Course guides
32082 - SL - Synchrotron Light

Unit in charge: Barcelona School of Telecommunications Engineering
Teaching unit: 1022 - UAB - (ANG) pendant.
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: 2.5 Languages: English

LECTURER

Coordinating lecturer: Emili Bagan
Others: Juan Campos

TEACHING METHODOLOGY

Presencial Teaching + activities

LEARNING OBJECTIVES OF THE SUBJECT

This course provides an introduction to synchrotron light. The subject describes at a
basic level the production and the main characteristics of synchrotron radiation. The
last part of the module is devoted to more applied issues such as the insertion and the
optical devices used in synchrotron light facilities

CONTENTS

(ENG) Introduction to electromagnetic radiation

(ENG) Electromagnetic waves

(ENG) Electromagnetic radiation

(ENG) Radiation of accelerated relativistic charged particles

(ENG) Synchrotron radiation

(ENG) Spectral distribution of synchrotron radiation
(ENG) Insertion devices

(ENG) Beam Lines: Monochromators, grazing incidence optics

GRADING SYSTEM

Exam (70%) and assignments and problem sheets (30%)

EXAMINATION RULES.

The usual in University teaching

BIBLIOGRAPHY

Basic:

Complementary: