



South-Eastern Finland  
University of Applied Sciences

**From 27<sup>th</sup> May to 14<sup>th</sup> June 2019**

**5 ECTS**

**in Xamk Kouvola Campus**

## **Enterprise Resource Planning (ERP)**

***Prof. Alessandro Spano, Italy***

### **Course Description**

Companies, both private and public, need to focus on the management and optimization of key processes. To this end, it is essential to manage data of various kinds and to govern information flows from different business areas, both within and outside the company. Enterprise Resource Planning (ERP) allows these processes to be facilitated. A significant number of medium and large companies use ERP systems and even small companies are starting to be interested in their implementation. For these reasons, the course deals with the theme of ERPs, focusing on their implementation in the business environment and their managerial implications.

The course will provide the basic elements of ERP systems and the knowledge for choosing the most suitable system for the specific company. In addition, the course will address the topic of critical issues related to the introduction of an ERP system and will deepen the elements that favor the success of an ERP project. The course will analyse the new developments of ERPs systems and their integration with new technologies, such as Big Data, Internet of Things, Machine Learning and Blockchain.

### **Learning outcomes**

- Owning an overall view of business processes
- Knowing how to manage and integrate internal and external information flows among the various organizational units and among the various corporate functions
- Knowing and applying the technical terminology related to the ERP systems
- Learning the basic concepts of the ERP systems for manufacturing, service and public companies
- Understanding the importance of integrating data from different sources
- Being able to analyze the basic features of ERP systems

- Analyzing the main benefits and critical aspects of ERP systems
- Knowing the critical success factors for the introduction of an ERP system

The expected learning outcomes can also be interpreted according to the following Dublin Descriptors, according to the following scheme:

#### **1) Knowledge and understanding.**

The course improves the knowledge and the ability to understand the business processes and the fundamental methods and tools of integration between different data sources and allows the acquisition of a language that is typical of the scope of company information systems.

#### **2) Applying knowledge and understanding.**

The course allows students to apply the fundamental concepts of information systems integrated from a business perspective and provides the basic knowledge to compare the characteristics of different systems. In particular, students will be able to support the processes of choosing between different information systems, in relation to their characteristics and the needs of specific companies.

#### **3) Making judgements.**

The course improves the ability to interpret the data provided by corporate information systems, with a view to supporting the decisions of top management. This autonomy will be achieved through the combination of transmission of knowledge and concrete applications to business cases.

#### **4) Communication skills.**

Students will be encouraged to intervene during lectures, discuss cases and applications. Furthermore, the course helps to improve students' communication skills through the realization and presentation of group works.



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## 5) Learning skills.

The course develops the skills necessary to take further exams, in particular related to company information systems and those related to decision support systems. In addition, the knowledge acquired during the course will enable students to profitably face other post-graduate training courses and/or in-depth study in a corporate setting.

## Prerequisites

There are no particular prerequisites to attend the course. However, it is useful to know the basic elements of business economics such as, in particular, the corporate functions and the interaction between them.

## Course Content

1. Corporate information systems
2. The emergence of integrated information systems: from MRPs to ERPs
3. The concept of integration in information systems
4. Integrated information systems: features and purposes
5. The architecture and characteristics of ERP systems
6. ERP systems and business processes
7. The main components of ERP systems and the relationships between them
8. The benefits produced by ERP systems
9. The critical issues arising from the introduction of an ERP system
10. The organizational implications of ERP systems
11. Integrated information systems and Business Intelligence systems
12. The new frontiers of integration in information systems (Internet of Things, Machine Learning, Blockchain, etc.).

The course combines interactive lessons and case studies. Classroom discussions are an integral part of the learning process and will be stimulated throughout the course.

A final written test will be administered at the end of the course (see next section).

## Assesment

### Learning is verified through:

- A written test articulated in open questions on the topics of the program, in which students must demonstrate adequate knowledge and properly apply the principles and methods of the ERP systems and their corporate implications. This part will account for 75% of the overall evaluation, with individual evaluation assigned to each student.
- Presentation of a group work developed by the students. This part will account for 25% of the overall evaluation, with collective evaluation assigned to all the components of each working group.

### A pass mark ranges:

- from 18/30: for a level of elementary knowledge of the subject, that is when the student only manages to frame the issue of integrated information systems and demonstrates just enough knowledge of the topics of the program in the written test and sufficiently contributes to the group work, with just enough mastery of language.
- to 30/30, with possible praise, if the student is able to systematize in a logical and coherent manner the knowledge that is supposed to have acquired during the course and is able to support the analysis with an excellent elaboration of the concepts expressed and an adequate mastery of technical and economic language.

Consistently with the descriptors identified in the training objectives, the following will be evaluated:

1. The clarity in expressing the theoretical contents (assessment of knowledge and understanding);
2. The ability to re-elaborate the concepts and to explain them, also through the comparison with the real cases dealt with in the classroom or deepened by the student in an individual way (evaluation ability to apply knowledge and understanding);
3. The ability to adequately interpret the knowledge and skills acquired in reference to ERP systems (assessment of independence of judgment);
4. The clarity of the exposition, the ability to synthesize and the mastery in the application of the acquired knowledge in relation to the information systems integrated in the business environment (evaluation of communication skills);



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5. The ability to apply the basic characteristics of ERP systems and to deepen the related implications with reference to the specific characteristics of the business context (assessment of learning skills).

## **Suggested Readings**

### **Main**

1. Monk Ellen F. and Wagner Bret J. (2013), Concepts in Enterprise Resource Planning, International Edition, 4th edition, with companion web site

### **Additional reading**

2. Kurbel Karl E. (2013), Enterprise Resource Planning and Supply Chain Management, Springer.

Students will be provided with additional material, such as further reading and exercises and the slides used during the lectures.