SOFTWARE ENGINEERING, M.S.

Saint Louis University's master's in software engineering is designed to prepare students interested in developing high quality, large-scale software systems.

Students enrolled in SLU's graduate program in software engineering develop and create design strategies using hands-on projects and modern software tools to gain knowledge, skills and experience. Students discover critical design strategies that allow for continual innovation throughout their careers. Guided by outstanding professors, much of the learning is team-based and in small classes.

Curriculum Overview

Graduate-level software engineering courses are taught in labs or small lectures, providing extensive one-on-one interaction with faculty, including opportunities for collaborative research.

Fieldwork and Research Opportunities

The St. Louis region has a strong computer science ecosystem, including technical operations for many Fortune 500 companies, as well as a vibrant start-up community, including incubators such as CORTEX and T-REX, near to SLU's campus.

Careers

Careers in software engineering can be highly rewarding, and provide great compensation and excellent work environments.

Positions in software engineering are regularly found on "best jobs" lists and include software developer, computer systems analyst, computer network architect, web developer, database administrator and information security analyst.

Admission Requirements

Application Requirements

- Application completion and fee
- Transcript(s)
- GRE general test scores, recommended
- One recommendation using an online evaluation form; 2 more recommendations are optional
- Résumé
- Statement of professional goals

Admission Criteria

- A bachelor's degree with a science, technology, engineering or math major (STEM)
- Most successful applicants have an undergraduate grade point average of 3.0 or better
- Evidence of strong computational skills, generally though prior coursework in calculus, statistics, programming or data structures.

Requirements for International Students

All admission policies and requirements for domestic students apply to international students along with the following:

- Demonstrate English language proficiency. Some examples of demonstrated English language proficiency include minimum score requirements for the following standardized tests:
  - Paper-based TOEFL: 550
  - Internet-based TOEFL: 80
  - IELTS: 6.5
  - PTE: 54
- Academic records, in English translation, of students who have undertaken postsecondary studies outside the United States 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.

- Proof of financial support, which 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 for the duration of study at the University

Application and Assistantship Deadlines

The application deadlines for international students are: May 15 (fall), October 1 (spring) and February 1 (summer).

Students seeking assistantships should apply by Feb. 1.

Review Process

Application decisions are made per guidelines and a review process established by the department, school or college.

Scholarships, Assistantships and Financial Aid

For priority consideration for graduate assistantships, applicants should complete their applications by the program admission deadlines listed.

For more information, visit the Office of Student Financial Services online at slu.edu/financial-aid.

The Department of Computer Science also provides opportunities for students to receive funding through research grant projects led by the faculty.

Learning Outcomes

1. Graduates will be able to design, implement, evaluate and test a complex software system that meets a given set of computing requirements.
2. Graduates will be able to utilize project management processes and tools through the complete software life cycle.
3. Graduates will be able to assess relevant literature and technical documents in the field of computing
4. Graduates will be able to communicate effectively to both professional and general audiences in both oral and written forms.
5. Graduates will be able to recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
6. Graduates will be able to function effectively as a member of a team in developing computing technology and solving technical problems.

Requirements

Code	Title	Credits
CSCI 5030	Principles of Software Development	3
CSCI 5050	Computing and Society	3
CSCI 5300	Software Engineering	3
CSCI 5960	Capstone Project	3
CSCI 5301-5399	Software Engineering Electives	9
General Electives		9
	Select an additional three courses numbered CSCI 5090-5930. These may include:	
CSCI 5301-5399	Additional courses from the Software Engineering	
Internship with Industry	Students may apply at most 3 credits of CSCI 5910	
Total Credits		30

Continuation Standards

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

Program Notes

General Electives

The general electives may include additional selections from the Software Engineering category, courses numbered CSCI 5301-5399.

Internship with Industry

Students may apply at most 3 credits of Internship with Industry (CSCI 5910) toward the degree requirements.

Contact Information

Learn more and apply for admission at **slu.edu/globalgrad**.
Contact us at **globalgrad@slu.edu** with any questions.