



M.S. in Mechanical Engineering

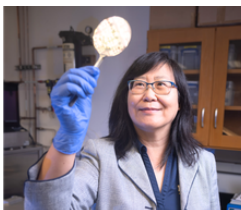
The M.S. in mechanical engineering builds advanced skills in areas such as additive manufacturing, renewable energy, advanced materials, computational fluid dynamics, robotics, and system control and dynamics. The program combines in-depth coursework with hands-on experience. Students can choose concentrations including additive manufacturing, aerospace engineering or a management track offered with the Department of Industrial and Systems Engineering.

WHAT TO EXPECT

- A strong foundation in mechanical principles applied through labs, design projects and prototyping. This mix of theory and practice sharpens their ability to analyze, design and troubleshoot systems.
- Learn to think creatively and engineer impactful solutions through interdisciplinary learning and real-world projects. Tackle issues in energy, health, mobility and sustainability.
- Build analytical, computational and experimental skills for advanced research. Graduates are ready to pursue Ph.D. studies or contribute to cutting-edge research and development..

LEARNING OUTCOMES

- **Master Formulation and Innovation:** Gain advanced expertise in formulation principles and innovation management.
- **Problem-Solving and Research:** Develop the ability to identify, formulate, and solve complex product design and engineering challenges, conducting supervised research.
- **Strategic and Effective Communication:** Contribute to technical and business strategies and effectively communicate their insights to the industrial research and development and scientific communities.



FAST FACTS



Up to 50%
Tuition
Waivers



\$100k
Average
Starting Salary



\$3M+
Yearly Research
Expenditures

The curriculum combines classroom learning with hands-on experience to build a strong foundation in both **technical skills** and **industry knowledge**.

90% of students find jobs after graduation.

GRE scores are **not required** for admission.

CONCENTRATIONS

The program stands out with its specialized concentrations, designed to prepare students for cutting-edge careers in various fields.

- Additive Manufacturing
- Aerospace Engineering



WHY CHOOSE MECHANICAL ENGINEERING

- **Access to Advanced Facilities:** Gain hands-on experience using cutting-edge resources, including 3D metal and polymer printing, a wind tunnel, micro-fabrication tools and energy materials laboratories.
- **Top-Ranked University Environment:** Study at the University of Miami, ranked among the top 65 universities in the U.S. by U.S. News and World Report, offering a strong academic foundation and national recognition.
- **Strategic Global Location:** Take advantage of Miami's position as an international gateway to Latin America, the Caribbean and Europe, with a dynamic economy driven by global trade and innovation.
- **Thriving Tech and Startup Ecosystem:** Be part of a city recognized as a designated tech hub and ranked No. 1 in the nation for startup activity by the Kauffman Index, offering abundant opportunities for innovation and entrepreneurship.

SECTORS

Mechanical engineering involves designing and building systems that drive innovation across various industries.



Aerospace



3D Printing



Robotics

“The M.S. in Mechanical Engineering program at UM combines top-level academic study with close collaboration on leading research by faculty. It offers strong engineering development while advancing your career. It was the time I excelled the most during my years at the University of Miami.”

- Joshua Lawrence, '24
Lemartec Corporation



For more
information



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