AUTOMOTIVE POWERTRAINS

Automobiles of the twenty-first century is poised to advance at a rapid pace with greater emphasis on lightweight structures, high efficiency powertrains, intelligent control systems, lower emissions, robust design and manufacturing, as well as improved comfort and safety. This certificate program gives an opportunity for automotive engineers interested in high efficiency powertrains to learn to about the advancements in engines, transmissions, electric and hybrid vehicles, and emission controls. (12 credit hours)

Certificate offered on Campus and via Distance Learning.

Coursework Requirements

Code	Title	Credit Hours
Please choose four courses to complete the required 12 credit hours.		
AENG 547	Automotive Powertrains I	3
or ME 547	Automotive Powertrains I	
AENG 555	Vehicle Stability & Control	3
AENG 557	Sustainable Fuels for Transportation	3
or ME 557	Sustainable Fuels for Transportation	
AENG 576	Battery Systems, Modeling, and Control	3
or ME 576	Battery Sys Modeling & Ctrl	
AENG 578	Advanced Vehicle Energy Systems	3
or ME 578	Advanced Vehicle Energy Systems	
or ESE 578	Advanced Vehicle Energy Systems	
ECE 532	Auto Sensors and Actuators	3
ECE 5462	Elec Aspects of Hybrid Vehicle	3
ECE 5463	Fundamentals of Electric Vehicles	3
ME 538	Vehicle Thermal Management	3
or AENG 566	Vehicle Thermal Management	
ME 543	Vehicle Dynamics	3
ME 548	Automotive Powertrains II	3
ME 570	Powertrain NVH of Electrified Vehicles	3
ME 596	Internal Combustion Engines I	3
or AENG 596	Internal Combustion Engines I	
ME 597	Internal Combustion Engines II	3
ME 598	Engine Emissions	3