

330424 - H - Hidrogeology

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: 6 Teaching languages: Catalan

Teaching staff

Coordinator: Font Soldevila, Jose

Degree competences to which the subject contributes

Specific:

1. (ENG) Conèixer la climatologia com a primer eslavó de la cadena del cicle de l'aigua.
2. (ENG) Saber com es comporta l'aigua superficial que serà l'element que repercutirà en l'aigua subterrània.
3. (ENG) Comprendre la hidrogeoquímica i qualitat de l'aigua subterrània.
4. (ENG) Conèixer el comportament de l'aigua subterrània.
5. (ENG) Què s'ha de fer per captar l'aigua subterrània.

Transversal:

6. 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.
7. EFFICIENT ORAL AND WRITTEN COMMUNICATION - Level 3. Communicating clearly and efficiently in oral and written presentations. Adapting to audiences and communication aims by using suitable strategies and means.

Learning objectives of the subject

Study load

| | | | |
|---------------------------|---------------------|-----|--------|
| Total learning time: 150h | Hours large group: | 0h | 0.00% |
| | Hours medium group: | 60h | 40.00% |
| | Hours small group: | 0h | 0.00% |
| | Guided activities: | 0h | 0.00% |
| | Self study: | 90h | 60.00% |

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Content

| | |
|---------------------------------|--|
| title english | Learning time: 40h Theory classes: 6h Laboratory classes: 4h Self study : 30h |
| Description: content english | |
| title english | Learning time: 60h Theory classes: 15h Laboratory classes: 15h Self study : 30h |
| Description: content english | |
| title english | Learning time: 50h Theory classes: 9h Laboratory classes: 11h Self study : 30h |
| Description: content english | |

Planning of activities

| | |
|--------------|---|
| name english | Hours: 20h Theory classes: 20h |
| name english | Hours: 28h Laboratory classes: 10h Self study: 18h |
| name english | Hours: 22h Theory classes: 4h Laboratory classes: 8h Self study: 10h |

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Bibliography

Basic:

Comisión docente, Curso Internacional de Hidrología Subterránea. Hidrogeología: conceptos básicos de hidrología subterránea. Barcelona: Fundación Centro Internacional de Hidrología Subterránea, 2009. ISBN 9788492146918.

Complementary:

López Jimeno, Carlos, ed.. Manual de sondeos. Vol. 1, Tecnología de perforación. Madrid: l'autor, 2006. ISBN 8496140180.

Custodio, Emilio; Llamas, Manuel Ramón, eds. Hidrología subterránea. 2a ed. corr. Barcelona: Omega, 2001. ISBN 8428204462.

Bourgoyne, Adam T. Applied drilling engineering. Richardson: Society of Petroleum Engineers, 1986. ISBN 9781555630010.

Younger, Paul L.; Banwart, Steven A.; Hedin, Robert S. Mine water: hydrology, pollution, remediation. Dordrecht: Kluwer Academic Publishers, 2002. ISBN 140200138X.

Others resources: