820070 - JD - Games and Decisions

Coordinating unit: 295 - EEBE - Barcelona East School of Engineering
Teaching unit: 732 - OE - Department of Management
Academic year: 2015

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 MECHANICAL 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)
- 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 INDUSTRIAL ELECTRONICS AND AUTOMATIC CONTROL ENGINEERING (Syllabus 2009). (Teaching unit Optional)

Transversal:

Learning objectives of the subject
To show the students different tools to take decisions. To establish the basis to capacitate student to formalize problems, and decision processes.

A secondary objective of the subject is to complement other decision methods that the student has studied in different subject.
### Study load

<table>
<thead>
<tr>
<th>Total learning time: 150h</th>
<th>Hours large group: 45h</th>
<th>30.00%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hours medium group: 0h</td>
<td>0.00%</td>
</tr>
<tr>
<td></td>
<td>Hours small group: 15h</td>
<td>10.00%</td>
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<td></td>
<td>Guided activities: 0h</td>
<td>0.00%</td>
</tr>
<tr>
<td></td>
<td>Self study: 90h</td>
<td>60.00%</td>
</tr>
</tbody>
</table>

### Content

#### Single Person decision-making

**Learning time:** 29h  
Theory classes: 9h  
Laboratory classes: 3h  
Self study: 17h

#### Decision Trees

**Learning time:** 29h  
Theory classes: 9h  
Laboratory classes: 3h  
Self study: 17h

#### Utility and evaluation of alternatives

**Learning time:** 29h  
Theory classes: 9h  
Laboratory classes: 3h  
Self study: 17h

#### Zero-Sum games

**Learning time:** 31h 30m  
Theory classes: 9h  
Laboratory classes: 3h  
Self study: 19h 30m

#### Cooperative games

**Learning time:** 31h 30m  
Theory classes: 9h  
Laboratory classes: 3h  
Self study: 19h 30m
Qualification system

Evaluation is performed by solving small exercises during the classes, student presentations and guided exercises.

Bibliography

Basic:


Complementary:
