### 32091 - UULL - Ultrafast and Ultraintense Laser Light

**Coordinating unit:** 230 - ETSETB - Barcelona School of Telecommunications Engineering  
**Teaching unit:** 739 - TSC - Department of Signal Theory and Communications  
**Academic year:** 2015  
**Degree:**  
- MASTER'S DEGREE IN PHOTONICS (Syllabus 2009). (Teaching unit Optional)  
- ERASMUS MUNDUS MASTER'S DEGREE IN PHOTONICS ENGINEERING, NANOPHOTONICS AND BIOPHOTONICS (Syllabus 2010). (Teaching unit Optional)  
- DOCTORAL DEGREE IN PHOTONICS (Syllabus 2007). (Teaching unit Optional)  
**ECTS credits:** 2,5  
**Teaching languages:** English

#### Teaching staff
- **Coordinator:** David Artigas  
- **Others:** Jens Biegert, Carles Serrat

#### Teaching methodology
- Presencial Teaching + activities

#### Learning objectives of the subject
The course will give an introduction into the challenges to produce ultra-short and ultra-intense laser light as well as highlight the different physical effects and possibilities pertaining to their usage.

#### Content

**Ultrashort laser pulse generation**

**Degree competences to which the content contributes:**

**(ENG) Pulse characterization and control**

**Degree competences to which the content contributes:**

**(ENG) Interaction of laser radiation with matter**

**Degree competences to which the content contributes:**
Qualification system

- Attend at least 80% of the lectures
- Small problem sets, depending on lecture
- Presentation of elected topic

Regulations for carrying out activities

The usual in University teaching

Bibliography

Basic:


