

# Erik Jonsson School of Engineering and Computer Science

Master of Science in Software Engineering



## Program Description

The Executive Master in Software Engineering (EMSE) program is designed with working professionals in mind. Taught by world-class faculty, the program provides a dynamic academic experience that accounts for students' demanding schedules. It teaches students advanced technical proficiencies while also equipping them with the leadership skills they'll need to succeed in managerial and executive positions.

The 20-month program introduces students to the rigorous study of technologies such as:

- Artificial Intelligence
- Machine Learning
- Natural Language Processing
- Big Data Analytics
- Information Security
- Cloud Computing

The innovative curriculum equips students, who already have industry experience, to deliver on-time, on-budget software systems and teaches them state-of-the-practice methods and tools to specify, design, architect, construct and test software systems. Students also gain experience in managing software projects, developers and resources while using their software engineering skills to develop creative solutions to “real world” problems.

## Benefits

Graduates of this program seek high level positions in software engineering and software project management.

- *World-Class Faculty:* The program is led by faculty of the Erik Jonsson School of Engineering and Computer Science who are widely cited experts in their respective fields, many of whom also have professional industry experience.
- *Practical Curriculum:* A relevant and practical curriculum provides the skills students need to master the latest engineering practices and design complex, large-scale software systems.
- *Convenience:* Classes meet on Friday evenings and Saturday mornings for three weekends each month. This makes it possible for full-time working professionals to earn an executive master's degree in only 20 months.
- *Facilities:* Jonsson School facility resources now include one of the largest project design studios in the country, as well as a Makerspace area for creative pursuits. Three buildings on campus are dedicated to engineering and computer science: ECS South, North and West, as well as collaborative research spaces in the Bioengineering and Sciences building, the Edith O'Donnell Arts and Technology building and the Natural Science and Engineering Research Laboratory.
- *Convenience:* With both daytime and evening classes, the program provides flexible coursework options for everyone, including students employed on a full-time basis.
- *Location:* Situated in the greater Dallas region—recently rated by *Forbes* magazine as the #1 “Best City for Jobs”—UT Dallas provides students with easy access to employers and internship opportunities, not to mention a large and supportive alumni population.



## Contact Information

### Admissions

Email: [gradECS@utdallas.edu](mailto:gradECS@utdallas.edu)

### Steve Perkins (Advising for EMSE students)

Email: [stephen.perkins@utdallas.edu](mailto:stephen.perkins@utdallas.edu)

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Website: [stephen-perkins.com](http://stephen-perkins.com)

### Questions:

Email: [EMSE@utdallas.edu](mailto:EMSE@utdallas.edu)

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[cs.utdallas.edu](http://cs.utdallas.edu)

[emse.utdallas.edu](http://emse.utdallas.edu)

[engineering.utdallas.edu](http://engineering.utdallas.edu)

## Career Opportunities

Graduates of this program pursue high-level managerial and executive positions in software engineering and software project management.

## Marketable Skills

Upon successful completion of the MS in Software Engineering, graduates will be able to enter the workforce with the following skills:

- Critical thinking
- Gathering requirements for designing, developing, testing and deploying advanced software systems
- Advanced computing techniques
- Managing large software projects

## Application Deadlines and Requirements

Please take note of all application deadlines and visit the Apply Now webpage to begin the application process. See the Executive Master in Software Engineering degree program webpage for additional information.

Before formally applying, please email your resume and unofficial undergraduate/graduate transcripts to [emse@utdallas.edu](mailto:emse@utdallas.edu).

Applicants to the executive master's program should have:

- A four-year bachelor's degree in computer science, engineering or a related field.
- A GPA (grade point average) of at least 3.0 (last 60 semester credit hours). GPA in quantitative courses of at least 3.3.
- GRE revised scores of 308, 153, 155, and 4 for the combined, verbal, quantitative, and analytical writing components, respectively, are advisable based on our experience with student success in the program.
- Three years or more of full-time employment as a software professional.
- Knowledge of a programming language (C, C++ or Java) and data structures and algorithms.
- A complete application form.
- Copies of transcripts and degree certificates from all the colleges attended.
- A detailed resume, including work history.
- Three letters of recommendations on forms supplied by the program.
- A signed tuition payment form.
- International applicants must submit a TOEFL score of at least 80 on the internet-based test. Scores must be less than two years old. See the Graduate Catalog for additional information regarding English proficiency requirements for international applicants.

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