From microscopic nanochips to the colossal Hadron collider, complex systems are everywhere. Even basic industrial products and processes have comprehensive life cycles that require engineering experts to ensure a smooth transition from concept to reality. Systems engineers design and refine systems to tackle technical, cost and schedule requirements while minimizing potential defects and risks.

**Why Systems Engineering at Florida Tech?**
A recognized leader in engineering education, Florida Tech has crafted a systems engineering degree that has proven attractive to high-tech employers for more than 10 years. Our status as a national research university ensures that when you graduate, you’ll have hands-on experience in creating, analyzing and refining complex and interdisciplinary systems. Our location on the Space Coast and High Tech Corridor surrounds you with internship opportunities with some of the most respected names in technology, including NASA, Northrop Grumman and Harris Corp.

**Capstone Project**
A unique aspect of the Florida Tech systems engineering program is the capstone design project. This project provides you with the opportunity to display your skills as both an engineer and a researcher as you work to solve real-world problems in the industry today. Top-rated capstone projects go on display at showcases attended by representatives of both local and national companies, giving you the opportunity to network with potential employers via your work.

**Interdisciplinary Field**
Systems engineering is highly interdisciplinary and can be applied to science, business and many areas in between.

**Program Culture**
Many systems engineering students are industry professionals, making the learning environment mature, cooperative and friendly. Students support each other in all learning matters through project teams, consisting of domestic and international students coming from diverse engineering backgrounds. This unique culture allows team members to learn important business practices in teamwork and cultural sensitivities.

**WHAT TO EXPECT**
The systems engineering program features a small student-to-teacher ratio, resulting in a closer and more personal connection between you, your professor and your peers. This close-knit academic atmosphere leads to a more personalized learning experience that allows you to pursue the study of systems engineering in a manner that aligns best with your career goals. Convenient evening classes and flexible course offerings make balancing professional and academic obligations easier.
Experience
A master's degree in systems engineering enhances your decision-making and problem solving abilities through a curriculum that incorporates up-to-date tools and techniques that can be put into practice immediately in the workplace. The systems engineering program draws on the expertise and experience of our faculty in preparing graduates in key advanced subjects, including systems engineering principles, system modeling and analysis, decision and risk analysis, design of experiments and system requirements analysis.

Faculty
All Florida Tech systems engineering faculty bring years of industry experience to the classroom, providing students with a real-world understanding of systems engineering. As a result, our faculty members are able to quickly eliminate the student/faculty barrier and explain complicated concepts in an easy and practical manner. Through their research, the systems engineering faculty publishes several journal and conference papers each year on topics including:

- Statistical analysis of optics and optical systems
- Simulation and modeling
- Management science/operations research
- Reliability modeling
- Entrepreneurship and product development

Research
Systems engineering research at Florida Tech takes several forms: in-class projects, capstone projects, master’s theses, doctoral dissertations and special topic independent studies. Some of the topics our students have chosen to research in the past include:

- Hospital emergency room simulation
- Micro-UAV systems and applications
- Enterprise architectural frameworks
- Satellite system design

Careers
CNN Money ranked systems engineering as the number one job in America, listing a median salary of $87,000 and a 45 percent 10-year job growth rate as primary benefits. System engineers can work in many different fields, including energy development, information technology and software management. As a Florida Tech graduate in this rapidly growing discipline, you will possess interdisciplinary skills and knowledge in demand by employers such as:

- Harris Corporation
- Northrop Grumman
- General Electric, Boeing
- NASA
- DRS
- Rockwell Collins

High-Tech Research Facilities
Florida Tech's research university status ensures that you will have the tools and facilities to conduct research in your preferred area of systems engineering. Our advanced research centers, institutes and labs are home to essential systems engineering equipment and software and include:

- Institute for Materials Science and Nanotechnology
- Institute for Energy Systems
- Center for Software Testing, Education and Research
- Information Characterization & Exploitation (ICE) Laboratory
- Transportation Systems Engineering Research Laboratory (TSERL)

Research Portal
Want to learn more about the cutting-edge research happening at Florida Tech? Visit our research portal and discover something new.
www.fit.edu/research/portal

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