SAINT LOUIS UNIVERSITY™
GRADUATE EDUCATION

Health Data Science
+ Center for Health Outcomes Research

Saint Louis University is a world-class Catholic, Jesuit institution educating nearly 13,000 students on two dynamic, urban campuses - in St. Louis, Missouri, and Madrid, Spain. Founded in 1818, the University is celebrating its bicentennial.

With a legacy of innovative academics and research, compassionate health care and faithful service, Saint Louis University attracts a diverse community of scholars who push intellectual boundaries in pursuit of creative, meaningful ways to impact the world, striving to serve a higher purpose and seek a greater good.

OVERVIEW »

Established in 2002, the Saint Louis University Center for Health Outcomes Research (SLUCOR) is an interdisciplinary academic unit focused on the effectiveness and affordability of health care. SLUCOR brings together expertise from the fields of health services research, medicine, psychology, epidemiology, computing, economics and statistics to teach, mentor students and residents, conduct research, and advise health system leaders across the nation.

Program Overview
The Master of Science program in health data science is designed to prepare students for a career in today's data-driven health care industry. Successful data scientists possess an artful ability to blend, synthesize and communicate data for use in clinical decisions by patients and providers as well as advancing quality improvement efforts across health systems. Students complete 30 credit hours of coursework across three integrated areas of study:

* Computing:
Learn a diverse set of open source and proprietary software required to link data from disparate sources such as electronic medical records, insurance claims, operations data, patient registries and personal health devices. This software includes R, Python, SAS, SQL and Hadoop.

* Analytics:
Build capabilities to ask critical questions and draw conclusions from large, complex data with a variety of analytic methods, including predictive modeling, machine learning and data visualization. The program incorporates new software regularly to promote sharp and current analytic skills.

* Health Care Acumen:
Respond to the challenges of a regulated, dynamic industry by understanding unique health care contexts such as privacy protection, government financing, risk contracting, performance monitoring and population health management.

Student Learning Objectives:
* Integrate data from disparate sources for retrospective and real-time analyses that achieve improvements in quality, safety and cost as well as support requirements for performance reporting and regulatory compliance.
* Demonstrate competence in programming across multiple predictive analytic, mining, visualization and data management platforms.
* Express statistical results verbally and visually, working in teams and independently
* Construct databases using data standards and formats of electronic medical records, insurance claims, operations data, patient registries and personal health devices.
* Understand legal requirements and ethical considerations for privacy protection and interorganization collaboration specific to health care.
* Construct answerable evaluation questions developed in collaboration with clinical and management professionals.
* Manage complex projects with clear communications, feasible work plans and effective coordination of resources.

For more information, visit slucor.slu.edu.

CONTACT INFORMATION »

SLUCOR

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PHONE | 314-977-9300
WEB | Slucor.slu.edu

APPLICATION DEADLINE »
M.S.

FALL | Rolling
SPRING | N/A
SUMMER | N/A

Deadlines for assistantships are listed online.

DEGREES & PROGRAMS »

Master of Science (M.S.) in Health Data Science

COURSES AVAILABLE »

DAYS [ ]   NIGHTS [x]   WEEKEND [ ]   ONLINE [x]

APPLICATION REQUIREMENTS »

* Application form and fee (if applicable)
* Transcript(s)
* Three letters of recommendation
* GRE G scores (GRE S optional)
* Résumé or curriculum vitae
* A professional statement discussing your interest in pursuing an M.S. in health data science (Include career goals, relevant work experience and any experience you believe will contribute to your success as a graduate student and as a future health data scientist)

ADMISSION CRITERIA »

B.A. or B.S. in health sciences, nursing, biology, chemistry, psychology, mathematics, business, management information systems, public health, health management, statistics, computer science or other related fields.

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FACULTY >>

As part of the 200-year Jesuit, Catholic heritage of Saint Louis University, SLUCOR is committed to the development of well-rounded students with competence, conscience and compassion to serve humanity. With an emphasis on finding solutions to challenges facing the modern health care system, the faculty offers graduate education programs that encourage students to move beyond knowledge into action.

Eric S. Armbrecht, Ph.D.
Paula M. Buchanan, Ph.D., M.P.H.
Thomas E. Burroughs, Ph.D.
Jiajing Chen, Ph.D., M.P.H.
Leslie Hinyard, Ph.D., M.S.W.
Robert Sutter, MBA, M.H.A.
Divya S. Subramaniam, Ph.D., M.P.H.
Eric Westhus, Ph.D.

SECONDARY FACULTY
Preeti Dalawari, M.D., M.S.P.H.: School of Medicine
Michael Elliott, Ph.D.: College for Public Health and Social Justice
Stephen Feman, M.D., M.P.H.: School of Medicine
Rob Gatter, J.D.: LAW
Jeremy Green, Ph.D.: College for Public Health and Social Justice
Donna Halloran, M.D., M.S.P.H.: School of Medicine
Paul Hauptman, M.D. : School of Medicine
Steven Howard, Ph.D.: College for Public Health and Social Justice
Kenton Johnston, Ph.D.: College for Public Health and Social Justice
Jeff Scherrer, Ph.D.: School of Medicine
Kevin Syberg, DrPH: College for Public Health and Social Justice
Jason Turner, Ph.D. College for Public Health and Social Justice

ADJUNCT FACULTY
Scott Fosko, M.D.
Lauren Garfield, Ph.D., M.P.H.
Caroline Geremakis, Ph.D., M.P.H.
Scott K. Griggs, Pharm.D., Ph.D.
Reethi Iyengar, Ph.D., MBA, M.H.M.
Cindy LeRouge, Ph.D.
Leslie McIntosh, Ph.D.
Sarah Moreland-Russell, Ph.D.
Taehwan Park, Ph.D.
Jerry Thurman, M.D., M.H.A.
Scott Vouri, Pharm.D.
Angelique Zeringue, Ph.D.

CONTACT INFORMATION >>

SLUCOR

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PROGRAM HIGHLIGHTS >>

Graduates of this program are able to:

Create actionable information for clinicians and health care industry executives through data management and transformation.

Build expertise in data science computing tools, including R, Python and SQL.

Launch their careers with project-based experiences with health care industry partners.

FINANCIAL SUPPORT >>

Scholarships and financial aid are available. For more information, please visit the website for the student financial aid office at finaid.slu.edu.

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