

Course guide

330418 - MDT - Ground Modelling

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).

Academic year: 2024 **ECTS Credits:** 6.0 **Languages:** Catalan

LECTURER

Coordinating lecturer: Sanmiquel Pera, Lluís

Others:

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:

1. (ENG) Coneixements d'un software que permeti fer operacions de modelització d'un terreny, d'un software de restitució d'imatges generades per drons, així com conceptes bàsics d'anàlisi territorial aplicats en la modelització d'un terreny a través de l'ArcGis 3DAnalyst Tools.

Transversal:

2. SUSTAINABILITY AND SOCIAL COMMITMENT - Level 2. Applying sustainability criteria and professional codes of conduct in the design and assessment of technological solutions.
3. TEAMWORK - Level 2. Contributing to the consolidation of a team by planning targets and working efficiently to favor communication, task assignment and cohesion.
4. SELF-DIRECTED LEARNING - Level 2: Completing set tasks based on the guidelines set by lecturers. Devoting the time needed to complete each task, including personal contributions and expanding on the recommended information sources.
05 TEQ N3. 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.

TEACHING METHODOLOGY

LEARNING OBJECTIVES OF THE SUBJECT

STUDY LOAD

Type	Hours	Percentage
Hours medium group	60,0	40.00
Self study	90,0	60.00

Total learning time: 150 h



CONTENTS

title english

Description:

content english

Full-or-part-time: 16h

Laboratory classes: 8h

Self study : 8h

title english

Description:

content english

Full-or-part-time: 26h

Laboratory classes: 10h

Self study : 16h

title english

Description:

content english

Full-or-part-time: 18h

Laboratory classes: 8h

Self study : 10h

title english

Description:

content english

Full-or-part-time: 34h

Laboratory classes: 10h

Self study : 24h

title english

Description:

content english

Full-or-part-time: 26h

Laboratory classes: 10h

Self study : 16h



title english

Description:

content english

Full-or-part-time: 30h

Laboratory classes: 14h

Self study : 16h

ACTIVITIES

name english

Full-or-part-time: 18h

Laboratory classes: 4h

Self study: 14h

name english

Full-or-part-time: 10h

Laboratory classes: 2h

Self study: 8h

GRADING SYSTEM

BIBLIOGRAPHY

Basic:

- Estruch Serra, Miquel. Topografía aplicada a obras de ingeniería. Barcelona: EPSEM, 1992.
- Martín Morejón, Luís. Topografía y replanteos. Vol. 1. Barcelona: Luís Martín Morejón, 1987. ISBN 8440405367.
- Martín Morejón, Luís. Topografía y replanteos. Vol. 2. Barcelona: Luís Martín Morejón, 1988. ISBN 8440405367.
- Sanmiquel Pera, Lluís. Métodos planimétricos: radiación, itinerario, intersección [on line]. Manresa: EPSEM, 2003 [Consultation: 13/11/2020]. Available on: <http://hdl.handle.net/2117/11639>. ISBN 9788469411254.
- Sanmiquel Pera, Lluís. Gestión del territorio y espacios subterráneos. Manresa: EPSEM, 2015.
- Santos Preciado, José Miguel. Sistemas de información geográfica [on line]. Madrid: Universidad Nacional de Educación a Distancia, 2004 [Consultation: 25/11/2022]. Available on: <https://lectura-unebook-es.recursos.biblioteca.upc.edu/viewer/9788436276169>. ISBN 8436220064.

Complementary:

- Estruch Serra, Miquel; Tapia Gómez, Anna. Topografía subterránea para minería y obras [on line]. Barcelona: Edicions UPC, 2003 [Consultation: 17/12/2020]. Available on: <http://hdl.handle.net/2099.3/36635>. ISBN 8483016729.
- García-Tejero, Dominguez Francisco. Topografía general y aplicada. 13ª ed. Madrid: Mundi-Prensa, 1998. ISBN 8471147211.