

APPRENTICESHIP 4th YEAR MECHANICAL ENGINEERING

Practical info

Location(s)

 Toulouse

Engineering 1



ECTS
4 crédits



Hourly volume
80h

Practical info

Location(s)



Toulouse

[FRANCAIS] Transmission mécanique



ECTS
6 crédits



Hourly volume
140h

Introducing

Objectives

At the end of this module, the student will have understood and be able to explain (main concepts):
Electrical power transfer and transformation.

The student will be able to:
Calculate electrical powers (DC/AC), induction in magnetic network, Laplace force in electrical machines.

Necessary prerequisites

Practical info

Location(s)

 Toulouse

Innovation and Mechatronics



ECTS

4 crédits



Hourly volume

44h

 Toulouse

Introducing

Objectives

At the end of this module, the student will have understood and be able to explain (main concepts):

- the basic and the key benchmarks regarding industrial property
- the role of the industrial property in the research and development approach and the process of innovation
- the terminology, the basic notions of the patents law

The student will be able to:

- Identify the information contained in a patent
- Get acquainted in the searches for anteriority and in the use of databases patent (Espacenet)
- Build basic requests to verify the state of the technique
- Put into practice the use of the property industrial as strategic tool for an innovative company
- Make decisions concerning industrial property : legal elements, diversity of the strategic choices, financial stakes, partnership agreements, damages of the counterfeiting
- Develop a strategy of protection of an innovation

Practical info

Location(s)

Conduct a meeting



ECTS

4 crédits



Hourly volume

60h

Introducing

Objectives

At the end of this module, the student will have understood and be able to explain (main concepts):

ENGLISH (25 teaching hours)

The main characteristics of business English, and specialised English

The skills required to pass the TOEIC test

CONDUCT A MEETING (15 hours teaching hours)

At the end of this module, the student will have understood and be able to explain (main concepts):

- Different types of meetings.
- The role of the chairperson
- The different stages of a meeting
- How to put it all together
- The principles of the interpersonal communication.
- The golden rules of group participation
- Managing stress and emotions
- Written summaries, briefs and reports

The student will be able to:

ENGLISH

- Communicate with English speakers (written and spoken English) in a professional context
- Deal with professional issues in relations with their specialization (written and spoken English)
- Understand written and spoken documents in relation with business life (TOEIC)

CONDUCT A MEETING

- Chairing a meeting efficiently from a management position
- Defining objectives and adapting the approach
- Applying his/her knowledge and personal approach to highlight his/her savoir faire and savoir être.
- Adopting the role of chairperson whilst insuring group dynamics.
- Creating varied visual documents

Necessary prerequisites

ENGLISH: B1 level minimum

CONDUCT A MEETING: none

Practical info

Location(s)



Toulouse

Apprenticeship 5



ECTS
6 crédits



Hourly volume

Introducing

Objectives

The apprentice should be able to:

- integrate and adapt to the company's project
- get involved in the work (initiatives, deepening)
- solve open industrial problems
- learn on their own.

Practical info

Location(s)



Toulouse

Apprenticeship 6



ECTS

6 crédits



Hourly volume

10h

Introducing

Objectives

The apprentice should be able to

- define an innovative project for the company

Beyond the technical achievement, the apprentice must also be able to:

- define the characteristics of a project and the challenges of project management, deal with the management of deadlines, costs, quality, human resources, communication, risks and purchases, present the techniques for conducting meeting.
- Put into practice the use of industrial property as a strategic tool for an innovative company

Practical info

Location(s)



Toulouse

Fluids Mechanics and Heat transfert 2



ECTS
6 crédits



Hourly volume
78h

Practical info

Location(s)

 Toulouse

Mechanical Vibrations



ECTS
5 crédits



Hourly volume
48h

Introducing

Objectives

At the end of this module, the student will have understood and be able to explain (main concepts):

- fundamentals of control engineering for linear systems in time and frequency domains

The student will be able to:

- by means of computer tools, design a controller that ensures a set of performance requirements for a given process

Practical info

Location(s)



Toulouse

Hydraulic machines and Combustion Engineering



ECTS
3 crédits



Hourly volume
50h

Practical info

Location(s)

 Toulouse

Improve your management abilities



ECTS

4 crédits



Hourly volume

44h

Introducing

Objectives

ENGLISH

At the end of this module, the student will be able to:

- * Understand and summarise technical documents in English (written and oral) linked to mechanical engineering
- * Learn and apply technical vocabulary linked to mechanical engineering
- * Present a technical subject in mechanical engineering

MARKETING, LAW, FINANCE

- ¿ Know the legal environment and responsibilities of a business activity
- ¿ Be able to objectively assess the financial health of a company and evaluate the rentability of an investment
- ¿ Conduct a market diagnosis (benchmarking) and a business diagnosis in order to make decisions and set goals and strategies
- ¿ Collect market data and put into action a business plan adapted to the means and goals of the company

LAW: None

FINANCIAL MANAGEMENT: Studied the « accountancy and financial analysis course »

Practical info

Location(s)

 Toulouse

Necessary prerequisites

ENGLISH: B1 level minimum

WORKING RELATIONS WITH ANGLO/AMERICANS:
None

Apprenticeship 7



ECTS
6 crédits



Hourly volume
2h

Introducing

Objectives

The apprentice should be able to

- get involved in the company's project
- solve open industrial problems
- plan and manage your work
- team working
- open up to other technological fields.

Practical info

Location(s)

 Toulouse

Apprenticeship 8



ECTS

6 crédits



Hourly volume

15h

Introducing

Objectives

- Active skills : Students work on a case study prepared by the teacher. (main aspects: service provider with a growing market, requiring a larger network of agencies to develop capital)
- work groups (teams of 2 or 3 members)
- Elaboration of an economical report to be shown and commented on in front of a share holders committee
- Discussions with trainer during course
- Use of a business plan software

Practical info

Location(s)



Toulouse