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TRACK COURSES:

THE AUTOMOTIVE ENGINEERING MASTERS PROGRAM OVERVIEW:

1- T1 Vehicle Materials and Structures Mechanics

* AuE 853 - Crash Analysis Methods and Crashworthiness
* AuE 855 - Structural/Thermal Analysis Methods for Automotive Structure, Systems, and Components
AuE 866 - Advanced Materials for Automotive Applications

2- T2 Vehicle Electronics, Mechatronics and Computer Systems

AuE 835 - Vehicle Electronics Integration – A Process Chain Prospective (C4)
AuE 826 - On Board Diagnostics and Reliability
AuE 827 - Automotive Control Systems Design

3- T3 Vehicle Design and Integration, Methods and Tools

AuE 846 -Tire Behavior and its influence on Vehicle Performance
AuE 847 - Vehicle Suspension Systems Design and Analysis
* AuE 849 - Automotive Chassis Design
* AuE 875 - Vehicle Development and Realization
AuE 877 - Light-weight Vehicle Systems Design
* AuE 884 - Body and Interior Design
* AuE 885 - Vehicle Layout Engineering and Ergonomic Design

4- T4 Vehicle Manufacturing and Production

AuE 833 - Automotive Manufacturing Process Development, Methods and Tools (C2)
AuE 867 - Vehicle Manufacturing Processes I
AuE 868 - Vehicle Manufacturing Processes II

5- T5 Vehicle Performance (Vehicle Physics)

AuE 832 - Vehicle Development and Integration Processes, Methods and Tools (C1)
AuE 850 - Automotive Stability and Safety Systems
* AuE 805 - Ground Vehicle Aerodynamics
* AuE 886 - Vehicle Noise, Vibration and Harshness
** AuE 887 - Methods for Vehicle Testing

6- T6 Vehicle Power Systems and Transmission

AuE 816 - Engine Combustion and Emissions
AuE 817 - Alternative Energy Sources
AuE 828 - Fundamentals of Drivelines and power-train Integration

7- Cross Listings will be identified

ME 893/AuE 893 Advanced Vehicle Dyanmics
TBD

8- Special Topics in Automotive Engineering

AuE 893

Examples Groudning and Shielding
Lean Manufacturing & Design of Experiment
Industrial Automation
Advanced Engine Combustion and Emission
Signal Processing

9- Internship / Project:

AuE 890

10- Notes and Remarks:

***** Not to be Offered in 2009-2010
** Can be counted in all track courses