**PhD in Pathology**

**Admission Requirements**

Students apply either via the GEMS PhD program (see GEMS program for details) or via the Department of Pathology (http://pathology.uic.edu/graduate-programs-in-pathology) on a competitive basis. Before applying, students are recommended to consult the director of graduate studies (boslandm@uic.edu or adiamond@uic.edu). Students must meet the following program requirements in addition to the Graduate College minimum requirements:

- **Baccalaureate Field** No restrictions. Applicants must have a satisfactory record of courses in biology, inorganic and organic chemistry, and at least one year of physics and mathematics. In addition, courses in histology, anatomy, zoology and/or physiology are preferred (but not required).

- **Grade Point Average** At least 3.00/4.00 for the final 60 semester hours of undergraduate study. Preference is given to those applicants who have a GPA substantially greater than 3.00.

- **Tests Required** GRE General. This test should be taken prior to submission of the formal application. Preference is given to applicants with a combined verbal and quantitative above 316 and an analytical writing score above 4.0.

- **Minimum English Competency Test Score**
  - TOEFL 80, with subscores of Reading 19, Listening 17, Speaking 20, and Writing 21 (iBT Internet-based); 60, with subscores of Reading 19, Listening 17, Writing 21 (New Paper-Based—after August 2018); 550 (Institutional Testing Paper-Based—prior to August 2018), OR,
  - IELTS 6.5, with subscores of 6.0 for all four subscores, OR,
  - PTE-Academic 54, with subscores of Reading 51, Listening 47, Speaking 53, and Writing 56.

- **Letters of Recommendation** Three letters required.

- **Personal Statement** Required.

- **Other Requirements** Preference is given to applicants with a documented record of research accomplishment.

**Degree Requirements**

Students (via GEMS and Pathology) engage, during their first year of study, in a core curriculum that focuses on the fundamentals of biochemistry and cell and molecular biology, and integrates these with topics in molecular medicine and cancer biology. Beginning in the second semester, students elect to take courses with the goal of concentrating more selectively within the area of pathology research.

PhD students initially pick three or four potential mentors in whose laboratories they spend 10-week rotations during the first year. At the end of their first year, students select a mentor with whom they will undertake their thesis research and the Department of Pathology which will grant the degree. MS students must have selected a mentor at the start of their first year.

In addition to the Graduate College minimum requirements, students must meet the following program requirements:

- **Minimum Semester Hours Required** 96 from the baccalaureate.

  - **Course Work**

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**Required Courses**

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<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>GEMS 501</td>
<td>Biochemistry</td>
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<td>GEMS 502</td>
<td>Molecular Biology</td>
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<td>GEMS 503</td>
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<td>GC 501</td>
<td>Scientific Integrity and Responsible Research</td>
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Students must take the following:

- PATH 510 General Pathology
- PATH 511 Pathobiology of Cancer
- PATH 512 Molecular Epidemiology and Biomarkers of Disease
- PATH 595 Pathology Seminar and Journal Club (each semester beyond the first year)

Students must select one of the following:

- GEMS 510 Integrative Biology
- GEMS 511 Molecular Genetics
- GEMS 515 Receptor Pharmacology and Cell Signaling

**Selective-Elective Courses**

At least two additional 500-level selective/elective courses, subject to the approval of the director of graduate studies.

- **Preliminary Examination** Required.
- **Dissertation** Required.
- **Other Requirements** GC 470 is required for students engaged in research with animals.