HEALTH OUTCOMES RESEARCH, PH.D.

Saint Louis University's Doctor of Philosophy in Health Outcomes Research prepares researchers with expertise in health outcomes research, health services research and health data science, equipping them to meet the evolving demands of the health care industry. SLU graduates gain the skills to lead data-driven improvements in health care quality, access, and efficiency.

Health outcomes research is a rapidly growing, interdisciplinary field that evaluates the effectiveness, value and impact of health care treatments, interventions and policies. This research generates evidence to improve patient care and inform health care decision-making by analyzing clinical, functional, quality-of-life and economic outcomes.

The Ph.D. in health outcomes research program at Saint Louis University is designed to develop highly skilled researchers equipped to address complex challenges in health care. With a focus on evidence-based decision-making, data-driven health care improvements, and patient-centered research, the program prepares graduates for careers in academia, industry, government and health care organizations.

Students build a strong foundation in:

- **Research Methodology:** Designing and conducting rigorous studies to evaluate health care interventions, treatments, and policies.
- **Data Management:** Organizing, cleaning, and maintaining complex health care datasets to ensure accuracy and usability.
- **Statistical Analysis:** Applying advanced statistical techniques to derive meaningful insights from health care data.
- **Big Data:** Leveraging machine learning, predictive modeling, and big data analytics to inform health care decision-making.
- **Scientific Writing and Presentation:** Effectively communicating research findings through peer-reviewed publications, conference presentations, and policy briefs.

In addition to structured coursework, students engage in collaborative, hands-on research alongside expert faculty, clinicians, and peers. Under the guidance of dedicated mentors, they contribute to high-impact studies that advance health care quality, access, and efficiency. By integrating health outcomes research, health services research, and data science, SLU's program ensures graduates are prepared to lead transformative research in the evolving health care landscape.

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 can work with their primary mentor, our faculty and clinical faculty on both short- and long-term research projects.

Careers

Graduates of the Ph.D. in health outcomes research program at Saint Louis University are well-equipped for diverse career opportunities in academia, health care and industry. They are prepared to work as researchers, scientists and health policy experts in:

- Universities and academic institutions – Leading research initiatives and educating the next generation of health care professionals.
- Medical centers and hospital systems – Conducting clinical and outcomes research to improve patient care and operational efficiency.
- Government and nongovernment health agencies – Shaping public health policies and implementing evidence-based health care solutions.
- Health insurance and managed care organizations – Analyzing health care data to enhance coverage models and patient outcomes.
- Pharmaceutical and health care technology companies – Driving innovation in drug development, medical devices, and digital health solutions.

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.php (https://www.slu.edu/apply.php).

- Application form and fee
- Transcripts from most recent degree(s)
- Professional statement
- Résumé or curriculum vitae
- One letter of recommendation
- GRE required

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 (https://www.slu.edu/apply.php)

Tuition

Tuition	Cost Per Credit
Graduate Tuition	$1,450

Additional charges may apply. Other resources are listed below:

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-current/)

Scholarships and Financial Aid

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

For more information, visit the Office of Student Financial Services (https://www.slu.edu/financial-aid/).

Accreditation

Saint Louis University is accredited by the Higher Learning Commission (HLC) and has been continuously accredited since 1916.

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 health care-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, Statistics & Visualization Methods in Health Data Science	
ORES 5160	Data Management and Programming in Healthcare	3
ORES 5300	Foundations of Health Outcomes Research	3
ORES 5320	Scientific Writing and Communication	3
ORES 5430	Health Outcomes Measurement	3
HDS 5320	Inferential Modeling	3
ORES 6990	Dissertation Research (taken over multiple semesters, 12hrs total)	0-6
Program Elective Courses		
Select six courses from the following:		18
HDS 5130	Healthcare Organization, Management, and Policy	
HDS 5210	Programming for Health Data Scientists	
HDS 5230	High-Performance Computing and Health Artificial Intelligence	
HDS 5330	Predictive Modeling and Health Machine Learning	
HMP 5000	Health Care Organization	
ORES 5210	Foundations of Medical Diagnosis and Treatment	
ORES 5400	Pharmacoeconomics	
ORES 5410	Evaluation Sciences	
ORES 5550	SAS Programming I	
ORES 5260	Pharmacoepidemiology	
ORES 5440	Comparative Effectiveness Research	
ORES 6980	Graduate Independent Study in Outcomes Research	
Total Credits		**48**

Continuation Standards

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

Roadmap

This roadmap is just one example of a semester-by-semester plan of study for this program. There are other plans students can and do take. The plan of study for each particular student is established in consultation with each student's academic advisor; *this roadmap does not replace academic advising appointments.*

Roadmap notes:

- This Roadmap assumes full-time enrollment unless otherwise noted.
- Courses/Milestones marked with an "!" are critical and must be completed in the semester listed in the Roadmap to ensure a timely graduation.
- Course availability and sequencing are subject to change.

Course	Title	Credits
Year One		
Fall		
ORES 5300	Foundations of Health Outcomes Research	3
ORES 5160	Data Management and Programming in Healthcare	3
Program Elective #1		3
	Credits	**9**
Spring		
HDS 5310	Analytics, Statistics & Visualization Methods in Health Data Science	3
Program Elective #2		3

Program Elective #3		3
	Credits	**9**
Year Two		
Fall		
ORES 5430	Health Outcomes Measurement	3
HDS 5320	Inferential Modeling	3
Program Elective #4		3
	Credits	**9**
Spring		
ORES 5320	Scientific Writing and Communication	3
Program Elective #5		3
Program Elective #6		3
	Credits	**9**
Year Three		
Fall		
ORES 6990	Dissertation Research	6
	Credits	**6**
Spring		
ORES 6990	Dissertation Research	6
	Credits	**6**
	Total Credits	**48**

Contact Us

For more information about this program, please call 314-977-8062 or email somanalytics@health.slu.edu (somanalytics@slu.edu).