

Transmission Overview

CME 3093 (0.8 CEUs)

Objective

The objective of this course is to provide the students with a basic understanding of the transmission. The transmission's role in matching the engine characteristics to the vehicle requirements, manual transmissions, automatic transmissions, automated manual transmissions, will be discussed. Other areas include dual clutch transmissions, continuously variable transmissions, infinitely variable transmissions, electric hybrid transmissions, 4WD transfer cases, AWD transfer cases, plus the advantages and disadvantages of each.

Description

This 1 day live seminar is designed to familiarize the participant with the function of a transmission and the various types of transmissions and transfer cases currently available.

Topics Covered

1. Engine/Vehicle matching
2. Manual transmissions
3. Automated manual transmissions
4. Automatic transmissions
5. Dual Clutch transmissions
6. Continuously variable transmissions
7. Infinitely variable transmissions
8. Electric hybrid transmissions
9. 4WD transfer cases
10. AWD transfer cases

Prerequisite

BSME or equivalent

Course Material

Provided by instructor

Target Audience

This course is intended for engineers of all disciplines, scientists, and other technical personnel who are involved in automotive powertrain specification, design or testing.

Who should Attend

Vehicle Designers, Entry level Engineers and Designers, Account Representatives, Manufacturing and Quality personnel who need to understand the relative merits of the many different transmissions available to the modern passenger car or truck. This is not a theoretical or "high-level" engineering class and not intended for experienced Powertrain engineers.

Instructor

R. Haka, Adjunct, Engineering Professional Development

Continuing Education Units

A total of 0.8 CEUs will be awarded to each participant who completes the program. The CEU is a nationally recognized means of tracking non-credit continuing education development. It confirms participation in a structured professional development activity or course work. One CEU is awarded for 10 hours of completed activity or course work. A permanent record of each attendee's participation is maintained in the Office of the Registrar at the University of Michigan-Dearborn.



Register

Engineering Professional Development

Phone: 313-593-0938; Fax: 313-593-4070

URL: <http://www.engin.umd.umich.edu/EPD/seminars.php>

Email: tceccare@umich.edu