

CERTIFICATE IN ADVANCED ELECTRONICS

This program is composed entirely of elective courses and provides advanced study in electronic design and device theory for those who wish to enhance their analog and digital design skills, while increasing their knowledge of the underlying device physics.

Curriculum

A maximum of two 400-level courses may be taken.

Code	Title	Credit Hours
Elective Courses		(12-13)
Select a minimum of four courses from the following:		12-13
ECE 401	Communication Electronics	3
ECE 411	Power Electronics	4
ECE 425	Analysis and Design of Integrated Circuits	3
ECE 429	Introduction to VLSI Design	4
ECE 430	Fundamentals of Semiconductor Devices	3
or ECE 523	Fundamentals of Semiconductor Devices	
ECE 502	Basic Network Theory	3
ECE 521	Quantum Electronics	3
ECE 524	Advanced Electronic Circuit Design	3
ECE 525	RF Integrated Circuit Design	3
ECE 526	Active Filter Design	3
ECE 527	Performance Analysis of RF Integrated Circuits	3
ECE 529	Advanced VLSI Systems Design	3
ECE 530	High Performance VLSI IC Systems	3
ECE 571	Nanodevices and Technology	3
ECE 575	Electron Devices	3
ECE 588	Hardware Acceleration for Machine Learning	3
ECE 589	Computer-Aided Design of Analog IC	3
Total Credit Hours		12-13