Course guide
330345 - NRM - New Mineral Resources

Unit in charge: Manresa School of Engineering
Teaching unit: 750 - EMIT - Department of Mining, Industrial and ICT Engineering.
Degree: MASTER'S DEGREE IN MINING ENGINEERING (Syllabus 2013). (Optional subject).
Academic year: 2022  ECTS Credits: 5.0  Languages: Spanish, English

LECTURER

Coordinating lecturer: Hoffmann Sampaio, Carlos

Others:

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:
1. (ENG) Capacitat per planificar, dissenyar i gestionar instal·lacions de tractaments de recursos minerals.
2. (ENG) Coneixement adequat de la tecnologia d'explotació de recursos minerals.

Transversal:
3. SUSTAINABILITY AND SOCIAL COMMITMENT - Level 3. Taking social, economic and environmental factors into account in the application of solutions. Undertaking projects that tie in with human development and sustainability.
4. TEAMWORK - Level 3. Managing and making work groups effective. Resolving possible conflicts, valuing working with others, assessing the effectiveness of a team and presenting the final results.
5. EFFECTIVE USE OF INFORMATION RESOURCES - Level 3. Planning and using the information necessary for an academic assignment (a final thesis, for example) based on a critical appraisal of the information resources used.

TEACHING METHODOLOGY

The course consists of 1 hour a week of master classes in the classroom, 1 hour a week also in the classroom in which it is developed aspects more applications and problem solving, and 1 hour a week in the computer classroom.

LEARNING OBJECTIVES OF THE SUBJECT

Obtaining advanced knowledge in technologies to manage, plan, and design the search and technology for new sources of mining resources, to obtain products that meet the needs of society.

STUDY LOAD

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Hours medium group</td>
<td>45,0</td>
<td>36.00</td>
</tr>
<tr>
<td>Self study</td>
<td>80,0</td>
<td>64.00</td>
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Total learning time: 125 h
CONTENTS

Title of content 1: Mineral concentration equipment. Review.

Description:
Description of the methods and processes of mineral concentration: Comminution and granulometric classification; Density separation; Magnetic and electrostatic separation; Floatation; Leaching; Other concentration processes.

Full-or-part-time: 33h 18m
Theory classes: 12h
Self study : 21h 18m

Content title 2: Description and comparison of mineral treatment plants.

Description:
Description of mineral concentration plants and comparison of the equipment used.

Full-or-part-time: 91h 42m
Theory classes: 33h
Self study : 58h 42m

ACTIVITIES

Title of activity 1: Comparison of flow charts of mineral treatment plants.

Full-or-part-time: 33h
Theory classes: 3h
Self study: 30h

Title of activity 2: Written work and oral presentation.

Full-or-part-time: 4h
Guided activities: 4h

GRADING SYSTEM

The different activities carried out throughout the course will be evaluated, as well as a final project. The distribution will be:

- Preparation and presentation of a final project and its defense: 100%.

EXAMINATION RULES.

Other generic previous skills and qualities are required and applicable to any activity within the university academic environment, such as the spirit of sacrifice, neatness, the ability to synthesize, teamwork, respect for other colleagues and the teacher, constancy, etc.
BIBLIOGRAPHY

Basic:

Complementary: