

Academic Year: (2023 / 2024)

Review date: 19-05-2022

Department assigned to the subject: Materials Science and Engineering and Chemical Engineering Department

Coordinating teacher: MERCADER UGUINA, JESUS RAFAEL

Type: Compulsory ECTS Credits : 3.0

Year : 1 Semester : 1

REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

It is recommended to possess basic knowledge on prevention of occupational risks.

OBJECTIVES

- * Understand the meaning and the need to ensure hygienic working conditions.
- * Know the fundamentals of the health labour and the research of diseases.
- * Acquire the General knowledge on the different systems of measurement and control of the various exhibitions.
- * Have the ability to evaluate processes and work methods, from the point of view of possible generation and issuance of agents and other factors potentially harmful in order to eliminate exposure or reduce it to acceptable levels.
- * Be able to define the dangerousness and possible systems of protection against the risk of contamination by chemical agents. Know the specific measuring systems.
- * Be able to define the dangerousness and possible systems of protection against the risk of contamination by physical agents. Know the specific measuring systems.
- * Be able to define the dangerousness and possible systems of protection against the risk of contamination by biological agents. Know the specific measuring systems.
- * Identify the agents and factors that may have an impact on the environment and understand the need of integrating the practice of occupational health with protection of the environment.

DESCRIPTION OF CONTENTS: PROGRAMME

1. Occupational Health: Basic concepts and objectives.
2. Chemical agents: Definition and general concepts. Identification. Classification, packaging and labelling criteria. Toxicology. Routes of entry, risks arising from exposure and damage to health.
3. Physical agents: noise. Definition and general concepts. Identification, damage to health and risks arising from exposure.
4. Physical agents: vibrations. Definition and general concepts. Identification, damage to health and risks arising from exposure.
5. Physical agents: radiation. Definition, general concepts, radiation classification and electromagnetic spectrum. Identification, damage to health and risks arising from exposure.
6. Chemical agents: Definition and general concepts. Identification. Classification, packaging and labelling criteria. Toxicology. Entry routes, risks arising from exposure and damage to health.
7. Biological agents: definition and general concepts. Routes of entry, risks arising from exposure and damage to health. Identification and classification of biological agents.
8. General hazardous waste management concepts.

LEARNING ACTIVITIES AND METHODOLOGY

* Master classes in which the fundamental conceptual content that the student must acquire are developed. Therefore in addition to advise the necessary manuals and a specific bibliography for the specific subjects to be provided at the beginning of the semester, will be provided in advance the

student materials prepared by the teacher to the deeper issues and a better follow-up of the explanations. These materials will serve to introduce the debate and discussion topics that have more interest for both teacher and the students themselves.

ASSESSMENT SYSTEM

*The assessment of continuous academic performance will make up 60% of the grade. To do this, we will carry out case studies, workshops, fieldwork and seminars in which the student's skill in the management of documentation, the ability to solve and apply quick, correct and effective responses presented to him and the skill in finding solutions will be assessed.

*The final exam that will be a test on specific issues will be 40% of the note. This type-test will not have less than 75 questions that will increase depending on the subjects. A student who has not given up enough in the internship to have passed them per course must take a practical exam that will be assessed globally with the test grade. This will help to verify that the student has acquired the established competencies.

PERCENTAGE WEIGHT FINAL EXAM: 40%

PERCENTAGE WEIGHT CONTINUOUS EVALUATION: 60%

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| % end-of-term-examination: | 40 |
| % of continuous assessment (assignments, laboratory, practicals...): | 60 |