

## **The list of available courses for Erasmus students in the study year 2023/2024 from the field of Textiles**

### **Undergraduate study programmes *Textile and Clothing Planning* and *Textile and Clothing Engineering***

#### **Autumn semester 2023/2024**

- Planning nonwovens and composites/Náčrtovanje vlaknovin in kompozitov (4 ECTS)
- Planning finishing processes /Náčrtovanje apreturnih postopkov (6 ECTS)
- Planning printing processes/Náčrtovanje tiskarskih postopkov (6 ECTS)
- Dyeing/Barvanje (6 ECTS)
- Information sources and methodology of thesis work/Informatika in metodologija diplomskega dela (3 ECTS)

#### **Spring semester 2023/2024**

- English for Specific Purposes/Strokovna angleščina (4 ECTS)
- Nonwovens/Netkane tekstilije (4 ECTS)
- Finishing/Apretura (4 ECTS)
- Production planning and management/Planiranje in vodenje proizvodnje (4 ECTS)
- Quality management/Vodenje kakovosti (4 ECTS)
- Textile care 1/Nega tekstilij 1 (4 ECTS)
- Basics of dyeing/Osnove barvarstva (4 ECTS)
- Computer-assisted design of yarns and woven fabrics/Računalniško oblikovanje prej in tkanin (4 ECTS)

#### **Important notes:**

Only one course can be chosen from other chairs of the Department of Textiles, Graphic Arts and Design, other departments of the Faculty of Natural Sciences and Engineering, or other faculties of the University of Ljubljana. The chosen course must be approved by the department coordinator (if the chosen course is from another chair or department) or the faculty coordinator (if the chosen course is from another faculty).

## Autumn semester 2023/2024

Course	Description of course	Hours				ECTS	Lecturer
		L	S	P	A		
<b>Planning nonwovens and composites</b>	Definitions and types of non-woven textiles; classification of non-woven textiles; theory and technology of process stages in non-woven textile production; extruded double or multi-layered composites; finishing non-woven textiles.	45	0	15	0	4	Assist Prof Dr Dunja Šajn Gorjanc dunja.sajn@ntf.uni-lj.si
<b>Planning finishing processes</b>	Classification of chemical and mechanical finishing; structure of finishes, aim and effect of finishing; effect of additives; processes and conditions of applications; evaluating the quality of finishing; environmental acceptability of agents and processes.	45	30	15	0	6	Prof Dr Barbara Simončič barbara.simoncic@ntf.uni-lj.si
<b>Planning printing processes</b>	Methods, processes and technique of textile printing; machine equipment; processes of manufacturing printing forms; pattern reproduction; preparing fabrics before printing; dyes for printing textiles; importance of subsequent treatment; special printing processes; environmental aspects of textile printing.	45	15	30	0	6	Prof Dr Petra Eva Forte Tavčer petra.forte@ntf.uni-lj.si
<b>Dyeing</b>	Technological water preparation; preparing of dyes; dyeing procedures; dyeing of natural, chemical and synthetic fibres; auxiliaries and methods for after-treatment of dyed material; colour fastness.	45	0	45	0	6	Assoc Prof Dr Marija Gorjanc marija.gorjanc@ntf.uni-lj.si
<b>Information sources and methodology of thesis work</b>	Training (in terms of information and methods) for preparing thesis work; data mining, acquisition and processing of relevant professional information; types of primary information sources; preparing references and citing; bibliographic databases; search profiles; factual databases; basics of intellectual property; development and testing of research hypotheses; structure and planning of a thesis work; data processing and presentation of the results.	30	15	0	0	3	Assist Prof Dr Danica Dolničar danica.dolnicar@ntf.uni-lj.si

**Curriculum tags:** L – lectures, S – seminars, P – practice, A – advanced work (project work)

ECTS – credit points by the European credit system (1 credit point means 30 hours of student obligation)

## Spring semester 2023/2024

Course	Description of course	Hours				ECTS	Lecturer
		L	S	P	A		
<b>English for specific purposes</b>	Upgrading general knowledge of English to a higher professional level; reading strategies and discourse of professional texts; determining keywords and writing abstracts, articles and reports; description of graphs; business communication; taking part in discussions.	0	60	0	0	4	Barbara Luštek Preskar barbara.lustek@ntf.uni-lj.si
<b>Nonwovens</b>	Definition and types of non-woven textiles; historical development and trends in non-woven textiles; classification of non-woven textiles; non-woven textile production processes; processing non-woven textiles.	30	0	30	0	4	Assist Prof Dr Dunja Šajn Gorjanc dunja.sajn@ntf.uni-lj.si
<b>Finishing</b>	Procedures of chemical and mechanical finishing; the aim and effect of finishing; description of finishing agents; principle of treatment; review of mechanical equipment; effect of factors; finishing in design, environmental acceptability of agents and procedures.	30	15	15	0	4	Assoc Prof Dr Brigita Tomšič brigita.tomsic@ntf.uni-lj.si
<b>Production planning and management</b>	Organisational structures; production activities; business functions; organisation of the production function; preparing work; production; support activities; economising with the means of work.	30	30	0	0	4	Prof Dr Andrej Demšar andrej.demsar@ntf.uni-lj.si
<b>Quality management</b>	Learning the concepts of quality; management and quality management systems; historical review of management systems; competitiveness; development and demands of standards (ISO 9000, 9001); assessment and certification according to standards (ISO 9001); methods and techniques of quality management; economics of quality; self-evaluation and quality awards.	30	30	0	0	4	Prof Dr Andrej Demšar andrej.demsar@ntf.uni-lj.si

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Course	Description of course	Hours				ECTS	Lecturer
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<b>Basics of dyeing</b>	Basic types of modern synthetic dyes; some natural dyes; dyeing procedures of dyeing bio-materials and other modern textiles; an evaluation of colour fastness in accordance with prescribed standards; basics of colour measurement.	30	15	15	0	4	Assoc Prof Dr Marija Gorjanc marija.gorjanc@ntf.uni-lj.si
<b>Textile care 1</b>	Processes of textile care; theoretical approaches of wetting and washing; surface active agents; washing agents; soils; water as washing media; products and procedures for dry cleaning; removal of stains; environmental aspect.	30	15	15	0	4	Assoc Prof Brigita Tomšič brigita.tomsic@ntf.uni-lj.si
<b>Computer-assisted design of yarns and woven fabrics</b>	Simple and demanding construction of yarn; computer simulation of yarn and textiles; possibilities of colour and other types of patterning; colour metrics in weaving; ArahPaint, ArahWeave and ArahDrape computer programs.	30	0	30	0	4	Assist Prof Dr Živa Zupin ziva.zupin@ntf.uni-lj.si

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# **The list of available courses for Erasmus students in the study year 2023/2024 from the field of Textiles**

## **Master study programme** *Textile and Clothing Planning*

### **Autumn semester 2023/2024**

- Dyeing 4a/Barvanje 4a (4 ECTS)
- Printing 4a/Tiskanje 4a (4 ECTS)
- Medical Textiles/Medicinske tekstilije (4 ECTS)
- Technical Textiles/Tehnične tekstilije (4 ECTS)
- Ecology in textile processes 2/Ekologija v tekstilstvu 2 (6 ECTS)
- High performance fibres/Visokozmogljiva vlakna (6 ECTS)

### **Spring semester 2023/2024**

- Dyeing 4b/Barvanje 4b (4 ECTS)
- Printing 4b/Tiskanje 4b (4 ECTS)
- Medical Textiles/Medicinske tekstilije (4 ECTS)
- Technical Textiles/Tehnične tekstilije (4 ECTS)
- Quality Engineering/Inženiring kakovosti (4 ECTS)
- Mechanical functionalization of textiles/Mehanska funkcionalizacija tekstilij (6 ECTS)
- Biotechnology for textile processing/Biotehnologija v tekstilstvu (4 ECTS)

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## Autumn semester 2023/2024

Course	Description of course	Hours				ECTS	Lecturer
		L	S	P	A		
Dyeing 4a	At realization of individual project work, he/she uses already known dyeing technologies, which he/she modifies them or chooses new technologies which enable ecologically acceptable dyeing processes. The choice of dyes has to satisfy conditions that are requested to obtain appropriate colour fastness properties of designed textile product.	0	30	30	0	4	Asoc Prof Dr Marija Gorjanc marija.gorjanc@ntf.uni-lj.si
Printing 4a	The main focus is on the individual work, integration of previously gathered knowledge and development of new skills. Printing of special fibres and their mixtures, special printing processes, combining of different techniques and processes of printing.	0	30	30	0	4	Prof Dr Petra Forte Tavčer petra.forte@ntf.uni-lj.si
Medical Textiles	Special fibres and polymers; materials for application in medicine and production processes; classification of medical textiles by their intended use; anti-microbial fibre and finishing; textiles as carriers of pharmacological substances; care and maintenance; standards and regulations for testing and handling medical textiles.	30	30	0	0	4	Asoc Prof Dr Brigita Tomšič brigita.tomsic@ntf.uni-lj.si

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Course	Description of course	Hours				ECTS	Lecturer
		L	S	P	A		
Technical Textiles	Systematic classification of technical textiles and their characteristic properties; fibres for technical textiles; choice of raw materials and constructions, production technologies, finishing agents and processes, special testing methods, specifications and standards.	30	0	30	0	4	Assist Prof Dr Dunja Šajn Gorjanc dunja.sajn@ntf.uni-lj.si
Ecology in Textile Processes 2	Textile industry and pollution of the environment; environmental protection in connection with company management, marketing, innovation and development of products, services and technologies; environmental management systems; environmental conservation laws.	30	30	30	0	6	Prof Dr Petra Forte Tavčer petra.forte@ntf.uni-lj.si
High performance fibres	Structure, design and development of high-performance fibres; methods and systems of designing high-performance fibres: carbon, ceramic and nano fibres; fibres for extremely demanding technologies; fibres with special sensory properties; properties of high-performance fibres and their uses.	60	15	15	0	6	Assoc Prof Dr Tatjana Rijavec tatjana.rijavec@ntf.uni-lj.si

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## Spring semester 2023/2024

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		L	S	P	A		
Dyeing 4b	At realization of individual project work, he/she uses already known dyeing technologies, which he/she modifies them or chooses new technologies which enable ecologically acceptable dyeing processes. The choice of dyes has to satisfy conditions that are requested to obtain appropriate colour fastness properties of designed textile product.	0	30	30	0	4	Assoc Prof Dr Marija Gorjanc marija.gorjanc@ntf.uni-lj.si
Printing 4b	The main focus is on the individual work, integration of previously gathered knowledge and development of new skills. Printing of special fibres and their mixtures, special printing processes, combining of different techniques and processes of printing.	0	30	30	0	4	Prof Dr Petra Forte Tavčer petra.forte@ntf.uni-lj.si
Medical Textiles	Special fibres and polymers; materials for application in medicine and production processes; classification of medical textiles by their intended use; anti-microbial fibre and finishing; textiles as carriers of pharmacological substances; care and maintenance; standards and regulations for testing and handling medical textiles.	30	30	0	0	4	Assoc Prof Dr Brigita Tomšič brigita.tomsic@ntf.uni-lj.si

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Course	Description of course	Hours				ECTS	Lecturer
		L	S	P	A		
Technical Textiles	Systematic classification of technical textiles and their characteristic properties; fibres for technical textiles; choice of raw materials and constructions, production technologies, finishing agents and processes, special testing methods, specifications and standards.	30	0	30	0	4	Assist Prof Dr Dunja Šajn Gorjanc dunja.sajn@ntf.uni-lj.si
Quality Engineering	In-depth study of approaches to quality management; importance of quality management from aspect of global competition; development of quality management systems; basic functions of quality management; methods and techniques in area of quality management; economics of quality; standardisation of quality systems; comprehensive quality management.	30	30	0	0	4	Prof Dr Andrej Demšar andrej.demsar@ntf.uni-lj.si
Mechanical functionalisation of Textiles	Structure and properties of single, twisted and effective yarns, woven and knitted fabrics, knitwear and non-wovens; processes in the production of single, twisted and effective yarns, woven and knitted fabrics, knitwear and non-woven textiles; planning woven and knitted fabrics, planning knitwear.	30	30	30	0	6	Assist Prof Dr Dunja Šajn Gorjanc Prof Dr Matejka Bizjak Prof Dr Alenka Pavko Čuden  dunja.sajn@ntf.uni-lj.si mateja.bizjak@ntf.uni-lj.si alenka.cuden@ntf.uni-lj.si

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Course	Description of course	Hours				ECTS	Lecturer
		L	S	P	A		
Biotechnology for textile processing	Biotechnological procedures in textile finishing; enzymes in the care of textiles; enzymes in waste-water treatment; decomposition of colours in a substrate, in rinsing baths and in wastewater; biotechnology in the development of new fibres; possibilities and credits of genetic modification in natural fibre production.	30	30	0	0	4	Prof Dr Petra Eva Forte Tavčer  petra.forte@ntf.uni-lj.si

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