

## 330341 - GAB - Landfills Management

Coordinating unit: 330 - EPSEM - Manresa School of Engineering  
 Teaching unit: 750 - EMIT - Department of Mining, Industrial and ICT Engineering  
 Academic year: 2019  
 Degree: MASTER'S DEGREE IN MINING ENGINEERING (Syllabus 2013). (Teaching unit Optional)  
 ECTS credits: 5 Teaching languages: Catalan, Spanish

### Teaching staff

Coordinator: Oliva Moncunill, Josep

Others: Tomasa Guix, Oriol,  
 Calvo Torralba, Daniel,  
 Oliveras Mejías, Jordi

### Degree competences to which the subject contributes

Specific:

1. (ENG) Capacitat per a planificar, dissenyar i gestionar abocadors.

Transversal:

2. SUSTAINABILITY AND SOCIAL COMMITMENT - Level 3. Taking social, economic and environmental factors into account in the application of solutions. Undertaking projects that tie in with human development and sustainability.
3. 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.

### Learning objectives of the subject

### Study load

Total learning time: 125h	Hours large group:	0h	0.00%
	Hours medium group:	45h	36.00%
	Hours small group:	0h	0.00%
	Guided activities:	0h	0.00%
	Self study:	80h	64.00%

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### Content

<p>(ENG) Títol del contingut 1: Classificació dels residus.</p>	<p>Learning time: 45h Theory classes: 8h 12m Laboratory classes: 8h 12m Self study : 28h 36m</p>
<p>Description: (ENG) Classificació dels residus. Normatives.</p> <p>Related activities: (ENG) Classe magistral de conceptes bàsics, classes de grup petit de problemes on s'apliquen els coneixements presentats.</p>	
<p>(ENG) Títol del contingut 2: Tipologies d'abocadors.</p>	<p>Learning time: 20h Theory classes: 3h 30m Laboratory classes: 3h 30m Self study : 13h</p>
<p>Description: (ENG) Tipologies. Tipus d'abocadors. Construcció de l'abocador.</p> <p>Related activities: (ENG) Classe magistral de conceptes bàsics, classes de grup petit de problemes on s'apliquen els coneixements presentats.</p>	
<p>(ENG) Títol del contingut 3: Tecnologies de processament dels residus.</p>	<p>Learning time: 50h Theory classes: 9h Laboratory classes: 9h Self study : 32h</p>
<p>Description: (ENG) Tecnologies de processament. Tècniques físiques i químiques. Sistemes tèrmics.</p> <p>Related activities: (ENG) Classe magistral de conceptes bàsics, classes de grup petit de problemes on s'apliquen els coneixements presentats.</p>	

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(ENG) Títol del contingut 4: Gestió d'abocadors.	Learning time: 10h Theory classes: 1h 48m Laboratory classes: 1h 48m Self study : 6h 24m
Description: (ENG) Gestió d'abocadors.  Related activities: (ENG) Classe magistral de conceptes bàsics, classes de grup petit de problemes on s'apliquen els coneixements presentats.	

### Planning of activities

(ENG) TÍTOL DE L'ACTIVITAT 1: DISSENY D'ABOCADORS.	Hours: 30h Laboratory classes: 15h Self study: 15h
(ENG) TÍTOL DE L'ACTIVITAT 2: EXAMEN ESCRIT TEÒRIC	Hours: 32h Theory classes: 2h Self study: 30h
(ENG) TÍTOL DE L'ACTIVITAT 3: EXAMEN ESCRIT PRÀCTIC	Hours: 43h Practical classes: 8h Self study: 35h

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### Bibliography

#### Basic:

Kreith, Frank; Tchobanoglous, George, eds. Handbook of solid waste management [on line]. 2nd ed. New York: McGraw-Hill, 2002 [Consultation: 02/02/2018]. Available on: <<https://sanitarac.pro/wp-content/uploads/2017/07/Solid-Waste-Management.pdf>>. ISBN 0071356231.

Velinni, Albert A., ed. Landfill research trends. New York: Nova Science Publishers, 2007. ISBN 9781600217760.

Bagchi, Amalendu. Design of landfills and integrated solid waste management. New York: Wiley, 2004. ISBN 0471254991.

Worrell, W. A.; Vesilind, P. Aarne. Solid waste engineering. 2nd ed. Stamford: Cengage Learning, 2012. ISBN 9781439062173.

Blight, Geoffrey. Geotechnical engineering for mine waste storage facilities. Boca Raton: CRC Press, 2010. ISBN 9780415468282.

#### Complementary:

Bagchi, Amalendu. Design, construction, and monitoring of landfills. 2nd ed. New York: J. Wiley, 1994. ISBN 0471306819.

Temple, G.; McCollough, R.; Thompson, F.; Sommers, R. "Landfills, a partial solution to solid waste management". Extension circular - Pennsylvania State University, Agricultural Extension Service. Jan 1990 no. 380.

Lutton, R. J.; Regan, G. L.; Jones, L. W. Design and construction of covers for solid waste landfills [on line]. Cincinnati: Environmental Protection Agency, Office of Research and Development, Municipal Environmental Research Laboratory, 1979 [Consultation: 02/02/2018]. Available on: <<http://babel.hathitrust.org/cgi/pt?id=mdp.39015007374179;view=1up;seq=1>>.