



M.S. in Sports Engineering

The M.S. in Sports Engineering combines core engineering with biomechanics and sports technology. Students gain hands-on experience in equipment design, performance analysis, and wearable tech. The program prepares graduates for careers in the sports industry or research, with opportunities for faculty-led projects and interdisciplinary training.

WHAT TO EXPECT

Advanced Biomechanics and Design

- Build problem-solving abilities through advanced biomechanics, materials science, and hands-on design work. Develop a solid foundation in mechanics, human performance, and real-world application.

Innovation in Human Performance

- Develop innovative solutions for the evolving challenges of the fitness and sports industries, supported by advanced scientific training that prepares you for research roles or Ph.D. studies.

Scientific Communication

- Strengthen your ability to communicate complex ideas clearly through written reports and oral presentations that showcase your scientific and design work.

Critical Thinking and Research Development

- Grow your analytical and critical-thinking skills through coursework and research, enabling you to approach problems with creativity, evidence-based reasoning, and strong scientific insight.

FAST FACTS



20+
Faculty
and Staff



Up to 50%
Tuition
Waivers



Interdisciplinary
Learning
Environment

The program is **interdisciplinary**, involving faculty from the Department of Kinesiology and Sports Medicine experts

GRE scores are **not required**.

This program is the **first of its kind** in the United States and trains the next generation of engineers to meet the changing technological needs in sports and human performance.

CAREER PATHS



**Sports Product
Design**



**Performance
Optimization**



**Wearable
Tech**



**Sports
Analytics**





WHY CHOOSE SPORTS ENGINEERING

- **Unique Program:** This Master's program in Sports Engineering offers a unique and specialized education in an emerging field.
- **Strong Academic Reputation:** The University of Miami ranks number 63 among all U.S. universities according to U.S. News and World Report, reflecting its strong academic standing.
- **Sports Industry Hub:** Miami is home to major league teams, Miami Marlins, Miami Heat, Miami Dolphins, and Inter Miami CF, all of which invest heavily in sports science, biomechanics, injury prevention, and performance optimization.
- **Global Gateway:** As a major international gateway to Latin America, the Caribbean, and Europe, Miami's rapidly growing economy is driven by technological innovation, business expansion, and global trade.
- **Leading Tech Ecosystem:** Recognized as a tech hub, Miami has ranked number one for startup activity in the U.S. by the Kaufman Index, making it an ideal place for innovation and entrepreneurship.

RESEARCH AREAS

This program combines engineering, sports science, and medicine to train students in improving performance, preventing injuries, and designing sports gear through hands-on learning and teamwork.

- Engineering for Sports Technology
- Biomechanics and Performance Analysis
- Research and Innovation in Sports Science



“The M.S. in Sports Engineering at the University of Miami is a unique, interdisciplinary program that prepares students to lead innovation in sports technology, injury prevention, and performance optimization. It's where engineering meets athletic potential.”

-Francesco Travascio, Associate Professor, Program Director, Mechanical and Aerospace Engineering



For more
information



Francesco Travascio
f.travascio@miami.edu