

**COSI**  
**COlour in Science and Industry**

**Duration**

2 years

**Course description**

The 2-year Master Programme (120 ECTS) “Colour in Science and Industry” (COSI) aims to develop interdisciplinary trained experts in sectors encompassing colour, spectral and digital imaging in applied science and in applications development and analysis. The objective is to educate students in advanced methodologies, applied models and practical applications with 2 goals: enhance the employability and improve career prospects of graduates on one hand and meet the needs of industrials on the other hand. Information and Communication Technologies (IST), Health & Life Science (HLS), and Science & Technology (ST) sectors are in full growth. The needs in fields covered by COSI are increasingly important in these sectors, particularly in Quality Control of Manufactured Products, Medical and Biomedical Imaging, Spectral Systems Design. COSI is highly relevant to a wide range of sectors where the continued evolution of R&D fields requires adapted and extremely specialized courses with a strong focus on industrial applications and application study cases. Therefore COSI students will have the opportunity to receive an education very well adapted to their background, interests, and future career plans.

COSI involves 4 EU HEIs as Full Partners: University Jean Monnet (UJM – FR) University of Granada (UGR- SP), University of Eastern Finland (UEF–FI), Gjøvik University College (GUC–NO); 5 Associated Industrial Partners: Olympus Corporation (Japan), Specim (Finland), Tecnalia (Spain), Chromasens (Germany) and SoftColor Ltd (Finland); 4 HEIs in Asia as Associated Academic Partners: Monash University, Sunway Campus (MUSC-Malaysia), Chulalongkorn University (CHULA -Thailand), Toyohashi University of Technology (TUT-Japan) and Institut Teknologi Bandung (ITB -Indonesia); and 10 Supporting Partners: Technicolor (France), Akzo Nobel (Netherlands), Becker Industrie (France), FFEI Ltd (UK), Fraunhofer IGD (Germany), CEI BioTic (Spain), CSIC (Spain), Sedoptica (Spain), Kubicam AS (Norway), Barbieri (Italy).

Starting from the 1st semester’s comprehensive coverage of the prerequisites in the fields of photonics and optics, applied colour science, digital imaging and scientific programming, at UJM, the students will proceed to more in-depth studies in the 2nd semester at UGR, including advanced colorimetry and human vision and cognition. In the 3rd semester the students will be able to select between two different specialization areas at either GUC or UEF. Aligned with the institutions’ focus areas and competences, the offered specializations include spectral technologies for industrial or applied research purposes at UEF and applied colour imaging at GUC. In the 4th semester, the students will devote themselves fully to their master thesis, which will be carried out in a company or in an applied research center. The whole curriculum is taught in English. At the end of the programme, graduates will be delivered multiple national diplomas from the EU hosting institutions.

**Web site**[www.univ-st-etienne.fr](http://www.univ-st-etienne.fr)**Partners**

UNIVERSITE JEAN MONNET, France (coordinating institution)  
UNIVERSIDAD DE GRANADA, Spain  
HØGSKOLEN I GJØVIK, Norway  
ITA-SUOMEN YLIOPISTO, Finland

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