

MS in Electrical Engineering

Please note that the curriculum outlined below is a guide. All students must meet with their academic advisor to develop a plan of study.

All students are required to take the **core courses** listed below:

ENGR 5033	Probability and Random Processes	
ENGR 5022	Engineering Analysis and Application	
EE 5622	Introduction to Computer Architectures	
EE 5514	Digital Signal Processing and Analysis	

Listed below are **elective courses** offered by the Department. The courses are grouped according to the specializations. Students are encouraged to develop a plan of study with their advisor so that they can select the most appropriate course sequence to meet their objectives.

Computer Engineering and Microelectronics

EE 5612	Advanced Microprocessor Systems	
EE 5314	Microelectronics	
EE 5324	VLSI Systems Design and Testing	
EE 8334	Nanotechnology Applications, MEMS and NEMS	
EE 8622	Advanced Computer Architectures	
EE 8324	Mixed Signal VLSI Design	
EE 9622	Parallel Processing Architectures	
EE 9324	VLSI Physical Design	

Digital Signal Processing and Digital Data Communication

EE 5514	Digital Signal Processing Analysis	
EE 5516	Introduction to Communication Networks	
EE 8516	Design and Performance Analysis of Communication Networks	
EE 5512	Analog and Digital Communications	
EE 8514	Applications in Digital Signal Processing	
EE 8512	Signal Processing and Communication Theory	
EE 9514	Adaptive Signal Processing	
EE 9524	Digital Image Processing	

Intelligent Systems and Control

EE 5712	Intelligent Multimedia Systems	
EE 5412	Control Systems Analysis	
EE 5714	Introduction to Intelligent Systems Engineering	
EE 8412	Optimal and Robust Control	
EE 9514	Detection, Estimation, and Modulation Theory	
EE 8414	Adaptive Control	
EE 9412	Nonlinear Control System	

Students completing the thesis option must complete 24 semester hours of course work and 6 semester hours of thesis. Students completing the project option must complete 27 semester hours of course work and 3 semester hours of a research project. Students completing the non-research option, with the permission of the department, are required to take 30 semesters of course work.