



## Introduction

The program " Corporate Decision Support " aims to show through simulations and case studies decision-making practices in companies and to train engineers to make decisions in a collective context for a global performance. It will also help to understand the processes and systems that improve companies management and their key performance indicators, whether organizational or economic.

## Semester

S09

## Programme

## Learning Outcomes

- Be able to design and optimise a decision process
- Understand all dimensions of management
- Be able to assess financial and strategic impact of managerial decision

## Employment Sectors

Consultant, product manager, business manager, project manager, market analyst, finance analyst

## Requirements

## Assesment

Case studies and business game

## Option Website

## Additional Information



## SIMULATION DE DÉCISIONS OPÉRATIONNELLES

### PROCESS SIMULATION

Lecturers: Sylvie MIRA , Emmanuel BOUTLEUX

| Lecturers : 12.0 | TC : 0.0 | PW : 0.0 | Autonomy : 0.0 | Study : 32.0 | Project : 0.0 | Language : FR

### Objectives

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The main objective is to model information flows within an organization (production system, logistics platform, administration, communication network, ...). Whether designing or analyzing an organization, the evaluation phase is an unavoidable step. Indeed, before making often heavy investments, it is imperative to ensure that the solutions envisaged meet the objectives. This course provides training on both the principles and tools of mathematical analysis and simulation tools for the specification, modeling and evaluation of information flows.

This course will focus on practical applications of Petri nets modeling and event simulation software such as

**Keywords :** Information flows analysis, operationnal simulation and optimisation

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### Programme

Methods and concepts explanation  
Simulation on Petri networks within Witness software

### Learning outcomes

- Be able to use behaviour based models
- Be able to analyse a flow model
- Be able to use model results for decision

### Independent study

**Objectifs :** Competence acquisition on model and software

**Méhodes :** Group work on software

### Core texts

### Assessment

Group work on projet



## FINANCE ET MARCHÉS

### BUSINESS GAME

Lecturers: Sylvie MIRA

| Lecturers : 12.0 | TC : 0.0 | PW : 0.0 | Autonomy : 0.0 | Study : 24.0 | Project : 0.0 | Language : FR

### Objectives

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The course aims to bring deep insights of commercial and financial key performance indicators and competencies to design decision support tools for financial and commercial strategy

**Keywords :** key performance indicators, customer relationship management, corporate strategy

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### Programme

- Corporate finance
- Commercial strategy

### Learning outcomes

- Be able to design key performance indicators (KPI)
- Be able to understand KPI to plan actions

### Independent study

**Objectifs :** Group work on KPI for corporate decision making

**Méthodes :** Case studies

### Core texts

### Assessment

Case studies



## PILOTAGE ET MANAGEMENT

### DECISION SUPPORT SYSTEMS

Lecturers: Sylvie MIRA

| Lecturers : 16.0 | TC : 0.0 | PW : 0.0 | Autonomy : 0.0 | Study : 0.0 | Project : 0.0 | Language : FR

#### Objectives

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The course aims to place the students in a situation of decision-making in a company by working on their cognitive process and to give them the keys to designing and implementing management systems.

**Keywords :** Cognitive process, risks, management

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#### Programme

- Cognitiv process
- Risk / decision anaysis
- Management and dashboard

#### Learning outcomes

- Understand cognitive process activated in decision making
- Design a financial dashboard
- Assess financial impact of strategic decision

#### Independent study

**Objectifs :** Work group to understand analysed processes

**Méhodes :** Case studies

#### Core texts

SELMER, C., *CONCEVOIR LE TABLEAU DE BORD*, DUNOD, 2015

#### Assessment

Case studies



## PROJET ADE

### PROJECT

Lecturers: Sylvie MIRA

| Lecturers : 0.0 | TC : 50.0 | PW : 0.0 | Autonomy : 0.0 | Study : 0.0 | Project : 0.0 | Language : FR

### Objectives

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Keywords :

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#### Programme

Customised program to each project

#### Learning outcomes

- Be able to analyse an company's issue
- Be able to collect relevant data from technical aspects, markets and context
- Be able to implement a prospectiv analysis
- Be able to communicate clear and justified solutions

#### Independent study

Objectifs : Be able to bring within 3 monts a solution to a company's issue

Méhodes : Group work

#### Core texts

#### Assessment