

COURSE NAME

Name: **CONSTRUCTION PROCEDURES**

Code: 101200

Curriculum: **DEGREE IN ENERGY ENGINEERING AND MINERAL RESOURCES**

Year: 2

Name of the module to which it belongs: COMMON MODULE FOR THE MINING BRANCH

Subject: CONSTRUCTION PROCEDURES AND PROJECTS

Nature: OBRIGATORY Duration: SECOND SEMESTER

ECTS Credits: 3

Classroom hours: 30

Face-to-face classroom percentage: 40%

Non-contact hours: 45

FACULTY DETAILS

Name: BRAVO MÁRQUEZ, MANUEL JOSÉ (Coordinator)

Department: RURAL ENGINEERING

Area: CONSTRUCTION ENGINEERING

Location of the office: ESCUELA POLITÉCNICA DE BELMEZ

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SKILLS

- CB1 Have and understand specific knowledge of the field of study of mining engineering.
- CB2 Have and understand current and cutting-edge knowledge of the field of mining engineering.
- CB3 Be able to apply the knowledge acquired in professional contexts and to elaborate and defend arguments in the field of knowledge of mining engineering.
- CB4 Solve problems within the study area of Mining Engineering.
- CEC14 Knowledge of construction procedures

OBJECTIVES

For the student to learn the machinery and construction procedure for earthworks, the machinery and procedure for extracting and treating natural and recycled aggregates, the machinery and procedures for manufacturing and installing concrete and the machinery and procedures for manufacturing and installing bituminous mixtures.

CONTENTS:

1. Theoretical contents

Block I - Machinery and procedures for extracting and treating natural and recycled aggregates

TOPIC 1 - Installations of natural and recycled aggregates

Block II - General concepts of earthworks

TOPIC 2 - Earthworks

UNIT 3 - General considerations of earth moving machinery

TOPIC 4 - Yields and production

Block III - Machinery and construction procedures for earthworks and road surfaces

TOPIC 5 - Excavation equipment, pushing equipment and loading equipment.

TOPIC 6 - Excavation, loading and hauling machinery

TOPIC 7 - Levelling machinery and compacting machinery

TOPIC 8 - Soil stabilizing machinery

Block IV - Machinery and procedures for manufacturing and installing bituminous mixtures

TOPIC 9 - Facilities for manufacturing and installing bituminous mixtures

Block V - Machinery and procedures for manufacturing and installing concrete
UNIT 10 - Facilities for manufacturing and installing concrete

2. Practical contents.

- Numerical problem solving
- Searching for machinery on the market and comparison of yields and costs
- Analysis of construction procedure and material manufacturing (group work)