### Course guides

**32054 - QOPT - Quantum Optics**

#### Unit in charge:
Barcelona School of Telecommunications Engineering

#### Teaching unit:
1022 - UAB - (ANG) pendent.

#### Degree:
- DOCTORAL DEGREE IN PHOTONICS (Syllabus 2007). (Optional subject).
- MASTER'S DEGREE IN PHOTONICS (Syllabus 2009). (Optional subject).
- ERASMUS MUNDUS MASTER'S DEGREE IN PHOTONICS ENGINEERING, NANOPHOTONICS AND BIOPHOTONICS (Syllabus 2010). (Optional subject).

#### Academic year: 2015  ECTS Credits: 5.0  Languages: English

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### LECTURER

#### Coordinating lecturer:
VERONICA AHUFINGER

#### Others:
JORDI MOMPART

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### TEACHING METHODOLOGY

PRESENCIAL TEACHING + ACTIVITIES

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### LEARNING OBJECTIVES OF THE SUBJECT

This course will provide a wide-ranging introduction to the field of quantum optics, starting with a brief review of the classical light-matter interaction theory to, later on, develop in detail the semiclassical and quantum approaches.

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### CONTENTS

- **Semiclassical theory of atom-field interaction**

- **Quantum theory of atom-field interaction**

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### GRADING SYSTEM

- Attendance to be evaluated: > 80 % of the lecture time
- Periodic delivery of exercises proposed during the lectures
- Oral exam at the end of the course.

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### EXAMINATION RULES.

The usual in University teaching
BIBLIOGRAPHY

Basic:

Complementary: