Post-Baccalaureate Certificate in Electric Propulsion

About This Program

The Post-Baccalaureate Certificate in Electric Propulsion emphasizes the common elements of electric propulsion including power electronics, electric machines and drives, and energy distribution systems. Sample topics include principles of inductors, transformers, force/torque formulation, modeling and analysis of power electronics devices and systems. This program aims to provide the transportation electrification industry with a new well-educated and locally available workforce. Existing industry employees who complete the certificate will have greater advancement opportunities.

Degree seeking students who successfully complete the certificate program will be eligible to continue their studies to earn a Master of Science in Electrical Engineering with a focus in Power and Energy, and the courses that are completed in the certificate program can be used to satisfy the course requirements the MSEE program.

Competencies

1. Upon completion, students will be able to model, analyze, or control power electronics circuits and system.
2. Upon completion, students will be able to model, analyze, or control electric machines and drives.
3. Upon completion, students will be able to understand the impact of power quality.

Admissions Criteria

Existing students may earn this certificate by completing the required courses and submitting a Request for Certificate to the UTA Office of Records. Non-degree seeking students must satisfy the admission requirements established by the Graduate School for special non-degree-seeking and graduate certificate applicants (https://catalog.uta.edu/academicregulations/admissions/graduate/#text).

Unconditional Admission is granted if all the following conditions are met:

- A Bachelor's degree in an engineering discipline with a minimum GPA of 3.0 or a current enrollment in an engineering Master's program at UTA with a minimum GPA of 3.0.
- Those who desire to complete the certificate program without enrolling in graduate degree program must be admitted to UTA as a non#degree seeking student.
- If English is not the applicant's native language, he/she should meet the EE admission requirement on TOEFL iBT, or IELTS. International applicants who have successfully completed a BS or MS from an institution in the United States and are not seeking funding as a Graduate Teaching Assistant, are not required to meet this requirement.

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

Curriculum

Foundations		
EE 5370	ELECTRIC MOTOR DRIVES	3
EE 6375	POWER ELECTRONICS ENGINEERING	3
Electives		
Select one from the following:		3
EE 5374	POWER SYSTEM PROTECTIVE RELAYING	
EE 5375	POWER SYSTEM DISTRIBUTION	
EE 5378	POWER QUALITY	
Total Hours		**9**

Program Completion

All courses used to satisfy the certificate requirements must be passed with a grade of B or better. The time limit for completion of the Certificate Program is two years.

Advising Resources

EE Advising - General information

ELECTRICAL ENGINEERING

Location:

Master's - NH 531

Ph.D. - NH 545

Email:

ee_grad_advising@uta.edu

Phone:

Master's - 817-272-3423

Ph.D. - 817-272-3472

Web:

Master's - Schedule graduate advising (https://outlook.office365.com/owa/calendar/EEGradAdv@bookings.uta.edu/bookings/s/W_X-t8ySDEaqCfz09loAMg2/)

Ph.D. - Schedule graduate advising (https://outlook.office365.com/owa/calendar/EEGradAdv@bookings.uta.edu/bookings/s/ja39PnPrvEC3KPK1JroI9A2/)