

# Master's degree in Textile Design and Technology

The main aim of the **master's degree in Textile Design and Technology** is to contribute to the technical and scientific training of professionals and prepare them for employment in a wide range of industries related to the textile sector, from spinning and fabric production to the design of innovative products and functional finishes.

Students receive advanced technological training in high added-value materials and processes and on innovation in processes and products. The training provided addresses current and future global needs in the sector from a technical, economic and environmental perspective.

## GENERAL DETAILS

### Duration and start date

1 academic year, 60 ECTS credits. Starting September

### Timetable and delivery

Afternoons. Face-to-face

### Fees and grants

Approximate fees for the master's degree, **excluding other costs** (does not include non-teaching academic fees and issuing of the degree certificate):

€1,660 (€6,331 for non-EU residents).

[More information about fees and payment options](#)

[More information about grants and loans](#)

### Language of instruction

Check the language of instruction for each subject in the course guide in the curriculum.

Information on [language use in the classroom and students' language rights](#).

### 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](#)

### Specific requirements

#### Direct admission

The recommended entrance qualifications for the master's degree are those listed below. Graduates of these programmes are not required to take any bridging courses.

- Bachelor's degree in any industrial engineering field.
- Bachelor's degree in Forest Engineering, Natural Environment Engineering, Food Engineering, Agronomic Science Engineering, Agricultural, Environmental and Landscape Engineering, Engineering Physics, Agricultural Engineering or equivalent.
- Pre-EHEA industrial engineering degree.
- Pre-EHEA industrial engineering diploma.
- Pre-EHEA degree in Forest Engineering, Agronomic Engineering or equivalent.
- Pre-EHEA diploma in Forest Engineering, Agricultural Engineering or equivalent.
- Bachelor's degree in Chemistry, Physics, Biology, Biotechnology, Biochemistry, Environmental Sciences or equivalent.

- Pre-EHEA degree in Chemistry, Physics, Biology, Environmental Sciences or equivalent.

### **Bridging courses**

For holders of qualifications other than those that provide direct admission, the academic committee will review each applicant's academic record to determine what bridging courses must be taken if the student is admitted.

Applicants who do not hold one of the recommended qualifications will be required to take bridging courses carrying between 0 and 30 ECTS credits.

When a student is required to take bridging courses that carry 15 or fewer ECTS credits, the subjects must be taken in the first semester of the master's degree. Students who are required to take bridging courses that carry more than 15 ECTS credits must take the corresponding subjects before starting the master's degree.

Any bridging courses required will be subjects taught on bachelor's degrees in the industrial engineering field at the Terrassa School of Industrial, Aerospace and Audiovisual Engineering (ESEIAAT).

### **Places**

30

### **Pre-enrolment**

Pre-enrolment period open.

Expected deadline: 01/07/2025.

[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](#).

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## **PROFESSIONAL OPPORTUNITIES**

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### **Professional opportunities**

Graduates may pursue careers in traditional productive sectors (fibre production, spinning, weaving, garment manufacturing, finishing, dyeing, finishes, distribution and sale), where they will have the knowledge and skills needed to manage textile production in a globalised context. They will also be equipped to lead and manage research, development and innovation teams engaged in developing technical textile products for apparel, home use, aeronautics, sports, construction and for any other area where technological textile products with special functional properties are required. Graduates are also qualified to work in various areas of industry related to the textile sector, including the manufacture and marketing of chemicals used in textile processes and the design and manufacture of textile machinery. The skills and knowledge that students acquire will open up a range of job opportunities, including the possibility of employment as production managers; technicians in research, development and innovation of textile processes and products; product quality managers; technical advisers; and managers of various specific areas related to this field.

### **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 competencies**

- To identify the properties of fibres and technical yarns and apply manufacturing technologies to these materials.
- To analyse and apply weaving technologies in the development of advanced fabrics.
- To manage and optimise advanced dyeing and printing processes.
- To manage and optimise the application of advanced textile finishing processes.
- To identify and apply environmental and sustainability technologies in the field of textile design and technology.
- To make appropriate use of analytical techniques to conduct research and development activities related to

textile processes.

- To carry out and present and defend before an examination committee an original, individual piece of work consisting of an engineering study or project in the field of textile design and technology, of a professional or research nature, that synthesises the competencies acquired on the master's degree.

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## ORGANISATION: ACADEMIC CALENDAR AND REGULATIONS

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### UPC school

[Terrassa School of Industrial, Aerospace and Audiovisual Engineering \(ESEIAAT\)](#)

### Academic coordinator

[Marta Riba Moliner](#)

### 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](#)

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## CURRICULUM

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Subjects	ECTS credits	Type
<b>FIRST SEMESTER</b>		
Advances in Dyeing and Printing of Fabrics	5	Compulsory
Advances in Fibers and Threads	5	Compulsory
Advances in Knitted and Openwork Fabrics	5	Compulsory
Advances in Textile Finishing	5	Compulsory
Instrumental Techniques for Research and Development	5	Compulsory
Sustainability in the Textile Industry	5	Compulsory
<b>SECOND SEMESTER</b>		
Advanced Textile Manufacturing	3	Optional
Management of R&D	3	Optional
Smart Textiles	3	Optional
Textile Industrial Challenge	3	Optional
Textiles for Design and Innovation	3	Optional
Master's Thesis	18	Project