

PED 800Pe - Research (Pediatrics) (Maricopa Integrated Health System, Phoenix)**Dr. McMahon (602 344 5885)**4-6 wks *only*; offered year round

Directly supervised/Patient care or non-patient care.

Maximum enrollment not applicable

Prerequisites: Pediatrics 803 and prior consent*

Goals: Determined by mutual agreement of student and faculty member.**Format:** The student will be afforded an opportunity to synthesize, develop and execute a research project of clinical or basic nature in any of the sections of the Department in which such an interest is demonstrated. At the present time, participating sections include Ambulatory Pediatrics, Cardiology, Hematology, Infectious Diseases, Immunology, Allergy, Neurology, Nutrition, Clinical Pharmacology, Pulmonary, Pediatrics and Adolescents, Gynecology and Child Abuse. However, such an elective needs to be arranged at least four months in advance so that a suitable research project can be planned.**Evaluation Methods:**

1. Written report summarizing research progress.
2. Observation of skills in performing assigned research.

*This elective requires that the student have the approval of the course director prior to signing up for the elective so that an appropriate research experience can be planned.

PED 810Af - Externship in Inpatient Pediatrics (St. Joseph's Hospital and Medical Center, Phoenix)**Dr. Samaddar (Sandra Edwards, 602.406.3382, Sandra.Edwards@chw.edu)**

4 or 6 wks; maximum length of 6 wks; offered year round

Directly supervised/Patient care. Prior approval.

Maximum enrollment of 2

Prerequisites: Pediatrics 803. Medical Students must have consent of Course Director before registering.

Goals:

1. Become familiar with a variety of pediatric medical and surgical diagnoses.
2. Development of organizational skills in managing a number of in-patients, as an active participant on the in-patient pediatric ward team.

Format:

1. Provide primary care for up to five ward patients under the supervision of a senior resident and attending physician.
2. Participate in the department teaching activities including attending rounds, morning report, noon conferences, and afternoon didactics.

Evaluation Methods: Daily observations by attendings and residents, verbal mid-point evaluation and written final evaluation.**PED 810Be - Pediatric Emergency Medicine (Maricopa Integrated Health System, Phoenix)****Dr. A. Eisenhart (602 344 5885)**4 wks *only*; not offered in May, August or December

Directly supervised/Patient care.

Maximum enrollment of 2

Prerequisites: Pediatrics 803

Goals: This rotation will provide students with an exposure to a wide variety of pediatric medical and traumatic emergencies. Clinical teaching will focus on the expeditions evaluation and management of pediatric primary care problems as well as more serious illnesses and injuries.**Format:** Student will work in the pediatric emergency services/urgent care clinic under supervision of faculty. A didactic program (see below) covering essential topics in pediatric resuscitation, trauma care and management of urgent and emergent pediatric illnesses will accompany the clinical experience. Externs will also attend the weekly M&M conference with the Department of Emergency Medicine.

Lecture topics

1. Essentials of Pediatric Resuscitation
2. Fluid & Electrolyte Management in the PED
3. The Febrile Child
4. Pediatric Airway & Respiratory Emergencies
5. Stabilization & Evaluation of the Pediatric Trauma patient
6. Recognition & Reporting of Child Abuse
7. Pediatric Infectious Disease Emergencies
8. Dermatology in the PED

Evaluation Methods: By clinical performance.

PED 810Bg - Pediatric Emergency Medicine (Phoenix Children's Hospital)

Faculty (602 546 0764)

4 wks *only*; offered year round

Directly supervised/Patient care

Maximum enrollment of 2

Prerequisite: Pediatrics 803

Goals: To expose students to a broad variety of pediatric medical and traumatic emergencies. Clinical teaching will focus on rapid evaluation and management of common primary care issues as well as serious illness and injury. Students will have ample opportunity to become proficient in standard pediatric procedures such as blood draws, starting IV's, bladder catheterization, lumbar puncture, splinting, suturing, and endotracheal intubation.

Format: The students will work shifts in the emergency department under the direct supervision of faculty. In addition, students will have the opportunity to "ride along" with EMS and visit the Poison Control Center to get a different perspective on common injuries and illness presenting to emergency departments.

Evaluation Methods: Based upon clinical performance and attendance at the Department of Emergency Medicine didactic sessions.

PED 810De - Inpatient Pediatrics (Maricopa Integrated Health System, Phoenix)

Dr. S. Pradhan & Faculty (MIHS)

4 wks *only*; offered year round (602 344 5885)

Directly supervised/Patient care.

Maximum enrollment of 2

Prerequisites: 4th year Medical Students only. Pediatrics 803.

Goals:

1. Gain more experience and expertise in the care of hospitalized children.
2. Increase knowledge of basic pathophysiologic processes as they relate to specific patient problems.
3. Refine skills of data gathering and problem solving.
4. Obtain skill in performing technical procedures.

Format:

1. Evaluation and care of patients admitted to pediatric service. Responsibility will be commensurate with abilities and previous experiences. Night call will be included.
2. Active participation in routine teaching sessions: ward rounds (attending and resident work rounds), clinical and X-ray conferences, grand rounds and sub-specialty conferences.

Evaluation Methods: Attainment of individual goals, improvement of problem-solving skills, patient presentations on rounds and observation of history and physical exams.

PED 810Dg - Inpatient Pediatrics (Phoenix Children's Hospital, Phoenix)

Dr. J.R. Muhm, Jr. & Faculty (602 546-0764)

4 wks *only*; offered year round

Directly supervised/Patient care

Maximum enrollment of 2

Prerequisites: Pediatrics 803. Medical students must have consent of Course Director before registering.

Goals:

1. Gain more experience in the care of hospitalized children.
2. Increase knowledge of basic pathophysiologic processes as they relate to children.
3. Refine skills of data gathering and problem solving.
4. Obtain skill in performing physical exams on children.

Format:

1. Evaluation and care of patients admitted to general pediatric service. Responsibility will be commensurate with abilities and previous experiences. Night call will be included. You will work closely with residents.
2. Active participation in routine teaching sessions: ward rounds (attending and resident work rounds), clinical and X-ray conferences, grand rounds and sub-specialty conferences.

Evaluation Methods: Attainment of individual goals, improvement of problem-solving skills, patient presentations on rounds and observation of history and physical exams, review of written records.

PED 811Ae - Ambulatory Pediatrics (Maricopa Integrated Health System, Phoenix)

Dr. J. Kelly & Faculty (602 344 5404)

3 or 4 wks; maximum length of 4 wks; offered year round

Not directly supervised/Patient care.

Maximum enrollment of 1

Prerequisites: Pediatrics 803. Medical Students must have consent of Course Director before registering.

Goals: Students will discuss specific goals with the staff and program will be tailored to meet these needs. Goals of the elective are:

1. To gain clinical skills in diagnosis and management of acute and chronic medical illnesses in an ambulatory setting.
2. To learn how to provide cost effective, quality care in an ambulatory setting.
3. To gain knowledge and management skills in handling the psychosocial problems of an indigent population.

Format: The student will function as a subintern in the Pediatric clinic. He/she will be assigned to both general Pediatric clinic and sub-specialty clinics. Both general pediatric clinic and sub-specialty clinics are held simultaneously. The student may elect to attend any of the weekly sub-specialty clinics including Hematology, Cardiology, Neurology, Allergy and Gynecology. Other sub-specialty clinics are available on a biweekly basis. The student will also attend Ambulatory Pediatric Conferences five times per week.

Evaluation Methods: Attainment of individual goals, improvement of clinical skills in ambulatory pediatrics.

PED 811Ag - Ambulatory Pediatrics (Phoenix Children's Hospital)

Pediatric Faculty

4 wks *only*; offered September - May

Directly supervised/Patient care.

Maximum enrollment of 1

Prerequisites: Pediatrics 803. Medical students must have consent of Course Director before registering.

Goals: Gain clinical skills in history and physical examinations in a clinic setting. Improve skills in diagnosis and management of acute and chronic illnesses in an outpatient setting. To learn cost effective outpatient care.

Format: Outpatient pediatric experience with direct attending supervision and working closely with residents.

Evaluation Methods: Clinical performance, twenty minute student presentation of topic of choice and review of written records.

PED 811Ap - Ambulatory Pediatrics in Private Practice

Matilda C. Garcia, MD, MPH (4001 East Baseline Road; Gilbert, AZ; mgarcia@bethesdapediatrics.com ; 480 792-9200

3 or 4 weeks *only*; offered year-round

Directly supervised

Maximum enrollment: 1

Prerequisites: none

Goals:

1. To gain knowledge and clinical skills in performing physical examination of infants during their well baby visits and in providing anticipatory guidance to families during these visits.
2. To gain clinical skills in the evaluation and management of acute and chronic medical problems in a private pediatric setting.
3. To learn how to triage telephone calls from parents and provide appropriate advice with guidance from faculty in a private practice setting.

Format:

The fourth year medical student will function as a pediatric intern in a private community practice under the supervision of a faculty member. The student will actively participate in the evaluation and care of patients. His/her responsibility will be commensurate with abilities and previous experiences. Furthermore, the medical student will be exposed to a diverse group of families, private-pay and Medicaid patients. One to two patients per hour will be assigned to the student. The student will meet with the private pediatrician before and after every patient encounter to give her/him an overview of the patient's case or concern and again after the visit to discuss findings, assessment and plan. Additionally, there will be a wrap-up meeting with the student at the end of the session/day.

Evaluation:

Students will be evaluated on their attainment of above goals at the end of the elective month, improvement of clinical skills in obtaining history and performing thorough physical examinations on young infants, and providing appropriate telephone advice to parents and caregivers. The student's written records will be reviewed by the faculty. The student is expected to give a twenty-minute presentation on a clinical topic of his/her choice at the end of the rotation.

PED 811Ap - Ambulatory Pediatrics

Dr. Lakshmi Kudalore, MD, FAAP - 590 N. Alma School Rd., Suite 14; Chandler, AZ (480-899-3377)

4wks; offered August - February²

Not Directly supervised/Patient care.

Maximum enrollment of 1

Pre-requisites: Pediatrics 803

Goals:

1. To enhance student skills in history and physical examination in a pediatric clinic.
2. To improve skills in diagnosis and management of acute and chronic illnesses, including newborn and preventive care.
3. To learn cost effective outpatient care.

Format:

The fourth year medical student will actively participate in the evaluation and care of patients in an outpatient pediatric clinic and present cases to preceptor for discussion and review. Emphasis will be on preventative medicine and evaluation of acute and chronic problems in this patient population. This elective will also include selected readings and discussion of related topics.

Evaluation Methods:

The preceptor will be evaluating the student on clinical performance, a 20-minute student presentation on a topic of the student's choice, a review of written records, and problem-solving skills.

PED 811Gg - Primary Care Combined Internal Medicine/Pediatrics (Good Samaritan Regional Medical Center, Phoenix) (Jessica Hoyer 602 239 2922 Jessica.hoyer@bannerhealth.com)

Dr. D. Holland (Director, Med/Peds Program, 602 239 2296) & Faculty

4 wks *only*; offered year round

Directly supervised/Patient care

Maximum enrollment of 1

Prerequisites: Core Medicine and core Pediatric rotations. Medical Students must have consent of Course Director before registering.

Goals: Educate students in the primary care of both children and adults with complex chronic diseases with emphasis on following and managing adolescents with chronic medical problems. Training Sites: GSRMC outpatient clinic, PCH and Pappas School Accommodation Clinic.

Format: Students will practice primary care of both children and adults with special emphasis on evaluating patients in a student health clinic setting and managing adolescents with chronic medical problems i.e., cystic fibrosis, diabetes mellitus, inflammatory bowel disease, asthma, behavioral disorders, and complex congenital heart disease. Emphasis will be on health screening, continuity of care, psychosocial issues, preventative medicine and evaluation of acute and chronic problems in this patient population. Students will be taught methods to critically review relevant literature and develop a presentation on a related topic.

Evaluation Methods: The students will be evaluated based on clinical performance, fund of knowledge and completion of listed objectives using group discussions and individual faculty evaluations. The students will have the opportunity to evaluate each aspect of the rotation. Subsidized housing available on a limited basis, prior reservation, MANDATORY.

**Crosslisted with MEDI 811Gg*

PED 815Ae - Advanced Neonatology (Maricopa Integrated Health System, Phoenix)

Dr. M. Kotwal & Faculty (602-344-5885)

4 or 6 wks; maximum length of 6 wks; Not offered in June, July or December

Directly supervised/Patient care.

Maximum enrollment of 1

Prerequisites: Pediatrics 803

Goals:

1. Learn resuscitation of the newborn.
2. Evaluation, management and follow-up care of the high risk newborn.

Format: Student will be assigned to the neonatal intensive care unit where he/she will be expected to attend high-risk deliveries and participate in the management of critically ill newborns and healthy premature infants.

Evaluation Methods: Observation of ability to perform physical exam, obtain history and help in the management of high risk newborns.

PED 815Af - Advanced Neonatology (St. Joseph Medical Center, Phoenix)

Drs. Jeanne Zenge and Lawrence Lilien (Sandra Edwards, 602.406.3382, Sandra.Edwards@chw.edu)

4 to 6 wks; offered year round

Directly supervised/Patient care

Maximum enrollment of 3

Pre-requisites: PED 803

Goals:

1. to learn general principles of newborn critical care including resuscitation, prematurity, respiratory distress, fluid, electrolyte, and alimentation problems, surgical problems (stabilization, anesthesia management, and post-op care), and cardiac problems.
2. to learn to evaluate newborn xray, CT, MRI, and ultrasound (head, heart, and abdomen).
3. to learn select newborn procedures including intubation and umbilical line insertion.
4. to learn how to interpret blood gases and to manage infants requiring conventional ventilation and be familiar with high frequency ventilation.
5. to correlate clinical medicine with basic newborn physiology

6. to apply a problem oriented approach to clinical management and charting
7. to be part of a multidisciplinary NICU team comprising medical students, residents, nurses, ward clerks, respiratory therapists, physical/occupational therapists, dietitians, developmental nurses, neonatal nurse practitioners, neonatologists, pediatric specialists, social workers, discharge planners, and lactation consultants
8. to learn concepts of Ethics as it applies to parental decision making pertaining to their infants with congenital malformations, genetic findings, or predicted CNS handicap.

Format: Students will function in a role similar to a PL1 but will have a caseload of only 3 or more infants. Students will attend high risk deliveries with a senior resident or Neonatal Nurse Practitioner. A typical day would consist of preparing for daily rounds (examining infant, discussing care plan with bedside nurse and resident), presenting on formal teaching rounds to the Attending Neonatologist, arriving at a final care plan and a complete problem oriented note, writing orders, and keeping parents updated. Students will attend all didactic sessions (by Neonatologist and Radiologist) as well as the daily NOON pediatric conferences. Students will present their patients in weekly interdisciplinary discharge rounds and will attend parent conferences.

Only extremely hard working students are encouraged to undertake this elective. This elective will be of interest to students who are considering specialization in obstetrics, family practice, pediatric surgical specialties, anesthesia, and pediatrics.

Evaluation: Students will be evaluated by direct observation by Attending Neonatologists and Housestaff with written evaluations discussed with the medical student. The medical student also evaluates the rotation experience, the supervising faculty and housestaff.

PED 815Ag - Advanced Neonatology (Phoenix Children's Hospital, Phoenix)

Drs. M. Shwer, G. Gutierrez & Faculty

4 or 6 wks; maximum length of 6 wks; offered year round

Directly supervised/Patient care

Maximum enrollment of 1

Prerequisites: Pediatrics 803

Goals: The goals of this rotation are for the student to learn resuscitation of the newborn along with subsequent evaluation and management of the infant requiring intensive care support.

Format: At the start of the rotation, the student will be offered the option of attending a procedures lab, where procedures such as endotracheal intubation, thoracentesis, thoracotomy and chest tube placement, umbilical vessel catheterization, and pericardiocentesis will be taught. Subsequently, the student will be included in the Intensive Care Nursery opportunities provided to the Pediatric Housestaff, including attendance at high risk deliveries and opportunities for neonatal resuscitation, history and physical exam of the newborn, and primary care responsibilities of infants admitted to the Intensive Care Nursery. Didactic lectures covering neonatal topics are provided three days per week. In addition, the student is encouraged to attend Pediatric Grand Rounds, which occur on a weekly basis. Bedside teaching pertinent to the primary patient care occurs on a daily basis. Night call is required.

Evaluation Methods: Evaluation of the student will be based on a composite of the student's ability to perform resuscitative techniques and newborn physical examinations, as well as the student's ability to obtain and present patient histories, and formulate and present management plans for the infants under his/her care.

PED 815Eg Pediatric Cardiology (1920 E. Cambridge Suite 301, Phoenix, AZ 85006)

Andrew Papez, MD (Courtney Crane 602-546-0764 ccrane@phoenixchildrens.com)

4 wks only; offered year round

Not Directly supervised/ patient care

Maximum enrollment of 1 per period

Prerequisites: PEDS 803

Objectives/Goals: The goals and objectives for Pediatric Cardiology are competency-based, focusing on knowledge and skill attainment. The attitude and behavior necessary for knowledge and skill maintenance, as well as lifelong professional development, are an expectation for this rotation, as for all rotations. The overall goal of this rotation is to provide a comprehensive program toward the recognition and management of major/common pediatric cardiology problems. Emphasis will be on the pathogenesis, pathophysiology, diagnosis and management principles of congenital and acquired heart disease in the young. Additional time will be spent on the understanding, recognition and management of pediatric cardiac rhythm disturbances and general cardiology issues. More specifically, during this rotation the resident/student should become comfortable and competent in:

- 1) eliciting a thorough and accurate history and performing comprehensive cardiovascular examination of neonates, infants, children and adolescents
- 2) detecting significant heart disease
- 3) differentiating between functional and pathologic murmurs
- 4) basic interpretation of electrocardiograms
- 5) basic interpretation of chest x-rays
- 6) inpatient management of children with heart disease
- 7) long term management of children and their families with congenital heart disease

8) understanding the general pediatrician's role in diagnosis and management of congenital and acquired heart disease in the young, as well as when to refer to a subspecialist

Format: Students will be exposed to as many cases as possible during their rotation. Time will be spent at the Cambridge office, Children's Rehabilitation Services (CRS), and local outlying clinics. Students are encouraged to take an active role in their education and focus on the aspects of pediatric cardiology they expect to utilize throughout their career. To that end, for students exhibiting a special interest in pursuing pediatric cardiology or critical care fellowships, a more individualized rotation can be tailored to include time spent on the inpatient service, as well as exposure to the cardiac catheterization and electrophysiology laboratories. The students will be expected to do some independent reading and make brief, informal presentations on common conditions to which he/she will be exposed over the course of the rotation. Attendance at the combined Cardiology/Cardiovascular Surgery Conference is expected.

Evaluation Methods: Students will be evaluated on their participation in clinics and clinical activities, cardiac-focused history and physical exam skills, basic interpretation and integration of ancillary tests (ECG, CXR, catheterization reports, and echocardiograms), and the understanding and management of the pathophysiology of children with heart disease (all commensurate with their level of training). Students are encouraged to seek feedback throughout the rotation on their performance. Likewise, students are encouraged to give feedback to the attending physician or course coordinator periodically throughout the rotation to ensure that both the ACGME core competencies, as well as the students' individual goals and objectives for this rotation are being met.

PED 815Ef - Pediatric Cardiology (St. Joseph's Hospital and Medical Center, Phoenix)

Dr. L. Guerrero-Tiro (Sandra Edwards, 602.406.3382, Sandra.Edwards@chw.edu)

4 or 6 wks; maximum length of 6 wks; offered year round

Directly supervised/Patient care

Maximum enrollment of 2

Prerequisites: Pediatrics 803

Goals:

1. To become familiar with cardiologic problems encountered in the infant and child including congenital heart disease and acquired heart disease.
2. To be introduced to methods of diagnosis including electrocardiogram, echocardiogram and cardiac catheterization.

Format:

1. Patient care-primarily out-patient care, though in-patient rounds are conducted daily.
2. Instruction in methods of cardiologic diagnosis will be done in tutorial fashion by faculty.

Evaluation Methods: Direct observation by faculty physicians and housestaff with written evaluations discussed with the medical student. The medical student evaluates the faculty, housestaff and rotation experience.

PED 815Fg/815Fe - Pediatric Neurology (Phoenix Children's Hospital/Maricopa Integrated Health System, Phoenix)

Dr. A. Kaplan & Faculty (602 546 0764)

4 or 6 wks; maximum length of 6 wks; offered year round

Directly supervised/Patient care.

Maximum enrollment of 1 (one student at each clinical site)

Prerequisites: Pediatrics 803

Goals: The objectives of this elective are to acquire a working knowledge of the differential diagnosis of the common neurological disorders of children and to learn the techniques of neurological examination in the pediatric age group.

Format: The in- and out-patient facilities at Phoenix Children's Hospital, and Maricopa Integrated Health System, Phoenix, will be utilized. Daily ward rounds, evaluation of neurological consults, weekly clinics, seminars and frequent informal teaching contact with Dr. Kaplan forms the basis of the elective. Exposure to interpretation of newer imaging techniques, such as MRI, PET and CT scans in children, is provided.

Evaluation Methods: Students will be evaluated on how well they achieve stated objectives. Evaluations are done by the preceptor's observations of ability to collect data, formulate a differential diagnosis and therapeutic plan and to perform outside reading as appropriate.

PED 815Gg - Pediatric Hematology/Oncology (Phoenix Children's Hospital, Phoenix)

Drs. P. Baranko, Wood, Ettl, Jr., Singer, Recht, & Boklan

4 or 6 wks; maximum length of 6 wks; offered year round (no students in July or August)

Directly supervised/Patient care.

Maximum enrollment of 1

Prerequisites: none

Goals: To train students to assess the pediatric patient with possible hematologic or oncologic problems and make appropriate management decisions.

Format: Students will attend hospital rounds, outpatient clinic, and see consultations.

Evaluation Methods: Students will be given a topic to discuss as an informal talk at the end of the rotation. Daily questions regarding patients seen.

PED 815If - Developmental and Behavioral Pediatrics (St. Joseph's Hospital and Medical Center, Phoenix) Drs. D. Kesler & R. Blitz (Sandra Edwards, 602.406.3382, Sandra.Edwards@chw.edu)

4 or 6 wks; maximum length of 6 wks; offered September-May

Directly supervised/Patient care

Maximum enrollment of 1

Prerequisites: Pediatrics 803

Goals:

1. Acquire the knowledge and skill required for the accurate assessment of normal development.
2. Gain competence in the recognition, initial evaluation and management of both pervasive and specific developmental disorders.
3. Develop the capacity to diagnose and manage common behavioral problems of infancy and childhood.

Format:

1. Participate in patient care with direct attending faculty supervision in the Newborn Developmental Follow-Up Program, the Attention Deficit/Hyperactivity Disorders Program, and the Foster Care Assessment Program.
2. Independent learning from videotapes, audiocassettes and direct reading.

Evaluation Methods: Direct observation by attending faculty.**PED 815Ig - Developmental and Behavioral Pediatrics (Phoenix Children's Hospital, Phoenix)****Drs. E. Benjamin, Ricardi, Barton, Leonard & Christopher (602 546-0764)**4 wks *only*; offered year round

Directly supervised/Patient care.

Maximum enrollment of 1

Prerequisites: Pediatrics 803

Goals: To understand basic child-adolescent behavioral syndromes through assessment process and to become familiar with treatment.**Format:** The student will observe and participate in the outpatient pediatric psychiatry and psychology clinics, i.e., ADHD, Tourette's, Pain and Biofeedback clinics. Additionally, the student will be involved in pediatric psychological testing and inpatient team assessment. The student should be able to do a basic screening of behavior problems. There is a formal weekly lecture series.**Evaluation Methods:** The attending's written evaluation will be based upon the student's interest, motivation and assimilation of material through handouts, observation and discussion. The student will also be evaluated on his/her ability to interact with families and patients.**Crosslisted with PSYI 815Ig***PED 815Kf - Child Abuse and Neglect (St. Joseph's Hospital and Medical Center, Phoenix)****Dr. I. Quinn (Sandra Edwards, 602.406.3382, Sandra.Edwards@chw.edu)**4 wks *only*; offered year round

Directly supervised/Patient care

Maximum enrollment of 1

Prerequisites: Pediatrics 803. Medical students must have the consent of the course director before registering.

Goals:

1. Acquire knowledge and skills necessary to recognize the physical and emotional signs of abuse.
2. Acquire an understanding of the physician's role in the evaluation of abuse.
3. Develop an appreciation for the skills necessary to work in a truly multidisciplinary setting.
4. Acquire skills needed to accurately document physical findings in the context of suspected nonaccidental injury.
5. Become familiar with the colposcope and its role in evaluating for sexual abuse.
6. Observe courtroom proceedings involving medical testimony around issues of abuse and neglect.

Format: Patient Care in the Child Abuse Evaluation Center at the Children's Health Center of St. Joseph's Hospital, selected reading materials, observation of physicians and members of law enforcement, and mental health in providing assistance to children and their families.**Evaluation Methods:** Direct observation by faculty with written evaluation discussed with the student. The student evaluates the faculty and the rotation.**PEDS 815Kg Child Abuse and Neglect (Phoenix Children's Hospital)****Stephanie Zimmerman, MD (Courtney Crane 602-546-0764 ccrane@phoenixchildrens.com)**

4 wks only; offered year round

Directly supervised/ patient care

Maximum enrollment 1

Prerequisites: PEDS 803

Goals: To expose students to a broad variety of signs and symptoms that should prompt a non-accidental trauma investi-

gation. Clinical teaching will focus on the identification and documentation of physical findings indicating possible abuse and/or neglect.

Format: Students will participate in consults, round on inpatients, observe multidisciplinary team meetings, read selected journal articles and chapters, participate in journal club, and complete a series of case studies that demonstrate common presentations of non-accidental injury. In addition, students may have the opportunity to “ride along” with CPS and observe courtroom testimony on a case by case basis.

Evaluation Methods: Based upon active participation in consults, direct observation by faculty, attendance at multidisciplinary team meetings, and completion of case studies.

PED 815Nf - Ambulatory Pediatrics/Newborn Nursery (St. Joseph’s Hospital and Medical Center, Phoenix)

Drs. Emerick, Jones, Parra-Roide, Samalder and White (Sandra Edwards, 602.406.3382, Sandra.Edwards@chw.edu)
4 wks; maximum length of 8 wks; offered year round

Directly supervised/Patient care. Prior approval.

Maximum enrollment of 2

Prerequisites: Pediatrics 803

Goals:

1. Become familiar with common issues of the well newborn including: gestational age assessment, social risk factors, metabolic disorders, jaundice, polycythemia, infants at risk for sepsis, infant nutrition (including breast feeding), maternal-infant bonding, maternal conditions affecting the newborn and circumcision.
2. Become familiar with common pediatric out-patient issues including growth and development, well-child care, common acute infections as well as respiratory/metabolic disorders.

Format:

1. Daily newborn nursery rounds with student assuming primary care for 1-3 newborns.
2. Morning and afternoon clinic with student providing primary care under supervision of residents and attending physician. Patients will represent well and sick children as well as some specialty referral patients

Evaluation Methods: Direct observation by faculty physicians and housestaff with written evaluations discussed with the medical student. The medical student evaluates the faculty, housestaff and rotation experience.

PED 815Oe - Pediatric Gastroenterology and Nutrition (Maricopa Integrated Health System, Phoenix)

Dr. R. Hecht (602 344 5404)

4 wks *only*; Not offered in June & December

Directly supervised/Patient care.

Maximum enrollment of 2

Prerequisites: General Pediatric rotation

Goals: Familiarize trainee with major presentations and evaluations of gastrointestinal, hepatic and nutritional disease. Included will be discussion of malabsorption, GE reflux, cholesterolis inflammatory bowel disease, abdominal pain, peptic disease.

Format: Participation in GI clinics, consultative service and nursery rounds. Didactic sessions will be given on major topics in pediatric GI.

Evaluation Methods: One on one feedback with GI staff on consultations and outpatient evaluations. Trainee generally presents a short talk on a GI topic of interest.

PED 815Og - Pediatric Gastroenterology and Nutrition (Phoenix Children’s Hospital, Phoenix)

Drs. M. Shub, K. Ingebo, G. Silber & D. Ursea

4 wks *only*; offered January-November

Directly supervised/Patient care

Maximum enrollment of 2

Prerequisites: Pediatrics 803

Goals:

1. Acquire knowledge into the pathophysiology of gastrointestinal and hepatic diseases in infants and children.
2. Further improve basic skills in obtaining a history and physical examination, as well as data analysis.
3. Problem solving and decision making around patient and laboratory data.

Format: The student will participate in all aspects of the outpatient, inpatient, consultation and nutrition services under the direct supervision of the gastroenterologists. Major emphasis will be placed on diagnosis and management of various gastroenterologic and liver diseases in the pediatric patient. The student will be expected to observe diagnostic GI procedures, including upper and lower endoscopy. He or she will also be exposed to parenteral and enteral nutrition support.

Evaluation Methods: The student will be evaluated by the staff and faculty based on: formal and informal presentations, knowledge and understanding of the pathophysiology of gastrointestinal diseases in infants and children and on the degree and quality of individual study and intellectual curiosity shown during the elective.

PED 815Pg - Pediatric Endocrinology (Phoenix Children’s Hospital, Phoenix)

Drs. K. Hasan, S. Kaufmann, M. Kabbani & L. Touger

4 wks *only*; offered year round
 Directly supervised/Patient care
 Maximum enrollment of 1
 Prerequisites: Pediatrics 803

Goals: The primary goal will be to provide the student an opportunity to understand how hormones interact to regulate normal linear growth and puberty. The student after completion of the rotation, will be able to identify abnormalities of growth and puberty. The secondary goal will be to explore the pathophysiology of common endocrine disorders of childhood. These include type 1 and type 2 diabetes-mellitus, thyroid abnormalities and congenital adrenal hyperplasia.

Format: The student will evaluate patients primarily in the out-patient setting, but also have the opportunity to participate with consults and admission to the hospital.

Evaluation Methods:

1. Daily performance obtaining a history, laboratory results and other pertinent information as well as quality of physical examination of each patient will be evaluated.
2. Special project at the end of the elective, the student will have a chance to make a formal presentation of an interesting topic or clinical case.
3. In addition, the student will be evaluated on the degree and quality of individual study and intellectual curiosity.

PED 815Qg - Pediatric Nephrology (Phoenix Children's Hospital, Phoenix)

Drs. M. Joseph, & P.B. Morgenstern

4 wks *only*; offered year round
 Directly supervised/Patient care.
 Maximum enrollment of 1
 Prerequisites: Pediatrics 803

Goals:

1. Acquire knowledge in the physiology and pathophysiology of the kidney as it relates to kidney disease in children.
2. Acquire basic knowledge in the diagnosis and treatment of kidney disease, hypertension and acid-base and electrolyte disturbances.
3. Gain a working knowledge of the functional development of the kidney in infants, children and adolescents.

Format:

1. Participate in the diagnosis and management of inpatients and outpatient with kidney and related problems.
2. Perform the initial evaluation of new patients in both the inpatient and outpatient setting.
3. Participate in the methods and procedures performed in the renal metabolic laboratory.
4. Participate in daily formal and informal discussions on pre-assigned topics relating to renal disease.

Evaluation Methods: Faculty evaluation based on individual performance, reading and industriousness.

PED 815Sf - Clinical Genetics/Dysmorphology (St. Joseph's Hospital and Medical Center, Phoenix)

**Drs. K. Aleck, T. Grebe & S. Cox, M.S.: Cynthia Lim, M.S. & Ashley Ryan, M.S., Genetic Counselors
 (Sandra Edwards, 602.406.3382, Sandra.Edwards@chw.edu)**

4 wks *only*; offered year round
 Directly supervised/Patient care.
 Maximum enrollment: none
 Prerequisites: Completion of required clerkships

Goals:

1. To teach the student the approach to clinical evaluation, diagnosis and counseling of children and families with genetic disorders and/or congenital anomalies.
2. To teach the student the basic mechanisms by which abnormal human development occurs during embryonic and fetal life.

Format:

1. The student will attend all clinical genetics/dysmorphology clinics at Phoenix Children's Hospital, St. Joseph's Hospital and Children's Rehabilitation Services including inpatient consultations. The student will attend all genetics teaching conferences.
2. The student will be responsible for reading a syllabus of original articles relating to the embryology of congenital anomalies and the approach to diagnosis of genetic disorders. Discussion will follow with faculty supervisor.
3. The student will carry out an independent, thorough literature review of a genetics/dysmorphology topic of his/her choice. The review will be presented orally to the faculty supervisor at the end of the rotation.

Evaluation Methods: The student will be evaluated on his/her clinical performance, comprehension of the assigned

readings and independent project. A grade of "pass," "fail" or "Honors" will be assigned.

PED 815We - Pediatric Critical Care (Maricopa Integrated Health System, Phoenix)

Drs. K. Chundu, Lal & MIHS Peds Staff (602 344 5885)

4 or 6 wks; maximum length of 6 wks; offered September-May

Directly supervised/Patient care.

Maximum enrollment of 1

Prerequisites: Fourth-year medical students only

Goals: To provide the student with general principles of pediatric critical care with major emphasis on understanding physiology and pathophysiology in order to provide the appropriate care for the sick child. The student will learn to diagnose and manage common pediatric critical care issues including shock, respiratory failure (including different modes of mechanical ventilation), trauma, burns and postoperative care of the child.

Format:

1. Direct care of 1-2 patients under the supervision of the senior pediatric resident and pediatric critical care faculty.
2. Daily attending rounds in the ICU and direct informal teaching from the attending.
3. Formal pediatric critical care lectures twice a week.

Evaluation Methods: In depth review of a critical care topic of interest by the student, guided and supervised by the faculty.

PED 815Wg - Pediatric Critical Care (Phoenix Children's Hospital, Phoenix)

Dr. David Beyda & Faculty

4 wks *only*; offered year round

Directly supervised/Patient care

Maximum enrollment of 2

Prerequisites: Pediatrics 803

Goals: The student will be acquainted with the general principles of Pediatric Care medicine including:

1. The initial stabilization of the critically ill and injured child
2. Recognition and management of neurologic emergencies
3. Management of the post-op cardiac patient
4. Priorities in the management of children with immersion injuries
5. Priorities and management of children with multiple trauma
6. Appreciation of the ethical issues surrounding the critically ill and injured child.

Format:

1. Direct patient care for one or two patients under the supervision of the critical care faculty
2. Daily attending rounds
3. Pediatric critical care medicine lecture daily
4. Continuous direct informal attending contact in the patient care setting.

Evaluation Methods: Direct observation by faculty physicians and housestaff with written evaluations discussed with the medical student. The medical student evaluates the faculty, housestaff and rotation experience.

PED 816Ae - Pediatric Surgery (Maricopa Integrated Health System, Phoenix)

Dr. P. Bailey (602 344 5885)

4 wks *only*; offered year round

Directly supervised/Patient care.

Maximum enrollment of 1

Prerequisites: Fourth-year medical student

Goals: To offer a comprehensive introduction to neonatal and pediatric surgery. This experience will include exposure to patients in the newborn nursery, pediatric intensive care unit and on the pediatric floor. The student will be involved in all aspects of the child's pediatric surgical care from the clinic or inpatient environment; including diagnostic evaluation, surgical treatment and postoperative care.

Format: The student will participate, under faculty supervision, in the management of pediatric surgical patients. This will be an elective in which the student experiences a "one on one" learning opportunity with the course faculty; allowing for direct education including daily academic rounds, selected conferences, supervised procedures, operating room participation and guided topical reading.

Evaluation Methods: A written evaluation will be provided of the student's overall performance; including participation in rounds, in the operating room and clinical behavior. Each student will be given feedback during and following completion of the rotation.

**Crosslisted with SURG 816Ae*

PED 816Ag – Pediatric Surgery (Phoenix Children’s Hospital)**Drs. H. Harlan Stone, Notrica, McGill, Pippus, Dimler**4 wks *only*; offered year round

Directly supervised

Maximum enrollment of 1

Prerequisites: Surgery Clerkship; permission of instructor required

Goals: To have an introductory experience in pediatric surgery as a sub-intern. Emphasis will be placed on the unique supportive management of infants and children, their disease processes requiring operation, surgical procedures appropriately selected, and post-operative care. Special knowledge in evolution and diagnosis as well as surgical correction of congenital anomalies and newborn problems will be gained. Conditions necessitating surgery in childhood will also be observed.

Format: Serve as a sub-intern on a pediatric surgical service.

Evaluation Methods: Standard University of Arizona evaluation forms.

*Crosslisted with SURG 816Ag, which is home

PED 816Ap – Pediatric Surgery (Mesa)**Drs. D.L. Dudgeon & E.R. Grisoni (480 464 9400; david.dudgeon@bannerhealth.com)**4 wks *only*; offered year round *except* 4F1*Not* directly supervised/Patient-care.

Maximum enrollment of 2

Prerequisites: Completion of MED 803, SURG 803, and/or PED 803. Atypical hours will be required.

Goals: Upon completion of this rotation, the student will demonstrate the manner of relating professionally and compassionately to a pediatric patient and his/her family during a period of acute stress; approach an infant or child with a potential surgical disease with increased confidence based on an enhanced understanding of the basic physiological differences in evaluating the pediatric patient; be familiar with the presentation and documentation of congenital and acquired pediatric surgical disease with an emphasis on establishing a well-thought out differential diagnosis, a diagnostic plan, therapeutic alternatives, and their potential prognosis; understand the appropriate timing and preoperative preparation as well as the postoperative management of the pediatric surgery patient; experience both the acute and chronic postoperative results achieved during ensuing office evaluations.

Format: There is a major emphasis on personal mentoring by one or both of the pediatric surgeons based at the Desert Samaritan Children’s Medical Center (Mesa). This will include accompanying the staff physicians on daily hospital patient rounds, daytime emergency room and hospital consultations, observation of pediatric surgical procedures, and pre- or post-operative office evaluations. It will be enhanced by a series of clinical didactic sessions (2/wk) given by these surgeons and including the following topics: evaluation of inguinal/femoral masses and hernias in the pediatric patient; evaluation of abdominal pain in the pediatric patient; vomiting and congenital pyloric stenosis in infancy; intussusception, diagnosis and treatment; intestinal obstruction in the newborn; palpable benign and malignant abdominal masses in the pediatric patient; pediatric acquired and congenital head and neck masses; congenital abdominal wall defects in pediatric patients; congenital tracheoesophageal lesions; imperforate anus anomalies.

Evaluation Methods: Evaluation will be based on a compiled profile by the mentoring staff as well as a brief oral and/or written termination examination. The profile will take into consideration the following: student’s daily participation in clinical activities; students’ preparation (ie., outside reading about current patient clinical diagnoses); student’s punctuality.

PED 816D – Pediatric Anatomic and Clinical Pathology (Phoenix Children’s Hospital, Phoenix)**Drs. PS Dickman and D Carpentieri (Paul S Dickman 602 546-1286; pdickman@phoenixchildrens.com)**

4 wks, maximum of 8 wks; offered year round

Not directly supervised/Patient care. Prior approval.

Maximum enrollment of 1

Prerequisites: Completion of third year clerkships

Objectives/Goals: The elective in pediatric anatomic and clinical pathology offers the senior medical student in-depth exposure to pediatric surgical pathology, cytopathology, and autopsy pathology. Various aspects of the clinical laboratory may be experienced, including hematopathology, microbiology, transfusion medicine, and clinical chemistry. Students will directly participate in gross and microscopic surgical pathology, intraoperative consultations, gross and microscopic autopsy examination, and microscopic examination and flow cytometry of bone marrow. At the end of the elective the student will understand the activities involved in pediatric pathology and will have gained a basic knowledge of diagnostic pediatric anatomic pathology.

Format: Students observe procedures and tests, interpretation, and interaction with pediatric clinicians. Clinical conference attendance is required, including pediatric oncology tumor board, brain tumor conference, and gastroenterology conference. Students are expected to read relevant published material related to cases and specimens encountered in the laboratory.

Evaluation methods: Students are evaluated by staff pathologists familiar with their performance and activities, and are asked to write a description of a case encountered in the course of the elective. Students evaluate the pathologists and rotation experience.

Crosslisted with PATH 816D, which is home.

PED 891Df - Chronic Illness in Childhood/Children's Rehabilitative Services (St. Joseph's Hospital and Medical Center, Phoenix)

Dr. Gregg (602 406 6429) (Sandra Edwards, 602.406.3382, Sandra.Edwards@chw.edu)

4 wks *only*; offered year round

Directly supervised/Patient care.

Maximum enrollment of 2

Prerequisites: Pediatrics 803

Goals:

1. Develop awareness of the variety of chronic illnesses that affect children.
2. Develop familiarity with the multidisciplinary approach to managing a child with chronic illness.
3. Become familiar with the various pediatric medical and surgical sub-specialties involved with the child with chronic illness.

Format:

1. Participation in the various sub-specialty clinics at the Children's Rehabilitative Services Clinic in Phoenix.
2. Participate in pediatric rehabilitation team rounds.
3. Topic presentation dealing with chronic illness selected by the student.

Evaluation Methods: Direct observation by faculty physicians and housestaff with written evaluations discussed with the medical student. The medical student evaluates the faculty, housestaff and rotation experience.

PED 891Fg - Pediatric Pulmonology (Phoenix Children's Hospital, Phoenix)

Drs. P. Stillwell, (Section Chief), Radford, Gong, & Woodward (602 546 0764)

4 wks *only*; offered year round

Not directly supervised/Patient care. Prior approval.

Maximum enrollment of 1

Prerequisites: Pediatrics 803

Goals: To acquaint the student with pulmonary diseases in children. To evaluate and manage infants, children and adolescents with bronchopulmonary dysplasia, cystic fibrosis, asthma and other general pulmonary problems including respiratory failure. To become familiar with pulmonary function testing, and sleep studies.

Format: Inpatient rounds and patient evaluation of pulmonary patients in the morning. Outpatient clinic visits, evaluate and treat pulmonary patients in the afternoon. Didactic discussion regarding pulmonary diseases.

Evaluation Methods: Written evaluation forms by the faculty.

PED 891Gf - BNI Pediatric Neurology (St. Joseph's Hospital and Medical Center, Phoenix)

Drs. Kerrigan (Course Director), Bodensteiner, Chapman, Johnsen, Lewis, Narayanan, Ng, & Rho.

(Sandra Edwards, 602.406.3382, Sandra.Edwards@chw.edu)

2 - 4 wks; maximum length of 4 wks; offered year round

Not directly supervised/Patient care. Prior approval.

Maximum enrollment of 2

Prerequisites: Pediatrics 803 and Neurology 803

Goals:

1. Learn concepts of pathophysiology, diagnosis, and treatment for neurological diseases occurring in infants, children, and adolescents. Problem areas expect to include epilepsy, neuromuscular disease, neurocutaneous disease, stroke, and CNS tumors, infections, and malformations. Inpatient consultations include neurological complications of systemic disease and prematurity. Outpatient work includes exposure to common clinical problems such as headache, seizures, developmental delay, hypotonia, and autism.
2. Learn techniques of the neurological examination and developmental assessment in children.
3. Become familiar with the indications and limitations of neurodiagnostic tests such as MRI, CT, EEG, EMG and lumbar puncture.
4. Learn new developments in neurogenetic testing.

Format:

1. This elective is appropriate for students considering a career in pediatrics or neurology. It is particularly encouraged for those students considering a career in child neurology, developmental pediatrics, or developmental neuroscience.
2. The student will act as a sub-intern, integrated into a team consisting of the pediatric neurology faculty member, pediatric neurology resident, and usually an adult neurology resident.
3. Experience with inpatient consultation and a wide variety of outpatient clinics will be provided. The choice of outpatient clinics can be tailored to the student's interests.
4. Multiple didactic teaching conferences are held weekly.

Evaluation Methods: Direct observation by faculty physicians and residents, with written evaluation and personal feedback at the end of the rotation. The student will be asked to evaluate the faculty member and elective experience.

PED 891Hf - Pediatric Critical Care (St. Joseph's Hospital and Medical Center, Phoenix)

Dr. T. Erskine (Sandra Edwards, 602.406.3382, Sandra.Edwards@chw.edu)

4 wks *only*; offered year round

Not directly supervised/Patient care. Prior approval.

Maximum enrollment of 1

Prerequisites: Pediatrics 803

Goals: To acquaint the student with general principles of pediatric critical care including:

1. Recognition and management of shock.
2. Recognition and management of respiratory failure.
3. Priorities in management of children with multiple trauma.
4. Pathophysiology and treatment of increased intracranial pressure.
5. Clinical pharmacology.
6. Recognition of the psychosocial aspects of critical care.

Format:

1. Direct patient care for 1-2 patients under supervision of the pediatric critical care faculty.
2. Daily attending rounds and continuous direct informal attending contact in the patient care setting.
3. Pediatric critical care medicine lecture series held twice weekly and daily pediatric noon luncheon series.

Evaluation Methods: Direct observation by faculty physicians and residents, with written evaluation and personal feedback at the end of the rotation. The student will be asked to evaluate the faculty member and elective experience.