AUTOMOTIVE POWERTRAIN CONCENTRATION
(12 Credits)

IMPORTANT: 1) For the latest and most accurate version of this concentration, please refer to the Dept. of Mechanical Engineering website. Earlier versions are invalid and will not be honored. 2) You MUST meet with the ME junior/senior advisor and arrange for the concentration code to be added to your record PRIOR to applying for graduation. This ensures that the concentration statement will appear on your final transcript. To make an appointment, call 517-355-3338.

A mechanical engineering degree with the automotive powertrain concentration attests to the interests and expertise of students in subjects that are of direct relevance to today’s automotive industry. This industry, which is currently dominated by vehicles powered by internal combustion engines, adapts rapidly to technological changes and environmental regulation and provides many career opportunities for mechanical engineering graduates. Students who meet the requirements of this concentration will have expertise in fundamentals of combustion, modern applications of computational fluid mechanics and heat transfer, and a range of technical aspects of today’s vehicle powertrains.

To complete a Bachelor of Science degree in mechanical engineering with an automotive powertrain concentration, students must complete the requirements for the B.S. degree, including:

• ME 422 Introduction to Combustion 3 credits (Fall Only)
• ME 444 Automotive Engines 3 credits (Fall Only)
• ME 445* Automotive Powertrain Design 3 credits (Spring Only)

Plus one course from the following list:

• ME 433 Computational Fluid Dynamics 3 credits (Spring Only)
• ME 442* Turbomachinery 3 credits (Spring Only)

CREDIT DISTRIBUTION: The 12 credits in the concentration will be applied to the Senior Elective requirement (including the “design intensive” course component). Completion of the concentration will be noted on the final transcript.

The asterisk (*) signifies that the course is design intensive.