HBP
Pathology

HBP 511: Pathobiology for Graduate Health Care Practitioners
For graduate students who have obtained primary health care baccalaureate degrees through the case study approach. Covers the underlying principles of modern experimental pathology. Focuses on the clinical aspects of the body system, including relevant underlying biochemistry, structure, or pathophysiology at the organ, tissue, cell or molecular level.
Prerequisites: Undergraduate degree, health care experience, biochemistry or cell biology, anatomy and microbiology.
Spring, 3 credits, Letter graded (A, A-, B+, etc.)

HBP 531: General Pathology
Introduces the nature and causes of disease, death, reaction to injury, and repair. Analyzes associated structural changes in cells and tissues, with reference to their functional correlates.
Prerequisites: Histology, gross anatomy, physiology and biochemistry, prior or concurrent microbiology or permission of instructor.
Spring, 3 credits, Letter graded (A, A-, B+, etc.)

HBP 533: Immunology
Principles of immunology for graduate students in the biological sciences, including definition of antigens and antibodies, specificity of the immune response, immunoglobulin structure, the genetics of immunoglobulin synthesis, cellular cooperation in the immune response, hypersensitivity, tolerance immunogenetics. Open to advanced undergraduates.
Fall, 3 credits, Letter graded (A, A-, B+, etc.)

HBP 554: Advanced Immunology
Selected topics in immunology are discussed using original research literature as the central focus. Students present and discuss the literature in a seminar format.
Prerequisite: HBP 531 or 533 and permission of instructor
Spring, 2 credits, Letter graded (A, A-, B+, etc.)

HBP 556: Laboratory Medicine
A four-week full-time (6 hr, day) course dealing with clinical laboratory decision making and the basis for the laboratory evaluation of human evaluation of human disease. Didactic and practical presentations by interdepartmental faculty. Intended principally for senior medical students, but also for advanced microbiology or biochemistry students interested in clinical applications.
Prerequisite: Permission of instructor.
Spring, 6 credits, Letter graded (A, A-, B+, etc.)

HBP 561: Electron Microscopy for Experimental Pathologists
Uses electron microscope (EM), alone and in conjunction with other methodologies in studies of biological dysfunction. Special techniques include histochemistry, enzyme histochemistry, immunohistochemistry, diffraction, stereo-EM and scanning EM. Design of protocols, preparation and interpretation of data.
Prerequisite: Permission of instructor.
Spring, 2-6 credits, Letter graded (A, A-, B+, etc.)

HBP 580: Teaching Honors
Selected students whose performance in the basic required courses for the graduate program is in the top 10 percent conduct tutorials for first-year graduate students in the program and other students taking graduate courses for credit. The tutors are supervised and graded by program faculty of the graduate program. Successful completion of this course will make the students eligible to receive an "Honors in Teaching" on their transcript.
Prerequisite: Permission of instructor.
Spring, 1 credit, Letter graded (A, A-, B+, etc.)

HBP 590: Seminars in Immunology
A series of monthly seminars focusing on research in progress by the participants, current journal articles in the field of immunobiology, and prepared reviews of specified areas in the general field.
Prerequisite: MCB Graduate Students
Spring, 1 credit, S/U grading
May be repeated for credit.

HBP 622: Clinical Pathologic Correlations: Gross Pathology
Correlative exercises in clinical pathology and human gross anatomic pathology including surgical biopsy material. Open to students in medical sciences.
Prerequisites: Systems pathology and general pathology course. Permission of instructor.
Fall, 1-3 credits, Letter graded (A, A-, B+, etc.)
May be repeated for credit.

HBP 691: Journal Club in Pathology
Provides students with a forum for acquiring skills involved in the critical analysis and presentation of scientific data by active participation in seminars of major topics in cellular and molecular pathology, and critical discussion of selected topics with presentation of papers from the literature.
Prerequisite: MCB Graduate Student
Spring, 1 credit, Letter graded (A, A-, B+, etc.)
May be repeated for credit.

HBP 966: Hematology Conference
Teaches a given aspect of hematology, oncology or immunology. Staff from medicine, pathology, and nuclear medicine participate, and usually presents a case to introduce the subject. Various teaching aids, such as review of pathologial material, are used. Primarily for health science professionals.
1-3 credits, Letter graded (A, A-, B+, etc.)
May be repeated for credit.

HBP 967: Tumor Conference
Considers problems in the management of patients with a malignancy and recommendations for a course of therapy for each patient including a review of a particular aspect of cancer treatment or natural history in depth. Functions as the link between the hospital and the Eastern Oncology Cooperative Group. Primarily for health science professionals.
1-3 credits, Letter graded (A, A-, B+, etc.)
May be repeated for credit.

HBP 968: Advanced Clinical Pathologic Correlations: Gross Pathology
Postgraduate correlative exercises in human gross pathologic anatomy that emphasize the gross pathologic basis for altered function and clinical manifestations of disease. Open to physicians and others with advanced degrees in medical sciences.
1-3 credits, Letter graded (A, A-, B+, etc.)
May be repeated for credit.

HBP 969: Anatomical and Surgical Pathology for Residents in Pathology
To provide practical and clinical experience in tissue pathology. During the four week elective the student is given the opportunity to participate in all aspects of autopsies as well as gross and microscopic examination of surgical specimens. There is ongoing review of general and organ system pathology to reinforce structural-functional correlations. This elective is selected by students who plan a career in pathology as a "hands-on" introduction to the specialty. The elective is also chosen by others, particularly individuals who will enter radiology, and who seek to
correlate radiographic and pathologic anatomy. Students who are sufficiently interested and motivated may become involved in relatively independent work-up of selected cases. Primarily for health sciences professionals.

1-3 credits, Letter graded (A, A-, B+, etc.) May be repeated for credit.

**HBP 971: Renal Clinicopathologic Correlations**

A case-oriented, postgraduate course in renal biopsy interpretation and its relationship to patient management.

1 credit, Letter graded (A, A-, B+, etc.) May be repeated for credit.