

HEALTH OUTCOMES RESEARCH, PH.D. & MEDICINE, M.D. DUAL DEGREE

As one of the few universities to offer such a degree, Saint Louis University has designed its M.D./Ph.D. dual degree program in health outcomes research to prepare students to be excellent doctors and clinical researchers.

A student with a Ph.D. in health outcomes research in addition to an M.D. will have a competitive edge when applying for residency and will be able to start a strong research career in medicine before they complete their training as a physician. Guided by outcomes research faculty with expertise in multiple areas of medicine, graduates leave the program prepared to provide excellent medical care and evaluate patient outcomes and preferences, compare the effectiveness of treatments and establish evidence to improve the final stages of care.

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/>).

Admission

Students must first be admitted to the School of Medicine to be considered for acceptance into the M.D./Ph.D. in health outcomes research program. Consideration for the program is available to all interested applicants to the School of Medicine, with a preliminary application provided upon request.

Most trainees are chosen in the early spring to begin their research training by mid-June before commencing their first year of M.D. studies in mid-August. Other qualified individuals may apply after starting their M.D. training.

Applicants to the M.D./Ph.D. program are screened by the steering committee for the M.D./Ph.D. program.

Requirements

Students begin their program by completing the first and second years of their M.D. studies. By the winter of their second year of medical studies, students will select a Ph.D. mentor from SLU's Department of Health and Clinical Outcomes Research.

Completion of all Ph.D. candidacy requirements and oral defense of the doctoral dissertation is followed by a transitional clerkship that facilitates re-entry into the third and fourth years of M.D. studies.

Nine credits from the M.D. program will count towards the completion of the Ph.D. in health outcomes research.

Trainees in this program should complete all requirements for both degrees within seven to eight years and students are expected to complete both the M.D. and Ph.D. components on a full-time basis.

| Year One | | Credits |
|--|--|-----------|
| EPI 0100 | Epidemiology and Biostatistics | 3 |
| HCE 0101 | Foundations in Health Care Ethics | 1 |
| HQI 0101 | Fundamentals of Patient Safety | 1 |
| MD 0100 | Professional and Personal Development I | 1 |
| MED 0100 | Molecular Foundations in Medicine | 3 |
| MED 0101 | Clinical Interviewing | 6 |
| MED 0102 | Clinical Diagnosis | 8 |
| MED 0103 | Leadership in the Business of Medicine | 6 |
| MED 0104 | Medicine & Society | 1 |
| MED 0110 | Normal Structure and Function: Musculoskeletal | 7 |
| MED 0120 | Normal Structure and Function: Thorax & Head | 5 |
| MED 0130 | Normal Structure and Function: Abdomen & Pelvis | 3 |
| MED 0140 | Introduction to Pathology | 3 |
| MED 0150 | Principles of Immunology, Pharmacology, and Therapeutics | 7 |
| MED 0160 | Brain & Behavior | 6 |
| MED 0170 | Cardiovascular System | 4 |
| M1s take either two 6 wk electives or one 12-wk elective | | 6 |
| Credits | | 71 |
| Year Two | | |
| RMED 0101 | Bench to Bedside | 1 |
| HCE 0201 | Clinical Reasoning in Health Care Ethics | 1 |
| HQI 0201 | Fundamentals of Quality Improvement | 1 |
| MD 0202 | Professional and Personal Development II | 1 |
| MED 0200 | Hematology | 2 |
| MED 0202 | Clinical Diagnosis | 1 |
| MED 0203 | Leadership in the Business of Medicine | 1 |
| MED 0204 | Medicine & Society | 1 |
| MED 0210 | Respiratory System | 4 |
| MED 0220 | Renal Urinary System | 4 |
| MED 0230 | Gastrointestinal System | 4 |
| MED 0240 | Endocrine and Reproductive System | 4 |
| MED 0250 | Skin, Bone and Joint Module | 3 |
| Credits | | 28 |
| Year Three | | |
| FCM 0301 | Family Medicine Clerkship | 6 |
| IM 0301 | Internal Medicine Clerkship | 8 |
| N 0301 | Neurology Clerkship | 4 |
| OB 0301 | Obstetrics, Gynecology, and Women's Health Clerkship | 6 |
| PED 0301 | Pediatric Clerkship | 8 |
| PS 0301 | Psychiatry Clerkship | 3 |
| S 0301 | Surgery Clerkship | 8 |
| Career Exploration - two 2 week selectives | | 4 |
| APCS 0300 | Applied Clinical Skills 3 | 1 |
| FCM 0430 | Inter-Professional Team Seminars | 1 |
| Credits | | 49 |
| Year Four | | |
| IM 0451 | Required Ambulatory Medicine | 4 |

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|---|--------------------|------------|
| EM 0410 | Emergency Medicine | 4 |
| Acting Internship - choice of one 4 week AI | | 4 |
| Intramural/Extramural Electives | | 30 |
| CAP 0400 | Required Capstone | 2 |
| Credits | | 44 |
| Total Credits | | 192 |

Ph.D. Requirements

| Code | Title | Credits |
|---|--|--------------|
| Required Courses | | |
| ORES 5010 | Introduction to Biostatistics for Health Outcomes | 3 |
| or HDS 5310 | Analytics and Statistical Programming | |
| ORES 5150 | Multivariate Analysis for Health Outcomes Research | 3-4 |
| or HDS 5320 | Inferential Modeling | |
| 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 6990 | Dissertation Research (taken over multiple semesters, 12hrs total) | 0-6 |
| Elective Courses | | |
| Select three courses from the following: | | 9 |
| HCE 6120 | Bioethics and the Law | |
| HDS 5230 | High Performance Computing | |
| HDS 5330 | Predictive Modeling and Machine Learning | |
| HMP 5000 | Health Care Organization | |
| 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 | |
| Dual Degree Credit | | |
| 9 credits accepted from the M1/M2 of the MD curriculum, as follows: | | |
| Principles of Pharmacology | | 3 |
| Fundamentals of Biomedical Science | | 3 |
| Biostatistics | | 1 |
| Elective in Clinical Research | | 1 |
| Health Care Ethics | | 1 |
| Total Credits | | 48-49 |

Continuation Standards

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