13181 - GSNXG - Service Management in New-Generation Networks

**Coordinating unit:** 230 - ETSETB - Barcelona School of Telecommunications Engineering  
**Teaching unit:** 744 - ENTEL - Department of Network Engineering  
**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:** Prof. Joan Serrat - JUAN SERRAT FERNANDEZ  
**Others:** Dr. Thomas Schaaf

### Timetable

**To be agreed with each student**

### Prior skills

None specific in addition to the generic capabilities required for this Master

### Requirements

The generic ones for the Master

### Teaching methodology

Active learning will be promoted. This means that lecture time will not devoted entirely to conventional lectures but to open discussions among the course participants moderated by the lecturer. For each of the subjects, the lecturer will introduce the topic and assign homework activities to the students, which will prepare this topics alone or in groups of a few people to be competent during their interventions. These interventions will consist of a presentation and an open discussion with the professor and the other participants.  
The different topics that will be visited will be treated as much possible from a practical perspective point of view. This means that students will have to learn how to use software tools to solve particular problems

### Learning objectives of the subject

- To understand the different levels of abstraction in knowledge and data modelling  
- To know how to use the modelled knowledge in network and service management problems  
- To understand the basis of enabling technologies of Autonomic Management  
- To understand the business processes and complementary frameworks driving the planning, design, deployment and operation of Information and Telecommunication services
### Content

| (ENG) Management Information Bases. SMI and SMIv2 |
| Degree competences to which the content contributes: |

| (ENG) Object-based Information Models. CIM, SID |
| Degree competences to which the content contributes: |

| (ENG) Ontology languages and Semantic Web. OWL, Protegé |
| Degree competences to which the content contributes: |

| (ENG) - Extended Telecommunication Operation Map (eTOM) |
| Degree competences to which the content contributes: |

| (ENG) - Information Technology Infrastructure Library (ITIL v3) |
| Degree competences to which the content contributes: |

### Qualification system

Student's participation and knowledge will be continuously qualified. In addition there will be a control around the middle of the course and a final exam. The control and the final exam, both written examinations, will weight 60% of the final grade and will be intended to rank the individual capacity of each student to face problems within the scope of that matter.

### Regulations for carrying out activities

To be specified in-situ

### Bibliography

- Management Information Bases. SMI and SMIv2
- Object-based Information Models. CIM, SID
- Ontology languages and Semantic Web. OWL, Protegé
- Extended Telecommunication Operation Map (eTOM)
- Information Technology Infrastructure Library (ITIL v3)