



Automotive Mechatronics

Mexico is a manufacturing country, where different companies of automotive industry have based their operations. Thanks to the combination of courses and visits to different assembly plants, our program offers you a complete and unique theoretical-practical approach.

The courses will be taught by different experts and during the visits you will receive continuous feedback and orientation by the professors. You will have the opportunity to visit companies such as Nissan, Ford, Volkswagen and Bombardier, most of them are located in Mexico City but others are in the cities of Veracruz, Celaya, Guanajuato, Querétaro and Aguascalientes.



Academic Program:

Objective of the subject:

To understand how an automobile works as well as to analyze in a systematic way the automobile and all its components: Drive train, Structure, Electronic and Electrical systems and Components design.

Specific Objectives for each subject:

To understand the mechanical principles of a car
To know the history, classification and systems of an engine
To know and understand how the systems for petrol and diesel engines work
To learn the petrol injection systems

Topics of the Course:

- Introduction: Thermodynamic basis, Fluid mechanic basis, Kinematic and dynamic basis, Electricity and magnetism basis, Heat transfer mechanisms.
- Internal combustion engine: History, Classification, Description of the main components, Main systems, Theoretical and real thermodynamic cycles, Motor tests, Thermal balance, Design basics.
- Systems for petrol and diesel engines: Description and analysis of the system for petrol engines, Description and analysis of the system for diesel engines.
- Fuel injection system: Injection, Ignition.

➔ **Language:** Spanish and/or English (depending on the number of participants)

➔ **Date:** June the 07th – July the 05th, 2010

➔ **Location:**





Schedule:

Monday June 07 th	Registration and welcome to the Mexico City Campus (1)
Tuesday June 08 th	Visit to Chrysler plant
Thursday June 10 th	Visit to Autopartes plant
Friday June 11 th	Departure to Veracruz and visit to Reactor Nuclear Plant (2)
Saturday June 12 th	Free day in Veracruz
Sunday June 13 th	Departure to Mexico City
Tuesday June 15 th	Visit to Ford plant
Thursday June 17 th	Visit to an Audi concessionaire in Toluca (3)
Friday June 18 th	Departure to Celaya, visit to General Motor Plant (4)
Saturday June 19 th	Free day in Guanajuato (5)
Sunday June 20 th	Departure to Mexico City
Tuesday June 22 nd	Visit to Volkswagen Plant
Thursday June 24 th	Visit to Febi Group
Friday June 25 th	Departure to Querétaro, visit to Bombardier Plant and free afternoon in Querétaro (6)
Saturday June 26 th	Trip to San Miguel de Allende (optional)
Sunday June 27 th	Departure to Mexico City
Tuesday June 29 th	Visit to confirm
Friday July 02 nd	Visit to confirm
Saturday July 03 rd	Free day in Mexico City
Sunday July 04 th	Free day in Mexico City

The courses will take place in the mornings from Monday to Thursday, some days they could be in the afternoons, depending on the visits.

Companies may cancel the visits at any moment, that is why we have other possibilities just in case it happens.



Cost:

It includes

- One subject
- Teaching material
- Transport to the different visits included in the program
- Hotel accommodation in double room (June 11, 12, 18, 19, 25 and 26)

- Breakfast (June 11, 12, 18, 19, 25 and 26)
- International Health Insurance

It does not include:

- Airplane tickets, accommodation in Mexico City, personal expenses, meals and transport to places not included in the program.
- Student Visa: all students are required to have Student Visa at their arrival to Mexico, for which they can apply when they receive the acceptance letter.
- Registration process of the Student Visa, if applies.

➔ How to apply:

Please follow the process on the next link:

<http://www.ccm.itesm.mx/internacional/solicitud.html>

The deadline for receiving the complete application is April 1st, 2010

➔ Contact:

If you have any further questions, please feel free to contact:

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