32148 - AXCP - Evaluation of Packet Switched Networks

Coordinating unit: 230 - ETSETB - Barcelona School of Telecommunications Engineering
Teaching unit: 
Academic year: 2015
Degree: MASTER'S DEGREE IN NETWORK ENGINEERING (Syllabus 2006). (Teaching unit Optional)
ERASMUS MUNDUS MASTER'S DEGREE IN PHOTONICS ENGINEERING, NANOPHOTONICS AND BIOPHOTONICS (Syllabus 2010). (Teaching unit Optional)
MASTER'S DEGREE IN NETWORK ENGINEERING (Syllabus 2009). (Teaching unit Optional)
ECTS credits: 2,5
Teaching languages: English

Teaching staff
Coordinator: MONICA AGUILAR IGARTUA
Others: MONICA AGUILAR IGARTUA
ESTEVE PALLARÈS SEGARRA
ISABEL MARTIN FAUS

Prior skills
General knowledge about communication networks: Internet protocols, mechanisms and algorithms implemented in communication networks. Basic knowledge about Markov processes.

Teaching methodology
This course includes lectures, discussion, exercises and practices in the laboratory.

Learning objectives of the subject
Review of the main concepts about Quality of Service on communication networks.
Evaluate a packet switched network using a fluid flow model with On-Off sources.
Evaluate multimedia services using Reward Markov Chains.
### Content

<table>
<thead>
<tr>
<th>Topic</th>
<th>Learning time: 62h 30m</th>
</tr>
</thead>
</table>
| - Review of the main concepts about Quality of Service on communication networks. | Theory classes: 14h  
Practical classes: 8h  
Laboratory classes: 2h  
Guided activities: 2h  
Self study: 36h 30m |
| - Evaluation of multimedia services using Reward Markov Chains       | Theory classes: 14h  
Practical classes: 8h  
Laboratory classes: 2h  
Guided activities: 2h  
Self study: 36h 30m |

### Degree competences to which the content contributes:

### Qualification system

- 40% exposition and discussion in class
- 40% exercises
- 20% practices

### Bibliography