

MASTER OF ENGINEERING IN ADVANCED MANUFACTURING, AUTOMATION AND CONTROL SYSTEMS TRACK

Curriculum

Code	Title	Credit Hours
Core Courses		(12-14)
Select 12-14 credit hours from the following courses:		12-14
ECE 411	Power Electronics	4
ECE 412	Hybrid Electric Vehicle Drives	4
ECE 442	Internet of Things and Cyber Physical Systems	3
or ECE 510	Internet of Things and Cyber Physical Systems	
ECE 438	Control Systems	3
ECE 447	Artificial Intelligence and Edge Computing	3
or ECE 501	Artificial Intelligence and Edge Computing	
ECE 505	Applied Optimization for Engineers	3
MMAE/ENGR 534	Product Design and Innovation	3
MMAE 544	Design Optimization	3
MMAE 546	Advanced Manufacturing Engineering	3
MMAE 547	Computer-Integrated Manufacturing Technologies	3
MMAE 557	Computer-Integrated Manufacturing Systems	3
MMAE 560	Statistical Quality and Process Control	3
Automation and Control Systems Courses		(9-10)
Select 9-10 credit hours from the following courses:		9-10
ECE 437	Digital Signal Processing I	3
ECE 441	Smart and Connected Embedded System Design	4
ECE 481	Image Processing	3
ECE 533	Robust Control	3
ECE 539	Computer Aided Design of Electric Machines	3
ECE 540	Reliability Theory and System Implementation	3
ECE 549	Motion Control Systems Dynamics	3
ECE 550	Power Electronic Dynamics and Control	3
ECE 551	Advanced Power Electronics	3
ECE 552	Adjustable Speed Drives	3
ECE 565	Computer Vision and Image Processing	3
Elective Courses		(6-9)
Select six to nine credit hours from the below courses:		6-9
ECE 594	Special Projects	1-9
or MMAE 594	Project for Master of Engineering Students	
ENGR 595	Product Development for Entrepreneurs	3
MMAE 451	Finite Element Methods in Engineering	3
MMAE 532	Advanced Finite Element Methods	3
MMAE 570	Computational Methods in Materials Science and Engineering	3

Minimum degree credits required: 30