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

Coordinating unit: 240 - ETSEIB - Barcelona School of Industrial Engineering
Teaching unit: 713 - EQ - Department of Chemical Engineering
Academic year: 2015
Degree: BACHELOR'S DEGREE IN INDUSTRIAL TECHNOLOGY ENGINEERING (Syllabus 2010). (Teaching unit Optional)
BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (Syllabus 2010). (Teaching unit Optional)
BACHELOR'S DEGREE IN MATERIALS ENGINEERING (Syllabus 2010). (Teaching unit Optional)
ECTS credits: 3
Teaching languages: Catalan, Spanish

Teaching staff
Coordinator: 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>Total learning time: 75h</th>
<th>Hours large group: 0h</th>
<th>0.00%</th>
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<tbody>
<tr>
<td></td>
<td>Hours medium group: 20h</td>
<td>26.67%</td>
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<td></td>
<td>Hours small group: 10h</td>
<td>13.33%</td>
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<td></td>
<td>Guided activities: 0h</td>
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<td>Self study: 45h</td>
<td>60.00%</td>
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<table>
<thead>
<tr>
<th>Content</th>
<th>Learning time</th>
<th>Description</th>
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</table>
| **1) INTRODUCTION** | 5h | Theory classes: 2h  
Self study : 3h |
| **Description:** | | 1. Myth, science and technology; the mythical discourse  
1.2 The Mediterranean Neolithization  
1.3 The Urban Revolution in Mesopotamia  
1.4 The Bronze Age |
| **2) ANCIENT EGYPTIAN CIVILIZATION** | 15h | Theory classes: 6h  
Self study : 9h |
| **Description:** | | 2.1 The egyptology  
2.2 Geography and Symbology  
2.3 Ancient Egyptian writing  
2.4 History of the Ancient Egypt |
| **3) TECHNOLOGY OF THE FUNERARY PRACTICES** | 12h 30m | Theory classes: 5h  
Self study : 7h 30m |
| **Description:** | | 3.1 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 |
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<th>Module</th>
<th>Description</th>
<th>Learning time</th>
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<tbody>
<tr>
<td>4) ANCIENT DECORATIVE ARTS</td>
<td><strong>Description:</strong> 4.1 Ancient pigments and colors 4.2 The 'Egyptian Blue' 4.3 Faience 4.4 Glass</td>
<td><strong>Learning time:</strong> 12h 30m Theory classes: 5h Self study: 7h 30m</td>
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<tr>
<td>5) MINERALS IN THE ANCIENT WORLD</td>
<td><strong>Description:</strong> 5.1 Lapis lazuli 5.2 Obsidian</td>
<td><strong>Learning time:</strong> 12h 30m Theory classes: 5h Self study: 7h 30m</td>
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<tr>
<td>6) METALLURGY IN THE ANCIENT MEDITERRANEAN WORLD</td>
<td><strong>Description:</strong> 6.1 Copper 6.2 Arsenical copper and bronze 6.3 Gold 6.4 Provenance analysis</td>
<td><strong>Learning time:</strong> 12h 30m Theory classes: 5h Self study: 7h 30m</td>
</tr>
<tr>
<td>7) TROY AND THE END OF THE BRONZE AGE</td>
<td><strong>Description:</strong> 7.1 Trojan War 7.2 The Sea Peoples 7.3 The end of the Bronze Age</td>
<td><strong>Learning time:</strong> 5h Theory classes: 2h Self study: 3h</td>
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Qualification system

The final qualification will be the result of different exams:
N1, N2, N3 written exams during the course
NM Homework
NAA Different tasks which will be made by the students as homework

Final qualification: 0.2*N1 + 0.2*N2 + 0.2*N3 + 0.2* NM + 0.2*NAA

Regulations for carrying out activities

Written exams without books.

Bibliography

Others resources: