



# GRADUATE STUDIES IN ENGINEERING

## CURRICULUM

The FAMU-FSU College of Engineering offers graduate programs in **biomedical, chemical, civil, electrical, industrial and mechanical engineering**. Programs are offered at the master's non-thesis, master's thesis and doctoral level in each discipline. We recently added a M.S. non-thesis in **systems engineering**.

## PRACTICAL EXPERIENCE

While pursuing your degree, you may have the opportunity to gain hands-on practical experience in our state-of-the-art research centers, institutes and labs: Aero-Propulsion, Mechatronics and Energy; Applied Superconductivity Center; Center for Advanced Power Systems; Center for Intelligent Systems, Control, and Robotics; Energy Research at College of Engineering; Energy and Sustainability Center; Florida Center for Advanced Aero-Propulsion; Future Renewable Electric Energy Delivery and Management (FREEDM) Systems Center; High-Performance Materials Institute; Institute for Energy Systems, Economics and Sustainability; and National High Magnetic Field Laboratory.

## LOCATIONS: FACILITIES & TALLAHASSEE

The College of Engineering is located in Tallahassee, Florida's State Capital. The College campus is located between the campuses for the two universities it serves, Florida Agricultural and Mechanical University and Florida State University, in Innovation Park. Teaching and research is carried out in 200,000 square-feet of state-of-the-art facilities. The College is committed, as evidenced with funding and facilities, to providing graduate students with intensive research opportunities. The College boasts several advanced research centers with well over \$100 million in research

infrastructure. In addition, each department maintains laboratories specializing in a variety of research areas.

Tallahassee is a vibrant community full of natural beauty and a thriving culture. Nestled among massive southern live oak trees dripping with Spanish moss, our beautiful college town is simultaneously a respite from the hectic big cities and a lively community full of creativity.

## APPLICATION REQUIREMENTS INCLUDE:

- > Application fee of \$30
- > A bachelor's degree from a regionally-accredited U.S. institution, or a comparable degree from an international institution, with a minimum 3.0 (on a 4.0 scale) grade point average (GPA) in all coursework attempted while enrolled as an upper-division undergraduate student working towards a bachelor's degree; or graduate degree from a regionally accredited U.S. institution, or a comparable degree from an international institution.
- > Official transcript from each college or university attended
- > Official Graduate Record Examination (scores)
- > Statement of Goals
- > Resume or Curriculum Vitae
- > 3 academic letters of recommendation
- > International Applicants:
  - 1) An English proficiency exam for those applicants whose native language is not English and
  - 2) Certification of Financial Responsibility indicating your commitment to financially support your education.

## HOW TO APPLY

### Engineering Priority Funding Deadline

Fall: January 15

### FAMU Deadlines

Spring: August 1

Fall: February 15

### FSU Deadlines

Spring: November 1

Fall: July 1

### Online application links:

**FAMU:** <https://www.applyweb.com/famug/>

**FSU:** <https://admissions.fsu.edu/gradapp/>

## 2018-2019 COST OF ATTENDANCE

This table is provided for estimation purposes only, and is per semester based on 9 credit hours. Tuition and fees are subject to change based on legislative and internal policy change.

	Tuition/ Fees	Housing	Board	Books/ Supplies	Transportation	Personal	Health Insurance	Total
<b>In-State</b>	\$4,314	\$4,093	\$2,039	\$500	\$623	\$2,183	\$900	<b>\$14,652</b>
<b>Out-of-State</b>	\$9,996	\$4,093	\$2,039	\$500	\$1,257	\$2,183	\$900	<b>\$20,968</b>



FAMU-FSU  
Engineering



# ENGINEERING RESEARCH

## FOCUS: NATIONAL SECURITY



**Electric Navy Vessels** – Researchers from the Center for Advanced Power Systems (CAPS) and FAMU-FSU College of Engineering are at the forefront of developing an all-electric ship for the U.S. Navy. With a five-year \$35 million grant by the U.S. Navy's Office of Naval Research and an additional \$13 million four-year contract from

the Naval Systems Command, CAPS leads a multi-university team of scientists and engineers to advance the Navy's efforts to build an all-electric ship.

**Improved Aircraft Aerodynamics** – The PolySonic Wind Tunnel at the Florida Center for Advanced Aero-Propulsion (FCAAP) is currently engaged in research at subsonic, transonic, supersonic, and hypersonic flow regimes through numerous multi-university, national and international research collaborations. This research is supported by over \$ 3 million/year from organizations such as the Air Force Office of Scientific Research, Office of Naval Research, Air Force Research Lab at Eglin Air Force Base and large and small Aerospace companies. This unique laboratory is used to ensure future aircraft are more efficient, safer and quieter through improved aerodynamics and propulsion systems.

## FOCUS: EFFICIENT AND RELIABLE INFRASTRUCTURE

**Smart and Resilient Cities** – Researchers from the FAMU-FSU College of Engineering and Florida State University, in collaboration with the City of Tallahassee, are using big data analytics to make Tallahassee—and by extension to cities across the nation—smarter and more resilient. The project is funded in part through grants from the local agencies, state and federal departments of transportation and the National Science Foundation (NSF). The research focuses on several areas, including electricity distribution networks to make the grid more efficient and flexible; traffic patterns and other transportation safety and accessibility issues; community-centric emergency response and planning; human interactions like how city residents use digital tools to report outages to authorities; and



using data received from the city to identify risky locations relating to power systems, roadway closures, fallen trees, and power lines.

**Reducing Greenhouse Emissions** – The decomposition process of waste at landfills is a leading cause of methane gas emission and is a lesser-known contributor to global warming. Our researchers have extensively studied the use of bio-covers to reduce methane dispersion from landfills. FAMU-FSU College of Engineering teams developed an alternative bio-cover design as a solution to prevent groundwater pollution. In addition, we are working to improve the functionality and longevity of existing infrastructure systems, while developing a new generation of sustainable and resilient infrastructure technologies that are environmentally responsible.

## FOCUS: LIFE MADE BETTER

**Cell Therapy for Aging Populations** – A new treatment developed by two FAMU-FSU College of Engineering faculty uses bio-engineered cells and novel materials as “smart missiles” inside the body. With further research, they hope to discover a way to precisely deliver therapeutic cells to infected and diseased areas of the human body. In addition, our research developed innovative systems to produce adult stem cells that can withstand the rigors of pathological conditions.



**Robotics for Human Musculo-Skeletal Aid** – The Center for Intelligent Systems, Control, and Robotics (CISCOR) is a FAMU-FSU College of Engineering-associated center that is a hub for producing robots that mimic animal movement, speed and agility. Researchers at the center focus on creating legged robots with the ability to move through complex environments—similar to those that humans move through every day. This research can be used for robotic devices that help they physically-impaired interact with the world. It can also lead to new tools and advances in devices enabling older people to engage in and reap the benefits of exercise.

The power of two great universities  
in one shared college.

*Florida A&M University is the top-ranked public HBCU in the nation. Florida State University is one of the nation's 115 Highest Research Activity Universities. The partnership at our core bridges a gap that is not bridged anywhere else in terms of engineering diversity and research caliber.*

CONTACT US ABOUT RESEARCH

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