The Department of Pathology offers studies leading to degrees at both the master's and doctoral levels, but gives priority to doctoral applicants over master’s applicants. Before applying to the Master of Science Program, students are required to consult the director of graduate studies.

The department also participates in the Medical Scientist Training Program. The department is oriented toward the study of disease at the molecular, cellular, organ, whole organism, and population levels, using a wide range of approaches including epidemiology. Students are initially immersed in an integrated curriculum and later they complete specialized training in an area of pathology of their choice, including, but not limited to, cancer prevention, biomarkers of cancer, molecular and genetic epidemiology, tumor biology, and mechanisms of cancer development and progression. All areas focus on translational and transdisciplinary aspects of pathology, cancer research, and epidemiology.

### Admission and Degree Requirements

- **MS in Pathology** ([catalog.uic.edu/gcat/colleges-schools/medicine/path/ms](http://catalog.uic.edu/gcat/colleges-schools/medicine/path/ms))
- **PhD in Pathology** ([catalog.uic.edu/gcat/colleges-schools/medicine/path/phd](http://catalog.uic.edu/gcat/colleges-schools/medicine/path/phd))

**PATH 421. General Pathology - Dental. 3 hours.**

Basic principles of pathological processes. Course Information: Prerequisite(s): ANAT 440 and PATH 407 and PHYB 401; or consent of instructor. Class Schedule Information: To be properly registered, students must enroll in one Laboratory and one Lecture.

**PATH 422. Systemic Pathology - Dentistry. 3 hours.**

Disease process affecting specific organs. Course Information: Prerequisite(s): PATH 421. Class Schedule Information: To be properly registered, students must enroll in one Laboratory and one Lecture.

**PATH 507. Physiological Basis of Pathology. 2 hours.**

Subject matter allied to general pathology but going deeper into physical chemistry and physiological principles, as set forth in N.R. Joseph’s “Comparative Physical Biology.” Course Information: Same as HSTL 507. Prerequisite(s): HSTL 401; or PATH 421 and PATH 422.

**PATH 510. General Pathology. 3 hours.**

Introduction to the science of disease for graduate students in areas of biomedical research with a focus on the mechanisms of basic pathological processes at the molecular, cellular, tissue, and whole organism levels. Course Information: Prerequisite(s): Consent of the instructor. Recommended background: Basic molecular and cell biology is highly recommended.

**PATH 511. Pathobiology of Cancer. 3 hours.**

Introduction to principles of carcinogenesis, tumor biology, and oncology, including cancer epidemiology, molecular-cellular basis of cancer, tumor progression, invasion and metastasis, and prevention, detection, diagnosis, and therapy of cancer. Course Information: Same as GEMS 512. Prerequisite(s): Consent of the instructor. Recommended background: Basic knowledge of molecular and cell biology is highly recommended.

**PATH 512. Molecular Epidemiology and Biomarkers of Disease. 3 hours.**

Major theoretical concepts and practical issues involved in research involving molecular biomarkers in human populations, emphasizing examples from the cancer research literature. Course Information: Same as EPID 512. Prerequisite(s): Consent of the instructor. Recommended background: Some biology or medical background is recommended for epidemiology students taking this course.

**PATH 513. Special Topics in Pathology. 1-4 hours.**

Topics of current interest in the fields of experimental pathology, cancer biology, molecular epidemiology, experimental design and analysis, biomarker research, and cancer prevention. Course Information: May be repeated. Prerequisite(s): Approval of the department.

**PATH 595. Pathology Seminar and Journal Club. 2 hours.**

Weekly seminar and journal club covering selected fields of interest and research in pathology. Course Information: Satisfactory/Unsatisfactory grading only. Class Schedule Information: To be properly registered, students must enroll in one Conference and one Lecture-Discussion.

**PATH 598. Master's Thesis Research. 0-16 hours.**

Research in experimental pathology towards M.S. degree. Course Information: Satisfactory/Unsatisfactory grading only. May be repeated. Students may register in more than one section per term.

**PATH 599. Ph.D. Thesis Research. 0-16 hours.**

Research in experimental pathology towards a Ph.D. degree. Course Information: Satisfactory/Unsatisfactory grading only. May be repeated. Students may register in more than one section per term.