

FACULTY OF **ENGINEERING**

DEGREE COURSE: **INDUSTRIAL ENGINEERING BS**

**SUBJECT:** INDUSTRIAL MECHANICAL SYSTEMS

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## **OBJECTIVES**

The course is aimed at:

- 1) providing students with the most significant general criteria and the correspondent analytical methods for the selection, design and management of industrial mechanical plants.
- 2) providing students with the basic knowledge of feasibility study, identification and selection of different typologies of productive systems, layout design, internal transports, methods for projects scheduling, basic principles of reliability and maintenance.

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## **CONTENTS**

As for the services the following topics will be treated:

- the basic elements of piping and the general criteria for the design of water systems, from its supply to use;
- thermal plants (heating plants and production and distribution of technological steam plants);
- dust reduction systems
- reliability and maintenance of plants
- elements of safety and security of plants.

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## **LEARNING OUTCOMES**

At the end of the course the students will:

- Have basic knowledge of investment decisions;
- Have basic knowledge of plants design;
- Have the ability and competencies sufficient for solving specific problems related to the productive manufacturing system and services

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## **ASSESSMENT**

Written exam: multiple choice and open questions

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## RECOMMENDED TEXTBOOKS

Making. Wiley

R.L. Francis, J.A. White - *Facility layout and location: an analytical approach*. Prentice – Hall Inc. , New Jersey

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