

# ELECTRICAL SYSTEM EQUIPMENT

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This certificate provides practical knowledge of electrical system equipment and the fundamentals of power electronics and machines.

Topics include Transformer, DC and AC machines and drives, power electronics devices, DC-DC and DC-AC power conversions, analysis risk assessment, decision and cost-benefit analysis, and reliability analysis.

The certificate is ideal for professionals who want to enhance their capabilities in electrical equipment, risk and reliability analysis, as well as experienced professionals who want to receive the necessary retraining to change careers. (9 credit hours minimum)

Note: The certificate credits of undergraduate courses cannot count toward ECE graduate degrees.

The certificate can be completed entirely on campus, entirely online, or through a combination of on-campus and online courses.

Only courses completed with grade C or better will be counted toward the certificate degree. A minimum certificate grade point average of B (3.0 on a 4.0 point scale) is required to obtain the certificate.

The certificate requires 9 credit hours: two (2) core course and one (1) elective course.

Code	Title	Credit Hours
<b>9 credits from the following:</b>		
Required core courses:		
ECE 415	Power Electronics	3
ECE 4361	Electric Machines and Drives	3
Select 1 elective course from the following:		
IMSE 467	Stat Meth for Process Improve	3
IMSE 5205	Eng Risk-Benefit Analysis	3

The credits earned in this certificate program may be applied toward an ECE graduate degree program, subject to the curriculum requirement of the graduate degree program. Only 500-level or above graduate coursework can be double-counted to meet the degree requirements of ECE graduate programs. Please note that a maximum of two stackable certificates can be used towards earning an ECE graduate degree program.

Students admitted to certificate programs must complete requirements within three (3) years from the date of first enrollment in the program, with only one possible one-year extension allowed for unusual individual circumstances.