Master's degree in Textile and Paper Engineering

The aim of the master's degree in Textile and Paper Engineering (formerly the master's degree in Fibrous Material Technology Engineering) is to equip students with the skills needed to work in the textile, paper and graphics industries. They will go on to become professionals who are able to innovate in the creation and design of processes and products with high added value, to manage innovation, to devise technological and financial business strategies, and to adapt to change.

GENERAL DETAILS

Duration and start date
1.5 academic year, 90 ECTS credits. Starting September / February

Timetable and delivery
Mornings. Face-to-face

Fees and grants
Approximate fees for the master's degree, excluding degree certificate fee, €4,901 (€7,352 for non-EU residents).
More information about fees and payment options
More information about grants and loans

Language of instruction
Spanish

Location
Terrassa School of Industrial, Aerospace and Audiovisual Engineering (ESEIAAT)

Official degree
Recorded in the Ministry of Education's degree register

ADMISSION

General requirements
Academic requirements for admission to master's degrees

Places
30

Pre-enrolment
Pre-enrolment closed (consult the new pre-enrolment periods in the academic calendar).
How to pre-enrol

Enrolment
How to enrol

Legalisation of foreign documents
All documents issued in non-EU countries must be legalised and bear the corresponding apostille.

PROFESSIONAL OPPORTUNITIES
Professional opportunities

This master's degree provides the knowledge and skills needed for operations management and project management in textile, paper and graphics engineering. It also provides the knowledge and skills required to take a doctoral degree in textile and paper engineering or to seek employment as a research or innovation professional involved in any stage of the design and production of textile, paper and graphic products.

Competencies

Generic competencies

Generic competencies are the skills that graduates acquire regardless of the specific course or field of study. The generic competencies established by the UPC are capacity for innovation and entrepreneurship, sustainability and social commitment, knowledge of a foreign language (preferably English), teamwork and proper use of information resources.

Specific competences

On completion of the course, students will:

- Be able to identify and evaluate the raw materials, intermediate products and end products used in and created by the different manufacturing processes in textile, paper and graphic engineering.
- Be able to use specific techniques for designing and planning experiments and for applying experimental quantitative methods to decision making in the field of the master's degree.
- Know how to analyse, plan and implement the main unit operations and systems used in textile, paper and graphic manufacturing processes.
- Know how to apply environmental and sustainability technologies to the general area of study.
- Know how to develop new fibres and filaments and new woven and non-woven structures.
- Be able to quantify colour, to characterise colourings and pigments and to select the most suitable auxiliaries and detergents for specific applications.
- Know how to manage and optimise eco-coating, bleaching, dyeing, printing and pressing processes and wastewater treatment and purification processes.
- Know how to use multivariate analysis techniques to acquire a better understanding of textile materials and products and to aid the design and operation of continuous-flow production systems.
- Know how to identify and evaluate the different sources of vegetable fibres suitable for the manufacturing of a paper product with specific technical properties.
- Be able to carry out theoretical and experimental analysis and evaluate the physical and chemical processes associated with the different stages of paper and graphic manufacturing processes.
- Have the skills needed to develop new types of paper, supports and paper products.
- Be able to analyse and evaluate the potential applications of biotechnology to the manufacturing process in paper and graphic engineering.

ORGANISATION

UPC school
Terrassa School of Industrial, Aerospace and Audiovisual Engineering (ESEIAAT)

Academic coordinator
Jordi Sellarès González

Academic calendar
General academic calendar for bachelor's, master's and doctoral degrees courses

Academic regulations
Academic regulations for master's degree courses at the UPC