

B.S. MECHANICAL ENGINEERING

SAINT LOUIS UNIVERSITY MADRID

DEGREE(S)

- + B.S. in Mechanical Engineering
- + Minor in Mechanical Engineering

PROGRAM OVERVIEW

Mechanical Engineering is an in-demand degree. This four-year undergraduate program at SLU-Madrid offers students a rich and international education in which engineering theories are materialized through hands-on, problem-solving activities. Students can complete a B.S. in Mechanical Engineering at the Madrid Campus, or transfer between the Madrid Campus and the St. Louis Campus.

The curriculum is designed to prepare students for professional careers in the several fields of mechanical engineering involving product development, design, and manufacturing. Students will gain a solid foundation in fundamental engineering sciences, coupled with an in-depth mastery of traditional mechanical engineering courses in the areas of structures, thermal fluids, and design engineering. The curriculum also provides excellent preparation for graduate studies and academic research.

In addition, students pursuing a Mechanical Engineering major at SLU-Madrid can complement their studies with a minor in one of several disciplines such as Aerospace Engineering, Computer Science, or Mathematics.

Our Mechanical Engineering program is an integral part of the Department of Aerospace and Mechanical Engineering at the School of Science and Engineering in St. Louis. The Mechanical Engineering, B.S. is accredited by the Engineering Accreditation Commission of ABET, <https://www.abet.org>, under the commission's General Criteria and Program Criteria for Mechanical and Similarly Named Engineering Programs.

CURRICULUM

Required courses (B.S.):

- + Engineering Fundamentals + Studio
- + Prototyping
- + Design Thinking
- + Thermodynamics
- + Mechanics of Solids
- + Dynamics
- + Fluid Dynamics
- + Machine Design
- + Linear Vibrations
- + Mechanics Laboratory
- + Manufacturing Process
- + Mechatronics Systems Design/Programmable Logic Controllers and Robotics
- + Engineering Experimentation
- + Heat Transfer
- + Material Sciences
- + Capstone Project
- + Calculus I
- + Calculus II
- + Calculus III
- + Differential Equations

SLU.EDU/MADRID

Office of Admissions /// Avenida del Valle, 34 /// Madrid, Spain 28003
Phone (+34) 91 554 5858 /// admissions-madrid@slu.edu /// www.slu.edu/madrid

Contact

Taieb Gasmi, Ph.D.
Tel: +34 91 554 58 58
taieb.gasmi@slu.edu

Learn More For course listings and more information about our faculty, visit
<https://www.slu.edu/madrid/academics/departments/science-engineering/engineering-aviation-technology.php>



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WHY CHOOSE THIS PROGRAM?

Graduates with a Mechanical Engineering degree are in high demand given their range of transferable skills.

The strong problem-solving skills of mechanical engineers provides them with the tools needed to design and build products for any field of application. Employment fields include aerospace, automotive, naval, biomedical, energy, and manufacturing industries. The job outlook for mechanical engineers is expected to maintain its growth with the emergence of new technologies in biomechanics, robotics, mechatronics, and nanotechnology.

The Mechanical Engineering program at SLU-Madrid prepares students for their future engineering careers through the mastery of a variety of skills including:

- + Structural analysis and design
- + Material performance and selection
- + Thermodynamics and power cycle principles
- + Computer-aided design
- + Engineering project management

Types of employers:

- + Automotive industries
- + Aerospace companies
- + Airline manufacturers
- + Biomedical manufacturing and design labs
- + Naval industries
- + Energy sector
- + Research labs
- + Government / federal agencies
- + Consultancy firms

ADMISSION REQUIREMENTS

- + Online application form // Common Application
- + 2 letters of recommendation (encouraged)
- + Curriculum vitae/résumé (encouraged)

First-year Students:

- + Secondary school academic transcripts
- + University entrance exam scores (SAT/ACT, IB diploma, A levels, Selectividad, etc.)

Transfer Students:

- + College transcript(s)
- + Proof of high school graduation

Non-native English speakers must submit an official English exam (TOEFL or IELTS).

Detailed information is available on our website.

SCHOLARSHIPS AND FINANCIAL AID

SLU-Madrid is committed to supporting students—and their families—who choose to invest in themselves and their future by studying at the Madrid Campus. Each student, from any state in the U.S., any region in Spain, or any country in the world, is eligible for University-funded aid.

Scholarship/financial aid programs available include:

- + Merit Scholarships
- + Visiting Student Scholarships
- + Grants and Loans
- + Departmental Support Scholarships
- + Jesuit High School Award
- + Catholic High School Award
- + Madrid Campus Antiguos Alumnos Award
- + Family Award

For more information: financialaid-madrid@slu.edu

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Learn More

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