AEROSPACE ENGINEERING, M.S.

The Department of Aerospace and Mechanical Engineering at Saint Louis University offers an M.S. and a Ph.D. program in aerospace engineering (https://catalog.slu.edu/colleges-schools/science-engineering/aerospace-mechanical/aerospace-engineering-phd/) designed to prepare students to address emerging challenges in the field. The curriculum integrates foundational aerospace engineering principles with current industry trends and immersive, experiential learning opportunities.

Students develop a strong technical foundation while engaging in cross-disciplinary collaboration. This approach prepares graduates to be effective problem solvers, ethical innovators, and leaders who understand the broader environmental and societal impacts of engineering decisions.

Admission Requirements

Application Requirements

1. Bachelor's degree in Aerospace/Mechanical Engineering or related discipline, preferably in Engineering, from an accredited institution of higher education. This should be evidenced by a transcript.
2. GPA from a Bachelor's degree greater than or equal to 2.75/4 and no more than 3 failed classes. Evidence of GPA should be provided in the transcript.
3. English language proficiency should be demonstrated through TOEFL/ IELTS/ Duolingo/ Pearson scores as per the University guidelines.
4. A well-written and articulate professional goal statement. For applicants interested in thesis option, the professional goal statement should also indicate research interests and career goals.
5. Two recommendation letters

Requirements for International Students

All Saint Louis University admission policies and requirements for domestic students apply to international students. International students applying to SLU 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 must include an English translation. Unofficial copies may be accepted in some cases for initial admission review, however official copies must be received prior to enrollment. Course-by-course transcript evaluations are accepted and are required in some cases.

Students must submit financial documents to be issued an I-20 for their F-1 visa application. Proof of financial support 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	Total Program Cost
MS Aerospace Engineering	$42,000

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/)

Financial Support

The School of Science and Engineering offers graduate fellowship awards and assistantships each year. Assistantships provide tuition, stipend and health insurance. There are also many opportunities for students to receive funding through external research grants that are managed by individual faculty.

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

Learning Outcomes

1. Apply advanced mathematical and scientific principles, and computational and modeling tools to solve aerospace engineering problems.
2. Communicate complex technical information effectively.
3. Identify, evaluate, and synthesize advanced knowledge from scholarly and technical resources.

Requirements

All coursework must be completed with a minimum grade of B.

Code	Title	Credits
Foundational Courses		
CVNG 5010	Scholarly Practices in Engineering	3
MENG 5840	Numerical Methods	3
Core Courses		**12**
Students select 12 credits from the following:		
AENG 5050	Space Mission Analysis and Design	
AENG 5230	Introduction to Computational Fluid Dynamics	
AENG 5250	Compressible Computational Fluid Dynamics	
AENG 5420	Design, Simulation & Experimental Evaluation of Flight Control	
AENG 5460	Modern Control Systems	
AENG 5800	Systems Engineering	
Elective Credits		**12**
Students should select 12 credits from AENG/MENG graduate courses or additional core courses. Students wishing to take non-AENG/MENG graduate courses must be approved by the thesis advisor or the graduate program director. Suggested disciplines include mathematics, natural sciences, business, computer science, and engineering.		
Thesis Option		
Students conducting a thesis will take 6 credits of Master's Thesis Research.		

AENG 5994	Masters Thesis Research	
Total Credits		**30**

Non-Course Requirements

The Aerospace & Mechanical Engineering Department offers a Graduate/Research seminar each fall and spring semester. MS students are required to attend two semesters of seminar. Students are permitted to miss at most three seminar sessions each semester or will not receive credit for the seminar that semester.

Additional non-course requirements for thesis students

· Completion of written research proposal

· Completion of oral defense of research proposal

· Completion of written thesis

· Thesis Defense consisting of a public oral presentation and a private oral examination

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		
CVNG 5010	Scholarly Practices in Engineering	3
Core Course		3
Seminar		0
	Credits	**6**
Spring		
MENG 5840	Numerical Methods	3
Core Course		3
Seminar		0
AENG/MENG Elective		3
	Credits	**9**
Year Two		
Fall		
Core Course		3
AENG/MENG Elective		3
AENG 5994	Masters Thesis Research (or Elective)	3
	Credits	**9**
Spring		
Core Course		3
AENG 5994	Masters Thesis Research (or Elective)	3
	Credits	**6**
	Total Credits	**30**

Contact Us

For more information about any School of Science and Engineering graduate program, email ssegrad-admissions@slu.edu.