

BASIC CYCLE

1st year

Chemistry I
Engineering Drawing
Mathematical Analysis I
Linear Algebra
Introduction to Engineering
Chemistry II
General IT
Mathematical Analysis II
Physics I
Learning Techniques

2nd year

Mechanical Design and
Manufacturing
Introduction to Programming
Mathematical Analysis III
Physics II
Probability and Statistics
Advanced Mathematics I
Physics III
General Mechanics

3rd year

Electrotechnics
Statics
Advanced Mathematics II - Tensor
Analysis
Numerical Methods
Physics IV
General Electronics
Materials Testing
Thermodynamics
Fluid Mechanics
Advanced Strength of Materials

*English level required

PROFESSIONAL CYCLE

4th year

Industrial Organization
Occupational and Environmental Security
Machine Elements
Physical Metallurgy
Heat Transfer
Turbomachinery
Industrial instrumentation and control
Internal combustion engines
Polymeric Materials
Mechanisms
Projects management
Finite Elements I

5th year

Manufacturing Processes I
Hydraulics, pneumatics and Control
Economics for Engineers
Law for Engineers
Industrial Internship

Orientation in Mechatronics

Industrial Electronics
Sensors and actuators
Microprocessors and Control
Industrial Automation
Discrete Control
Mechatronics Systems
Mechatronics Capstone Project

Orientation in Automotive

Electrical Installations
Automotive mechatronics systems
Automotive Structures
Automotive dynamics
Automotive transmissions
Internal Combustion engines design
Automotive Capstone Project

Orientation in Production

Electrical Installations
Air conditioning and refrigeration
Industrial Installations
Deformation and fracture of materials
Manufacturing Processes II
Finite Elements II
Industrial Maintenance
Mechanical Capstone Project

Orientation in Materials

Electrical Installations
Introduction to steel
manufacturing
Physics and mechanics of Steel
Deformation and fracture of
materials
Advanced Materials Lab
Manufacturing Processes II
Structural Integrity
Composite materials technology
Materials Capstone Project