**PTH - PATHOLOGY**

**PTH 7000 General Pathology Cr. 5**
The structural and functional manifestations of disease. Concepts of biochemistry, physiology and cell biology are utilized in developing a dynamic approach to the study of the abnormal cell and its constituents. Basic mechanisms are stressed. Offered Fall.

**Restriction(s):** Enrollment is limited to Graduate level students.

**PTH 7080 Special Topics in Pathology Cr. 1-15**
Frontier areas in experimental pathology and clinical laboratory sciences. Format may be lecture, laboratory, or discussion; topics to be announced in Schedule of Classes. Offered Every Term.

**Restriction(s):** Enrollment is limited to Graduate level students.

Repeatable for 20 Credits

**PTH 7085 Critical Review of Scientific Publications Cr. 1**
For Ph.D. students in biomedical fields. Current experimental approaches in medical research. Offered Every Term.

**Restriction(s):** Enrollment is limited to Graduate level students; enrollment is limited to students with a major in Pathology; enrollment limited to students in the PhD in Medicine program.

Repeatable for 5 Credits

**PTH 7090 Signal Transduction and Cell Growth Regulation Cr. 3**
Signal transduction pathways, both cellular and molecular, and their alterations in cancer. Journal articles and instructor handouts used; emphasis on relationship to disease process. Offered Every Other Winter.

**Prerequisites:** IBS 7015 with a minimum grade of C

**Restriction(s):** Enrollment is limited to Graduate level students.

**PTH 7130 Neuropathology Cr. 2**
Offered Yearly.

**Prerequisites:** PTH 7000 with a minimum grade of C

**Restriction(s):** Enrollment is limited to Graduate level students.

**PTH 7150 Pathology of Respiratory Tract Cr. 2**
Offered Yearly.

**Prerequisites:** PTH 7000 with a minimum grade of C

**Restriction(s):** Enrollment is limited to Graduate level students.

**PTH 7180 Cardiovascular Pathology Cr. 2**
Gross, microscopic and submicroscopic anatomy and pathophysiology of cardiovascular disease, both human and experimental. Offered Yearly.

**Prerequisites:** PTH 7000 with a minimum grade of C

**Restriction(s):** Enrollment is limited to Graduate level students.

**PTH 7330 Pathology of the Kidney Cr. 2**
Techniques of preparing renal biopsies for light and electron microscopy and immunofluorescent studies; ultrastructure of normal kidney; physiology of kidney - acute and chronic renal failure; glomerular disease; pyelonephritis; vascular disease; and acute tubular necrosis and renal transplantation. Offered Yearly.

**Prerequisites:** PTH 7000 with a minimum grade of C

**Restriction(s):** Enrollment is limited to Graduate level students.

**Course Material Fees:** $25

**PTH 7500 Systemic Pathophysiology Cr. 3**
Pathology and pathogenesis underlying abnormal physiologic function of major organ systems in humans. Offered Yearly.

**Prerequisite:** PSL 7010 with a minimum grade of C and BCH 7010 with a minimum grade of C

**Restriction(s):** Enrollment is limited to Graduate level students.

**Course Material Fees:** $25

**Repeatable for 0 Credits**

**PTH 7890 Seminar Cr. 1**
Offered Yearly.

**Restriction(s):** Enrollment is limited to Graduate level students; enrollment is limited to students with a major in Pathology; enrollment limited to students in a Doctor of Philosophy degree.

Repeatable for 25 Credits

**PTH 7990 Directed Study in Clinical Pathology and Pathologic Anatomy Cr. 2**
Offered Yearly.

**Restriction(s):** Enrollment is limited to Graduate level students; enrollment is limited to students with a major in Pathology; enrollment limited to students in the PhD in Medicine program.

Repeatable for 12 Credits

**PTH 8000 Current Topics in Tumor Metastasis Cr. 3**
Advances in research on key aspects of tumor metastasis; emphasis on molecular mechanisms, tumor invasion, angiogenesis, and organ-specific tumor metastasis. Offered Fall.

**Prerequisites:** IBS 7015 with a minimum grade of C

**Restriction(s):** Enrollment is limited to Graduate level students.

**Repeatable for 12 Credits**

**PTH 8010 Molecular Biology of Diabetes and Obesity Cr. 2**
Basic principles and current research topics in the etiology and pathology of diabetes; diabetic complications and obesity. Offered Every Other Fall.

**Prerequisites:** IBS 7015 with a minimum grade of C

**Restriction(s):** Enrollment is limited to Graduate level students; enrollment limited to students with a class of Applicant Masters, Candidate Masters or Doctoral Candidate.

**Repeatable for 12 Credits**

**PTH 8020 Seminar Cr. 1**

**Restriction(s):** Enrollment is limited to Graduate level students.

**Repeatable for 12 Credits**

**PTH 8090 Seminar Cr. 1**
For Ph.D. students in biomedical fields. Current experimental approaches in medical research. Offered Every Term.

**Restriction(s):** Enrollment is limited to Graduate level students; enrollment is limited to students with a major in Pathology; enrollment limited to students in the PhD in Medicine program.

Repeatable for 20 Credits

**PTH 9000 Seminar Cr. 1**
Repeatable for 0 Credits

**Course Material Fees:** $370.26