Post-Baccalaureate Certificate in Industrial Applications

About This Program

The Industrial Engineering graduate certificates are designed to allow students to develop their skills in key application areas. Students enrolled in the Industrial Applications Graduate Certificate may also apply to the Master of Science in Industrial Engineering program at the same time. Courses completed as part the certificate will also satisfy requirements for the Master of Science program.

Competencies

1. Upon completion, students will be able to analyze, model, and improve production or service processes using systems thinking.
2. Upon completion, students will be able to apply Lean, Six Sigma, or other continuous improvement methodologies to optimize efficiency and reduce waste.
3. Upon completion, students will understand principles of operations planning, inventory control, scheduling, and resource allocation.
4. Upon completion, students will be able to apply basic statistical and data analysis techniques to support engineering decisions.
5. Upon completion, students will be able to perform time value of money calculations to evaluate engineering project alternatives.
6. Upon completion, students will understand the principles of quality control, assurance, and management systems (e.g., ISO 9001).
7. Upon completion, students will be able to communicate technical information effectively through reports, presentations, and visual aids.
8. Upon completion, students will be able to a collaborate in multidisciplinary teams to solve engineering problems.

Admissions Criteria

UNCONDITIONAL ADMISSION

Applicants meeting the following criteria may be admitted without conditions.

- A GPA of at least 3.0 in the last 60 hours of undergraduate coursework.
- A GPA of at least 3.0 in all prior graduate work.
- A minimum score of 155 on the GRE Quantitative section and 146 on the GRE Verbal section.
- A BS or MS in Engineering or Science.

Remedial course work may be required if an applicant does not have an engineering or science background.

GRE WAIVER

Applicants may request a GRE Waiver (https://common.forms.uta.edu/view.php?id=71616.) if they meet all other admission criteria, they have graduated from an ABET accredited institution, and have a minimal of two years of relevant work experience post-degree.

Curriculum

Foundations		
IE 5317	INTRODUCTION TO PROBABILITY AND STATISTICS	3
Specialization		
Select 3 from the following:		9
IE 5303	QUALITY SYSTEMS	
IE 5321	ENTERPRISE ANALYSIS AND DESIGN	
IE 5322	SIMULATION AND OPTIMIZATION	
IE 5329	PRODUCTION AND INVENTORY CONTROL SYSTEMS	
IE 5330	AUTOMATION AND ADVANCED MANUFACTURING	
IE 5338	HUMAN ENGINEERING AND COMPLEX SYSTEMS	
IE 5342	METRICS AND MEASUREMENT	
IE 6302	FACILITIES PLANNING AND DESIGN	
Select one graduate course from engineering or science, or a course from the College of Business approved by advisor		3
Total Hours		**15**

Program Completion

CONTINUATION

In order to continue in the program toward graduation, each graduate student must:

- Maintain at least a 3.0 overall GPA in all coursework taken as a graduate student and in their program, and
- Demonstrate suitability for professional practice.

If questions are raised by graduate faculty regarding either of the above, the student will be notified and will be provided the opportunity to respond to the Committee on Graduate Studies in the Department. The Committee on Graduate Studies will review the student's performance and make a recommendation concerning the student's eligibility to continue in the program. Appeal of a decision on continuation may be made through normal procedures outlined in the section of this catalog entitled "Grievances Other than Grades."

Advising Resources

New M.S. Students will attend a departmental orientation and receive advising for first-semester courses. Fast-Track M.S. Students must talk to an M.S. program advisor when enrolling at the beginning of each semester. New Ph.D. students will receive email communications from the Ph.D. program advisor on course requirements, course waivers, diagnostic exam, and other policies as appropriate. Students are welcome to contact program advisors via email with any questions.

Location:

420 Woolf Hall

Email:

imseinfo@uta.edu

Phone:

817-272-3092

Web:

Contact a graduate advisor (https://www.uta.edu/academics/schools-colleges/engineering/academics/departments/industrial/students/grad-advising/advisor-contact/)