny, M.D. Course Coordinator, Melody Johnson, 303-315-3071.
A four year requirement for students to pursue and complete a mentored scholarly project and a capstone presentation. Project can be in one of the following thematic areas: basic and clinical research; epidemiology and public health; humanities and social sciences.

## PHASE I – REQUIRED CURRICULUM SPRING SEMESTER 2008

### IDPT 5000  Foundations Doctoring I  1.6 cr./sem.
Course is a continuation of the fall semester course.

### IDPT 5003  Blood and Lymph  4.0 cr.
Co-Course Directors, Tim Garrington, M.D. 303-764-8365 and Jill Slansky, Ph.D. 303-398-1887.
Blood and Lymph covers the basic and clinical concepts underlying immunology, hematology, rheumatology, and malignancies of the blood. Histology, genetics, biochemistry, and ethical issues are integrated into the course concepts. Contact hours are divided equally between lecture and discussion groups.

### IDPT 5004  Disease and Defense  5.0 cr.
Course material covers principles of biometrics, pharmacology, pathology and infectious disease. Topics include mechanisms of tissue damage and repair. Dermatology is presented as an “Organ System”, including structural and function, pathology, pathophysiology and pharmacology.

### IDPT 5005  Cardiovascular/Pul/Renal  9.5 cr.
Co-Course Directors, Bruce Wallace, Ph.D. 303-315-8386 and John Weil, M.D. 303-315-4471.
Course is an interdisciplinary approach to the cardiovascular, pulmonary, and renal systems, including anatomy, histology, physiology, pathophysiology, pathology, pharmacology, and development. Emphasis is on how the major organs work together to regulate blood pressure and fluid, electrolyte, and acid-base balance.

### IDPT 5090  Mentored Scholarship  0.6 cr.
Course Director, Richard L. Byyny, M.D. Course Coordinator, Melody Johnson, 303-315-3050.
A continuation of course begun in fall semester.

### PRMD 5000  Ethics Hlth Profession I  0.7 cr.
Course Director, Jackie Glover, Ph.D., 303-315-6993.
Required two-part course in ethics taught with dental, medical, nursing, pharmacy, physical therapy and physician assistant students. This course includes basic knowledge and skills in ethical theory and reasoning, professional ethics, and inter-professional approaches to health care decision making.

## PHASE II – REQUIRED CURRICULUM FALL SEMESTER 2007
IDPT 6000  Foundations Doctoring II  1.6 cr./sem.
Course Director, Wendy Madigosky, M.D. 303-315-1532. Course Coordinator, Tina Roquemore, 303-315-1546.
This course is the second year of the longitudinal Foundations curriculum. Students spend one afternoon each
week off campus with a generalist physician or on campus learning communications or physical exam skills. Course
limited to second year medical students.

IDPT 6001  Nervous System  7.5 cr.
Co-Course Directors, Tom French, Ph.D., 303-315-8089 and Steven Ojemann, M.D., 303-315-1764.
Course covers the gross and microscopic anatomy of the nervous system, basic neurobiology and
neurophysiology, pharmacology, neuropathology, and basic neurologic and psychiatric examination skills. Emphasis is on
the relationship between basic processes and functional systems to clinical phenomena and behavior.

IDPT 6002  Digest/Endo/Metaboli Sys  9.5 cr.
Co-Course Directors, Robin Michaels, Ph.D., 303-724-3402, Virginia Sarapura, M.D., 303-724-3931 and Daniel
Bessesen, M.D., 303-315-9005.
This interdisciplinary course integrates clinical and basic science topics related to the normal function and
diseases of the gastrointestinal and endocrine systems. The biochemistry and physiology of nutrient metabolism in health
and disease will also be covered.

IDPT 6090  Mentored Scholarship  0.6 cr.
Course Director, Richard L. Byyny, M.D.  Course Coordinator, Melody Johnson, 303-315-3050.
Second year of course begun fall semester of Phase I.

PRMD 6000  Ethics Hlth Profession 2  0.7 cr.
Course Director, Jackie Glover, Ph.D., 303-315-6093.
Required two-part course in ethics taught with dental, medical, nursing, pharmacy, physical therapy and
physician assistant students. This course includes basic knowledge and skills in ethical theory and reasoning,
professional ethics, and inter-professional approaches to health care decision making.

**PHASE II – REQUIRED CURRICULUM FOR SPRING SEMESTER 2008**

IDPT 6000  Foundations Doctoring II  1.6 cr./sem.
Course Director, Wendy Madigosky, M.D. 303-315-1532. Asst. Course Director, TIna Roquemore, 303-315-1546.
This course is the second year of the longitudinal Foundations curriculum. Students spend one afternoon each
week off campus with a generalist physician or on campus learning communications or physical exam skills. Course
limited to second year medical students.

IDPT 6003  Life Cycle  5.0 cr.
Co-Course Directors, Robert Shikes, M.D., 303-315-5410 and Sonya Erickson, M.D., 303-315-1487.
Course provides an interdisciplinary approach to the normal biology and pathobiology of the male and female
reproductive systems, reproduction and pregnancy, the fetus, newborn and child, aging, and end of life. Clinical cases
and physical examination will be integrated throughout.

IDPT 6004  Infectious Disease  4.5 cr.
Co-Course Directors, David Barton, Ph.D., 303-724-4215 and Edward Janoff, M.D. 303-315-7233
This course integrates microbiology, infectious diseases, and antimicrobial pharmacology. Content covers
pathogenic microorganisms (bacteria, viruses, fungi, and parasites), host-pathogen interactions, microbial virulence
determinants, host immune responses, signs and symptoms of disease presentation, epidemiology, laboratory diagnosis,
prevention (vaccines) and therapy (antimicrobials).

IDPT 6015  BCLS Update  0.3 cr.
Course Director, Todd Larabee, M.D., 303-372-5500. Course Coordinator, Cathy Maciel, 303-372-5500.
A re-certification. Principles of BCLS will be taught along AHA guidelines utilizing lecture, video, demonstrations
on mannequins, and practice sessions. Students will read required text prior to course, pass a written examination, and
demonstrate performance skills essential to BCLS.

IDPT 6090  Mentored Scholarship  0.6 cr.
Course Director, Richard L. Byyny, M.D.  Course Coordinator, Melody Johnson, 303-315-3050.
Second year of course begun fall semester of Phase I.

**ELECTIVES FOR PHASE 1 AND 2 STUDENTS**
### DERMATOLOGY ELECTIVE

**DERM 6660  Career Elective in DERM**  
All terms  1.0 crs  
Course Director, Cory Dunnick, M.D.  Course Coordinator, Kemp Weston, 720-848-0510.  
This course is designed to provide an introduction into the field of dermatology. Students will shadow a dermatologist in clinic to get an idea of the scope of practice in dermatology which encompasses adult and pediatric medicine, surgery and dermatopathology.

### FAMILY MEDICINE ELECTIVES

**FMMD 6410  Immersion Spanish**  
Summer sem.  4.0 cr.  
Course Director, David Gaspar, M.D., Course Coordinator, Cynthia Villanueva, 303-315-5684.  
Students will attend an accredited Spanish language school in a Spanish speaking country. Participation is 60 hours of Spanish instruction: 15 hours of language class per week for 4 weeks or 20 hours/wk for 3 weeks.

**FMMD 6622 Intro FMMD Research**  
Summer sem.  Var. cr.  Max: 12  
Course Director, David Gaspar, M.D., 303-315-5684. Course Coordinator, Cynthia Villanueva, 303-315-5684.  
Provides students the skills in designing a primary care research project. Covers constructing research question, measurement of variables, reviewing literature, research design, reporting results and medical writing. This will serve as a foundation for the 4th year required scholarly project.

**FMMD 6624  Hlthcare Poor/Homeless**  
Fall and Spring sem.  1.0 cr.  Max: 4  
Course Director, Allegra Melillo, M.D. Course Coordinator, Cynthia Villanueva, 303-315-5684.  
This course introduces students to healthcare of Denver’s poor and homeless. Students will participate in patient care at the Stout Street Clinic on six Saturday mornings throughout the school year. Participation in two additional volunteer outreach activities is also required.

**FMMD 6628  Rural Track Elective**  
Fall and Spring sems.  1.0 cr.  
Course Director: Mark Deutchman, M.D.; Course Coordinator, Mary Jo Bush, 303-724-9753  
Prerequisite: Student must have been accepted in the Rural Track or have course director approval to add.  
The course goal is to increase the number of students who eventually enter, and remain, in practice in rural Colorado. The track provides students with, mentorship, additional knowledge, broad skills and rural socialization experiences throughout the 4 years of school.

**FMMD 6629  SABES Spanish Immersion**  
Fall and Spring sems.  1.0 cr  
Course Director, Mark Deutchman, M.D.  
Course requirements: a two-semester elective. Students enrolled for fall semester will be automatically enrolled for spring semester. A one time fee of $30.00.  
“SABES” Spanish Immersion takes a student/mentor approach to immersing students at all levels of Spanish acquisition to fortify Spanish Language ability. Course covers grammar and usage, emphasis is on constructing meaningful medical Spanish sentences and understanding appropriate responses.

### INTERDEPARTMENTAL ELECTIVES

**IDPT 6627  Directed Study Basic Sci**  
All sems.  Var. cr.  
Course Directors: Maureen Garrity, Ph.D., Lorraine Adams; Course Coordinator, Becky Gossert, 303-315-7678.  
Prerequisite: Course Director approval required to add.  
This course provides an opportunity for medical students to further develop and refine their knowledge of the basic sciences. Course director approval required.

**IDPT 6628  Nutrition and Cancer**  
Spring sem.  1.0 cr.  Max: 30/Min: 8  
Course Director, Richard F. Bakemeier, M.D., 303-724-3158; Course Coordinator, Connie Bair, 303-724-3158.  
Human nutrition as it relates to clinical/biological aspects of cancer. Introduction to modern concepts of cancer development and treatment through seminars, patient presentations, lectures, discussion groups. Analyze your diet and what modifications seem likely to reduce the risks of cancer.

**IDPT 6634  Maternity Matching**  
Fall and Spring sem.  1.0 cr. per term  Max: 15
A two-semester course. Students observe the continuity of care for a pregnant woman and get exposure to those issues surrounding pregnancy. Goal is to improve the knowledge about the stages of pregnancy and patient education.

**IDPT 6636 Summer Preceptor Exp**

Restrictions: Available summer semester only.

Course Director, Wendy Madigosky, M.D. Course Coordinator, Tina Roquemore, 303-315-1546

Elective Summer Preceptorship is a clinical elective designed for students between their first and second year of medical school. It may take place in the hospital or in a clinic one afternoon or morning during the summer semester.

**IDPT 6637 LEAD**

Spring sem. 2.0 cr.

Course Director, Shale Wong, M.D., 303-826-4436 Course Coordinator, Karen Mellis, 303-372-9088.

The course will include monthly seminars and be divided into four thematic sections. Seminar speakers are primarily engaged in leadership/advocacy work in health care. The themes will be further explored by case-based, small group sessions. Elective required for LEADS scholars.

**IDPT 6639 Health Care-Public Policy**

Fall and Spr sem. 1.0 cr.

Course Director, Gary VanderArk, M.D. 303-315-2320 Course Coordinator, Diana Doyle, 303-315-0303.

Health care in public policy, work with course director and Colorado Medical Society to collaboratively research current issues in health policy. Students gain an expanded awareness of current issues in healthcare policy and an appreciation for relationship between medicine/politics.

**IDPT 6642 Intro to Women’s Health**

Fall sem. 1.0 crs.

Prerequisite: Course Director Approval required too add course.

The first in a series, this elective will introduce participants to Women’s Health as a field of study and clinical care. Assigned reading will frame discussions devoted to gender-based public health issues, women as research subjects, gender and communication.

**IDPT 6667 Global Hlth Studies (US)**

Summer sem. 10.0 crs

Course Director, Andrew Kestler, M.D.: Course Coordinator, Cathy Maciel, 303-372-4121.

Students and their faculty preceptors will develop a global health project focused on research, education, or community health service. After their project with a global health organization, students will provide a written report and an oral presentation of their project.

**IDPT 6668 Global Hlth Study Aboard**

Summer sem. 10.0 crs

Course Director, Andrew Kestler, M.D.: Course Coordinator, Cathy Maciel, 303-372-4121.

Prior to travel, students and their faculty preceptors will develop a global health project focused on international research, education, or community health service. After their stay abroad, students will provide a written report and an oral presentation of their project.

**MED 6621 Geriatric Medicine**

Fall and Spring sem. 1.0 cr. Max: 1

Course Director, Laurence Robbins, M.D. 303-393-2822. Course Coordinator, Lynn Blair, 303-393-2822.

Aging in America, exposure to geriatric health care ranging from prevention among healthy community dwelling elderly to hospice care for terminally ill in nursing homes.. Students contact the Course Coordinator, Lynn Blair two weeks prior to starting the elective.

**MED 6623 Intro Biomedical Research**

Fall and Spring sems. Var. cr.

Course Director, John Repine, M.D., 303-315-8262.

Independent study with a mentor of your choice. A short paper on a subject chosen by the student is usually required. Dr. Repine will meet with students interested in a career in academic medicine and/or research.

**MED 6626 Molecular Biology Cancer**

Fall sem. 1.0 cr. Max: 15/Min: 4

Course Director, Christopher Hogan, 303-724-3113. Director, Bob Gemmill, 303-724-3582. Course Coordinator, Evelyn Sandoval, 303-724-3872.
Provides an overview of molecular events that occur in the cell that relate to the origins of neoplasia. Provides students the ability to understand/interpret literature and an appreciation of how biology impinges on the practical treatment of cancer.

**MED 6627  Art in Med; Med in Art**  
Spring sem.  1.0 cr.  
Max: 12/Min: 4  
Course Director, Henry Claman, MD, 303-315-6978; Course Coordinator, Angela Peterson, 303-315-0773.  
Included are The Arts in Medicine lectures, weekly critical reading in the anthology, On Doctoring, other texts and pictures in Medical Humanities. Also ‘Museum Rounds’ at the Denver Art Museum, and a required piece of reflective writing, poetry and prose.

**MED 6628  CAM-Theories & Practices**  
Spring sem.  1.0 cr.  
Course Director, Lisa Corbin, M.D., 720-848-1225 Course Coordinator, Vicki Melton, 303-315-6758.  
With 50% of the US population using CAM, physicians need education about its rational use. Through discussions and experiential sessions; therapies such as acupuncture, chiropractic, and herbs are presented. Students may spend a half-day at the Center for Integrative Medicine.

**ORTH 6620  Intro to Orthopedics**  
Spring sem.  1.0 cr.  
Max: 30/Min: 10  
Course covers basic clinical problems of the musculoskeletal system. Topics include musculoskeletal physiology, reconstructive surgery, trauma, sports medicine, cast technique, and primary care orthopaedics. An opportunity is available for experience in the operating room and outpatient clinic.

**OTOL 6660  Career Elective in OTOL**  
All terms  1.0 crs.  
Course Director, Peggy E. Kelly, M.D. Course Coordinator, Alicia L. Gore, 303-315-1569.  
The Career Elective in Otolaryngology – Head & Neck Surgery will provide diverse sub-specialty clinical and operative exposure with physician specialists who diagnose and treat disorders of the ears, nose, throat and related structures of the head and neck.

**PED 6622  Diabetes Mellitus**  
Summer sem.  3.0 cr.  
Max: 3  
Course Director, Paul Wadwa, 303-724-6719.  
The student will spend 1 week at diabetes camp. One will learn about diabetes as well as children. Before and after camp, time will be spent at the Barbara Davis Center clinic. Clinical research projects can be developed if interested.

**PED 6623  Warren Village Clinic**  
All sems.  1.0 cr.  
Max: 20/Min: 8  
Course Director, Stephanie Stevens, M.D. Course Coordinator, Brenda Lovato, 303-861-6867.  
An opportunity for Phase I and II students to participate in a pediatric clinic. Students will provide well-care and minor acute illness care for children. Students are required to attend an orientation and three to four Wednesday evening clinics.

**PSCH 6620  PSCH in Great Literature**  
Fall and Spr sems.  2.0 cr.  
Max: 15/Min: 4  
Course Director, Robert Davies, M.D., 303-315-0452. Course Coordinator, Carole Evans, 303-315-8411.  
Writers, the first thinkers to understand the “whole man,” took into account his unconscious. We’ll illustrate this as reflected in normal development and personality formation, symbolization, fantasy and psychopathology using the characters and texts from Great Literature. Tuesday evenings.

**PSCH 6626  Intro to Emergency Psch**  
Spring sem.  1.0 cr.  
Max: 20/Min: 4  
Course Director, Michael Weissberg, M.D. Course Coordinator, Carole Evans, 303-315-8411.  
Students will learn basics of emergency evaluation with particular focus on suicide, homicide, child abuse, spouse abuse, and incest. Students will see emergency psychiatric consultations with residents, staff or faculty.
PSCH 6629 Medical Hypnosis  
Spring sem.  1.0 cr.  
Min: 4  
Course Director, Steve Allen, M.D., 303-741-0239. Course Coordinator, Carole Evans, 303-315-8411. 
Medical hypnosis has a wide application in primary care settings, but most primary care practitioners are 
unfamiliar with its use. Therefore, this course will teach students the basics of trance induction and its application for pain 
control, insomnia and relaxation.

PSCH 6632 Denver CARES Elective  
Fall and Spring sems.  1.0 crs  
Course Director, Robert House, M.D.  Course Coordinator, Mark Wright. 
In this course students will gain confidence in performing basic H&P skills while interacting with acutely ill 
patients in a detox facility. Requirements include volunteering a minimum of two shifts, as well as attending the 
orientation and debriefing sessions.

SURGERY ELECTIVES

SURG 6624 Intro Wilderness Med  
Fall sem.  1.0 cr.  
Max: 45/Min: 10  
Course Director, Kelly Bookman, M.D., 303-372-5244. Assistant Course Directors, Drs. Todd Larabee and Barbara Blok. 
Course Coordinator, Cathy Maciel, 303-372-5500. 
Course consists of a lecture series and one four hour weekend outdoor exercise. An emphasis on basic science 
topics with pathophysiology of wilderness medicine problems. Students participate in skill stations and perform various 
field medicine and evacuation procedures.

SURG 6625 Global Health: Issues  
Fall sem.  1.0 cr.  
Max: 50/Min: 10  
Course Director, Andrew Kestler, M.D. 303-372-5500.  Course Coordinator, Cathy Maciel, 303-372-5500. 
This course, required for Global Health Track students, gives a broad overview of important issues in global health, e.g., the HIV epidemic, maternal-child health, humanitarian assistance, clean water and sanitation. Pass/fail based on attendance and final project (1-pager).

SURG 6626 Pre-Hospital Medicine  
Fall and Spring sems.  1.0 cr.  
Max: 20/Min: 10  
Course Director, Christopher B. Colwell, M.D. Course Coordinator, TBA, 303-436-7129. 
Enrollment restricted to EMIG (Emergency Medicine Interest Group) only. Students required too participate in 
1 ten hour ride along shift with Denver Paramedic Division 911 ambulances, attend required Introductory Lecture on pre-
hospital medicine and submit 1 evaluation from ambulance ride.

SURG 6627 Intro Emer Med & Trauma  
Spring sem.  1.0 cr.  
Max: 50/Min: 10  
Course Directors Ravi Morchi, M.D., 303-372-5252 and Stephen Wolfe, M.D.  Course Coordinators, Marybeth Hutchins, 
303-372-5503 and Laura Rendon, DHMC, 303-436-7129. 
Introduction to life-threatening conditions fundamental to emergency medicine. Focuses on the essentials of 
stabilization, rapid diagnosis, and acute management. Weekly lectures given by faculty from UCHSC and Denver Health. 
Pass-fail based on attendance with an optional write-up for honors.

SURG 6660 Career Elective In UROL  1.0 crs  
Course Director, Robert E. Donohue, M.D.  Course Coordinator, TBA  
Students attend urology outpatient clinics; attend patient interview with resident; once instructed will complete a 
directed physical exam; audit patient counseling sessions; and discuss options for therapy of diagnosis made.

REQUIRED PHASE 3 CLINICAL CLERKSHIPS FOR 2007-08

Required clinical clerkships are open only to University of Colorado Medical Students.

IDPT 7000 Foundations Doctoring  
Fall and Spring sem.  0.2 cr./sem.  
Course Director, Wendy Madigoskyl, M.D.  Course Coordinator, Tina Roquemore, 303-315-1546.
Students spend one afternoon, 2-3 times a month in the office of a generalist or specialist physician. Students spend 4 afternoons in small groups discussing Phase III experiences and professionalism issues.

**IDPT 7001 Integrated Clinicians 1**  
Spring sem.  
2.0 crs

Course Director, Robin Deterding, M.D.  
Course Coordinator, Brooke Parsons, 303-315-0042.

Course offered spring semester prior to beginning Phase III clerkship blocks.  
The course is designed as a transition to the clerkship blocks.  Course material will provide students with fundamental clinical skills, important information about clinical courses and an increased comfort level prior to beginning clinical core rotations.

**IDPT 7002 Integrated Clinicians 2**  
Summer sem.  
2.0 crs

Course Director, Robin Deterding, M.D.  
Course Coordinator, Brooke Parsons, 303-315-0042.

Through didactic and small group sessions, the course will teach advanced clinical skills, translational basic science, and thread material that is vital to doctoring, but underrepresented in the clinical blocks.

**IDPT 7003 Integrated Clinicians 3**  
Fall sem.  
4.0 crs

Course Director, Robin Deterding, M.D.  
Course Coordinator, Brooke Parsons, 303-315-0042.

Through didactic and small group sessions, the course will teach advanced clinical skills, translational basic science, and thread material that is vital to doctoring, but underrepresented in the clinical blocks.

**IDPT 7004 Integrated Clinicians 4**  
All terms  
4.0 crs

Course Director, Robin Deterding, M.D.  
Course Coordinator, Brooke Parsons, 303-315-0042.

Course offered spring semester end of Phase III clerkship blocks.  

**IDPT 7010 Hospitalized Adult Care**  
All terms  
16.0 crs

Co-Course Directors, Eva Aagaard, M.D. and Paul Seligman, M.D.  
Course Coordinator, Vicki Melton, 303-315-6758.

Eight week block focused on the care of the adult inpatient at different sites.  Students are assigned to one site combination: University of Colorado Hospital, Denver Health/Presbyterian St. Luke’s or Veterans Affairs Medical Center/Exempla St. Joseph’s or Rose Medical Center.

**IDPT 7020 Infant/Adolescent Care**  
All terms  
12.0 crs

Course Director, Shale Wong, M.D., MSPH.  
Course Coordinator, Brenda Lovato, 303-861-6867

This block introduces clinical objectives to achieve competency in pediatric medicine, emphasizing illness and wellness of children and families, growth, development, physical and mental well-being.  Students combine hospital and ambulatory experiences in Denver and other Colorado communities.

**IDPT 7021 Musculoskeletal Care**  
All terms  
4.0 crs

Co-Course Directors, William Sullivan, M.D. and Richard Fisher, M.D.

This block combines PM&R, Orthopaedics, Rheumatology, basic science, and thread topics to develop competency in history and physical exam skills and the use of laboratory data and basic imaging studies to diagnose, treat, and prevent abnormalities of the musculoskeletal system.

**IDPT 7030 Women and Newborn Care**  
All terms  
12.0 crs

Course Director, Lorraine Dugoff, M.D.  
Course Coordinator, Michael Baca, 303-315-4540.

Students will work in OB/GYN clinics, labor and delivery, OB and GYN wards, and the O.R.  They will learn a newborn exam and fundamentals of newborn care.  Course offered at University Hospital, Denver Health Medical Center or an AHEC site.

**IDPT 7031 Emergency Care**  
All terms  
4.0 crs

Co-Course Directors, Lynne M. Yancey, M.D. and Glenn Faries, M.D.  
Course Coordinator, Marybeth Hutchins, 303-372-5503.

An introduction to the initial evaluation and management of emergently presenting problems in adults and children.  Emphasis on recognition, differential diagnosis, and stabilization of shock and trauma.  Students will also be exposed to pre-hospital care and concepts of triage.

**IDPT 7040 Psychiatric Care**  
All terms  
8.0 crs

Course Director, Michael Weissberg, M.D.  
Course Coordinator, Carole Evans, 303-315-8411.

Students will work with psychiatric adult/child inpatients, outpatients at 12 sites including AHEC’s, providing exciting, unique clinical settings.  Students cover specific clinical experiences as outlined in course syllabus.

**IDPT 7041 Neurologic Care**  
All terms  
8.0 crs

Course Director, Christopher M. Filley, M.D.  
Course Coordinator, Marcia Sabo, 303-315-7214.
Students will participate in the diagnosis and treatment of adults with a wide variety of acute and chronic neurologic disorders. Formal teaching is provided in Attending Rounds, student seminars, resident seminars and departmental Grand Rounds.

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Terms</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>IDPT 7050</td>
<td>Peri/Operative Care</td>
<td>All terms</td>
<td>16.0 crs</td>
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<td>Co-Course Directors, Thomas Whitehill, M.D. and Matthew Roberts, M.D. Co-Course Coordinator, Janice Frary, 303-315-4601 and Octavia Powell, 303-372-6319. Students study surgical disease processes and therapeutic procedures in perioperative settings, while gaining operative experience in general surgery and clinical anesthesiology. Focuses on the assessment and management of common inpatient and ambulatory surgical problems from initial referral to discharge.</td>
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<tr>
<td>IDPT 7060</td>
<td>Adult Ambulatory Care</td>
<td>All terms</td>
<td>8.0 crs</td>
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<td>Course Director, Kelly White, M.D. Course Coordinator, Jane Seid, 303-315-7765. Course focus is chronic care of adults, including outpatient experiences and planned didactics. Student paired with primary care preceptor and will have experiences in subspecialty clinics using the chronic care model.</td>
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<tr>
<td>IDPT 7061</td>
<td>Rural and Community Care</td>
<td>All terms</td>
<td>8.0 crs</td>
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<td></td>
<td>Course Director, David Gaspar, M.D. Course Coordinator, Cynthia Villanueva, 303-315-5684. Students will learn the basics of care for patients in rural community settings throughout Colorado.</td>
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<td>IDPT 7727</td>
<td>Directed Study Clin Sci</td>
<td>All terms</td>
<td>1 – 12.0 crs</td>
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<td>Course Director, Maureen Garrity, Ph.D. Course Coordinator, Cindy Jameson, 303-315-7678. Prerequisite: Course Director approval required to add. This course provides an opportunity for medical students to further develop and refine their knowledge of the clinical sciences. Course will include scheduled study time, regularly scheduled practice exams, tutoring in clinic content and test taking strategies.</td>
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### ANESTHESIOLOGY ELECTIVES

**Prerequisite for all Phase 4 electives: Completion of Phase 3**

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<th>Course Code</th>
<th>Course Title</th>
<th>Terms</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ANES 8000</td>
<td>Clinical Anesthesiology</td>
<td>2 - 4 wks</td>
<td>Max: 4</td>
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<td>Course Director, Joy Hawkins, M.D., 303-372-6321. Course Coordinator, Octavia Powell, 303-372-6319. 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.</td>
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<tr>
<td>ANES 8001</td>
<td>Surgery Intensive Care</td>
<td>4 wks</td>
<td>Max: 2</td>
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<td></td>
<td>Course Director, Fareed Azam, M.D., 303-266-6420. Course Coordinator, Octavia Powell, 303-372-6319. During this Sub-I multi disciplinary rotation, students actively participate in patient management, perform procedures, present clinical topics, discussion pathophysiology of the critically ill. Clinical excellence and an in-depth paper (2000-2500 words) are honors grade requirements.</td>
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<tr>
<td>ANES 8002</td>
<td>Anes Subspecialties</td>
<td>2 - 4 wks</td>
<td>Max: 4</td>
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<tr>
<td></td>
<td>Course Director, Joy Hawkins, M.D., 303-372-6321. Course Coordinator, Octavia Powell, 303-372-6319. 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 &amp; D, Cardiothoracics, Neurosurgery, Transplants and Pre-Anesthesia Testing.</td>
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<tr>
<td>ANES 8100</td>
<td>Course Away in Denver</td>
<td>2 - 16 wks</td>
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<td>Course Director, Joy Hawkins, M.D., 303-372-6321. Prerequisite: Departmental approval must be obtained and all arrangements made one month in advance. Students should discuss their course evaluation with their instructor and ensure that the written evaluation is mailed to Octavia Powell.</td>
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<td>ANES 8200</td>
<td>Course Away In Colorado</td>
<td>2 - 16 wks</td>
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<td>Course description is the same as Anes 8100.</td>
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<tr>
<td>ANES 8300</td>
<td>Course Away Outside Colo</td>
<td>4 - 16 wks</td>
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<td>Course description is the same as Anes 8100.</td>
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<tr>
<td>ANES 8400</td>
<td>Course Away Outside U.S.</td>
<td>4 - 16 wks</td>
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<tr>
<td></td>
<td>Course Director, Joy Hawkins, M.D. Course Coordinator, Octavia Powell, 303-372-6319. Prerequisite: Student must receive prior approval from the Associate Dean for Student Affairs.</td>
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</tbody>
</table>
Course description is the same as ANES 8100. Planning consultation is available through the Medical Student International Program.

**ANES 8600 Research Anesthesiology**  
2 - 12 wks  
Course Director, Paul Wischmeyer, M.D. 303-315-1890. Course Coordinator, Octavia Powell, 303-372-6319.  
Prerequisite: Special permission and individual arrangements required in advance. The student must receive prior approval from the Associate Dean for Student Affairs.

**ANES 8630 Research Anes Outside CO**  
4 - 12 wks  
Course description is the same as ANES 8600.

**ANES 8640 Research Anes Out Of U.S**  
4 - 12 wks  
Course description is the same as ANES 8600.

**DERMATOLOGY ELECTIVES**

**DERM 8000 Clinical Dermatology**  
4 wks  Max: 6  
Course Director, Cory Dunnick, M.D. Course Coordinator, Kemp Weston, 720-848-0510.  
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 8300 Course Away Outside Colo**  
4 wks  
Course Director, Cory Dunnick, M.D. Course Coordinator, Kemp Weston, 720-848-0510.  
Pre-requisite: Course Director approval required to register.  
A four-week clinical dermatology elective at an AAMC accredited institution outside Colorado. Sections 49-50 are not available to 4th year students graduating in May.

**DERM 8400 Course Away Outside U.S**  
4 wks  
Course Director, Cory Dunnick, M.D. Course Coordinator, Kemp Weston, 720-848-0510.  
This is a four-week clinical dermatology elective outside of the United States. Sections 49-50 are not available to 4th year students graduating in May.

**DERM 8600 Research in Dermatology**  
16 wks  
Course Director, Cory Dunnick, M.D. Course Coordinator, Kemp Weston, 720-848-0510.  
Prerequisite: Course Director approval required to register.  
Research elective allows the student to design and implement a research project and to understand the significance and pitfalls of the results. Students are expected to participate in research seminars and to present their results.

**DERM 8630 Research Derm Outside CO**  
12 wks  
Course Director, Cory Dunnick, M.D. Course Coordinator, Kemp Weston, 720-848-0510.  
Prerequisite: Course Director approval required.  
This is a dermatology research elective at an AAMC accredited institution.

**DERM 8640 Research Derm Out Of U.S**  
12 wks  
Restrictions: This course may only be added during a drop/add period.  
Prerequisite: Course Director approval required to add this course. Course description same as DERM 8600.

**FAMILY MEDICINE ELECTIVES**

**FMMD 8001 Healthcare Poor/Homeless**  
12 wks  Max: 8  
Fall/Spring Semesters only  
Course Director, Allegra Melillo, M.D., Course Coordinator, Cynthia Villanueva, 303-315-5684.  
Assist the FMMD 6624 Healthcare for the Poor and Homeless course by participating in Saturday morning clinics at Stout Street Homeless Clinic and teaching first and second year medical students. Credit received for this course does NOT apply towards graduation.

**FMMD 8002 Family Med Subinternship**  
4 wks  Max: 1  
Course Director, Steve Stahl, M.D., Course Coordinator, Alice Skram, 720-848-9096.  
Experience CU Family Medicine! Students will be members of the inpatient service team at the Anschutz Inpatient Pavilion, take call, and will spend 2 half days per week at the A.F. Williams Family Medicine Center (outpatient clinic).

**FMMD 8005 Care for Underserved**  
2 wks  Max: 1
Prerequisite: Course Director approval required to register.

Offered at Lowry. Interact with culturally varied refugee and underserved populations, gain insight into the challenges faced by these underserved populations and assess if your future practice goals include serving these groups.

**FMMD 8007 Out-Patient Family Med** 4 wks Max: 2
Course Director, Morteza Khodaee, M.D. 720-848-9056. Course Coordinator, Alice Skram, 720-848-9096

Course is an 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 caring for a diverse group of patients.

**FMMD 8008 Occup/Envir Med In FMMD** 2 - 4 wks Max: 1
Course Director, David Gaspar, M.D. Course Coordinator, Cynthia Villanueva, 303-315-5684.

Prerequisite: Course director approval required to add this elective.

Opportunities for the student to learn a variety of physical examinations ranging from sport physicals and commercial/FAA exams to complex disability evaluations. Elective taught by Dr. Stephen Gray.

**FMMD 8009 Directed Study in FMMD** 2 - 8 wks
Course Director, David Gaspar, M.D. Course Coordinator, Cynthia Villanueva, 303-315-5684.

Prerequisite: Course director approval required to add elective.

Students may participate in directed scholarly work with specific faculty members including curriculum development projects, and other scholarly activities.

**FMMD 8010 Preventive Hlth Elective** 2 wks Min: 3/Max: 6
Course Director, David Gaspar, M.D.; Course Coordinator, Bonnie Jortberg, MS, RD, CDE, 303-315-8078.

Educate yourself in nutrition and preventive health, including physical activity and behavior change. A practical and interesting introduction to useful concepts will occur through interactive and varied didactics and clinical experience split over two weeks.

**FMMD 8011 Colon Cancer & Endoscopy** 2 wks Max: 8
Not available summer semester.
Course Director, John M. Westfall, MD, MPH. Course Coordinator, Beth Ingram, 303-724-0360.

An independent study of the epidemiology, pathophysiology, clinical presentation, screening and prevention of colorectal cancer. Students will complete an online didactic course, 30-40 lower GI endoscopy cases on state-of-the-art endoscopy simulator and possibly a clinical observation experience.

**FMMD 8100 Course Away In Denver** 2 - 16 wks
Course Director, David Gaspar, M.D. Course Coordinator, Cynthia Villanueva, 303-315-5684.

Management of problems common to Family Medicine. Both inpatient/outpatient experiences. Saint Joseph’s, St. Anthony’s, Rose, and Swedish Family Medicine Residency programs also available. Sub-I application must be through the individual residency program.

**FMMD 8200 Course Away In Colorado** 2 - 16 wks
Course Director, David Gaspar, M.D. Course Coordinator, Cynthia Villanueva, 303-315-5684.

Restrictions: Not Available sections 49-50.

Same as FMMD 8100, except students work outside the Denver area. Residency sites: Ft. Collins, North Colorado (Greeley), Saint Mary’s (Grand Junction), Southern Colorado (Pueblo). Sub-I application must be through the individual residency program.

**FMMD 8300 Course Away Outside Colo** 2 - 16 wks
Course Director, David Gaspar, M.D. Course Coordinator, Cynthia Villanueva, 303-315-5684.

Restrictions: Not available sections 49-50.

Course Description same as FMMD 8100, except that course occurs in Family Medicine practices or Residency Programs outside of Colorado.

**FMMD 8400 Course Away Outside U.S.** 4 - 16 wks
Course Director, David Gaspar, M.D. Course Coordinator, Cynthia Villanueva, 303-315-5684.

Restrictions: Not available sections 49-50.

Prerequisite: Approval from the Associate Dean for Student Affairs required to register.

Course description same as FMMD 8100, but occurring in another country.

**FMMD 8410 Immersion Spanish** 4 wks
Course Director, David Gaspar, M.D. Course Coordinator, Cynthia Villanueva, 303-315-5684.

Restrictions: Not available sections 49-50.

Participation is 20 hours of language class per week for 4 wks and either a medical Spanish course for 20 hours for 4 wks or volunteer in a local medical clinic 2 half days/week.

**FMMD 8600 Research in FMMD** 2 - 12 wks
Course Director, David Gaspar, M.D.  Course Coordinator, Cynthia Villanueva, 303-315-5684.

Prerequisite: The student must receive prior approval from the Associate Dean for Student Affairs and the department to register. Primary Care research opportunities are available in practice-based and epidemiologic research.

**FMMD 8630  Research FMMD Outside CO  4 - 12 wks**
Course Director, David Gaspar, M.D.  Course Coordinator, Cynthia Villanueva, 303-315-5684.
Restrictions: Not available sections 49-50.
Prerequisite: Departmental approval must be obtained and all arrangements made at least one semester in advance. Approval of the Associate Dean for Student Affairs required.
Course description same as FMMD 8600, except occurs outside of Colorado.

**FMMD 8640  Research FMMD Out Of U.S  4 - 12 wks**
Course Director, David Gaspar, M.D.  Course Coordinator, Cynthia Villanueva, 303-315-5684.
Restrictions: Not available sections 49-50.
Prerequisites: Departmental approval must be obtained and all arrangements made at least one semester in advance. Approval of the Associate Dean for Student Affairs required.
Course description same as FMMD 8600, except occurs outside of U.S.

### INTERDEPARTMENTAL ELECTIVES

**IDPT 8000  Foundations Doctoring 4**
0.2 cr. Summer, 0.4 Fall & Spring
Course Director, Wendy Madigosky, M.D., 303-315-1532. Course Coordinator, Tina Roquemore, 303-315-1546.
This course continues the established student-preceptor relationship from the FDC course. Students attend their preceptor office one afternoon a week. Students will work with a panel of patients or families serving as their physician under the supervision of their preceptor.

**IDPT 8001  Tutoring in Foundations**
1.0 cr. Fall and Spring sem
Course Director, Wendy Madigosky, M.D., 303-315-1532. Course Coordinator, Tina Roquemore, 303-315-1546.
Fourth year students are trained how to be tutors and then use their skills with first and second year students learning physical exam and communication skills. Learn how to coach small groups of students, give feedback and evaluate student performance.

**IDPT 8002  Adv Cardiac Life Support**
0.5 cr. Max: 42
Course Director, Todd Larabee, M.D., 303-372-5500. Course Coordinator, Cathy Maciel, 303-372-5503.
Prerequisite: Current BLS Certification.
Two day AHA course offered twice in the senior year spring semester with certification in management of cardiac and respiratory arrest. Students should contact their residency to see if ACLS is required before beginning internship.

**IDPT 8003  Geriatrics**
4 wks Max: 2
Course Directors, Laurence J. Robbins, M.D. Course Coordinator, Lynn Blair, 303-393-2822.
Student receives core didactic and reading material to enhance their knowledge of common geriatric medical and psychosocial issues. Exposed to patient care in numerous out-patient, inpatient, hospice, long term care and home care settings on and off of University campus.

**IDPT 8005 Integrated Clinicians 5**
2 wks
Course Director, Robin Deterding, M.D. Course Coordinator, Brooke Parsons, 303-315-0042.
ICC 5 is a required Phase IV course that will provide learning opportunities in advanced clinical skills/content, translational science and threads. Material will be presented in didactic sessions, small groups and independent learning with content developed for different career paths.

**IDPT 8006 Integrated Clinicians 6**
2 wks
Course Director, Robin Deterding, M.D. Course Coordinator, Brooke Parsons, 303-315-0042.
ICC 6 is a required Phase IV course that will provide learning opportunities in advanced clinical skills/content, translational science and threads. Material will be presented in didactic sessions, small groups and independent learning with content developed for different career paths.

**IDPT 8007  Medicine / Pediatrics**
2, 3 or 4 wks Max: 1
Provide ambulatory and hospital care for pediatric and adult patients with a physician board-certified in both medicine and pediatrics. The focus is primary care. This elective is of interest to students interested in medicine/pediatric residencies and careers.

**IDPT 8009  Head/Neck Tumor Oncology**
4 wks Max: 1
Course Director, John Song, M.D. Course Coordinator, Alicia Gore, 303-315-1569.
Restrictions: Course not offered sections 9, 13, 29. Exposure to patients with H&N malignancies and time spent in primary treatment disciplines. Goals, students should assess patient complaints, formulate treatment plan and participate in interdisciplinary approach to management of H&N cancer patients.

**IDPT 8011 Clinical Nutrition** 2 wks Max: 1
Course Director, Nancy Krebs, M.D., M.S., 303-315-7037.
Develop your nutrition assessment skills with this elective, tailored to your needs with adult and/or pediatric inpatients and/or outpatients with a variety of conditions and diseases. Active learning with exceptional mentors is emphasized.

**IDPT 8013 Tropical Medicine** 2 wks Max: 20/Min: 5
Course Directors, Andrew Kestler, M.D., Mary Kestler, M.D. Richard Gustafson, M.D., and Margaret McLees, M.D.
Course Coordinator, Cathy Maciel, 303-372-5500.
Restrictions: Offered session 27 only.
Interactive group discussions, case presentations, lab sessions, and lectures from faculty with experience in the field. Topics cover healthcare in resource-poor settings, tropical diseases, and basics of community health. Evaluation based on class participation/final examination.

**IDPT 8827 Directed Study Clin Sci** 2 – 8 wks
Course Director, Maureen Garrity, Ph.D.: Course Coordinator, Cindy Jameson, 303-315-7678.
Prerequisite: Course Director approval required to add.
This course provides an opportunity for medical students to further develop and refine their knowledge of the clinical sciences. Course will include scheduled study time, regularly scheduled practice exams, tutoring in clinic content and test taking strategies.

**MEDICINE ELECTIVES**

**MED 8001 Medicine Subinternship** 4 wks Max: 18
Course Director, Eva Aagaard, M.D., 303-315-7768. Course Coordinator, Vicki Melton, 303-315-6758.
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, RMC, P/SL, UCH and VAMC.

**MED 8003 Transfusion Medicine** 4 wks Max: 1
Course Director, Daniel R. Ambruso, M.D., 303-363-2241. Course Coordinator, Flo Usechek, 303-363-2241.
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.

**MED 8004 Cardiology** 4 - 6 wks Max: 6
Course Director, Peter M. Buttrick, M.D., 303-315-4398. Course Coordinator, Karen Mileham, 303-315-4398.
Designed to offer a broad general exposure to adult cardiology, including history, physical examination, and an introduction and review of standard noninvasive testing. Rotations will be at UCH, DVAMC and DHMC with assignments based on timing of request and availability.

**MED 8005 Cardiac Diagnostic Skill** 2 wks Max: 6
Course Director, William Nelson, MD. 303-837-6822. Course Coordinator, Vicki Melton, 303-315-6758.
Restrictions: Course may only be added during a drop/add time.
Course is at Exempla St. Joseph Hospital. Goals are to improve cardiac physical diagnosis skills, interpret EKG findings, recognize abnormal heart sounds and murmurs; and analyze cardiac chest x-ray findings. Includes didactic sessions and home study.

**MED 8006 Allergy/Clin Immunology** 4 wks Max: 1
Course Director, Stephen Dreskin, M.D., 303-315-7601. Course Coordinator, Jeanne Kittle, 303-315-7601.
Prerequisite: Course Director approval required to add course.
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.

**MED 8007 Clinical Renal** 4 wks Max: 4
Course Director, Tomas Berl, M.D., 303-315-6734. Course Coordinator, Cheryl Phoenix, 303-315-6734.
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.

**MED 8009 Clin Infectious Diseases** 4 wks Max: 6
Course Director, Nancy Madinger, M.D. Course Coordinator, Yvonne Fitzpatrick, 303-315-7233.
UCH and DHMC. Hospital assigned. Hospitalized patients with a variety of infectious diseases are available for study. Diagnosis, pathophysiology, immunology, epidemiology, and management, including use of antimicrobial agents are emphasized. Students attend and participate in ward rounds and conferences.

**MED 8010 Clin Gastroenterology** 4 to 12 wks Max: 3
Course Director, Joel Levine, M.D. Course Coordinator, Amanda Bauer, 303-315-2537.
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.

**MED 8011 Pulmonary** 4 wks Max: 4
Course Director, Marvin Schwarz, M.D. Course Coordinator, Jennifer Waters, 303-315-4211.
UCH, DHMC, and DVAMC. This elective offers broad experience in pulmonary and critical care medicine. Students participate in consultations, attend conferences and clinics. A wide variety of pulmonary and critical care cases are seen.

**MED 8012 Clinical Rheumatology** 4 wks Max: 1
Course Director, Robert W. Janson, M.D. Course Coordinator, Wanda Simpson, 303-315-7592.
Prerequisite: Completion of all third year clerkships.
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.

**MED 8013 Endocrinology** 4 or 6 wks Max: 2
Course Director, E. Chester Ridgway, M.D. Course Coordinator, Jackie Martine, 303-724-3922.
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.

**MED 8014 Hematology/Oncology** 3 - 6 wks Max: 1
Course Director, Paul Seligman, M.D. Course Coordinator, Theresa Martinez, 303-315-8474.
Prerequisite: Med, Obgy, Ped, Psch 7000.
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 malignancies.

**MED 8017 Hospice/Palliative Care** 2, 3 or 4 wks Max: 1
Course Director, Paul Seligman, M.D. Course Coordinator, Theresa Martinez, 303-315-8474.
Prerequisites: Med, Obgy, Ped, Psch 7000. (Requirement - contact Dr. Seligman one week before beginning.)
Students learn the physician’s role in caring for dying patients. Students encounter home care and residential hospice patients and learn compassionate pain and symptom control.

**MED 8025 Medical Oncology** 4 - 6 wks Max: 2
Course Director, Karl Lewis, M.D.
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 multi-disciplinary tumor conferences.

**MED 8026 Medical Oncology Sub I** 4 wks Max: 1
Course Director, Karl Lewis, M.D.
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.

**MED 8028 Primary Care Elective** 2, 3 or 4 wks Max: 2
Course Director, Kelly White, M.D. 303-315-6758. Course Coordinator, Vicki Melton, 303-315-6758.
Working with a primary care internist, students improve skills in the focused history and physical to address the chief complaint; assessment and plan; preventive medicine; psychosocial problems; and appropriate referral to specialists. Denver and AHEC sites available.

**MED 8029 Applied Clin Pharmacolog** 4 wks Max: 120/Min: 20
Course Director, Mike Zawada, Ph.D. Course Coordinator, Brandi Dolan, 303-315-8455.
Restriction: Course offered section 37 only.
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.

**MED 8032 Corrections Health Care**
- **Duration:** 2 wks
- **Max:** 1
- **Course Director:** Ingrid Binswanger, M.D. 303-315-6758
- **Course Coordinator:** Vicki Melton, 303-315-6758
- **Prerequisite:** One month notice needed to schedule this elective.
- **Provide primary care to inmates in corrections facilities. Experiences include manipulative or drug-seeking patients, the interface between health care and the legal system, and issues in correctional health care (i.e., HIV, TB).**

**MED 8033 Sub In-Pat Med St Joseph**
- **Duration:** 4 wks
- **Max:** 2
- **Course Directors:** Robert Gibbons, M.D. and Lisa Cyran, M.D.
- **Course Coordinator:** Maggie Ward, 303-837-7837
- **Prerequisite:** One month notice needed to schedule this elective.
- **Student functions as an intern-equivalent and is responsible for evaluation and continuing care of patients during overnight call every third day. Student will enhance skills in reporting, interpreting clinical information, in patient management and in daily ICU interdisciplinary rounds. Student will present an EMB-research clinical question.**

**MED 8034 Sub I Crit Care St Joseph**
- **Duration:** 4 wks
- **Max:** 2
- **Course Directors:** Robert Gibbons, M.D. and Lisa Cyran, M.D.
- **Course Coordinator:** Maggie Ward, 303-837-7837
- **Prerequisite:** One month notice needed to schedule this elective.
- **Student functions as an intern-equivalent and admits patients during overnight call every third day. Student will enhance skills in reporting, interpreting clinical information, in patient management and in daily ICU interdisciplinary rounds. Student will present an EMB-research clinical question.**

**MED 8036 Sub I Critical Care DHMC**
- **Duration:** 4 wks
- **Max:** 2
- **Course Director:** James H. Fisher, M.D.
- **Course Coordinator:** Doris Quintana, 303-436-5905
- **Prerequisites:** Sub-I in medicine or surgery. Course Director approval required to add this course.
- **The sub-internship in medical critical care offers phase 4 medical students an opportunity to develop expertise in the diagnosis and management of critically ill patients. Students will also receive training in the performance of common ICU procedures.**

**MED 8037 Sub I Critical Care UH**
- **Duration:** 4 wks
- **Max:** 1
- **Course Director:** Todd Bull, M.D.
- **Course Coordinator:** Jennifer Waters, 303-315-4211
- **Prerequisites:** One month notice needed to schedule this elective.
- **The CC sub-internship will provide training in the care of critically ill ICU patients. Emphasized skills will include management of respiratory and cardiac failure, hemodynamic instability, severe electrolyte abnormalities and common ICU procedures.**

**MED 8100 Course Away in Denver**
- **Duration:** 2 - 16 wks
- **Course Directors:** Paul Seligman, M.D., and Eva Aagaard, M.D.
- **Course Coordinator:** Vicki Melton, 303-315-6758
- **Prerequisite:** Course director approved required to add course.
- **Students discuss your course evaluation with individual instructor and ensure written evaluation is mailed to Dr. Eva Aagaard at 4200 E. 9th Ave., Box B-166, Denver, CO. 80262. Dr. Aagaard assigns final grade.**

**MED 8200 Course Away in Colorado**
- **Duration:** 2 - 16 wks
- **Course description and restrictions same as Med 8100.**

**MED 8300 Course Away Outside Colo**
- **Duration:** 2 - 16 wks
- **Course description and restrictions same as Med 8100.**

**MED 8400 Course Away Outside U.S.**
- **Duration:** 4 - 16 wks
- **Restrictions:** Not available sections 49-50.
- **Course description is the same as MED 8100. The student must receive approval from the Associate Dean for Student Affairs. Planning consultation is available through the Medical Student International Program.**

**MED 8600 Research in Medicine**
- **Duration:** 2 - 12 wks
- **Course Directors:** Kathryn Horwitz, Ph.D., 303-724-3936 and Eva Aagaard, M.D. 303-315-2184
- **Course Coordinator:** Vicki Melton, 303-315-6758
- **Restrictions:** Not available sections 49-50.
- **Course provides an opportunity for seniors to participate in research at the clinical or basic science level. The student must consult with Dr. Horwitz about the varieties of options available.**

**MED 8601 Intro Biomed Research**
- **Duration:** 2 - 4 wks
- **The goal of this course is to familiarize medical students with Biomedical Research and literature searches. Students will select and prepare a short paper on a specific approved topic and then review the work with a mentor and/or Course Director. Course Director, John Repine, M.D.**

**MED 8630 Research Med Outside CO**
- **Duration:** 4 - 12 wks
- **Course Directors:** Kathryn Horwitz, Ph.D., 303-724-3936 and Eva Aagaard, M.D. 303-315-2184
- **Course Coordinator:** Vicki Melton, 303-315-6758
- **Restrictions:** Not available sections 49-50.
Prerequisites: Departmental approval must be obtained and all arrangements made at least one semester in advance. The student must receive prior approval from the Associate Dean for Student Affairs.

**MED 8640  Research Med Out Of U.S.**  4 - 12 wks
Course Directors Kathryn Horwitz, Ph.D., 303-724-3936 and Eva Aagaard, M.D. 303-315-2184. Course Coordinator, Vicki Melton, 303-315-6758.
Restrictions: Not available sections 49-50.
Seniors do clinical, basic science or health services research under the supervision of a Medicine faculty. Project is defined with individual mentor and approved by course director. Research mentor assigns final grade.

**NEUROLOGY ELECTIVES**

**NEUR 8000  Neurology**  4 wks  Max: 3
Course Director, Christopher M. Filley, M.D., 303-315-6461. Course Coordinator, Marcia Sabo, 303-315-7214.
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 8100  Course Away In Denver**  2 - 16 wks
Course Director, Christopher M. Filley, M.D., 303-315-6461. Course Coordinator, Marcia Sabo, 303-315-7214.
Prerequisite: Arrangements must be made one month in advance.
A written evaluation must be sent from the outside department to Dr. Filley (4200 E. 9th Ave., B-183, Denver, CO. 80262). Dr. Filley assigns final grade.

**NEUR 8300  Course Away Outside Colo**  4 - 16 wks
Course description is the same as Neur 8100.

**NEUR 8400  Course Away Outside U.S.**  4 - 16 wks
Prerequisite: The student must receive approval from the Associate Dean for Student Affairs and course director.
Course description same as NEUR 8300. Planning consultation is available through the Medical Student International Program. Course work must be discussed with and approved by Dr. Filley.

**NEUR 8600  Research in Neurology**  2 - 12 wks
Prerequisite: Offered with Chairman's approval only. The student must receive approval from the Associate Dean for Student Affairs.
For further course information, contact the Chairman, Donald Gilden, M.D., 303-315-8281.
Course Coordinator, Cathy Allen, 303-315-8281.

**NEUR 8630  Research Neur Outside Colo**  2 - 12 wks
Prerequisite: Departmental approval must be obtained and all arrangements made at least one semester in advance. The student must receive prior approval from the Associate Dean for Student Affairs and from the Chairman of Neurology, Donald Gilden, M.D., 303-315-8281.
Course description same as NEUR 8630.

**NEUR 8640  Research Neur Out Of U.S**  4 - 12 wks
Course description same as NEUR 8630.

**NEUROSURGERY ELECTIVES**

**NSUR 8014  Neurosurgery Sub I**  2 - 6 wks  Max: 8
Course Director, Michael Handler, M.D., 303-861-6100. Course Coordinator, Diana Doyle, 303-315-0303.
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 8100  Course Away In Denver**  2 - 16 wks
Course Director, Michael Handler, M.D. Course Coordinator, Diana Doyle, 303-315-0303.
Prerequisites: Departmental approval must be obtained and arrangements made one month in advance.
Students are required to discuss their course evaluation with their individual instructor and ensure a written evaluation is mailed to Dr. Michael Handler. Dr. Handler assigns final grade.

**NSUR 8200  Course Away In Colorado**  2 - 16 wks
Restrictions: Not available sections 49-50.
Course description is the same as NSUR 8100.

**NSUR 8300  Course Away Outside Colo**  4 - 16 wks
Restrictions: Not available sections 49-50.
Course description is the same as NSUR 8100.

**NSUR 8400 Course Away Outside U.S.**
4 - 16 wks
Restrictions: Not available sections 49-50.
Course description is the same as NSUR 8100.

**NSUR 8600 Research in Neurosurgery**
2 - 12 wks
Course Director, Michael Handler, M.D. Course Coordinator, Diana Doyle, 303-315-0303
Prerequisites: Departmental approval must be obtained and all arrangements made at least one month in advance.
A written evaluation must be sent to Dr. Michael Handler & Diana Doyle, 4200 E. 9th Ave., Box C-307, Denver, CO 80262.

**NSUR 8630 Research NSUR Outside CO**
4 - 12 wks
Restrictions: Not available sections 49-50.
Course description is the same as NSUR 8600.

**NSUR 8640 Research NSUR Out Of U.S**
4 - 12 wks
Restrictions: Not available sections 49-50.
Course description is the same as NSUR 8600.

### OBSTETRICS AND GYNECOLOGY ELECTIVES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Duration</th>
<th>Max:</th>
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<tbody>
<tr>
<td><strong>OGBY 8000 General Obstetrics Sub I</strong></td>
<td>4 wks</td>
<td>Max: 1</td>
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<tr>
<td>Course Director, Lorraine Dugoff, M.D. 303-315-7267, Course Coordinator, Michael Baca, 303-315-4540.</td>
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<tr>
<td>Offered at DHMC only. Includes experience in prenatal, intrapartum, postpartum, and family planning. Student works under clinical supervision of residents and attending staff.</td>
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**OGBY 8001 General Gynecology Sub I**
4 wks
Max: 1
Course Director, Lorraine Dugoff, M.D. 303-315-7267, Course Coordinator, Michael Baca, 303-315-4540.
Offered at DHMC only. Includes experience in outpatient gynecology, family planning, operative gynecology and postoperative care. Student works under supervision of residents and attending staff.

**OGBY 8002 Directed Study in OBGYN**
4 or 8 wks
Course Director, Lorraine Dugoff, M.D., 303-315-7267, Course Coordinator, Michael Baca, 303-315-4540.
Prerequisites: Must have approval from specific faculty involved and from Course Director to register.
Students may obtain detailed and intensive directed study with specific faculty members. Opportunities such as clinical research projects, laboratory projects, directed literature reviews, and special clinical rotations are available.

**OGBY 8004 High Risk Maternal/Fetal**
4 wks
Max: 1
Course Director, Lorraine Dugoff, M.D., 303-315-7267. Course Coordinator, Michael Baca, 303-315-4540.
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 antepartum unit under supervision of chief resident.

**OGBY 8005 Gynecologic Oncology**
4 or 6 wks
Max: 1
Course Director, Lorraine Dugoff, M.D. 303-315-7267. Course Coordinator, Michael Baca, 303-315-4540.
Student will attend GYN oncology clinics and scrub on all GYN oncology surgery, functioning as acting intern. All pathology will be reviewed with GYN oncologist. Literature review on selected subject required. Clinical research opportunities available.

**OGBY 8009 GYN Subspecialties**
4 or 6 wks
Max: 1
Course Director, Lorraine Dugoff, M.D. 303-315-7267. Course Coordinator, Michael Baca, 303-315-4540.
Student attends outpatient gynecologic diagnostic clinics, colposcopy and laser surgery, urogynecology, urodynamics, hysteroscopy, and pelvic pain. Student works under supervision of Gyn staff. Directed study and clinical research. Attendance at colposcopy biopsy review conference, preoperative and Gyn teaching conferences required.

**OGBY 8010 Reproductive/Infertility**
4 wks
Max: 1
Course Director, Ruben Alvero, M.D. Course Coordinator, Michael Baca, 303-315-4540.
Student will attend clinics, scrub on surgical procedures, in vitro fertilization procedures, and embryo transfers. The student will participate in ultrasounds, procedures and clinical consultations. The student will present a brief lecture to the division at the conclusion of the rotation.
OBGY 8100  Course Away in Denver  2 - 16 wks
Course Director, Lorraine Dugoff, M.D., 303-315-7267. Course Coordinator, Michael Baca, 303-315-4540.
Prerequisites: Departmental approval must be obtained and all arrangements must be made one semester in advance.
Students required to discuss course evaluation with individual instructor and ensure a written evaluation is mailed to
Dr. Lorraine Dugoff. Dr. Dugoff assigns final grade.

OBGY 8200  Course Away in Colorado  2 - 16 wks
Course description same as OBGY 8100.

OBGY 8300  Course Away Outside Colo  2 - 16 wks
Course description same as OBGY 8100.

OBGY 8400  Course Away Outside U.S.  4 - 16 wks
Prerequisites: The student must receive prior approval from the Associate Dean for Student Affairs.
Course description same as OBGY 8100. Planning consultation is available through the Medical Student
International Program.

OBGY 8600  Research in OB/GYN  2 - 12 wks
Prerequisites: Departmental approval must be obtained and all arrangements must be made one semester in advance.
The student must receive prior approval from the Associate Dean for Student Affairs.

OBGY 8630  Research Outside Colorado  4 - 12 wks
Course description same as OBGY 8600.

OBGY 8640  Research Outside U.S.  4 - 12 wks
Course description same as OBGY 8600.

OPHT 8000  Ophthalmology  4 wks  Max: 1
Course Director, Richard Davidson, M.D. Course Coordinator, Gaylian Howard, 720-848-5029.
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 8100  Course Away In Denver  2 - 16 wks
Course Director, Richard Davidson, M.D. Course Coordinator, Gaylian Howard, 720-848-5029.
Prerequisites: Arrangements must be made one month in advance. Departmental approval required to register.
A final written evaluation must be mailed to Course Director who will assign the final grade.

OPHT 8200  Course Away In Colorado  2 - 16 wks
Course description same as OPHT 8100.

OPHT 8300  Course Away Outside Colo  4 - 16 wks
Course description same as OPHT 8100.

OPHT 8400  Course Away Outside U.S.  4 - 16 wks
Prerequisites: The student must receive prior approval from the Associate Dean for Student Affairs.
Course description same as OPHT 8100. Planning consultation is available through the Medical Student
International Program.

OPHT 8600  Research Ophthalmology  2 - 12 wks
Course Director, Richard Davidson, M.D. Course Coordinator, Gaylian Howard, 720-848-5029.
Prerequisites: Arrangements must be made one month in advance. Departmental approval required to register.
A final written evaluation must be mailed to Course Director who will assign the final grade.

OPHT 8630  Research OPHT Outside CO  4 - 16 wks
Course description is the same as OPHT 8100.

OPHT 8640  Research OPHT Out Of U.S  4 - 16 wks
Prerequisites: Approval from the Associate Dean of Student Affairs and course director required to register.
Course description is the same as Oph 8100. Planning consultation is available through the Medical Student
International Program.

ORTH 8000  Orthopaedic Surgery  4 or 6 wks  Max: 6
ORTH 8001  Orthopaedic Primary Care  2 - 4 wks  Max: 4
Course Director, Richard Fisher, M.D., Course Coordinator, Mary Samson, 303-315-1976.
Restriction: Offered spring semester.
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  4 wks  Max: 1
Course provides clinical experience in musculoskeletal sports medicine. Students will primarily be based in
the CU Sports Medicine Clinic. Opportunities include participation in the clinic, operating room and the training room.

ORTH 8100  Course Away In Denver  2 - 16 wks
Course Director, Richard Fisher, M.D., Course Coordinator, Mary Samson, 303-315-1976.
Prerequisites: Arrangements must be made one month in advance. Departmental approval required to register.

ORTH 8200  Course Away In Colorado  2 - 16 wks
Course description same as ORTH 8100.

ORTH 8300  Course Away Outside Colo  2 - 16 wks
Course description same as ORTH 8100.

ORTH 8400  Course Away Outside U.S.  2 - 16 wks
Prerequisites: The student must receive prior approval from the Associate Dean for Student Affairs and course
director to register.
Course description same as ORTH 8100. Planning consultation is available through the Medical Student
International Program.

ORTH 8600  Research in Orthopedics  4 - 12 wks
Course Director, Richard Fisher, M.D., Course Coordinator, Mary Samson, 303-315-1976.
Prerequisites: Approval from Course Director and Associate Dean for Student Affairs required to register.
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.

ORTH 8630  Research Outside Colo  4 - 12 wks
Prerequisites: Departmental approval must be obtained and all arrangements made at least one month in advance.

ORTH 8640  Research Outside U.S.  4 - 12 wks
Prerequisites: The student must receive prior approval from the Associate Dean for Student Affairs and course
director to register.
Course description same as ORTH 8630.

OTOLARYNGOLOGY ELECTIVES

OTOL 8000  Clinical Otolaryngology  2, 4, or 6 wks  Max: 3
Course Director, Peggy Kelley, M.D. 303-764-8520. Course Coordinator, Alicia Gore, 303-315-1569.
Recommended for students 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. Option
available to do Honors paper.

OTOL 8100  Course Away In Denver  2 - 16 wks
Course Director, Peggy Kelley, M.D. 303-764-8520. Course Coordinator, Alicia Gore, 303-315-1569.
Prerequisites: Required departmental approval and all arrangements made one quarter in advance.
Students required to discuss course evaluations with individual instructor and ensure the written evaluation is
faxed to course coordinator at 303-315-1081. Dr. Kelley assigns final grade.

OTOL 8200  Course Away In Colorado  2 - 16 wks
Course description same as OTOL 8100.

OTOL 8300  Course Away Outside Colo  4 - 16 wks
Course description same as OTOL 8100.

OTOL 8400  Course Away Outside U.S.  4 - 16 wks
Prerequisites: Student must receive prior approval from Associate Dean for Student Affairs and course director to register. Course description same as OTOL 8100. Planning consultation is available through the Medical Student International program.

**OTOL 8600  Research Otolaryngology  4 - 12 wks**
Course Director, Katie Rennie, Ph.D., 303-315-2923.
Prerequisites: Prior approval from Associate Dean and course director required to register.
Objectives: 1) work in supervised environment to gain appreciation for research design, criticism and statistical analysis; 2) complete research project with potential to publish in peer-reviewed journal.

**OTOL 8630  Research OTOL Outside CO  4 - 12 wks**
Prerequisites: Departmental approval must be obtained and all arrangements made one semester in advance. Approval from the Associate Dean for Student Affairs also required.

**OTOL 8640  Research OTOL Out Of U.S  4 - 12 wks**
Course description same as OTOL 8630.

**PATHOLOGY ELECTIVES**

**PATH 8000  Pathology  4, 6 or 12 wks Max: 2**
Course Director, Jeffrey T. Holt, M.D., 303-315-5408, or Course Coordinator, Susan Peth, 303-315-5326.
The Department assigns hospital by interests of the student. Anatomic pathology includes autopsy, surgical pathology, hematopathology and cytology. Clinical pathology includes clinical chemistry, microbiology, coagulation/blood banking and molecular diagnosis. Intended for those interested in clinical medicine, especially a pathology career.

**PATH 8001  Laboratory Medicine  4 wks Max: 30**
Course Director, Hannis Thompson, M.D., 303-372-0346. Course Coordinator, Susan Peth, 303-315-5326.
Restrictions: Course offered section 21 only.
This elective gives senior students comprehensive instruction in using laboratory tests. It reviews physiologic and biochemical phenomena on which laboratory tests are based and emphasizes approaches to interpret laboratory data, awareness of indications, and pitfalls of laboratory tests.

**PATH 8002  Experimental Pathology  6 - 12 wks Max: 12**
Course Director, Jeffrey T. Holt, M.D., or Course Coordinator, Susan Peth, 303-315-5326.
Students are exposed to research relevant to human disease and development of a critical approach to the practice of medicine. Participation in multidisciplinary research done in our Department by tutorials, seminars, rotations through laboratories and hands-on practice in cutting-edge research.

**PATH 8100  Course Away In Denver  2 - 16 wks**
Course Director, Jeffrey T. Holt, M.D., 303-315-5408, or Course Coordinator, Susan Peth, 303-315-5326.
Prerequisites: Departmental approval required and arrangements made one month in advance. Required, a full written course description from the course director at outside institution.
Students ensure a written evaluation is mailed to Course Director who will assign the final grade.

**PATH 8200  Course Away In Colorado  2 - 16 wks**
Course description same as Path 8100.

**Path 8300  Course Away Outside Colo  4 - 16 wks**
Course description same as Path 8100.

**PATH 8400  Course Away Outside U.S.  4 - 16 wks**
Course Director, Jeffrey T. Holt, M.D Course Coordinator, Susan Peth, 303-315-5326.
Prerequisites: Approval from the Associate Dean for Student Affairs and course director required to register.
Course description same as PATH 8100. Planning consultation is available through the Medical Student International Program.

**PATH 8600  Research in Pathology  2 - 12 wks**
Prerequisites: Department approval must be obtained and all arrangements made at least one month in advance. The student must also receive approval from the Associate Dean for Student Affairs.

**Path 8630  Research Path Outside CO  4 - 12 wks**
Course Description same as Path 8600.

**Path 8640  Research Path Out of U.S.  4 - 12 wks**
Course Description same as Path 8600.
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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Weeks</th>
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<tbody>
<tr>
<td>PED 8000</td>
<td>Pediatric Subinternship</td>
<td>4</td>
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<td>Co-Course Directors: Adam, Rosenberg, M.D., Shannon Maes, M.D. and Robin Deterding, M.D.</td>
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<td>Course Coordinator: Brenda Lovato, 303-861-6867.</td>
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<td>Restrictions: A 2-month advance notice is required to drop this course.</td>
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<td>Designed for those students who are interested in further training in pediatrics. Students will be integrated as a functional member of a pediatric ward team.</td>
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<td>PED 8004</td>
<td>Pediatric Cardiology</td>
<td>4</td>
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<td>Co-Course Directors: Michael Schaffer, M.D. and Robin Deterding, M.D.</td>
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<td>Course Coordinator: Brenda Lovato, 303-861-6867.</td>
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<td>Evaluation of children with heart disease by history, physical examination, electrocardiography, roentgenography, echocardiography, and cardiac catheterization will be stressed. The student will make rounds with the cardiology team, see consults, attend outpatient clinics, and participate in cardiac catheterizations and conferences.</td>
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<td>PED 8006</td>
<td>Immunology and Allergy</td>
<td>4</td>
<td>2</td>
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<td>Co-Course Directors: Dan Atkins, M.D. and Robin Deterding, M.D.</td>
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<td>Course Coordinator: Brenda Lovato, 303-861-6867.</td>
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<td>The student is assigned to a pediatric allergy attending; share in the care of NJC outpatients, attend lectures, rounds, conferences. Patient responsibility delegated by attending commensurate with the student’s interest/ability. Opportunities provided to observe laboratory procedures in immunology/pulmonary physiology laboratories.</td>
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<td>PED 8007</td>
<td>Child Abuse and Neglect</td>
<td>4</td>
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<td>Co-Course Directors: Andrew Sirotnak, M.D. and Robin Deterding, M.D.</td>
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<td>Course Coordinator: Brenda Lovato, 303-861-6867.</td>
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<td>Restrictions: not available sections 21-24. Held at TCH and Kempe Center. Basic principles of Child Abuse and Neglect; participate in team evaluation of outpatient and inpatient child abuse cases, and attend court with team members. Primarily observational and includes independent study. One case write-up required.</td>
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<tr>
<td>PED 8008</td>
<td>Birth Defects/ Genetics</td>
<td>4, 6, 8, or 12</td>
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<td>Co-Course Directors: Anne Tsai, M.D. and Robin Deterding, M.D.</td>
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<td>Course Coordinator: Brenda Lovato, 303-861-6867.</td>
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<td>Rotation includes experience in the General Genetics, Inherited Metabolic Diseases, Muscle, Neurocutaneous and outreach clinics. Students will participate in diagnosis, pedigree assessment and management. Students will participate in consultations with faculty, attend conferences, visit laboratories; an oral presentation is required.</td>
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<tr>
<td>PED 8009</td>
<td>Peds Infectious Disease</td>
<td>4</td>
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<td>Co-Course Directors: Mary Glode, M.D. and Robin Deterding, M.D.</td>
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<td>Course Coordinator: Brenda Lovato, 303-861-6867.</td>
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<td>This course provides experience in the pathophysiology, diagnosis, and therapy of childhood infections. Students evaluate in-patients and present cases at daily teaching rounds. Experience in the diagnostic Microbiology laboratory is provided. There is a weekly HIV/infectious diseases clinic.</td>
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<td>PED 8011</td>
<td>Peds Pulmonary Disease</td>
<td>4 or 6</td>
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<td>Co-Course Directors: Robin Deterding, M.D.</td>
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<td>Course Coordinator: Brenda Lovato, 303-861-6867.</td>
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<td>Basic background 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 seminar/case discussion on a pediatric pulmonary topic.</td>
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<tr>
<td>PED 8012</td>
<td>Pediatric Neurology</td>
<td>4, 6, or 12</td>
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<td>Co-Course Directors: Tim Benke, M.D. and Robin Deterding, M.D.</td>
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<td>Course Coordinator: Brenda Lovato, 303-861-6867.</td>
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<td>Child Neurology provides students with the opportunity to gain experience evaluating children with a wide variety of neurological problems. Students will attend rounds on hospital and clinic patients, complete assigned readings and attend Neurology grand rounds.</td>
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<tr>
<td>PED 8013</td>
<td>Pediatric Endocrinology</td>
<td>4</td>
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<td>Co-Course Directors: Michael Kappy, M.D. and Robin Deterding, M.D.</td>
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<td>Course Coordinator: Brenda Lovato, 303-861-6867.</td>
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<td>A large variety of patients with abnormalities of growth and pubertal development, thyroid disorders, and diabetes mellitus are reviewed and treated each week. Seminars on selected topics are scheduled three times per week.</td>
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<tr>
<td>PED 8015</td>
<td>Peds Neonatology Sub I</td>
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<td>Co-Course Directors: Elizabeth Thilo, M.D. and Robin Deterding, M.D.</td>
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<td>Course Coordinator: Brenda Lovato, 303-861-6867.</td>
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</table>
Student assigned to UCH, DHMC, or TCH and will participate actively in the care of critically-ill infants including work rounds, attending rounds, conferences and night call. Experience will be gained in procedures and ventilator management.

**PED 8017 Sub I Ambulatory DHMC**

4 wks  Max: 1  
Co-Course Directors, Simon Hambidge, M.D. and Robin Deterding. Course Coordinator, Brenda Lovato, 303-861-6867.  
A challenging and well-rounded clinical experience in an urban pediatric urgent care clinic. Students will learn how to care for sick and injured children. Spanish language skills are a plus. Some evening and weekend shifts are required.

**PED 8018 General Academic Peds**

4 wks  Max: 1  
Co-Course Directors, Robert Brayden, M.D. and Robin Deterding, M.D. Course Coordinator, Brenda Lovato, 303-861-6867.  
This course offers exciting experience in ambulatory pediatrics at The Children’s Hospital. There are 9 educational conferences per week. No night call.

**PED 8020 Adolescent Medicine**

4 wks  Max: 1  
Co-Course Directors, Paritosh Kaul, M.D. and Robin Deterding, M.D. Course Coordinator, Brenda Lovato, 303-861-6867.  
Provides basic knowledge and clinical skills in diagnosis and management of medical problems during adolescence. Including development of skills in interviewing and counseling adolescents in various health care settings. Students will prepare and present a seminar/case discussion on this topic.

**PED 8022 Peds Gastroenterology**

4 wks  Max: 1  
Co-Course Directors, Edward Hoffenberg, M.D. and Robin Deterding M.D. Course Coordinator, Brenda Lovato, 303-861-6867.  
Restrictions: not available section 9. Clinical rotation on pediatric gastroenterology outpatient service and procedure unit and scheduled conferences. This rotation is designed for students with a specific interest in pediatrics and/or gastroenterology. Research and inpatient experiences available upon advance request.

**PED 8024 Child Development/Behavi**

2 or 4 wks  Max: 1  
Co-Course Directors, Ann Reynolds, M.D. and Robin Deterding, M.D. Course Coordinator, Brenda Lovato, 303-861-6867.  
Medicals 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.

**PED 8025 Peds Emergency Medicine**

4 wks  Max: 1  
Co-Course Directors, Glenn Faries, M.D. and Robin Deterding, M.D. Course Coordinator, Brenda Lovato, 303-861-6867.  
Students gain experience in assessment/management of common conditions in a pediatric emergency department including minor emergencies, acutely ill children, traumatic diagnoses. Procedural experience at student’s level, and at attending's discretion, will also be gained.

**PED 8026 Pediatric Nephrology**

4 wks  Max: 1  
Co-Course Directors, Gary Lum, M.D. and Robin Deterding, M.D. Course Coordinator, Brenda Lovato, 303-861-6867.  
Students will actively participate in the care and evaluation of patients under the direction of the attending and participating resident. Common problems such as hematuria, proteinuria, electrolyte disturbances, chronic renal insufficiency, hypertension, hemodialysis, peritoneal dialysis, and renal transplantation are addressed.

**PED 8029 Breastfeeding Management**

2 wks  Max: 2  
Course Directors, Nancy Krebs, M.D. and Roxana Witter, M.D., 303-333-7059.  
Elective provides an introduction to breastfeeding as a medical topic, with precepting by lactation specialists at clinical sites and self-directed learning through complementary activities. Assessment of mother/infant breastfeeding dyad and management of breastfeeding problems is emphasized. Students contact Dr. Witter.

**PED 8100 Course Away in Denver**

2 - 16 wks  
Course Director, Robin Deterding, M.D. Course Coordinator, Brenda Lovato, 303-861-6867.  
Restrictions: Sections 49-50 not available.  
Prerequisites: Departmental approval required and arrangements made one month in advance.  
Students obtain course evaluations from on-site instructor and must have evaluation mailed to the student coordinator.

**PED 8200 Course Away in Colorado**

2 - 16 wks  
Restrictions: Sections 49-50 not available.  
Course description same as PED 8100.

**PED 8300 Course Away Outside Colo**

2 - 16 wks  
Restrictions: Sections 49-50 not available.  
Course description same as PED 8100.

**PED 8400 Course Away Outside U.S.**

4 - 16 wks
Restrictions: Sections 49-50 not available. 
Prerequisites: Program must be discussed with Dr. Robin Deterding (303-861-6918) before registration. Department approval must be made one semester in advance of rotation. Approval from the Associate Dean for Student Affairs also required.

**PED 8600  Research in Pediatrics  2 - 12 wks**
Course Director, Robin Deterding, M.D. Course Coordinator, Brenda Lovato, 303-861-6867.
Restrictions: Sections 49-50 not available.
Prerequisites: Student must receive Departmental approval one semester in advance of rotation. Approval from the Associate Dean for Student Affairs also required.

**PED 8630  Research Peds Outside CO  4 - 12 wks**
Restrictions: Sections 49-50 not available.
Course description same as PED 8600.

**PED 8640  Research Peds Out Of U.S  4 - 12 wks**
Restrictions: Sections 49-50 not available.
Course description same as PED 8600.

### PHYSICAL MEDICINE AND REHABILITATION ELECTIVES

**PHMD 8000  Physical Med & Rehab  4 wks  Max: 4**
Course Director, William Sullivan, M.D. Course Coordinator, Vy Malcik, 303-724-1263.
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, The Children’s Hospital) allow treatment of a variety of conditions related to rehabilitation.

**PHMD 8100  Course Away In Denver  2 - 8 wks**
Course Director, William Sullivan, M.D. Course Coordinator, Vy Malcik, 303-724-1263.
Prerequisite: PHMD 8000. Department approval must be obtained at least one month in advance.
Clinical experience in Physical Medicine and Rehabilitation, inpatient and/or outpatient. Written evaluation must be sent by individual instructor, with course Director responsible for final grade.

**PHMD 8200  Course Away In Colorado  2 - 8 wks**
Course description and requirements same as PHMD 8100.

**PHMD 8300  Course Away Outside Colo  4 - 8 wks**
Same as PHMD 8100 with prior approval but no prerequisite PHMD 8000 (although recommended) if visiting an ACGME accredited residency program.

**PHMD 8600  Research Physical Med  2 - 12 wks**
Course Director, William Sullivan, M.D. Course Coordinator, Vy Malcik, 303-724-1263.
Prerequisite: PHMD 8000. Department approval must be obtained at least one month in advance and prior approval from Associate Dean for Student Affairs.
Written evaluation must be sent by individual instructor, with course director responsible for final grade.

**PHMD 8630  Research PHMD Outside CO  4 - 12 wks**
Same as PHMD 8600 with prerequisite PHMD 8000 or 8300.

**PHMD 8640  Research PHMD Out Of U.S  4 - 12 wks**
Course description and requirements same as PHMD 8630.

### PREVENTIVE MEDICINE ELECTIVES

**PRMD 8003 Specialty Preventive Med  4 - 8 wks  Max: 4**
Course Director, Tim Byers, M.D., M.P.H., 303-315-5169.
Prerequisite: Course Director approval required to add course.
Designed for students interested in exploring the field of preventive medicine. Tailored educational experiences in the Denver area in a variety of settings. Speak with the course director to design this elective.

**PRMD 8006  Dir Study Ethics/Humanit  2 - 8 wks**
Course Director, Jacqueline Glover, Ph.D., 303-315-6093.
Prerequisite: Course Director Approval Required to add course.
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.
PRMD 8100  Course Away In Denver  2 - 12 wks
Course Director, Tim Byers, M.D., M.P.H., 303-315-5169.
Restrictions: Sections 49-50 not available.
Prerequisites: Course Director Approval required one month in advance. Students required to discuss course evaluations with instructor and ensure written evaluation is mailed to Dr. Byers who assigns final grade.

PRMD 8200  Course Away In Colorado  2 - 16 wks
Course description is the same as PRMD 8100.

PRMD 8300  Course Away Outside Colo  4 - 16 wks
Course description is the same as PRMD 8200.

PRMD 8400  Course Away Outside U.S.  4 - 16 wks
Course Director, Tim Byers, M.D., M.P.H., 303-315-5169.
Prerequisites: Course Director and Associate Dean of Student Affairs approval required to add course.
Designed for students interested in international preventive medicine. Tailored educational experiences in a variety of settings can be designed with assistance from the Medical Student International Program and the course director.

PRMD 8600  Research Preventive Med  4 - 12 wks
Course Director, Tim Byers, M.D., M.P.H., 303-315-5169.
Prerequisites: Course Director and Associate Dean of Student Affairs approval required to add course.
Designed for students interested in preventive medicine research. Tailored research experiences in the Denver area can be established in a variety of settings. Speak with the course director to design this elective.

PRMD 8630  Research PRMD Outside CO  4 - 12 wks
Course description and requirements same as PRMD 8600.

PRMD 8640  Research PRMD Out Of U.S  4 - 12 wks
Course description and requirements same as PRMD 8600.

PSCH 8000  Sub I in Psychiatry  4 - 6 wks  Max: 3
Course Director, Michael Weissberg, M.D.; Associate Course Director, Robert Davies, M.D. Course Coordinator, Carole Evans, 303-315-8411.
Direct patient care responsibility. Student selects primary focus in clinical work, such as adult inpatient, child outpatient, emergency room, inpatient consultations, V.A., community psychiatry. Student receives supervision, attends rounds, teaching conferences. Three weeks before beginning, contact Carole Evans, at 303-315-8411.

PSCH 8001 “Big Six” Substance Prob  2 - 4 wks  Max: 2
Course Director, Thomas J. Crowley, M.D. Course Coordinator, Elisa Upwood, ext. 303-315-0162.
Prerequisites: Course Director approval required to add course.
In treatment programs, experts’ tutorials, and readings, students learn approaches to common primary-care substance problems, such as addiction in pain disorders or pregnancy, smoking with tobacco-induced illness, and substance involved adolescents. Students write a paper on the 6 clinical problems.

PSCH 8100  Course Away In Denver  2 - 8 wks
Course Director, Michael Weissberg, M.D.; Associate Course Director, Robert Davies, M.D. Course Coordinator, Carole Evans, 303-315-8411.
Prerequisites: Department approval required. Arrangements must be made one semester in advance.
Students are required to discuss course evaluations with instructor and ensure written evaluation is mailed to Dr. Weissberg, c/o Carole Evans, Mail Stop C-254-61. Dr. Weissberg assigns final grade.

PSCH 8200  Course Away In Colorado  2 - 8 wks
Course description and requirements same as PSCH 8100.

PSCH 8300  Course Away Outside Colo  4 - 8 wks
Course description same as PSCH 8100.

PSCH 8400  Course Away Outside U.S.  4 - 8 wks
Prerequisites: The student must receive prior approval from the Associate Dean for Student Affairs and course director to add course.
Course description same as PSCH 8100. Planning consultation is available through the Medical Student International Program.
### PSCH 8600 Research in Psychiatry

Course Director, Michael Weissberg, M.D.; Associate Course Director, Robert Davies, M.D. Course Coordinator, Carole Evans, 303-315-8411.

Prerequisites: The student must receive prior approval from the Associate Dean for Student Affairs and the course director to add course.

Research electives in various areas of Psychiatry including child and infant.

### PSCH 8610 Research Drug/Alcohol

Course Director, Thomas J. Crowley, M.D. Course Coordinator, Elisa Upwood, 303-315-0162.

Prerequisite: Course Director approval required to add course.

Regarding substance dependence our faculty study: phenotypic descriptions, adolescent-onset genetics, comorbid conduct disorder and ADHD, brain imaging, stopping HIV spread, and clinical trials. Literature reviews, data collection, analysis, and writing of scientific papers are emphasized.

### PSCH 8630 Research PSCH Outside CO

Course Director, Michael Weissberg, M.D.; Associate Course Director, Robert Davies, M.D. Course Coordinator, Carole Evans, 303-315-8411.

Prerequisites: Departmental approval must be obtained and all arrangements made one semester in advance. The student must also receive approval from the Associate Dean for Student Affairs.

### PSCH 8640 Research PSCH Out Of U.S

Course description and requirements same as PSCH 8630.

### RAD 8000 Diagnostic Radiology

Course Director, Carol M. Rumack, M.D. Course Coordinator, Tina Kutsuma, 303-372-6136.

Restrictions: Course not available sections 29 and 33.

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.

### RAD 8002 Nuclear Medicine

Course Director, Adrienne Sage-El, M.D. Course Coordinator, Tina Kutsuma, 303-372-6136.

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.

### RAD 8007 Interventional Radiology

Course Director, Stephen Johnson, M.D. Course Coordinator, Joanne Conklin, 303-372-6141.

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.

### RAD 8100 Course Away In Denver

Course Director, Carol Rumack, M.D. Course Coordinator, Tina Kutsuma, 303-372-6136.

Restrictions: Not available sections 49-50.

Prerequisites: For rotation approval, students must first provide name, address, and phone number of preceptor to the course director. Students maintain sole responsibility for obtaining written evaluation. 2 week rotation not Honors eligible.

### RAD 8300 Course Away Outside Colo

Course description and requirements are the same as RAD 8100.

### RAD 8600 Research in Radiology

Course Director, Carol Rumack, M.D. Course Coordinator, Tina Kutsuma, 303-372-6136.

Prerequisites: Approval from the Associate Dean of Student Affairs required. The name, address, and phone number of the preceptor must be given to the course director for final approval.

Students responsible for obtaining written evaluation. 2 week rotation not Honors eligible.

### RAD 8630 Research RAD Outside CO

Course description and requirements are the same as RAD 8600.
### Radiation Oncology Electives

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Duration</th>
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<td>Radiation Oncology</td>
<td>4 - 8 wks</td>
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<td>RAO 8100</td>
<td>Course Away In Denver</td>
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<td>RAO 8600</td>
<td>Research RAD Oncology</td>
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<td>RAO 8630</td>
<td>Res RAD Onc Out Of Colo</td>
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<td>RAO 8640</td>
<td>Res RAD Onc Out Of U.S.</td>
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### Surgery Electives

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<td>SURG 8001</td>
<td>Gen Surg Sub I DHMC</td>
<td>4 or 6 wks</td>
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<td>SURG 8002</td>
<td>Gen Surg Sub I St Joseph</td>
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<td>SURG 8004</td>
<td>Emergency Med Univ Hosp</td>
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<td>Emergency Medicine DHMC</td>
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RAO 8005: Radiation Oncology

Course Director, Changhu Chen, M.D., M.S., 720-848-0116. Course Coordinator, Collette Cielens, 720-848-0156.

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 planning. Students will attend and participate in multidisciplinary tumor conferences.

RAO 8100: Course Away In Denver

Course Director, Changhu Chen, M.D., M.S. Course Coordinator, Collette Cielens, 720-848-0154.

Prerequisite: RAO 8005. Departmental approval must be obtained one month in advance.

Students are required to discuss their course evaluation with their individual instructor and ensure that the written evaluation is mailed to Dr. Changhu Chen.

RAO 8200: Course Away In Colorado

Course description same as for RAO 8100.

RAO 8300: Course Away Outside Colo

Course description same as for RAO 8100.

RAO 8400: Course Away Outside U.S.

Course description same as for RAO 8100. The student must receive prior approval from the Associate Dean for Student Affairs.

RAO 8600: Research RAD Oncology

Course Director, Changhu Chen, M.D., M.S. Course Coordinator, Collette Cielens, 720-848-0154.

Prerequisite: RAO 8005. Departmental and Associate Dean of Student Affairs approval must be obtained and all arrangements made one semester in advance.

This elective is designed to acquaint the student with current research developments, knowledge and techniques in radiation oncology.

RAO 8630: Res RAD Onc Out Of Colo

Course description same as RAO 8600.

RAO 8640: Res RAD Onc Out Of U.S.

Course description same as RAO 8600.

SURG 8000: Gen Surg Sub I Univ Hosp

Course Director, Thomas A. Whitehill, M.D., 303-315-6486. Course Coordinator, Janice Frary, 303-315-4601.

Students perform intern responsibilities on General Surgical Service at the 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

Course Director, Jeff Johnson, M.D. 303-436-6559. Course Coordinator, Batyah Weiler, 303-436-6559.

Join an Acute Care Surgery Team at a Level I Trauma Center. Course emphasizes pre-operative evaluation, operating room decisions and postoperative care outside the ICU. Student will attend clinics, rounds, conferences and surgical procedures.

SURG 8002: Gen Surg Sub I St Joseph

Course Director, John T. Moore, M.D. Course Coordinator, Rebecca Schoby, 303-837-7295.

Restrictions: Not available sections 5 and 9.

Held at St. Joseph Hospital with emergency and elective surgery. Emphasize pre- and postoperative care. Graduated operating room experience. Housestaff team assignments. Active daily conferences, including M and M, with radiologic and pathologic coliation.

SURG 8004: Emergency Med Univ Hosp

Course Director, Ravi Morchi, M.D., 303-372-5252. Course Coordinator, Marybeth Hutchins, 303-372-5503.

Students are primary caregivers in a Level II trauma center with a variety of patients and individual teaching time with attendings and senior residents. An excellent experience for students seeking instruction in the assessment and management of the undifferentiated patient.

SURG 8005: Emergency Medicine DHMC

Course Director, Vince Markovchick, M.D. Course Coordinator, TBA, 303-436-7129.
Student is primary caregiver for acutely ill/injured patients at DHMC Emergency Department, supervised by Emergency Medicine Staff. Daily lectures in traumatic/medicalex emergencies, conferences, “board rounds”. Orientation, first day, 7:15 am., Admin Conf. room.

**SURG 8006   Emer Med Career Elective**  4 wks  Max: 3  
Course Director, Vince Markovchick, M.D. Course Coordinator, TBA, 303-436-7129.  
Same as Surg 8005 and directed for students applying to EM Residencies. Mentors assigned/work 4-5 shifts directly with student, discuss EM as a career, CV, personal statement, counsel regarding application/match process for residency, Ambulance ride-along.

**SURG 8008   Cardiothoracic Surg Sub**  4 wks  Max: 2  
Course Director, David Fullerton, M.D. Course Coordinator, Kami Fugate, 303-315-4797.  
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**  4 or 6 wks  Max: 1  
Course Director, Gordon K. Lindberg, M.D., Ph.D., 303-315-7062. Course Coordinator, Randall Streiffert, 303-315-7062.  
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**  4 wks  Max: 1  
Course Director, Michael J. V. Gordon, M.D. Course Coordinator, Lori Morell, 720-848-2721.  
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**  2 or 4 wks  Max: 4  
Course Director, Robert Donohue, M.D., 303-315-5942. Course Coordinator, TBA.  
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. Four week course is considered a sub-internship.

**SURG 8015   Pediatric Surgery**  2, 4, or 6 wks  Max: 1  
Course Director, Frederick Karrer, M.D., Course Coordinator, Deanna Spaulding, 303-861-6530 at TCH.  
The students 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 8020   Vascular Surg Research**  4 - 12 wks  
Course Director, Mark Nehler, M.D., 303-315- 8552. Course Coordinator, Janice Frary, 303-315-4601.  
The students work in Vascular Diagnostic Laboratory to learn problems of vascular surgical research, tests used, and test interpretations. Responsible for at least one research project, either an original investigation or as part of an ongoing investigation.

**SURG 8021   Surgical Critical Care**  4, 6 or 8 wks  Max: 2  
Course Director, Jeff Johnson, M.D., 303-436-6559. Course Coordinator, Bavyah Weiler, 303-436-6559.  
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 patients.

**SURG 8024   Clinical Toxicology**  4 wks  Max: 2  
Course Director, Kennon Heard, M.D., 303-739-1264. Course Coordinator, Becky Holmes, 303-739-1240.  
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 and occupational toxicology.

**SURG 8030   Clinical Transplantation**  2 - 4 wks  Max: 3  
Course Director, Michael Wachs, M.D., 303-372-8750. Course Coordinator, Jody Mandic, 303-372-8731.  
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.

**SURG 8100   Course Away In Denver**  2 – 16 wks  
Course Director, Thomas A. Whitehill, M.D., 303-315-6486. Course Coordinator, Janice Frary, 303-315-4601.  
Prerequisites: Departmental approval must be obtained and all arrangements made one month in advance.
Students are required to discuss their course evaluations with their preceptor(s) and ensure that the written evaluation is mailed to Dr. Whitehill, who assigns the final grade.

**SURG 8200  Course Away In Colorado**  
2 - 16 wks  
Restrictions: Sections 49-50 not available.  
Course description and requirements same as SURG 8100.

**SURG 8300  Course Away Outside Colo**  
4 - 16 wks  
Restrictions: Sections 49-50 not available.  
Course description and requirements same as SURG 8100.

**SURG 8400  Course Away Outside U.S.**  
2 - 16 wks  
Course Director, Thomas A. Whitehill, M.D., 303-315-6486. Course Coordinator, Janice Frary, 303-315-4601.  
Restrictions: Sections 49-50 not available.  
Prerequisites: Students must receive prior approval from the Associate Dean for Student Affairs and course director to add course.  
Course description same as Surg 8100. Planning consultation is available through the Medical Student International Program.

**SURG 8600  Research in Surgery**  
2 - 12 wks  
Course Director, Thomas A. Whitehill, M.D., 303-315-6486. Course Coordinator, Janice Frary, 303-315-4601.  
Prerequisites: The student must receive prior approval from the Associate Dean for Student Affairs and course director to add course.  
Contact department for further course information.

**SURG 8630  Research Surg Outside Colo**  
4 - 12 wks  
Course Director, Thomas A. Whitehill, M.D., 303-315-6486. Course Coordinator, Janice Frary, 303-315-4601.  
Restrictions: Sections 49-50 not available.  
Prerequisites: Departmental approval must be obtained and all arrangements made one semester in advance.  
Student must receive approval from the Associate Dean for Student Affairs.

**SURG 8640  Research Surg Out Of U.S**  
2 – 12 wks  
Restrictions: Sections 49-50 not available.  
Prerequisites: Departmental approval must be obtained and all arrangements made one semester in advance.  
Student must receive approval from the Associate Dean for Student Affairs.