820063 - PRL - Prevention of Occupational Hazards

Coordinating unit: 295 - EEBE - Barcelona East School of Engineering
Teaching unit: 717 - EGE - Department of Engineering Presentation
Academic year: 2016
Degree: BACHELOR’S DEGREE IN ENERGY ENGINEERING (Syllabus 2009). (Teaching unit Optional)
BACHELOR’S DEGREE IN ELECTRICAL ENGINEERING (Syllabus 2009). (Teaching unit Optional)
BACHELOR’S DEGREE IN INDUSTRIAL ELECTRONICS AND AUTOMATIC CONTROL ENGINEERING (Syllabus 2009). (Teaching unit Optional)
BACHELOR’S DEGREE IN BIOMEDICAL ENGINEERING (Syllabus 2009). (Teaching unit Optional)
BACHELOR’S DEGREE IN CHEMICAL ENGINEERING (Syllabus 2009). (Teaching unit Optional)
BACHELOR’S DEGREE IN MECHANICAL ENGINEERING (Syllabus 2009). (Teaching unit Optional)
ECTS credits: 6
Teaching languages: Catalan, Spanish

Teaching staff
Coordinator: SERGIO GÓMEZ GONZÁLEZ
Others: SERGIO GÓMEZ GONZÁLEZ

Prior skills
None.

Requirements
None.

Degree competences to which the subject contributes

Specific:
1. Summarise information and undertake self-directed learning activities.
2. Apply regulations and standards based on sound criteria.

Transversal:
6. SELF-DIRECTED LEARNING - Level 3. Applying the knowledge gained in completing a task according to its relevance and importance. Deciding how to carry out a task, the amount of time to be devoted to it and the most suitable information sources.
3. EFFICIENT ORAL AND WRITTEN COMMUNICATION - Level 3. Communicating clearly and efficiently in oral and written presentations. Adapting to audiences and communication aims by using suitable strategies and means.

Teaching methodology
During the contact hours (large group in the classroom) methodology is used exhibition.

Learning objectives of the subject
The overall objective of the course is to provide students with a basic knowledge of safety management system under the current law and Royal Decrees (RD) in the area of risk prevention and health.
### Study load

<table>
<thead>
<tr>
<th>Total learning time: 150h</th>
<th>Hours large group:</th>
<th>60h</th>
<th>40.00%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hours medium group:</td>
<td>0h</td>
<td>0.00%</td>
</tr>
<tr>
<td></td>
<td>Hours small group:</td>
<td>0h</td>
<td>0.00%</td>
</tr>
<tr>
<td></td>
<td>Guided activities:</td>
<td>0h</td>
<td>0.00%</td>
</tr>
<tr>
<td></td>
<td>Self study:</td>
<td>90h</td>
<td>60.00%</td>
</tr>
</tbody>
</table>
### Content

<table>
<thead>
<tr>
<th>Item 1. The security and preconceptions of PRL</th>
<th>Learning time: 10h</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description:</strong></td>
<td>Theory classes: 4h</td>
</tr>
<tr>
<td>Introduction to the prevention of occupational hazards.</td>
<td>Self study : 6h</td>
</tr>
<tr>
<td><strong>Related activities:</strong></td>
<td></td>
</tr>
<tr>
<td>Study of law laborals risk prevention.</td>
<td></td>
</tr>
<tr>
<td>Information INSHT i others.</td>
<td></td>
</tr>
<tr>
<td>Exercises and case studies.</td>
<td></td>
</tr>
<tr>
<td>Directed activities: management of risk prevention.</td>
<td></td>
</tr>
<tr>
<td><strong>Specific objectives:</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item 2. Risk analysis and techniques.</th>
<th>Learning time: 10h</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description:</strong></td>
<td>Theory classes: 4h</td>
</tr>
<tr>
<td>Risk analysis and applicable technical and reactive.</td>
<td>Self study : 6h</td>
</tr>
<tr>
<td><strong>Related activities:</strong></td>
<td></td>
</tr>
<tr>
<td>Study and application of methods of risk assessment, accident investigation and application of statistical techniques.</td>
<td></td>
</tr>
<tr>
<td>Exercises and case studies.</td>
<td></td>
</tr>
<tr>
<td>Management activities directed risk prevention.</td>
<td></td>
</tr>
<tr>
<td><strong>Specific objectives:</strong></td>
<td></td>
</tr>
</tbody>
</table>
### Item 3. Workplace Safety I

**Description:**
Specialty safety at work.

**Related activities:**
- Study jobs, EPIS and signaling.
- Exercises and case studies.
- Activities: management of risk prevention.

**Specific objectives:**

**Learning time:**
- Theory classes: 4h
- Self study: 6h

### Item 4. Safety at Work II.

**Description:**
Safety at Work II.

**Related activities:**
- Prevention study of forest fires, confined spaces, etc. ..
- Exercises and case studies
- Directed activities: management of risk prevention.

**Specific objectives:**

**Learning time:**
- Theory classes: 4h
- Self study: 6h
### Item 5. Safety at Work III.

**Learning time:** 10h  
- Theory classes: 4h  
- Self study: 6h

**Description:**  
Safety at Work III.

**Related activities:**  
- Exercises and case studies  
- Directed activities: management of risk prevention

**Specific objectives:**  


**Learning time:** 10h  
- Theory classes: 4h  
- Self study: 6h

**Description:**  
Management of risk prevention.

**Related activities:**  
- PRL management for PYME  
- Exercises and case studies  
- Directed activities: management of risk prevention

**Specific objectives:**  
### Item 7. Industrial Hygiene I (chemical and biological environmental risks).

**Learning time:** 10h  
Theory classes: 4h  
Self study: 6h

<table>
<thead>
<tr>
<th>Description:</th>
<th>Chemical and biological environment risk</th>
</tr>
</thead>
</table>
| Related activities: | Exercises and case studies  
Dirigides Activities: Management of risk prevention. |

### Item 8. Industrial Hygiene II (environmental and physical hazards I).

**Learning time:** 10h  
Theory classes: 4h  
Self study: 6h

<table>
<thead>
<tr>
<th>Description:</th>
<th>Physical environmental risks.</th>
</tr>
</thead>
</table>
| Related activities: | Exercises and case studies.  
Directed activities: management of risk prevention. |
### Item 9. Industrial Hygiene II (environmental physical hazards II).

**Description:**
Environmental physical hazards II

**Related activities:**
- Exercises
- Directed activities: management of risk prevention.

**Specific objectives:**
Physical agents such as environmental risk factors. Ionizing radiation. Non-ionizing radiation.

**Learning time:** 10h
- Theory classes: 4h
- Self study: 6h

### Item 10. Psychosociology Labor I.

**Description:**
Psychosociology Labor I.

**Related activities:**
- Exercises
- Directed activities: management of risk prevention.

**Specific objectives:**

**Learning time:** 10h
- Theory classes: 4h
- Self study: 6h

### Item 11. Labor Psychosociology II.

**Description:**
Labor Psychosociology II.

**Related activities:**
- Exercises
- Directed activities: management of risk prevention.

**Specific objectives:**

**Learning time:** 10h
- Theory classes: 4h
- Self study: 6h
Continuous assessment of student work taking into account the practical work, tests (two sets) and directed activity.

Estudio is evaluated and the student's independent work, both onsite and not in person, applied to all training activities:

- Individual assessment in each learning session independent of theoretical. 20%.
- Individual assessment for each practice session. 20%.
- Individual Assessment monograph (directed activity) and 10% generic competition.
- Individual evaluation of two sets theory and practice. 50%.

### Qualification system

**Item 12. Ergonomics I.**

<table>
<thead>
<tr>
<th>Learning time:</th>
<th>17h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theory classes:</td>
<td>3h</td>
</tr>
<tr>
<td>Practical classes:</td>
<td>2h</td>
</tr>
<tr>
<td>Self study:</td>
<td>12h</td>
</tr>
</tbody>
</table>

**Description:**
Ergonomics I.

**Related activities:**
- Exercises
- Directed activities: management of risk prevention.

**Specific objectives:**

**Item 12. Ergonomics II.**

<table>
<thead>
<tr>
<th>Learning time:</th>
<th>17h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theory classes:</td>
<td>3h</td>
</tr>
<tr>
<td>Practical classes:</td>
<td>2h</td>
</tr>
<tr>
<td>Self study:</td>
<td>12h</td>
</tr>
</tbody>
</table>

**Description:**
Ergonomics II.

**Related activities:**
- Exercises
- Directed activities: management of risk prevention.

**Specific objectives:**
Regulations for carrying out activities

Practices and questionnaires must be made by hand (no computer). Directed activities (management of risk prevention and subject to defend) with your computer.

Bibliography

Basic:


Others resources: