

# STEM ENTREPRENEURSHIP, M.S.

Saint Louis University's Master of Science in STEM Entrepreneurship was developed to build a STEM-trained workforce with the entrepreneurial skillsets necessary to create true change and tackle global societal challenges, such as the NAE Grand Challenges (<http://www.engineeringchallenges.org/challenges.aspx>) or the UN Sustainable Development Goals (<https://sdgs.un.org/goals/>), in alignment with SLU's Jesuit mission.

This M.S. degree is an 11-month cohort-based program that begins each summer and spans three terms: summer, fall and spring. This unique program, administered jointly by the School of Science and Engineering and the Richard A. Chaifetz School of Business, is focused on technology innovation, entrepreneurship and commercialization.

## Curriculum Overview

The M.S. in STEM entrepreneurship consists of 36 credit hours spanning technical, STEM, entrepreneurship and business coursework, and an experiential entrepreneurship studio research sequence. Each cohort starts in June, with participants taking nine credit hours, including their foundational entrepreneurship coursework and the initiation of their year-long entrepreneurship research sequence. The fall term includes 15 credit hours and offers participants the opportunity to identify a technical STEM elective course and to pursue coursework toward select business certificates. The spring term concludes the program with 12 credit hours, another technical STEM elective, completion of business certificates, and the finalization of the entrepreneurship research project.

## Careers

The M.S. in STEM entrepreneurship provides individuals with technical backgrounds in STEM fields with the entrepreneurship and business skills necessary to become innovators in lead industrial growth areas such as geospatial, agricultural technology, bioscience and health innovation, digital transformation, financial technology and advanced manufacturing.

## Admission Requirements

- Bachelor's degree with a minimum cumulative GPA of 3.0
- Background (completed major / minor OR job related experience) in chemistry, biology, physics, computer science, engineering, geographic information systems, biochemistry, environmental science, technology, data analytics / handling, etc.
- Official transcripts from all undergraduate and graduate institutions
- Application packet submissions:
  - Statement of Intent (Why this program? Why is this important for your career aspirations?)
  - Entrepreneurship Statement (Why do you think you will make a good entrepreneur? What have you done or plan to do to become more entrepreneurial?)
  - Resume or CV
- Three (3) recommendations

## International Requirements

All admission policies and requirements for domestic students apply to international students. International students must also meet the following additional requirements:

- Demonstrate English Language Proficiency (<https://catalog.slu.edu/academic-policies/office-admission/undergraduate/english-language-proficiency/>)
- Academic records, in English translation, of students who have undertaken postsecondary studies outside the United States must include:
  - 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
  - Any honors or degrees received.
- WES and ECE transcripts are accepted.
- In order to be issued an I-20 for your F-1 visa application, students must submit financial documents. Proof of financial support that must include:
  - A letter of financial support from the person(s) or sponsoring agency funding the student's 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 the student's study at the University

## Tuition

| Tuition          | Cost Per Credit |
|------------------|-----------------|
| Graduate Tuition | \$1,370         |

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

Both the School of Science and Engineering and the Chaifetz School of Business offer generous scholarships to make attaining a graduate degree from our programs accessible. Some competitive donor scholarships include:

- Donald and Nora Manahan Scholarship and Research Fund
- Gerald E. Dreifke Engineering Scholarship
- Malcolm and Elizabeth Jacobs Scholarship
- SSE Graduate Fellowship
- Peter Jackalus Graduate Fellowship

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

## Learning Outcomes

1. Students will demonstrate the ability to develop creative/innovative solutions to technological problems and to implement those as business opportunities.

- Students will demonstrate proficiency in technical communication skills in written and oral formats.
- Students will demonstrate knowledge of ethical concepts and corporate social responsibility and be able to evaluate both business and technical problems from multiple ethical perspectives.
- Students will develop a strategic level understanding of the key functions of business: accounting, economics, finance, international business, management, marketing, operations and statistics.

## Requirements

| Code  | Title   | Credits   |
|---|---|-----------|
| <b>EESR Sequence</b>  |   |           |
| SE 5810   | Experiential Entrepreneurship Studio Research - I   | 3         |
| SE 5820   | Experiential Entrepreneurship Studio Research - II  | 3         |
| SE 5830   | Experiential Entrepreneurship Studio Research - III | 3         |
| <b>Technical Electives *</b>  |   | <b>6</b>  |
| Students will take 6 credits graduate coursework in any of the following disciplines: AEME, ASCI, BIOL, BME, CHEM, CSCI, CVNG, EAS, ECE, GIS, & PHYS  |   |           |
| <b>Entrepreneurship Requirements</b>  |   |           |
| MGT 6000  | Management  | 3         |
| MGT 6200  | New Venture Initiation †                            | 3         |
| MGT 6209  | Managing Resources in Startups †                    | 3         |
| MGT 6210  | Advanced Business Plan - New Ventures †             | 3         |
| <b>Business Electives or Business Certificate</b>   |   | <b>9</b>  |
| <i>Students can select from the options below OR one of the business certificates</i>   |   |           |
| OPM 6050  | Business Process and Operations Management          |           |
| MKT 6400  | Social Media and Digital Marketing                  |           |
| ITM 6550  | Big Data in Organizations                           |           |
| MKT 6150  | New Product Management                              |           |
| Other business courses or other STEM technical electives with program approval  |   |           |
| Business Analytics, Post-Baccalaureate Certificate ( <a href="https://catalog.slu.edu/colleges-schools/business/business-administration/business-analytics-post-baccalaureate-certificate/">https://catalog.slu.edu/colleges-schools/business/business-administration/business-analytics-post-baccalaureate-certificate/</a> )  |   |           |
| Digital Marketing, Post-Baccalaureate Certificate ( <a href="https://catalog.slu.edu/colleges-schools/business/marketing/digital-marketing-post-baccalaureate-certificate/">https://catalog.slu.edu/colleges-schools/business/marketing/digital-marketing-post-baccalaureate-certificate/</a> )   |   |           |
| Product and Brand Management, Post-Baccalaureate Certificate ( <a href="https://catalog.slu.edu/colleges-schools/business/marketing/product-brand-mgt-post-baccalaureate-certificate/">https://catalog.slu.edu/colleges-schools/business/marketing/product-brand-mgt-post-baccalaureate-certificate/</a> )  |   |           |
| Supply Chain Management, Post-Baccalaureate Certificate ( <a href="https://catalog.slu.edu/colleges-schools/business/operations-information-technology-management/supply-chain-management-post-baccalaureate-certificate/">https://catalog.slu.edu/colleges-schools/business/operations-information-technology-management/supply-chain-management-post-baccalaureate-certificate/</a> ) |   |           |
| <b>Total Credits</b>  |   | <b>36</b> |

\* Pre-reqs can be waived with instructor consent as needed. The intention here is that students in this program can choose to further

their STEM background beyond their undergraduate experience OR could choose new technical elective courses that will provide valuable technical skills for their EESR project.

† Completion of select Management courses fulfill the requirements of the Entrepreneurship Post-Baccalaureate Certificate. (<https://catalog.slu.edu/colleges-schools/business/management/entrepreneurship-post-baccalaureate-certificate/>)

## 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   |
|--|---|-----------|
| <b>Year One</b>                                    |   |           |
| <b>Summer</b>                                      |   |           |
| SE 5810  | Experiential Entrepreneurship Studio Research - I   | 3         |
| MGT 6000   | Management  | 3         |
| MGT 6200   | New Venture Initiation                              | 3         |
| <b>Credits</b>                                     |   | <b>9</b>  |
| <b>Fall</b>  |   |           |
| SE 5820  | Experiential Entrepreneurship Studio Research - II  | 3         |
| MGT 6209   | Managing Resources in Startups                      | 3         |
| Technical Elective                                 |   | 3         |
| Business Electives or Business Certificate Courses |   | 6         |
| <b>Credits</b>                                     |   | <b>15</b> |
| <b>Spring</b>                                      |   |           |
| SE 5830  | Experiential Entrepreneurship Studio Research - III | 3         |
| MGT 6210   | Advanced Business Plan - New Ventures               | 3         |
| Technical Elective                                 |   | 3         |
| Business Elective or Business Certificate Course   |   | 3         |
| <b>Credits</b>                                     |   | <b>12</b> |
| <b>Total Credits</b>                               |   | <b>36</b> |

## Contact Us

For more information about the Master of Science in STEM Entrepreneurship, email [ssegrad-admissions@slu.edu](mailto:ssegrad-admissions@slu.edu).