



Course guide

330423 - TPM - Technology of Mining Exploration

Last modified: 25/04/2024

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).
BACHELOR'S DEGREE IN MINERAL RESOURCE ENGINEERING AND MINERAL RECYCLING (Syllabus 2021). (Compulsory subject).
BACHELOR'S DEGREE IN ENVIRONMENTAL ENGINEERING / BACHELOR'S DEGREE IN MINERAL RESOURCE ENGINEERING AND MINERAL RECYCLING (Syllabus 2024). (Compulsory subject).
BACHELOR'S DEGREE IN MINERAL RESOURCE ENGINEERING AND MINERAL RECYCLING / BACHELOR'S DEGREE IN ENVIRONMENTAL ENGINEERING (Syllabus 2024). (Compulsory subject).

Academic year: 2024 **ECTS Credits:** 4.5 **Languages:** Catalan

LECTURER

Coordinating lecturer: Alfonso Abella, Maria Pura
Others: Calvo Torralba, Daniel
Parcerisa Duocastella, David

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

- Specific:**
1. (ENG) Tècniques de perforació aplicades a obres subterrànies i superficials.
 2. (ENG) Tècniques de mostreig.
 3. (ENG) Tecnologia de la prospecció geofísica i geoquímica.
 4. (ENG) Modelitzacions de jaciments.

TEACHING METHODOLOGY

LEARNING OBJECTIVES OF THE SUBJECT

STUDY LOAD

Type	Hours	Percentage
Hours medium group	45,0	40.00
Self study	67,5	60.00

Total learning time: 112.5 h



CONTENTS

title english

Description:

content english

Full-or-part-time: 20h

Theory classes: 8h

Self study : 12h

title english

Description:

content english

Full-or-part-time: 18h

Theory classes: 5h

Laboratory classes: 2h

Self study : 11h

title english

Description:

content english

Full-or-part-time: 34h 30m

Theory classes: 8h

Laboratory classes: 7h

Self study : 19h 30m

title english

Description:

content english

Full-or-part-time: 40h

Theory classes: 8h

Laboratory classes: 8h

Self study : 24h

ACTIVITIES

name english

Full-or-part-time: 5h

Laboratory classes: 2h

Self study: 3h

name english

Full-or-part-time: 15h

Laboratory classes: 6h

Self study: 9h

name english

Full-or-part-time: 15h

Laboratory classes: 6h

Self study: 9h

name english

Full-or-part-time: 10h

Self study: 6h

Theory classes: 4h

GRADING SYSTEM

BIBLIOGRAPHY

Basic:

- Azcárate, J. E. Introducción a la metodología de investigación minera. Madrid: IGME, 1982. ISBN 8460026876.
- Bustillo Revuelta, M.; López Jimeno, C. Recursos minerales: tipología, prospección, evaluación, explotación, mineralurgia, impacto ambiental. Madrid?: [s.n.], DL 1996. ISBN 8492170808.
- Chaussier, J. B.; Morer, J. Manuel du prospecteur minier. Orleans: BRGM, 1981. ISBN 2715900082.
- Kearey, P.; Brooks, M.; Hill, I. An introduction to geophysical exploration. 3rd ed. Oxford: Blackwell, 2002. ISBN 0632049294.
- Orche García, E. Manual de evaluación de yacimientos minerales. Madrid: Carlos López Jimeno, 1999. ISBN 8492170891.
- Rossi, Mario E.; Deutsch, Clayton V. Mineral resource estimation [on line]. Dordrecht [etc.]: Springer, cop. 2014 [Consultation: 31/05/2022]. Available on: <https://ebookcentral-proquest-com.recursos.biblioteca.upc.edu/lib/upcatalunya-ebooks/detail.action?docID=6314881>. ISBN 9781402057168.
- Higuera, P.; Oyarzun, R.. Prospección geoquímica [on line]. Almadén: Universidad de Castilla-La Mancha, [Consultation: 17/12/2020]. Available on: <https://es.scribd.com/document/228974862/Prospeccion-geoquimica-oyarzun>.