Course guide
330408 - PM - Mineral Processing

Last modified: 04/05/2023

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

Degree: BACHELOR'S DEGREE IN MINING ENGINEERING (Syllabus 2016). (Compulsory subject).

Academic year: 2023 **ECTS Credits:** 9.0 **Languages:** Catalan, Spanish

LECTURER

Coordinating lecturer: Oliva Moncunill, Josep

Others:

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:
1. (ENG) Disseny, operació i manteniment de plantes de preparació i tractament de minerals, roques industrials, roques ornamentals i residus.
2. (ENG) Disseny, operació i manteniment de plantes de fabricació de materials de construcció.

Transversal:
3. SELF-DIRECTED LEARNING - Level 1. Completing set tasks within established deadlines. Working with recommended information sources according to the guidelines set by lecturers.
4. EFFECTIVE USE OF INFORMATI0N RESOURCES - Level 1. Identifying information needs. Using collections, premises and services that are available for designing and executing simple searches that are suited to the topic.

TEACHING METHODOLOGY

LEARNING OBJECTIVES OF THE SUBJECT

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STUDY LOAD

Type	Hours	Percentage
Hours medium group	90,0	40.00
Self study	135,0	60.00

Total learning time: 225 h

CONTENTS

title english

Description:
content english

Full-or-part-time: 60h
Theory classes: 12h
Laboratory classes: 12h
Self study : 36h

title english

Description:
content english

Full-or-part-time: 90h
Theory classes: 18h
Laboratory classes: 18h
Self study : 54h

title english

Description:
content english

Full-or-part-time: 30h
Theory classes: 6h
Laboratory classes: 6h
Self study : 18h

title english

Description:
content english

Full-or-part-time: 45h
Theory classes: 9h
Laboratory classes: 9h
Self study : 27h

ACTIVITIES

name english

Full-or-part-time: 45h
Laboratory classes: 15h
Self study: 30h

name english

Full-or-part-time: 22h
Theory classes: 2h
Self study: 20h

name english

Full-or-part-time: 46h
Practical classes: 6h
Self study: 40h

GRADING SYSTEM

BIBLIOGRAPHY

Basic:

- Gupta, A.; Yan, D. S. Mineral processing design and operation: an introduction [on line]. Amsterdam: Elsevier, 2006 [Consultation: 10/06/2022]. Available on: https://www-sciencedirect-com.recursos.biblioteca.upc.edu/book/9780444516367/mineral-processing-design-and-operation. ISBN 0444516360.
- Sillano, Mª Isabel; Perez Rojas, J. Diccionario de mineria: inglés-español-inglés [on line]. Santiago de Chile: RIL, 2010 [Consultation: 27/05/2022]. Available on: https://ebookcentral-proquest-com.recursos.biblioteca.upc.edu/lib/upcatalunya-ebooks/detail.action?docID=3204151. ISBN 9789562847353.
- Wills, B. A.; Finch, J. A. Mineral processing technology: an introduction to the practical aspects of ore treatment and mineral recovery [on line]. 8th ed. Oxford: Butterworth-Heinemann, 2015 [Consultation: 10/06/2022]. Available on: https://www-sciencedirect-com.recursos.biblioteca.upc.edu/book/9780750644501/wills-mineral-processing-technology. ISBN 9780080970530.
- King, R. P. Modeling and simulation of mineral processing systems [on line]. 2nd ed. Englewood: Society for Mining, Metallurgy and Exploration, 2012 [Consultation: 26/07/2022]. Available on: https://www-sciencedirect-com.recursos.biblioteca.upc.edu/book/9780080511849/modeling-and-simulation-of-mineral-processing-systems. ISBN 9780873353458.

Complementary:

- NATO Advanced Study Institute on Mineral Processing Design; Yarar, Baki; Dogan, Z.M. Mineral processing design. Dordrecht: Nijhoff, 1987. ISBN 90-247-3472-X.
- Kelly, Errol G.; Spottiswood, David J. Introducción al procesamiento de minerales. México: Limusa, 1990. ISBN 9681833376.
- Lynch, J. A.; Rowland, C. A. History of grinding [on line]. Littleton: Society for Mining, Metallurgy, and Exploration, 2005 [Consultation: 27/05/2022]. Available on: https://ebookcentral-proquest-com.recursos.biblioteca.upc.edu/lib/upcatalunya-ebooks/detail.action?docID=464593. ISBN 9780873352819.
- Weiss, Norman L., ed. SME mineral processing handbook [on line]. New York: Society of Mining Engineers of the American Institute of Mining, Metallurgical, and Petroleum Engineers, 1985 [Consultation: 14/06/2022]. Available on: https://ebookcentral-proquest-com.recursos.biblioteca.upc.edu/lib/upcatalunya-ebooks/detail.action?pq-origsite=primo&docID=655790. ISBN 0-89520-433-6.
- Abouzeid, A. Z. M. Mineral processing laboratory manual. Clausthal-Zellerfel: Trans Tech, 1990. ISBN 0-87849-082-5.
- Wills, B. A.. Tecnología de procesamiento de minerales: tratamiento de menas y recuperación de minerales. México D.F.: Limusa, 1987. ISBN 9681819861.
- Drelich, Jaroslaw, ed. Water in mineral processing [on line]. Englewood: Society for Mining, Metallurgy, and Exploration, 2012 [Consultation: 25/11/2022]. Available on: https://search-ebscohost-com.recursos.biblioteca.upc.edu/login.aspx?direct=true&AuthType=ip,uid&db=nlebk&AN=439490&site=ehost-live&ebv=EB&ppid=pp_Cover. ISBN 9780873353496.

- Fueyo Casado, Luis. Equipos de trituración, molienda y clasificación: tecnología, diseño y aplicación. 2a ed. Madrid: Rocas y Minerales, 2002. ISBN 8492312823.