Courses

### 840. Advanced Hemostasis

(PTH 840.) Fall of even-numbered years. 2(2-0) M.S. candidates in Clinical Laboratory Science or approval of department. Inter-departmental with the Department of Pathology.

Physiology, pathophysiology and laboratory evaluation of hemostatic disorders.

# MEDICINE

# **College of Human Medicine**

#### 512. Infectious Diseases

Spring. 4(3-3) MPH 511, or approval of department. Interdepartmental with and administered by the Department of Microbiology and Public Health.

MED

Infectious diseases of humans, including biology of the causative microorganism, epidemiology, pathogenesis, host-parasite relationships, clini-cal and laboratory diagnosis, and clinical management.

# Special Problems in Medicine 590.

Fall, Winter, Spring, Summer. 1 to 6 credits. May reenroll for a maximum of 12 credits. Human Medicine students or approval of department.

Each student will work under direction of a staff member on an experimental, theoretical or applied problem.

### 607. Ambulatory Care Clerkship

Fall, Winter, Spring, Summer. 1 to 3 credits. May reenroll for a maximum of 9 credits. FMP 602. Interdepartmental with the departments of Family Practice, and Pediatrics and Human Development. Administered by the Department of Family Practice.

Outpatient experience, lasting an equivalent of 34 half-days and extending over a minimum of 26 weeks. Continuous and comprehensive patient care under supervision of appropriate physicians.

#### 608. Internal Medicine Clerkship

Fall, Winter, Spring, Summer. 2 to 18 credits. May reenroll for a maximum of 42 cred-its. FMP 602, approval of department. Based in community hospitals, this clerkship will

stress interviewing skills, history, physical exam-ination, along with problem solving and ther-apy, and care of the whole patient leading to independence in patient management.

# 609. Hematology Clerkship

Fall, Winter, Spring, Summer. 2 to 12 credits. May reenroll for a maximum of 12 credits. MED 608.

Development of skills in data collection, problem solving and management related to common hematologic disorders of children and adults.

#### 610. **Oncology** Clerkship

Fall, Winter, Spring, Summer. 2 to 12 credits. May reenroll for a maximum of 12 credits. MED 608.

Development of skills in data collection, prob-lem solving and management of the more prevalent cancers in children and adults.

# Cardiology Clerkship 611.

Fall, Winter, Spring, Summer. 2 to 12 credits. May reenroll for a maximum of 12 credits. MED 608.

A clinical clerkship in which students evaluate in depth patients with cardiac diseases. This includes experiences with special diagnostic procedures including cardiac cuticularization, phonocardiography, echocardiography and electrocardiography.

### Nephrology Clerkship 612.

Fall, Winter, Spring, Summer. 2 to 12 credits. May reenroll for a maximum of 12 credits. MED 608.

Integrated concepts of renal physiology and pathophysiology of renal disease. Clinical experience.

#### 613. Dermatology Clerkship

Fall, Winter, Spring, Summer. 2 to 12 credits. May reenroll for a maximum of 12 credits. MED 608.

Office based experience with a dermatologist to learn clinical skills in dermatology and develop observational and diagnostic skills in skin disease.

#### 614. Medical Chest Clerkship

Fall, Winter, Spring, Summer. 2 to 12 credits. May reenroll for a maximum of 12 credits. MED 608.

A clerkship covering four aspects of chest dis-eases: tuberculosis, diagnosis, pulmonary func-tion, and physiology. The student works with medical residents, utilizing outpatient and hospital facilities.

#### 615. Gastroenterology Clerkship

Fall, Winter, Spring, Summer. 2 to 12 credits. May reenroll for a maximum of 12 credits. MED 608.

Referred patients with gastrointestinal problems are seen as either inpatients or outpatients. Many long term problems are followed. Patients with psychosocial problems are seen conjointly with Social Service.

#### Allergy Clerkship 616.

Fall, Winter, Spring, Summer. 2 to 12 credits. May reenroll for a maximum of 12 credits. MED 608.

Office and hospital based experience to learn and develop diagnostic skills in allergy with a review of basic therapeutics as they relate to allergic diseases.

#### 617. Neurology Clerkship

Fall, Winter, Spring, Summer. 2 to 12 credits. May reenroll for a maximum of 12 cred-its. MED 608.

A combined office and inpatient experience that will provide the student with an opportunity to learn the concepts of evaluation and manage-ment of neurological disease.

#### Infectious Disease Clerkship 618.

Fall, Winter, Spring, Summer. 2 to 12 credits. May reenroll for a maximum of 12 credits. MED 608.

The clerkship emphasizes acquisition in depth of knowledge and skills essential in solution of clini-cal problems in infectious and immunologic dis-eases. Integrated basic science input is afforded through relevant seminars.

# Endocrinology and Metabolism 620. Clerkship

Fall, Winter, Spring, Summer. 2 to 12 credits. May reenroll for a maximum of 12 cred-its. MED 608.

Clinical and/or clinical-research clerkship to allow the student to work closely with patients having endocrine diseases, electrolyte abnorma-lities, endocrine hypertension or diabetes mellitus.

# 626. Physical Medicine and Rehabilitation Clerkship

Fall, Winter, Spring, Summer. 2 to 12 credits. May reenroll for a maximum of 12 cred-its. MED 608.

Experience in prescription writing for physical medicine procedures, occupational therapy and rehabilitation skills.

#### 627. Rheumatology Clerkship

Fall, Winter, Spring, Summer. 2 to 12 credits. May reenroll for a maximum of 12 cred-its. MED 608.

Combined office and hospital consultative clerkship which develops diagnostic skills in areas of rheumatic diseases.

# 628. **Advanced Internal Medicine** Clerkship

Fall, Winter, Spring, Summer. 2 to 18 credits. May reenroll for a maximum of 30 credits. MED 608.

Clinical experiences which refine diagnostic and management skills in general internal medicine.

#### 630. **Emergency Medicine Clerkship**

Fall, Winter, Spring, Summer. 2 to 18 credits. May reenroll for a maximum of 18 cred-its. MED 608.

Pathophysiology and other basic concepts will be used to explain the development of emergent conditions. Clinical diagnosis and treatment of emergencies seen in community emergency departments will be discussed.

# METALLURGY, MECHANICS, AND MATERIALS SCIENCE MMM

# **College of Engineering**

#### 160. **Engineering Communications**

Fall, Winter, Spring. 4(3-3) MTH 108 or MTH 111 or concurrently.

Engineering graphics, descriptive geometry, freehand sketching, graphical, numerical and computer problem solutions. Written technical reports and oral technical presentations.

# 201. Introduction to Engineering Mechanics

Fall. 4(4-0) PHY 237.

Laws of mechanics governing the behavior of rigid and deformable bodies emphasizing how these laws influence engineering design. Extensive use of demonstrations.

#### 205. Mechanics I

Fall, Winter, Spring, Summer. 4(4-0) MTH 215 or concurrently.

Vector description of forces and moments. Two and three dimensional equilibrium problems. Statics of frames and machines. Friction. Shear and moments in beams and shafts. Centroids and moments of inertia.

#### 211. Mechanics of Deformable Solids I

Fall, Winter, Spring, Summer. 4(4-0) MMM 205; MTH 310 concurrently, MMM 215 concurrently.

Tension, compression, and shear. Axially loaded members. Torsion. Beam theory (stress and deflections). Stress and strain (Mohr's Circles). Columns.