485. Clinical Immunology

Fall, Winter, Spring, Summer. 1 credit. Clinical Laboratory Sciences majors, approval of Medical Technology Program. Application of theoretical and technical aspects of clinical immunology in a clinical laboratory.

486. Clinical Hemostasis

Fall, Winter, Spring, Summer. 1 credit. Clinical Laboratory Sciences majors, approval of Medical Technology Program. Clinical experience in the area of hemostasis. Structured to achieve proficiency in psychomotor skills, instrumentation, quality assurance, test evaluation and comprehension of concepts and principal in coagulation.

487. **Clinical Body Fluid Analysis**

Fall, Winter, Spring, Summer. 1 credit. Clinical Laboratory Sciences major, approval of Medical Technology Program. Application of the theory and technical skills used in the analysis of body fluids in a clinical laboratory.

495. Independent Study

Fall, Winter, Spring, Summer. 1 to 5 credits. May reenroll for a maximum of 10 credits. Approval of department.

Independent study including assigned reading and reviews of appropriate scientific periodicals.

MED

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.

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

590. Special Problems in Medicine

Fall, Winter, Spring, Summer. 1 to 6 credits. May reentoll 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 Fail, white, spring, summer, 1 to 5 credits. May reenroll for a maximum of 9 credits. FMP 602. Interdepartmental with the depart-ments 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 cred-its. 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, problem solving and management of the more preva-lent cancers in children and adults.

611. Cardiology Clerkship

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.

612. Nephrology Clerkship

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 cred-its. MED 608.

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

Medical Chest Clerkship

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

616. Allergy Clerkship

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 credits. 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.

618. Infectious Disease Clerkship

Fall, Winter, Spring, Summer. 2 to 12 credits. May reenroll for a maximum of 12 cred-its. MED 608. Interdepartmental with the Department of Microbiology and Public Health. The clerkship emphasizes acquisition in depth of knowledge and skills essential in solution of clini-cal problems in infectious and immunologic diseases. Integrated basic science input is afforded through relevant seminars.

620. Endocrinology and Metabolism Clerkshin

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 credits. 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 credits. 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.

Emergency Medicine Clerkship 630.

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

(EGR 160.) Fall, Winter, Spring. 4(3-4) 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.

Introduction to Engineering 201. 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.