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 ELECTRICAL ENGINEERING (Syllabus 2009). (Teaching unit Optional)
BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (Syllabus 2009). (Teaching unit Optional)
BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (Syllabus 2009). (Teaching unit Optional)
BACHELOR'S DEGREE IN BIOMEDICAL ENGINEERING (Syllabus 2009). (Teaching unit Optional)
BACHELOR'S DEGREE IN ENERGY ENGINEERING (Syllabus 2009). (Teaching unit Optional)
BACHELOR'S DEGREE IN INDUSTRIAL ELECTRONICS AND AUTOMATIC CONTROL ENGINEERING (Syllabus 2009). (Teaching unit Optional)
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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 MATERIALS ENGINEERING (Syllabus 2010). (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.
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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>
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<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></td>
<td>Theory classes: 4h</td>
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<tr>
<td></td>
<td>Self study : 6h</td>
</tr>
</tbody>
</table>

**Description:**
Introduction to the prevention of occupational hazards.

**Related activities:**
- Study of law laborals risk prevention.
- Information INSHT i others.
- Exercises and case studies.
- Directed activities: management of risk prevention.

**Specific objectives:**

<table>
<thead>
<tr>
<th>Item 2. Risk analysis and techniques.</th>
<th>Learning time: 10h</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Theory classes: 4h</td>
</tr>
<tr>
<td></td>
<td>Self study : 6h</td>
</tr>
</tbody>
</table>

**Description:**
Risk analysis and applicable technical and reactive.

**Related activities:**
- Study and application of methods of risk assessment, accident investigation and application of statistical techniques.
- Exercises and case studies.
- Management activities directed risk prevention.

**Specific objectives:**
### Item 3. Workplace Safety I

<table>
<thead>
<tr>
<th>Learning time: 10h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theory classes: 4h</td>
</tr>
<tr>
<td>Self study : 6h</td>
</tr>
</tbody>
</table>

**Description:**
Specialty safety at work.

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

**Specific objectives:**

### Item 4. Safety at Work II.

<table>
<thead>
<tr>
<th>Learning time: 10h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theory classes: 4h</td>
</tr>
<tr>
<td>Self study : 6h</td>
</tr>
</tbody>
</table>

**Description:**
Safety at Work II.

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

**Specific objectives:**
### 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).**

**Description:**
Chemical and biological environment risk

**Related activities:**
Exercises and case studies
Directed Activities: Management of risk prevention.

**Specific objectives:**

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

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

**Description:**
Physical environmental risks.

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

**Specific objectives:**

**Learning time:** 10h
- Theory classes: 4h
- Self study: 6h
<table>
<thead>
<tr>
<th>Item 9. Industrial Hygiene II (environmental physical hazards II).</th>
<th>Learning time: 10h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description: Environmental physical hazards II</td>
<td>Theory classes: 4h</td>
</tr>
<tr>
<td>Related activities: Exercises</td>
<td>Self study: 6h</td>
</tr>
<tr>
<td>Directed activities: management of risk prevention.</td>
<td></td>
</tr>
<tr>
<td>Specific objectives: Physical agents such as environmental risk factors. Ionizing radiation. Non-ionizing radiation.</td>
<td></td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Item 10. Psychosociology Labor I.</th>
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</thead>
<tbody>
<tr>
<td>Description: Psychosociology Labor I.</td>
</tr>
<tr>
<td>Related activities: Exercises</td>
</tr>
<tr>
<td>Directed activities: management of risk prevention.</td>
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</tbody>
</table>
| Specific objectives: Work-related stress. Mobbing (bullying) and other pathologies. Detection, identification and assessment of the risks of the organization and workload. Assessing the risks of the organization and workload. |}

<table>
<thead>
<tr>
<th>Item 11. Labor Psychosociology II.</th>
<th>Learning time: 10h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description: Labor Psychosociology II.</td>
<td></td>
</tr>
<tr>
<td>Related activities: Exercises</td>
<td></td>
</tr>
<tr>
<td>Directed activities: management of risk prevention.</td>
<td></td>
</tr>
</tbody>
</table>
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%.

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### Item 12. Ergonomics I.

**Description:**
Ergonomics I.

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

**Specific objectives:**

**Learning time:** 17h
- Theory classes: 3h
- Practical classes: 2h
- Self study: 12h

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### Item 12. Ergonomics II.

**Description:**
Ergonomics II.

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

**Specific objectives:**

**Learning time:** 17h
- Theory classes: 3h
- Practical classes: 2h
- Self study: 12h
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**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:**