

CIMET Color in Industry

2011-2012

Course name: Color in Industry

Course code: CIMET CIND

Course level: Master

ECTS Credits: 5.00

Course instructor: Manuel Melgosa Latorre, Javier Hernández Andrés, Juan Luis Nieves Gómez (University of Granada).

Education period (Dates): 2nd semester **Language of instruction:** English

Prerequisite(s): Module "Color Science" (1st semester)

Expected prior-knowledge: It is advisable to follow also the course "Advanced Colorimetry" (2nd Semester)

Aim and learning outcomes:

This course tries to supply an introduction to classical problems and hot topics arising in industrial colorimetry. On completion of this course the students will be able to understand and approach to some color problems in different industries.

Topics to be taught (may be modified):

- Introduction to industrial colorimetry.
- Color atlases in industry.
- Industrial color tolerances.
- Color assessment cabinets.
- Colorant formulation.
- Whiteness and tint.
- Color fastness.
- Color and gloss, translucency, or texture.
- Metallic and pearlescent colors.
- Color in soil science.
- Color in food science.
- Color in liquid samples: olive oils, wines, etc.
- Color in graphic arts.
- Colorimetry in the paper and textile industries.

Teaching methods: Lectures, seminars by invited experts, and homework exercises.

Form(s) of Assessment: Written exam (50%), Practical work (50%)

External/internal examiner: --

Examination support: None

Literature and study materials:

Basic textbook: to be done

Additional books: to be done

G. Wyszecki and W.S. Stiles, Color Science, 2nd Edition. Wiley Classics Library, 2000.

R. S. Berns, Billmeyer and Saltzman Principles of Color Technology, 3rd ed., John Wiley & Sons, New York, (2000).

J. Shanda. Colorimetry (Understanding the CIE System). Wiley, 2007.

R.D. Lozano. El Color y su medición (in Spanish language). Ed. Americalee, 1978.

The reproduction of colour, R.W.G. Hunt, 6th Ed. John Wiley & Sons Inc., 2004.

Colour physics for industry, R. McDonald, Society of Dyers & Colourists, (1997).

ASTM Standards on Color and Appearance Measurements, 5th Ed. American Society for Testing and Materials, 1996.

Additional information:

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