MASTER OF SCIENCE
SYSTEMS ENGINEERING

$90K
Average salary for systems engineers

Apply any semester

1-2 years
choose your pace

On-campus or Online program

CONTACT

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What is Systems Engineering?

Systems engineering (SE) is an interdisciplinary field of engineering that focuses on how to design and manage complex engineering systems over their life cycles. These engineers are dedicated to ensuring all stakeholder needs are met in the best, most efficient way possible. SE facilitates deep integration of technical systems and helps ensure the systems developed are coherent, effective, and sustainable solutions to fulfill the system needs. SE professionals work with all facets of a system, from hardware to facilities, personnel to procedures.

Our systems engineering program integrates engineering disciplines with industrial and management practices. Through the program students will develop skills required in the national workforce for growing areas in the technology-driven global economy. The SE faculty at FAMU-FSU Engineering have broad experience in defense and industrial settings, making the program applicable to military and civilian engineering professionals.

MSSE Degree Program

Designed for both full-time students and full-time working professionals, the MSSE program is a course-based Non-Thesis Degree offered by the Department of Industrial & Manufacturing Engineering at the FAMU-FSU College of Engineering. The program is 30 credit hours with flexible completion time of 1-2 years. The program requires seven core courses and three technical electives. *The program is offered in-person in Panama City, Florida or 100% online.*

Who should apply?

> Working professionals and aspiring leaders in engineering fields
> Engineers who want to position themselves as technical leaders
> Those looking to develop flexible and tailorable skills in managing and sustaining technical teams and systems in dynamic environments
> Engineers interested in developing synergy across technical domains and multiple disciplines
> Military officers looking to promote in rank
> Department of Defense civilian engineers

FAMU-FSU
College of Engineering

DEPARTMENT OF
INDUSTRIAL & MANUFACTURING
ENGINEERING

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Admission requirements

> A bachelor's degree in engineering, computer science, mathematics, physics, or a related area as determined by the Director of Graduate Studies, with a minimum 3.0 (on a 4.0 scale) grade point average (GPA) in all coursework attempted while registered as an upper-division undergraduate student working towards a bachelor's degree; or a graduate degree in engineering, computer science, mathematics, physics, or a related area as determined by the Director of Graduate Studies;

> Good academic standing in the last institution last attended;

> For international applicants, TOEFL score at least 80 or IELTS score at least 6.5;

> Three letters of recommendation obtained from academics or professionals who can comment on the academic and research potential of the applicant;

> Statement of purpose describing reasons for pursuing a Master of Science degree and a career in Systems Engineering.

Required core courses

> Fundamentals of Systems Engineering
> Cost Estimating for Engineering Economic Analysis
> Requirements Analysis and Knowledge Management
> Engineering Risk Analysis and Decision-Making with Uncertainty
> Systems Test and Evaluation
> Design Considerations for Systems Engineering
> Model-Based Systems Engineering and Simulation

Three technical electives required in areas such as:

> Advanced model-based systems engineering
> Simulation, human factors, human systems integration
> Data analytics, operations research and optimization
> Autonomous systems
> Maritime systems
> Aerospace systems
> Electrical and power systems
> Transportation systems
> Healthcare, health science, medicine, biomedical engineering
> Engineering management, project management, leadership, business

Graduation requirements

> Complete all core courses and elective courses
> Maintain an overall GPA above 3.0

REV 10-23

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