

# CIMET Color in Industry

**Course name:** Color in Industry

**Course level:** Master

**Course code:** CIMET CIND

**ECTS Credits:** 5.00

**Course instructor:** Manuel Melgosa (University of Granada).

**Education period (Dates):** 2<sup>nd</sup> semester

**Language of instruction:** English

**Prerequisite(s):** Module “Color Science” (1<sup>st</sup> semester)

**Expected prior-knowledge:** It is advisable to follow also the course “Advanced Colorimetry” (2<sup>nd</sup> 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 :**

- 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 (75%), exercises (25%)

## **Literature and study materials:**

Basic textbook: to be done

Additional books: to be done

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

R. S. Berns, Billmeyer and Saltzman Principles of Color Technology, 3<sup>rd</sup> 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, 6<sup>th</sup> Ed. John Wiley & Sons Inc., 2004.  
Colour physics for industry, R. McDonald, Society of Dyers & Colourists, (1997).  
ASTM Standards on Color and Appearance Measurements, 5<sup>th</sup> Ed. American Society for Testing and Materials, 1996.

**Additional information:**

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