250ST2034 - Smart Mobility

Coordinating unit: 240 - ETSEIB - Barcelona School of Industrial Engineering
Teaching unit: 751 - DECA - Department of Civil and Environmental Engineering
Academic year: 2019
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

Teaching staff
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 730 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>30h</th>
<th>24.00%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hours small group:</td>
<td>15h</td>
<td>12.00%</td>
</tr>
<tr>
<td></td>
<td>Self study:</td>
<td>80h</td>
<td>64.00%</td>
</tr>
</tbody>
</table>
## 250ST2034 - Smart Mobility

### Content

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

<table>
<thead>
<tr>
<th>Practical classes: 2h</th>
<th>Laboratory classes: 1h</th>
<th>Self study : 1h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practical classes: 4h</td>
<td>Laboratory classes: 2h</td>
<td>Self study : 8h 20m</td>
</tr>
<tr>
<td>Practical classes: 6h</td>
<td>Laboratory classes: 3h</td>
<td>Self study : 8h 20m</td>
</tr>
<tr>
<td>Practical classes: 8h</td>
<td>Laboratory classes: 4h</td>
<td>Self study : 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

**Learning time:** 9h  
Practical classes: 2h  
Laboratory classes: 1h  
Self study: 6h

### Field visit (BSCEWC, etc.)

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

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

### Exam and Quiz

**Description:**
Exam and Quiz

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

### Course Report

**Description:**
Course Report

**Learning time:** 23h 40m  
Laboratory classes: 2h  
Self study: 21h 40m
250ST2034 - Smart Mobility

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>. 