

MASTER OF ENGINEERING IN ENERGY SYSTEMS, ENERGY CONSERVATION AND BUILDINGS TRACK

Curriculum

Code	Title	Credit Hours
Core Courses		(9)
CHE 543	Energy Envir Economics	3
ECE 418	Power Systems Analysis	3
MMAE 522	Nuclear F-F & Sust Energy Sys	3
Energy Conservation and Buildings Courses		(12)
Select 12 credit hours from the following courses:		12
CAE 513	Building Science	3
CAE 524	Building Enclosure Design	3
CAE 526	Energy Conservation Dsgn:Bldgs	3
CAE 556	Net Zero Energy Home Dsgn I	3
CAE 557	Net Zero Energy Home Dsgn II	3
CHE 541	Renwble Enrgy Technologies	3
ECE 580	Elements of Sustainable Energy	3
ECE 581	Elements of Smart Grid	3
ECE 582	Microgrid Design and Operation	3
MMAE 525	Fundamentals of Heat Transfer	3
Elective Courses		(9)
Select nine credit hours from the following courses: ¹		9
CAE 464	HVAC Systems Design	3
CAE 466	Building Electrical Sysys Dsgn	3
CAE 467	Lighting Systems Design	3
CAE 513	Building Science	3
CAE 515	BIM Applications for Bldg Perf	3
CAE 524	Building Enclosure Design	3
CAE 526	Energy Conservation Dsgn:Bldgs	3
CAE 527	Congrol of Bldg Envrnmtl Sysys	3
CAE 550	Applied Bldg Energy Modeling	3
CAE 553	Measurement & Instrumentation	3
CAE 556	Net Zero Energy Home Dsgn I	3
CAE 557	Net Zero Energy Home Dsgn II	3
CHE 541	Renwble Enrgy Technologies	3
ECE 411	Power Electronics	4
ECE 412	Hybrid Electric Vehicle Drives	4
ECE 539	Cmpt Aided Dsgn Elec Machines	3
ECE 551	Advanced Power Electronics	3
ECE 552	Adjustable Speed Drives	3
ECE 555	Power Market Operations	3
ECE 556	Power Mkt Ecnmcs Security	3
ECE 561	Deregulated Power Systems	3
ECE 562	Power Syst Tran Management	3
ECE 564	Cntrl Oprtn Elect Power Sysys	3
ECE 580	Elements of Sustainable Energy	3
ECE 581	Elements of Smart Grid	3
ECE 582	Microgrid Design and Operation	3
ECE 597	Special Problems	1-3

2 *Master of Engineering in Energy Systems, Energy Conservation and Buildings Track*

MMAE 425	Direct Energy Conversion	3
MMAE 433	Design of Thermal Systems	3
MMAE 453	Adv Automotive Powertrains	3
MMAE 523	Fundamentals Power Generation	3
MMAE 525	Fundamentals of Heat Transfer	3

Total Credit Hours 30

¹ Course must not have been used to fulfill specialization course requirement.