

# MS IN ENGINEERING (CONCENTRATION IN AUTOMOTIVE SYSTEMS)

MECH-621	Applied Transport Phenomena	4
MECH-641	Combustion & Emissions	4
MECH-643	Noise, Vibration & Harshness	4
MECH-6XX	Two 600-level technical electives	8
Thesis		8

**Home Department:** Mechanical Engineering (<https://my.kettering.edu/academics/departments/mechanical-engineering>)

## Program Advisor/Contact:

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## Program Overview

The Master of Science in Engineering (<https://www.kettering.edu/programs-and-degrees/on-campus-graduate>) is a professional master's program that builds on an undergraduate engineering program by offering additional depth and greater mastery in a number of technical areas.

## Program Objectives

### 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 the Automotive Systems Masters or Certificate program. For more information you may contact Dr. Bassem Ramadan (me@kettering.edu) in the Mechanical Engineering Department.

## Program Curriculum Requirements

Completion of 40 credits as follows:

### Program of Study

#### Required Courses

MECH-600	Engineering Mathematics with Applications	4
Select at least four courses from the 500 level list below		16
Select at least five courses from the 600 level list below (or three courses and a Thesis)		20
Total Credit Hours		40

#### 500 Level Course Electives (Course prerequisites must be observed.)

MECH-526	Fuel Cell Science & Engineering	4
MECH-540	Introduction to Internal Combustion Engines and Automotive Power Systems	4
MECH-542	Chassis System Design	4
MECH-546	Vehicle Systems Dynamics	4
MECH-550	Automotive Bioengineering: Occupant Protection and Safety	4
MECH-551	Vehicular Crash Dynamics and Accident Reconstruction	4
MECH-5XX	One 500-level technical elective	4

#### 600 Level Course Electives (Course prerequisites must be observed.)