

PATHOLOGY, PH.D.

Saint Louis University's Department of Pathology (<https://www.slu.edu/medicine/pathology/>) actively integrates research into the mechanisms of diseases at the genetic, molecular, and cellular levels with clinical activities. While ensuring an increasing understanding of human diseases, this provides the foundation for further developments in diagnosis and therapy. The faculty provides extensive research and training opportunities to graduate students and medical trainees to support these fundamental activities.

Curriculum Overview

All students interested in SLU's Ph.D. program in pathology must enroll through the core graduate program in biomedical sciences. This one-year program provides a strong basic foundation in biomedical sciences and allows students to rotate through four formal laboratory rotations in the medical center before choosing a specific field of study.

After the first year, students will choose a mentor and specify a department from one of five distinct Ph.D. programs for further work toward a Ph.D. degree. The Ph.D. degree requires 36 credits of coursework and 12 credits toward the successful completion and defense of an original research dissertation.

Courses required for a Ph.D. degree in pathology include the core basic biomedical sciences coursework, covering topics in biochemistry, molecular and cellular biology, pathology, genetics, pharmacology, microbiology, immunology and neurobiology. Students will also take courses in pathobiology; and research colloquia. Coursework includes lectures, small group problem-solving sessions, student presentations, and hands-on experience. Additional elective courses, which may be taken from other departments or universities in the area, are selected in collaboration with a departmental adviser.

Students present their research progress yearly at Topics in Pathology, the departmental research colloquium starting in the second year. A written preliminary and oral examination is taken at the end of the second year, which focuses primarily on the proposed area of thesis research.

Fieldwork and Research Opportunities

Pathology graduate students have opportunities and exposure to technical skills and research expertise through research collaborations. Pathology faculty members maintain contact with colleagues in the academic and industrial community. In both the basic science and clinical department, the pathology faculty has diverse interests and expertise, from the bench to the bedside. The department stresses close interactions among students, mentors, and the graduate steering committee to foster intellectual and scientific growth.

Careers

Saint Louis University's pathology program graduates are technically skilled and thoughtful scientists prepared for successful research careers in academics, industry, medicine, or government.

Admission Requirements

An undergraduate degree in biology, chemistry, or a related subject; advanced biology coursework is recommended.

Application Requirements

- Application form and fee
- Transcript(s)
- Three letters of recommendation
- GRE G score (GRE S score optional)
- Résumé
- Interview
- Professional goal statement
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Requirements for International Students

All admission policies and requirements for domestic students apply to international students. International students must also meet the following additional requirements:

- Demonstrate English Language Proficiency (<https://catalog.slu.edu/academic-policies/office-admission/undergraduate/english-language-proficiency/>)
- Financial documents are required to complete an application for admission and be reviewed for admission and merit scholarships.
- Proof of financial support that must include:
 - A letter of financial support from the person(s) or sponsoring agency funding the student's time at Saint Louis University
 - A letter from the sponsor's bank verifying that the funds are available and will be so for the duration of the student's study at the University
- Academic records, in English translation, of students who have undertaken postsecondary studies outside the United States must include:
 - Courses taken and/or lectures attended
 - Practical laboratory work
 - The maximum and minimum grades attainable
 - The grades earned or the results of all end-of-term examinations
 - Any honors or degrees received.

WES and ECE transcripts are accepted.

Assistantship Application Deadline

Students who want to be considered for an assistantship must apply by February 1.

Review Process

A committee examines and reviews the applicant and application wholly.

Tuition

Tuition	Cost Per Credit
Graduate Tuition	\$1,310

Additional charges may apply. Other resources are listed below:

Net Price Calculator (<https://www.slu.edu/financial-aid/tuition-and-costs/calculator.php>)

Information on Tuition and Fees (<https://catalog.slu.edu/academic-policies/student-financial-services/tuition/>)

Miscellaneous Fees (<https://catalog.slu.edu/academic-policies/student-financial-services/fees/>)

Information on Summer Tuition (<https://catalog.slu.edu/academic-policies/student-financial-services/tuition-summer/>)

Scholarships and Financial Aid

For priority consideration for graduate assistantship, apply by Feb. 1.

For more information, visit the student financial services office online at <https://www.slu.edu/financial-aid/index.php> (<https://www.slu.edu/financial-aid/>).

Learning Outcomes

1. Graduates will be able to demonstrate competency in the basic biochemical, molecular, cellular and organismal aspects of the biomedical sciences.
2. Graduates will be able to generate a research proposal.
3. Graduates will be able to apply research skills which include data collection, publications, and oral presentations.
4. Graduates will be able to integrate and apply communication and research skills through oral presentations at scientific seminars, conferences, and other venues.
5. Graduates will have knowledge of responsible conduct in research.

Requirements

Code	Title	Credits
Basic Biomedical Science Courses		
BBS 5010	Basic Biomedical Science I	5
BBS 5020	Special Topics in Basic Biomedical Sciences I	4
BBS 5030	Basic Biomedical Science II	5
BBS 5040	Special Topics in Basic Biomedical Sciences II	4
BBS 5100	Ethics for Research Scientists	0
BBS 5920	Basic Biomedical Sciences Colloquium	2
BBS 5970	Introduction to Basic Biomedical Sciences Research (taken over multiple semesters)	4
BCHM 6280	Intro to Genomics and Bioinformatics	2
Pathology Courses		
PATH 5010	Pathobiology	3
PATH 5350	Intro to Microscopy Techniques	3
PATH 6900	Molecular Pathobiology Journal Club (taken over multiple semesters)	0-1
PATH 6920	(taken over multiple semesters)	2
Dissertation Research		
PATH 6990	Dissertation Research (taken over multiple semesters, 12hrs total)	0-3
Total Credits		48

Non-Course Requirements

Students are required to submit a grant proposal to an outside agency for extramural research and/or stipend support within six months of successfully passing the candidacy examination. Funding of the external grant application is not required for successful completion of the Ph.D. degree. Students must also publish at least one peer-reviewed scholarly article reporting results of their original research

Continuation Standards

Students must maintain a cumulative grade point average (GPA) of 3.00 in all graduate/professional courses.