**COURSE DESCRIPTIONS (in alphabetical order)**

**MICB 323. MEDICAL MICROBIOLOGY/LAB. 5 HR.**

(For medical laboratory science students; other students with consent.) Biochemistry. Basic microbiology. Emphasis on immunology, pathogenic microorganisms, and clinical laboratory techniques.

**NBAN 205. Introduction to Human Anatomy. 3 Hr.**

Introductory human anatomy course that uses a combined regional and systemic approach to examine the relationships and organization of the major structure within the thorax, abdomen, head/neck, and back/limbs regions of the body.

**PATH 200. Medical Terminology. 3 Hr.**

General medical terminology with emphasis on clinical and anatomic pathology terminology.

**PATH 300. Introduction to Pathology. 3 Hr.**

A study of principles and processes of pathology from cellular to system, including etiology, pathogenesis, and clinical features of representative or commonly occurring disorders and diseases.

**PATH 303. Laboratory Applications. 2 Hr.**

Lectures and laboratory experience on laboratory safety, measurement, use and maintenance of laboratory equipment, preparation, and storage of reagents and solutions, and basic laboratory techniques.

**PATH 304. Histotechnology Microanatomy. 3 Hr.**

Microscopic identification of the morphology of human cells, tissues and organ systems with relationship to structure and function.

**PATH 305. Staining Techniques I. 4 Hr.**

A lecture and laboratory course focusing on the theory and methodology of routine and special staining and the basic principles, components and use of instruments in the histopathology laboratory.

**PATH 306. Histotechnique I. 3 Hr.**

A lecture and laboratory course focusing on the principles and theories of routine histologic techniques and the basic principles, components and use of instruments in the histopathology laboratory.

**PATH 320. Basic Clinical Biochemistry. 3 Hr.**

Introduction to basic biochemistry and human metabolism of amino acids, proteins, enzymes, carbohydrates, liquids, and nucleotides. Molecular biology and applications to the clinical laboratory are included.

**PATH 380. Introduction to Immunology. 1 Hr.**

Lectures in basic immunology, with emphasis on its structure and function. antigens, antibodies, and complement will be discussed and related to immune disorders and simple immunological tests.

**PATH 381. Research, Educational Methodology. 2 Hr.**

Lectures in ethics, techniques of research, and techniques of educational methodology for medical laboratory science students.

**PATH 403. Community Service Practicum. 1 Hr. Senior Year.**

PR: Senior year in medical laboratory science. Students will participate in approved community service activities. (Grading will be pass /fail.)

**PATH 405. Staining Techniques II. 4 Hr.PR: 305.**

A lecture and laboratory course focusing on the theory and methodology of immunohistochemistry.

**PATH 406. Histotechnique II. 3 Hr.PR: 306.**

A lecture and laboratory course focusing on the principles and theories of routine and advanced histologic techniques and the basic principles, components and use of instruments in the histopathology laboratory.

**PATH 407. Histology Laboratory. 8 Hr.**

Senior Year HTL Program. This course consists of rotations in clinical and research histopathology.

**PATH 408. Histotechnologist Practicum. 10 Hr.**

Senior Year HTL Program. Students will utilize their knowledge in routine and advanced histological techniques in a clinical setting.

**PATH 475. Medical Relevance. 3 Hr.**

Case studies of pathologic entities encountered in the clinical laboratory and a review of clinical laboratory science. Students will complete and give an oral presentation of the capstone experience and pass a comprehensive examination

**PATH 409. Molecular pathology for laboratory professionals. 2 HR.**

This course will provide students with an overview of the principles and applications of molecular techniques in pathology. A review of molecular and cancer biology will be included, and molecular pathways and biomarkers will be discussed with correlation to cancer types.

**PSIO 441. Mechanisms of Body Function. 4 Hr.**

A systemic examination of the hemostatic functions of the human body with emphasis on the physiochemical mechanisms involved. Pathophysiology and clinical correlations are introduced in relation to normal physiology.