

Semester 5

Language and human Sciences - 5 ECTS - 84h

English
Second language (optional)
Society and environmental responsibility
Business organization
Accountancy
Sport activities

Applied Mathematics - 5 ECTS - 81h

Applied mathematical analysis
Probability and Statistics
Numerical mathematical analysis

Automatic Control 1 - 4 ECTS - 51h

Continuous and sampled automatic control
Discrete automatic control

Electronics 1 - 4 ECTS - 60h

Electrotechnics
Electronics

Design and Manufacturing 1 - 6 ECTS - 81h

Mechanical manufacturing processes 1
Design of mechanisms 1
Strength of materials

Reliability, safety and maintenance of systems - 6 ECTS - 81h

Theoretical model for reliability study
Safety and risks management in industry
Maintenance and diagnostic

Semester 6

Languages and human sciences 2 - 5 ECTS - 73,5h

English
Second language (optional)
Personal communication technics
Engineering culture
Health and security at work
Training by Physical Activites and Sport

Innovation and Creativity - 3 ECTS - 42h

Creativity and Innovation Project

Control and monitoring systems - 6 ECTS - 90h

Industrial and human automatics
Industrial Internet of Things

Information Management Systems - 6 ECTS - 112,5h

Operating system
Data base
Product digital mock-up
Product Lifecycle management

Productions systems - 6 ECTS - 99h

Production Management
Performances assessment
Computer-aided manufacturing

Automation Systems - 4 ECTS - 60h

Methods and models for
Controlling an automated system
Controllers for the control of an automated system

Semester 7

Internship - 30 ECTS - 700h

Semester 8

Languages and Human Sciences 3 - 6 ECTS - 94,5h

English
Second language (optional)
Training by Physical Activities and Sport
Group Communication technics
Intellectual Property
Entrepreneurship
Humans Resources Management

Mathematical tools for production system analysis - 6 ECTS - 120h

Operations research
Signal processing
Statistics
Modelling and simulating Discrete Event System

Data processing for digital factory and logistics 6 ECTS - 108h

Object oriented workflow modelling
Graphical interfaces for simulation and control of flux
Communication networks in digital factory
Security of cyber-physical systems
Artificial Intelligence and Big Data

Humanities and enterprise sciences - 6 ECTS - 82,5h

Occupational psychology
Ergonomics
Financial project management
Econometrics
Lean Manufacturing

Production systems performance - 6 ECTS - 90h

Robotics
Prognostics and health management
Performance indicators and Dashboard

Semester 9

Industrially based group project - 6 ECTS - 120h

Industrially based group project

Foreign languages and human sciences 4 - 4 ECTS - 63h

English
Second language (optional)
Labour law
Project management
Training by Physical Activities and Sports

Elective courses - 3 ECTS - 42h

Elective course n°1
Elective course n°2

Total Common Basis 3A - 13 ECTS - 225h

Design of a flexible cell - 5 ECTS - 60h

Production system management - 4 ECTS - 63h

Enterprise resources planning
Planning and Scheduling
Quality management

Total Common basis IG - 9 ECTS - 123h

E-logistics Axis

Function of the E-logistics - 4 ECTS - 69h

Procurement and distribution in supply chain
E-supply
Integrated management of the supply chain

Tools of the E-logistics - 4 ECTS - 60h

Traceability of the supply chain
Supply chain Optimisation

Digital Factory Axis

Function of the Digital Factory 4 ECTS - 60h

ERP, MES, Supervision

Tools of the Digital Factory - 4 ECTS - 60h

Smart machines
Virtual Commissioning

Total Common basis +IG+E Logistic axis -30 ECTS 477h

Total Common basis + GI + Digital factory axis - 30 ECTS - 468h

Semester 10

Junior engineer training S10 - 30 ECTS - 700h

Junior engineer training