**CANCER BIOLOGY (CANB)**

**CANB 7600 - Molecular Mechanisms of Cancer (4 Credits)**
This is an advanced course that will focus on mechanisms of cancer initiation and progression. The course will include didactic presentations, primary literature analysis and workshops. The course is open to all graduate students but requires some prior knowledge of Cancer Biology. Grading Basis: Letter Grade
Typically Offered: Spring.

**CANB 7602 - Special Topics in Cancer Biology (1 Credit)**
Special topics of particular interest to graduate students in the Cancer Biology program. Registration requires department approval. Max hours: 4 credits/4 topics. Requisite: 008754
Grading Basis: Letter Grade
Repeatable. Max Credits: 1.
Typically Offered: Spring.

**CANB 7610 - Pathobiology of Cancer Mini-Course (1 Credit)**
Provide understanding of clinical issues associated with human cancer. Contains didactic and lab components. The latter will focus on pathology of human tumors at macroscopic/microscopic levels. Students will gain understanding of cancer diagnosis/epidemiology/treatment through study of specific tumor types. Prerequisite: Students are required to take this course twice during their time in the CANB program. IDPT 7806, IDPT 7807, IDPT 7808, IDPT 7809.
Grading Basis: Letter Grade
Repeatable. Max Credits: 1.
Typically Offered: Spring.

**CANB 7613 - Research Seminars and Journal Club (1 Credit)**
Current research topics in experimental pathology, virology, and tumor biology. Graduate students and faculty presentations.
Grading Basis: Letter Grade
A-GRAD Restricted to graduate students only.
Typically Offered: Fall, Spring.

**CANB 7620 - Histophysiology (3 Credits)**
Discussions of cell interactions, tissue physiology, and renewal based upon the histologic cell types and structures present. Where pertinent, pathologic alterations will be introduced to facilitate identification of the important normal functions/structures.
Grading Basis: Letter Grade
A-GRAD Restricted to graduate students only.
Typically Offered: Fall, Spring.

**CANB 7640 - Bioinformatics (2 Credits)**
This course introduces basic concepts of bioinformatics needed to perform large-scale genomic data mining. A computer workshop will provide students with the relevant and minimal skills to analyze, access and visualize high-throughput data using open source programs and public databases. Prerequisites: IDPT 7806, IDPT 7807, IDPT 7808, IDPT 7809; Corequisite: BIOS 6606
Grading Basis: Letter Grade
A-GRAD Restricted to graduate students only.
Typically Offered: Fall, Spring.

**CANB 7650 - Research in Cancer Biology (1-10 Credits)**
Research work in cancer biology. Prerequisite: Consent of Instructor. Grading Basis: Letter Grade with IP
A-GRAD Restricted to graduate students only.
Typically Offered: Fall, Spring, Summer.

**CANB 7660 - Advanced Topics: CANB (1 Credit)**
The specific topics covered in this course vary from year to year. For Fall 2011 the topic will be "Cancer cells and their environment: how the extracellular milieu influences tumor progression" offered by Dr. Schedin. Grading Basis: Letter Grade
A-GRAD Restricted to graduate students only.
Typically Offered: Fall, Spring.

**CANB 7680 - Hypothesis Development and Experimental Design (3 Credits)**
Students will discuss recent research papers and develop new hypotheses that extend the findings in the papers. Research proposals to test the hypothesis will be written and an oral defense of the proposal will be performed. Prereq: CANB 7600, IDPT 7806, IDPT 7807, IDPT 7808, IDPT 7809.
Grading Basis: Letter Grade
Repeatable. Max Credits: 3.
A-GRAD Restricted to graduate students only.
Typically Offered: Fall, Spring.

**CANB 7690 - Grant Writing in Cancer Biology (2 Credits)**
This course will use didactic presentations and writing workshops to develop a fellowship grant in the NIH style. Focus will be on grantsmanship, persuasive writing and the peer review system. This course will run consecutively with CANB 7600. Corequisite with CANB 7600
Grading Basis: Letter Grade
A-GRAD Restricted to graduate students only.
Typically Offered: Spring.

**CANB 8990 - Doctoral Thesis (1-10 Credits)**
Doctoral thesis work in cancer biology. Prerequisite: Consent of Instructor. Grading Basis: Letter Grade with IP
A-GRAD Restricted to graduate students only.
Additional Information: Report as Full Time.
Typically Offered: Fall, Spring, Summer.