



Concentration in Automotive Systems

Home Department: Mechanical Engineering (ME)
Available: Mostly On-campus. (Only some classes are available off-campus. Consult the course listing for on-campus/off-campus availability.)

NOTE: *Students may start this program in the Summer or Fall Terms only.*

The Automotive Systems degree program is intended for individuals who desire a deeper understanding and knowledge of the engineering operations of various systems on vehicles. Courses range from powertrain and engine components to design for safety and comfort. Students select courses from a structured framework in order to customize a program that best meets their individual and career needs. This program has a thesis option.

The Curriculum for Automotive Systems (Ten 4-credit courses)

- MECH-522 Engineering Analysis
- Plus - Up to 4 of the following*:
 - MECH-540 Introduction to Internal Combustion Engines & Automotive Power Systems - *(Available on-campus only)*
 - MECH-541 Advanced Automotive Power Systems - *(Available on-campus only)*
 - MECH-542 Chassis System Design - *(Available on-campus only)*
 - MECH-544 Introduction to Automotive Powertrains - *(Available on-campus only)*
 - MECH-546 Vehicle System Dynamics
 - MECH-550 Automotive Bioengineering: Occupant Protection & Safety - *(Available on-campus only)*
- At least 4 of the following*:
 - MECH-616 FEA of Automotive Structures
 - MECH-621 Applied Transport Phenomena
 - MECH-623/620 Applied Energy Systems Analysis - *(Available on-campus only)*
 - MECH-640 Advanced Engine Design
 - MECH-641 Combustion and Emissions
 - MECH-642 Design of Suspension Systems
 - MECH-643 Noise, Vibration & Harshness
- Plus - Thesis or one 600-Level Elective

*Course prerequisites must be observed

For more information on this program, please contact Dr. Ram Chandran at 810-762-7839 or rchandra@kettering.edu.

SAE/Kettering University Partnership

Students who have up to eight (8) Continuing Education Units (CEU) from approved SAE seminars may be eligible to transfer those CEU's into Kettering University's Automotive Systems degree program and/or the Automotive Systems Certificate.

For more information on this program or the SAE option, please contact the Continuing Education Department at 810-762-7960 or dserges@kettering.edu.