



Course guide

330469 - IAIRE - Environmental Impact and Restoration

Last modified: 22/11/2024

Unit in charge: Manresa School of Engineering
Teaching unit: 750 - EMIT - Department of Mining, Industrial and ICT Engineering.

Degree: BACHELOR'S DEGREE IN MINERAL RESOURCE ENGINEERING AND MINERAL RECYCLING (Syllabus 2021). (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:** 6.0 **Languages:** Catalan

LECTURER

Coordinating lecturer: Bascompta Massanès, Marc

Others:

TEACHING METHODOLOGY

LEARNING OBJECTIVES OF THE SUBJECT

The student must know the legislation and management of environmental impact studies (EIA) and restoration and closure projects of extractive activities and excavations, both open pit and underground.

The goal is to guide the students in understanding the environmental, technical, economic, and social concepts needed to develop an environmental impact study and a restoration program.

STUDY LOAD

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

Total learning time: 150 h

CONTENTS

EIA AND ENVIRONMENTAL PREVENTION AND CONTROL LEGISLATION APPLIED TO EXTRACTIVE ACTIVITIES

Description:

A description of the regulations on Environmental Impact Assessment and those that directly affect projects related to the restoration and integration of extractive and excavation activities. Especially all that related to environmental impact studies, restoration programs and the prevention and environmental control of activities.

Full-or-part-time: 14h

Theory classes: 14h



DEFINITION OF THE INITIAL STATE OF THE LAND AFFECTED BY THE ACTIVITY

Description:

Development of a detailed study on all environmental and social aspects that are present on the land and its immediate surroundings prior to the start of the activity.

Full-or-part-time: 10h

Theory classes: 10h

DETAILED STUDY OF THE ACTIVITY WITH SPECIAL EMPHASIS ON ENVIRONMENTAL ASPECTS AND THE DETECTION OF THEIR IMPACT ON THE ENVIRONMENT

Description:

Identification and evaluation of the effects caused by the activity on the environment.

Full-or-part-time: 10h

Theory classes: 10h

DETERMINATION OF MEASURES TO BE TAKEN TO ELIMINATE/ REDUCE THE EFFECTS ON THE ENVIRONMENT

Description:

Methods and technological advances that can be applied to eliminate harmful effects on the environment and society in general.

Full-or-part-time: 8h

Theory classes: 8h

RESTORATION AND CLOSURE PROJECT FOR THE LAND RECOVERY

Description:

Content and development of the restoration and closure project to integrate the land affected by the extractive activity into the environment.

Full-or-part-time: 10h

Theory classes: 10h

ACTIVITIES

VISIT TO AN ACTIVE MINING SITE

Description:

Practice to be carried out in an active mining operation where restoration works have been carried out and where the measures taken during the mining operation can be observed, both in the extraction area and in the industrial facilities.

Full-or-part-time: 8h

Guided activities: 8h

INDIVIDUAL EVALUATION TEST 1

Full-or-part-time: 2h

Theory classes: 2h



INDIVIDUAL EVALUATION TEST 2

Full-or-part-time: 2h

Theory classes: 2h

GRADING SYSTEM

BIBLIOGRAPHY

Basic:

- Manual de restauración de terrenos y evaluación de impactos ambientales en minería. Madrid: Instituto Tecnológico Geominero de España, 2004. ISBN 8478400192.
- Elias i Castells, Xavier. Reciclaje de residuos industriales : residuos sólidos urbanos y fangos de depuradora. 2ª ed. Madrid: Díaz de Santos, 2009. ISBN 9788479788353.
- Ayala Carcedo, F. J. Estabilidad de taludes en la minería de hullas y antracitas a cielo abierto de España. Madrid: Instituto Geológico y Minero de España, 1988. ISBN 8478400001.
- Tratamiento funcional y paisajístico de taludes artificiales. Madrid: Universidad Politécnica de Madrid, 1983. ISBN 8460032612.

Complementary:

- The afterlives of extraction : alternatives and sustainable futures [on line]. [Consultation: 10/12/2024]. Available on: <https://brill.com/display/title/64309>. ISBN 978- 90- 04- 68618- 2.