Course guide
240613 - 240613 - Technological and Scientific Development in Antiquity. Egypt and Middle East

Unit in charge: Barcelona School of Industrial Engineering
Teaching unit: 713 - EQ - Department of Chemical Engineering.
Degree: BACHELOR'S DEGREE IN INDUSTRIAL TECHNOLOGY ENGINEERING (Syllabus 2010). (Optional subject).
Academic year: 2022
ECTS Credits: 3.0
Languages: Spanish

LECTURER
Coordinating lecturer: FRANCISCO JAVIER GIMENEZ IZQUIERDO
Others: FRANCISCO JAVIER GIMENEZ IZQUIERDO

TEACHING METHODOLOGY
The teacher will develop theoretical explanations as well as practical examples. In addition, the teacher will guide different works for homework. Active learning as well as Cooperative learning will be extensively used.

LEARNING OBJECTIVES OF THE SUBJECT
At the end of the course, the student should be able to:
- Describe the evolution of the ancient Mediterranean civilizations at the Bronze Age
- Identify funerary monuments depending on the place and the time
- Identify the materials used in the antiquity in pigments, glass objects and jewels.
- Describe the commercial routes in the ancient Mediterranean
- Identify the metals used in the Bronze Age and their application

STUDY LOAD

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Hours large group</td>
<td>30,0</td>
<td>40.00</td>
</tr>
<tr>
<td>Self study</td>
<td>45,0</td>
<td>60.00</td>
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</tbody>
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Total learning time: 75 h

CONTENTS

1) INTRODUCTION

Description:
1.1 Myth, science and technology: the mythical discourse
1.2 The Mediterranean Neolithization and the Myth of Osiris
1.3 The Urban Revolution in Mesopotamia
1.4 The start of pharaonic Egypt

Full-or-part-time: 5h
Theory classes: 2h
Self study: 3h
2) ANCIENT EGYPTIAN CIVILIZATION

Description:
2.1 The egyptology: from Cleopatra VII until today
2.2 Ancient Egyptian writing
2.3 History of the Ancient Egypt

Full-or-part-time: 15h
Theory classes: 6h
Self study: 9h

3) TECHNOLOGY OF THE FUNERARY PRACTICES: pyramids, tombs and mummies

Description:
3.1 Building and function of Egyptian pyramids. The Great Pyramid at Giza
3.2 The Valley of the Kings (VoK)
3.3 Mummification
   The reasons
   The process
   Paleopathology
   New Kingdom Royal Mummies

Full-or-part-time: 12h 30m
Theory classes: 5h
Self study: 7h 30m

4) ANCIENT DECORATIVE ARTS

Description:
4.1 Ancient pigments and colors
4.2 The 'Egyptian Blue'
4.3 The industry of glass in Egypt and Mesopotamia

Full-or-part-time: 12h 30m
Theory classes: 5h
Self study: 7h 30m

5) TRADE ROUTES AND PRODUCTS

Description:
5.1 Oriental Mediterranean trade route: glass, Egyptian blue and copper
5.2 Orient trade route: lapislázuli and tin
5.3 The African trade route: obsidian

Full-or-part-time: 12h 30m
Theory classes: 5h
Self study: 7h 30m
### 6) METALLURGY IN THE ANCIENT MEDITERRANEAN WORLD

**Description:**
6.1 Copper and arsenical copper  
6.2 Bronze and the "Mistery of Tin"  
6.3 Provenance analysis

**Full-or-part-time:** 12h 30m  
Theory classes: 5h  
Self study : 7h 30m

### 7) TROY AND THE END OF THE BRONZE AGE

**Description:**
7.1 Trojan War  
7.2 The Sea Peoples  
7.3 The end of the Bronze Age

**Full-or-part-time:** 5h  
Theory classes: 2h  
Self study : 3h

### GRADING SYSTEM

**EXAMINATION RULES.**

Written exams with books.

### BIBLIOGRAPHY

**Basic:**