

GENERAL INFORMATION AND REGISTRATION

• Administrative information: For any general information regarding registration, legalisation of documents, foreign students, scholarships, insurance and issuance of degree certificates. Business School of the General Foundation of the University of Alicante. escuela.negocios@ua.es

• Academic information: esther.perales@ua.es

Pre-registration and fees:

Pre-registration form before 1th July 2019 (form available from the course Secretary. It must be handed in with a photocopy of the student's National Identity card or passport, as well as any academic transcripts and degree certificate/s).

- List of admissions will be published before 15th July 2019.
- Registration will be formalized once payment of the course deposit fee 50% of the total for "MSc course", or 100% for "Expert" and "Specialist" courses)
- Payment Will have to be confirmed by the Sabadell Bank

Management and coordination:

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Universidad de Alicante Fundación General

Escola de Negocis
Escuela de Negocios



Mercedes-Benz



SEAT

TOYOTA



KONICA MINOLTA



Department of Optics
University of Granada



AUDI
RENAULT
VOLVO
GRUPO ANTOLÍN

Sensors, Instrumentation and
Systems Development Center –
Technical University of Catalonia

Institute of Optics – High Council
of Scientific Research (CSIC)

(logos constantly updated)



Universitat d'Alacant
Universidad de Alicante



MASTER in COLOR TECHNOLOGY
for the **AUTOMOTIVE SECTOR**

UNIVERSITY OF ALICANTE

Color Technology:
study of theories and techniques
used to design, manufacture
and measure colored objects

Academic year 2019-20



Universidad de Alicante Fundación General

Escola de Negocis
Escuela de Negocios



UNIVERSITAT D'ALACANT

Color and Vision Group
Department of Optics, Pharmacology and Anatomy
Faculty of Science

Master's Degree in Color Technology for the Automotive Sector

A PROFESSIONAL PROFILE WITH A FUTURE

Color Technology focuses on the study of theories and techniques related to the design, manufacture and measurement of colored materials. A wide range of different industrial sectors are involved in color technology (colorants, coatings, textiles, ceramics, plastics, printing, multimedia, etc.). Unfortunately, in many cases, color experts within these sectors have not received any specific training in color science. Therefore, their knowledge about colors, which is critical to developing their work, has been obtained through practical, possibly selftaught, experience.

For this reason, companies involved in these productive sectors often invest considerable resources in specific color training to improve their employees' skills. In the same way, the limited number of graduates who do have advanced color training are highly sought after by many companies.

Over recent decades, color measurement and color quality control of new gonio-apparent materials have become key areas for the automotive and other industrial sectors such as cosmetics, coatings, plastics, printing, textiles, architecture, etc. Therefore, it is necessary to count on in-depth knowledge of complex instrumentation techniques and visual evaluation procedures as regards differences in color and texture (sparkle and graininess); and even color formulation with solid and special effect pigments.

In response to this socioeconomic demand, the "Color and Vision Research Group" of the University of Alicante, in collaboration with invited expert from other academic institutions (UGR, UPC, and CSIC) and sector companies (SEAT, BASF Coatings, BYK-Gardner, Toyota Motor Europe, PPG, Merck, Nubiola-Ferro, ...), is offering the Master's Degree in Color Technology for the Automotive Sector (acronym: CoLTAS) as a postgraduate course (60 ECTS).

A DEFINED OBJECTIVE

The purpose of the CoLTAS Master is to provide comprehensive training in the multidisciplinary study of Color Science and Technology from a global perspective. Students will examine the physico-chemical and visual laws and solve real or simulated problems that often arise when using special effect pigments in different industrial sectors, particularly within the automotive sector.

This course includes an industry-based internship of up to 300 hours and provides a great opportunity to achieve basic and advanced color control skills in the automotive sector, and in other industries as cosmetics, plastics, inks, etc.

For color experts with, or not, a higher education, this new postgraduate course is a great chance to enhance training and professional qualifications. Meanwhile, recent graduates, even undergraduates as it will be shown below, who choose to undertake this specialist postgraduate course will find it easier to obtain highly specialized jobs, which are therefore more highly valued (and better paid).

SYLLABUS

For undergraduate students (with less than 18 ECTS for finishing grade) and/or professionals without University degree, the CoLTAS Master enables to obtain two sub-degrees (Expert = 20 ECTS + Specialist = 30 ECTS) before obtaining the final MSc degree, even in different academic years.

DISTRIBUTION	SEMESTER	SUBJECT	ECTS
Expert in Color Science	1	Basic Colorimetry	6
	1	Colour Perception	6
	1	Colour Physics and Chemistry	6
	1	Bibliographic Resources	2
Specialist in Color Engineering for the Automotive Sector	2	Advanced Colorimetry	4
	2	Visual Appearance	6
	2	Visual Harmony Management	5
	2	Coatings and Plastics	3
	2	Colour Reproduction	7
	2	Internships I	5
MSc in Color Technology for the Automotive Sector	2	Internships II	4
	2	MSc Thesis	6

TEACHING STRATEGY

- Blended learning methodology (b-learning) using the Moodle platform (<http://si.ua.es/moodle>)
- Individual and collective learning activities
- Weekly continuous and effective communication and tutoring
- Workshop (2 weeks) in the University of Alicante including an intensive period of mandatory laboratory practices and invited technical conferences.



EVALUATION METHOD

Continuous evaluation: subjects with five activities to be presented, corresponding to each one of the topics, to evaluate the student's progress. These activities will be evaluated to guarantee the assimilation of general, transversal, cognitive and procedural skills.

The Master's thesis will involve drawing up, presenting and defending a report on the activities undertaken during the industrial internship (car manufacturers, coatings and plastic suppliers, etc.) or at a research institution.

ENTRY REQUIREMENTS

- Spanish or foreign graduates in chemistry, physics, material engineering, industrial engineering, computer engineering, multimedia, architecture or psychology, etc. Language level required: B1 English.
- Undergraduate student, or professional without University Degree (provided that the "Expert" + "Specialist" combination is done, even though in different academic years).

COURSE INFORMATION

Number of hours: 1500 (60 ECTS)

Registration fee:

- 4200 € to be paid by installments (corporate registration available) for MSc degree
- 1610 € for the Expert degree
- 2415 € for the Specialist degree

Qualification awarded: "Master's Degree in Color Technology for the Automotive Sector", "Specialist in Color Engineering for the Automotive Sector", and, "Expert in Color Science" signed by the University of Alicante President.