Course guide
33109 - SARNMP - Advanced Seminar on Natural Resources as Raw Materials

Last modified: 28/04/2025

Unit in charge: Manresa School of Engineering
Teaching unit: 750 - EMIT - Department of Mining, Industrial and ICT Engineering.

Degree: MASTER'S DEGREE IN NATURAL RESOURCE ENGINEERING (Syllabus 2015). (Optional subject).

Academic year: 2025 **ECTS Credits:** 5.0 **Languages:** Catalan, Spanish, English

LECTURER

Coordinating lecturer: Busquets Rubio, Pere
Parcerisa Duocastella, David

Others:

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:
1. To design a process to minimise a pollutant, a waste material or a type of pollution.

TEACHING METHODOLOGY

Lectures, conferences, debates and forums will be given in the face-to-face mode for the supply of basic knowledge.

In the non-face-to-face mode, classes will be held online and teaching material will be uploaded to the digital campus.

In both modalities, a research project will be carried out. This will be tutored by one of the subject's teachers throughout the semester. In the end it will have to be exposed publicly.

LEARNING OBJECTIVES OF THE SUBJECT

To become familiar with the problems associated with the exploitation of natural resources and their application in industry, construction and society in general.

To provide students with the advanced knowledge of researchers working in areas related to sustainable exploitation.

STUDY LOAD

Type	Hours	Percentage
Hours large group	30,0	66.67
Hours medium group	15,0	33.33

Total learning time: 45 h

CONTENTS

-DESCRIPTION

Description:
1. Geological materials for obtaining energy
. Fossil fuels
. Water
. Other

2. Industrial geological materials for the metallurgical and chemical industry
. Minerals
. Rocks
. Carbon, petroleum and natural gas
. Other

Full-or-part-time: 45h
Theory classes: 30h
Practical classes: 15h

GRADING SYSTEM

For both modalities, the assessment will be as follows:
- Written test (20%)
- The tutored work of the subject (40%)
- Tasks for the different subjects of the subject (40%)

The following criteria will be taken into account in the tutored work:
a) Evaluation of the documentation obtained: relevance and treatment of the information.
b) Memory evaluation.
c) Evaluation of the public exhibition.

BIBLIOGRAPHY

Basic:
- MacKay, David J. C. Sustainable energy: without the hot air [on line]. Cambridge: UIT, 2009 [Consultation: 30/05/2022]. Available on: https://ebookcentral-proquest-com.recursos.biblioteca.upc.edu/lib/upcatalunya-ebooks/detail.action?docID=4782654. ISBN 9781906860011.
- Craig, James R.; Skinner, Brian J.; Vaughan, David J. Resources of the earth: origin, use and environmental impact [on line]. 3rd ed. Upper Saddle River: Prentice Hall, 2001 [Consultation: 07/10/2025]. Available on: https://www-ingebook-com.recursos.biblioteca.upc.edu/ib/NPcd/IB_BooksVis?cod_primaria=1000187&codigo_libro=1222. ISBN 0130834106.
- Consejo de las Comunidades Europeas. "Reglamento (CE) nº 1907/2006 del Parlamento Europeo y del Consejo de 18 de diciembre de 2006". Diario Oficial de la Unión Europea [on line]. 30 diciembre 2006, no. L 396, p. 1-852 [Consultation: 21/12/2020]. Available on: https://www.boe.es/doue/2006/396/L00001-00852.pdf.- Craig, James R; García del Amo, Dolores; García Rodríguez, Manuel; Calvo Pérez, Benjamín; Skinner, Brian J; Vaughan, David J. Recursos de la tierra y el medio ambiente [on line]. Cuarta edición. Madrid: Pearson, 2012 [Consultation: 07/10/2025]. Available on: https://www-ingebook-com.recursos.biblioteca.upc.edu/ib/NPcd/IB_BooksVis?cod_primaria=1000187&codigo_libro=1222. ISBN 9788415552178.