250ST2034 - Smart Mobility

Coordinating unit: 240 - ETSEIB - Barcelona School of Industrial Engineering
Teaching unit: 751 - DECA - Department of Civil and Environmental Engineering
Academic year: 2018
Degree: MASTER'S DEGREE IN SUPPLY CHAIN, TRANSPORT AND MOBILITY MANAGEMENT (Syllabus 2014). (Teaching unit Optional)
MASTER'S DEGREE IN INDUSTRIAL ENGINEERING (Syllabus 2014). (Teaching unit Optional)
ECTS credits: 5

Teaching languages: English

Coordinator: Robusté Antón, Francesc
Others: Primer quadrimestre:
ANGEL LOPEZ RODRIGUEZ - 10
FRANCESC ROBUSTÉ ANTÓN - 10

Opening hours

Timetable: Francesc Robusté: Tuesdays from 4 pm to 7:30 pm Previous appointment by email (is mandatory)
f.robuste@upc.edu
Angel López: please set previous appointment by email alopez@ciccp.es

Teaching methodology

Classes, course report and exam

Learning objectives of the subject

Learn key concepts about Smart Mobility: Smart city, urban transportation, mobility, transportation system management, sustainable urban mobility, intelligent transportation system, city logistics.

Study load

<table>
<thead>
<tr>
<th>Total learning time: 125h</th>
<th>Hours large group:</th>
<th>0h</th>
<th>0.00%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours medium group:</td>
<td>30h</td>
<td>24.00%</td>
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<tr>
<td>Hours small group:</td>
<td>15h</td>
<td>12.00%</td>
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<tr>
<td>Guided activities:</td>
<td>0h</td>
<td>0.00%</td>
<td></td>
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<tr>
<td>Self study:</td>
<td>80h</td>
<td>64.00%</td>
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</tbody>
</table>
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## Content

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
<th>Learning time</th>
<th>Practical classes</th>
<th>Laboratory classes</th>
<th>Self study</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Urban mobility system</td>
<td>Subject presentation + Urban mobility system</td>
<td>4h</td>
<td>2h</td>
<td>1h</td>
<td>1h</td>
</tr>
<tr>
<td>2. Technology and data transmission in ITS and Smart Mobility</td>
<td>Technology and data transmission in ITS and Smart Mobility</td>
<td>14h 20m</td>
<td>4h</td>
<td>2h</td>
<td>8h 20m</td>
</tr>
<tr>
<td>3. TSM, Smart Cities i Smart City Logistics</td>
<td>TSM, Smart Cities i Smart City Logistics</td>
<td>17h 20m</td>
<td>6h</td>
<td>3h</td>
<td>8h 20m</td>
</tr>
<tr>
<td>4. Smart Mobility in urban/metropolitan areas and Cases</td>
<td>Smart Mobility in urban/metropolitan areas and Cases</td>
<td>22h</td>
<td>8h</td>
<td>4h</td>
<td>10h</td>
</tr>
</tbody>
</table>
### 5. Mobility 4.0

**Description:** Mobility 4.0

**Learning time:** 14h 20m
- Practical classes: 4h
- Laboratory classes: 2h
- Self study: 8h 20m

### 6. Smart community, smart infrastructures & cooperative systems

**Description:** Smart community, smart infrastructures & cooperative systems

**Field visit (BSCEWC, etc.)**

**Learning time:** 3h
- Practical classes: 3h

### Exam and Quiz

**Learning time:** 17h 20m
- Practical classes: 4h
- Self study: 13h 20m

### Course Report

**Learning time:** 23h 40m
- Laboratory classes: 2h
- Self study: 21h 40m
Qualification system

Individual course report 75% (due on January) and brief quiz 25% (December)

Bibliography

Basic:

Reading material [on line]. [Consultation: 07/03/2016]. Available on: <https://www.upc.edu/atenea>.