Course guides
330241 - IS - Systems Integration

Unit in charge: Manresa School of Engineering
Teaching unit: 750 - EMIT - Department of Mining, Industrial and ICT Engineering.
Degree: BACHELOR’S DEGREE IN ICT SYSTEMS ENGINEERING (Syllabus 2010). (Compulsory subject).
Academic year: 2021  ECTS Credits: 6.0  Languages: Catalan

LECTURER
Coordinating lecturer: PERE PALA SCHONWALDER
Others: JORDI BONET DALMAU

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:
1. Knowledge of the architecture of communication networks and their application, as well as the ability to design, deploy and manage communication networks, especially computer networks.
2. Knowledge and ability to use existing tools and instrumentation for the analysis, design, development and verification of electronic, computer and communications systems.
3. The ability to perform the typical activities of the degree, taking into account the corresponding standards, rules and regulations.
4. Ability to model and simulate systems in the field of the degree and apply the results to problem solving within this field.
5. The ability to analyze, design and implement, select and use real-time data processing, control and automation systems, especially in embedded systems.
6. The ability to define, program, and use embedded devices with global connectivity.
7. The ability to define, analyze, design, develop, evaluate, document and launch systems that include electronic, computer and communications subsystems.

Transversal:
8. TEAMWORK - Level 3. Managing and making work groups effective. Resolving possible conflicts, valuing working with others, assessing the effectiveness of a team and presenting the final results.
10. 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.
11. EFFECTIVE USE OF INFORMATION RESOURCES - Level 3. Planning and using the information necessary for an academic assignment (a final thesis, for example) based on a critical appraisal of the information resources used.

TEACHING METHODOLOGY

LEARNING OBJECTIVES OF THE SUBJECT

STUDY LOAD

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Self study</td>
<td>90,0</td>
<td>60.00</td>
</tr>
<tr>
<td>Hours small group</td>
<td>30,0</td>
<td>20.00</td>
</tr>
<tr>
<td>Hours large group</td>
<td>30,0</td>
<td>20.00</td>
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</tbody>
</table>
Total learning time: 150 h

CONTENTS

(ENG) 1. INTRODUCCIÓ

Full-or-part-time: 30h
Theory classes: 6h
Practical classes: 6h
Guided activities: 18h

(ENG) 2. INTEGRACIÓ DE SISTEMES

Description:

Full-or-part-time: 120h
Theory classes: 24h
Practical classes: 24h
Self study: 72h

ACTIVITIES

(ENG) TÍTOL DE L’ACTIVITAT 1: CLASSES MAGISTRALS I PARTICIPATIVES

Full-or-part-time: 25h
Theory classes: 25h

(ENG) TÍTOL DE L’ACTIVITAT 2: PROJECTE DE CURS

Full-or-part-time: 75h
Laboratory classes: 30h
Self study: 45h

(ENG) TÍTOL DE L’ACTIVITAT 3: TREBALL PERSONAL INDIVIDUAL / EN GRUP

Full-or-part-time: 30h
Self study: 30h

(ENG) TÍTOL DE L’ACTIVITAT 4: PROVES

Full-or-part-time: 20h
Theory classes: 5h
Self study: 15h
GRADING SYSTEM

BIBLIOGRAPHY

Basic:

Complementary:

RESOURCES

Other resources:
Teaching material published in the Open Courseware of the subject.