HEALTH OUTCOMES RESEARCH, PH.D.

Health outcomes research is a rapidly expanding, interdisciplinary field that provides evidence and guidance for understanding the endpoints of treatments, interventions and health care practices, be they clinical, functional, quality of life or economic. Saint Louis University's Doctor of Philosophy (Ph.D.) in Health Outcomes Research is a program that trains researchers in the areas of health outcomes research, health services research and health data science to meet the changing needs of the health care system.

The goal of the program is to prepare robust clinical and health outcomes researchers. Students receive a solid foundation in:

- Research methodology
- Data management
- Statistical analysis
- Data science
- Scientific writing and presentation

In addition to coursework, students work collaboratively with their mentor, research and clinical faculty and other students to produce high-quality research throughout their program.

Curriculum Overview

The program requires a total of 48 credits for completion; 36 credits of coursework and 12 dissertation credits. Additionally, students must pass a written comprehensive exam, an oral examination/proposal of the dissertation and a public presentation and defense of the dissertation.

Fieldwork and Research Opportunities

The department partners with clinical faculty in the SLU School of Medicine (https://www.slu.edu/medicine/) and conducts research in numerous clinical areas, including diabetes, oncology, pediatrics, otolaryngology, infectious disease and health care quality. Additionally, our faculty have expertise in health data science, research methodology, biostatistics, epidemiology, survey design and outcomes measurement. Students have the opportunity to work with their primary mentor, our faculty and clinical faculty on both short- and long-term research projects.

Careers

Graduates are prepared to work as academics and researchers at universities, medical centers, government and non-government health agencies, hospital systems, insurance and other areas of the health industry.

Admission Requirements

Applicants should have a master's degree from an accredited college or university in social science, biomedical science, public health, or related discipline. Successful candidates will have maintained a minimum 3.5 GPA in graduate coursework and scored at least at the 50th percentile for GRE verbal and quantitative reasoning. Students must also demonstrate evidence of interest in an area of research and identify a willing and suitable faculty mentor.

Application Requirements

Begin your application for this program at www.slu.edu/apply (http://www.slu.edu/apply.php).

- Application form and fee
- Transcripts from most recent degree(s)
- Professional statement
- Résumé or curriculum vitae
- Three letters of recommendation

Requirements for International Students

Along with the general admission requirements above, the following must be provided by prospective international students:

- Demonstration of English Language Proficiency (https://catalog.slu.edu/academic-policies/office-admission/graduate/english-language-proficiency/).
- Proof of financial support that must include:
  - A letter of financial support from the person(s) or sponsoring agency funding the 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 study at the University.
- Academic records, in English translation, for postsecondary studies outside the United States. These must include the 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, and any honors or degrees received. WES and ECE transcripts are accepted.

Application Deadline

Applications to the program are considered on a rolling basis.

Apply Now (http://www.slu.edu/apply.php)

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/). (https://www.slu.edu/financial-aid/)

Learning Outcomes

- Graduates will be able to effectively review, summarize and synthesize literature related to clinical aspects of health outcomes.
- Graduates will be able to apply appropriate data management strategies related to clinical aspects of health outcomes.
- Graduates will be able to critically evaluate clinical aspects and healthcare-specific methodological designs.
- Graduates will be able to demonstrate a thorough and ethical approach to conducting academic research.
- Graduates will be able to effectively communicate study results related to clinical aspects of health outcomes.

Requirements

Code	Title	Credits
Required Courses		
ORES 5010	Introduction to Biostatistics for Health Outcomes	3
or HDS 5310	Analytics and Statistical Programming	
ORES 5160	Data Management	3
ORES 5300	Foundations of Outcomes Research I	3
ORES 5320	Scientific Writing and Communication	3
ORES 5430	Health Outcomes Measurement	3
ORES 5150	Multivariate Analysis for Health Outcomes Research	3-4
or HDS 5320	Inferential Modeling	
ORES 6990	Dissertation Research (taken over multiple semesters, 12hrs total)	0-6
Program Elective Courses		
Select six courses from the following:		18
HDS 5210	Programming for Health Data Scientists	
HDS 5230	High Performance Computing	
HDS 5330	Predictive Modeling and Machine Learning	
HMP 5000	Health Care Organization	
ORES 5210	Foundations of Medical Diagnosis and Treatment	
ORES 5400	Pharmacoeconomics	
ORES 5410	Evaluation Sciences	
ORES 5560	R Programming	
ORES 5550	SAS Programming I	
ORES 5260	Pharmacoepidemiology	
ORES 5440	Comparative Effectiveness Research	
ORES 6980	Advanced Graduate Readings in Outcomes Research	
Total Credits		**48-49**

Continuation Standards

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

Roadmap

Roadmaps are recommended semester-by-semester plans of study for programs and assume full-time enrollment unless otherwise noted.

Courses and milestones designated as critical (marked with !) must be completed in the semester listed to ensure a timely graduation. Transfer credit may change the roadmap.

This roadmap should not be used in the place of regular academic advising appointments. All students are encouraged to meet with their advisor/mentor each semester. Requirements, course availability and sequencing are subject to change.

Course	Title	Credits
Year One		
Fall		
ORES 5010 or HDS 5310	Introduction to Biostatistics for Health Outcomes or Analytics and Statistical Programming	3
ORES 5300	Foundations of Outcomes Research I	3
ORES 5320	Scientific Writing and Communication	3
	Credits	**9**
Spring		
ORES 5160	Data Management	3
ORES 5210	Foundations of Medical Diagnosis and Treatment (Program Elective #1)	3
HDS 5210	Programming for Health Data Scientists (Program Elective #2)	3
	Credits	**9**
Summer		
HDS 5320	Inferential Modeling (Can substitute for ORES 5150 or be used as an elective)	3
	Credits	**3**
Year Two		
Fall		
ORES 5430	Health Outcomes Measurement	3
Program Elective #3		3
Program Elective #4		3
	Credits	**9**
Spring		
Program Elective #5		3
Program Elective #6		3
	Credits	**6**
Year Three		
Fall		
ORES 6990	Dissertation Research	6
	Credits	**6**
Spring		
ORES 6990	Dissertation Research	6
	Credits	**6**
	Total Credits	**48**