

330408 - PM - Mineral Processing

Coordinating unit: 330 - EPSEM - Manresa School of Engineering
 Teaching unit: 750 - EMIT - Department of Mining, Industrial and ICT Engineering
 Academic year: 2019
 Degree: BACHELOR'S DEGREE IN MINING ENGINEERING (Syllabus 2016). (Teaching unit Compulsory)
 ECTS credits: 9 Teaching languages: Catalan, Spanish

Teaching staff

Coordinator: Oliva Moncunill, Josep

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:

4. EFFECTIVE USE OF INFORMATION 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.
3. SELF-DIRECTED LEARNING - Level 1. Completing set tasks within established deadlines. Working with recommended information sources according to the guidelines set by lecturers.

Learning objectives of the subject

Study load

Total learning time: 225h	Hours large group:	0h	0.00%
	Hours medium group:	90h	40.00%
	Hours small group:	0h	0.00%
	Guided activities:	0h	0.00%
	Self study:	135h	60.00%

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Content

title english	Learning time: 60h Theory classes: 12h Laboratory classes: 12h Self study : 36h
Description: content english	
title english	Learning time: 90h Theory classes: 18h Laboratory classes: 18h Self study : 54h
Description: content english	
title english	Learning time: 30h Theory classes: 6h Laboratory classes: 6h Self study : 18h
Description: content english	
title english	Learning time: 45h Theory classes: 9h Laboratory classes: 9h Self study : 27h
Description: content english	

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Planning of activities

name english	Hours: 45h Laboratory classes: 15h Self study: 30h
name english	Hours: 22h Theory classes: 2h Self study: 20h
name english	Hours: 46h Practical classes: 6h Self study: 40h

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Bibliography

Basic:

Gupta, A.; Yan, D. S. Mineral processing design and operation: an introduction [on line]. Amsterdam: Elsevier, 2006 [Consultation: 07/02/2018]. Available on: <https://discovery.upc.edu/iii/encore/record/C__Rb1425962?lang=cat>. ISBN 0444516360.

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: 07/02/2018]. Available on: <https://discovery.upc.edu/iii/encore/record/C__Rb1426100?lang=cat>. ISBN 9780080970530.

King, R. P. Modeling and simulation of mineral processing systems. 2nd ed. Englewood: Society for Mining, Metallurgy and Exploration, 2012. ISBN 9780873353458.

Sillano, M^a Isabel; Perez Rojas, J. Diccionario de minería: inglés-español-inglés [on line]. Santiago de Chile: RIL, 2010 [Consultation: 07/02/2018]. Available on: <https://discovery.upc.edu/iii/encore/record/C__Rb1445240?lang=cat>. ISBN 9789562847353.

Complementary:

Kelly, Errol G.; Spottiswood, David J. Introducción al procesamiento de minerales. México: Limusa, 1990. ISBN 9681833376.

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. Englewood: Society for Mining, Metallurgy, and Exploration, 2012. ISBN 9780873353496.

Lynch, J. A.; Rowland, C. A. History of grinding. Littleton: Society for Mining, Metallurgy, and Exploration, 2005. ISBN 9780873352819.

Weiss, Norman L., ed. SME mineral processing handbook. New York: Society of Mining Engineers of the American Institute of Mining, Metallurgical, and Petroleum Engineers, 1985. ISBN 0-89520-433-6.

NATO Advanced Study Institute on Mineral Processing Design; Yarar, Baki; Dogan, Z.M. Mineral processing design. Dordrecht: Nijhoff, 1987. ISBN 90-247-3472-X.

Abouzeid, A. Z. M. Mineral processing laboratory manual. Clausthal-Zellerfel: Trans Tech, 1990. ISBN 0-87849-082-5.

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