UNIVERSITY OF LJUBLJANA
FACULTY OF NATURAL SCIENCES AND ENGINEERING

DEPARTMENT OF TEXTILES, GRAPHIC ARTS AND DESIGN
CHAIR OF TEXTILE AND CLOTHING ENGINEERING

UNDERGRADUATE STUDY PROGRAMME – UNIVERSITY STUDY PROGRAMME

TEXTILE AND CLOTHING PLANNING

STUDY YEAR 2026/27

INFORMATION ON TEXTILE AND CLOTHING PLANNING STUDY PROGRAMME

Basic information

Name of study programme	**Textile and Clothing Planning**
Type	University study programme
The degree of study	Undergraduate study programme
KLASIUS-SRV	Academic higher education (first Bologna cycle) (16204)
ISCED	Manufacturing and processing (54)
KLASIUS-P	Textiles, clothes, footwear, leather (broad programmes) (5420)
KLASIUS-P-16	Textiles (clothes, footwear and leather) (0723)
Frascati	Engineering and technology (2)
Level SOK	SOK 7
Level EOK	EOK 6
Level EOVK	1st
Member of the University of Ljubljana	Faculty of Natural Sciences and Engineering, Aškerčeva cesta 12, 1000 Ljubljana, Slovenia
Duration (years)	3
Number of credits per year	60
Study mode	Full-time

Basic goals of the programme

The European and thus also the Slovenian textile and clothing industry is facing major development challenges in the period of full liberalisation of trade in textile products. Its future position will depend on the measures that will increase its competitive advantage. It needs to invest more in research and development, promote innovation and implement appropriate HR policies. In the Slovenian textile and clothing industry, the situation of human resources is particularly urgent due to the complete collapse of secondary education in this profession, first in the primary textile industry and now also in the clothing industry.

The analyses conducted in the EU show that the textile industry has a future even in developed economies, of course under certain conditions. This future can only be shaped by abandoning mass-produced products, replacing them with textile and clothing products with high added value, high quality, sophisticated design, creative future products, technical products, medical textiles, smart textiles etc.

Among other measures, the objectives are closely related to the relevant knowledge and excellent training of professionals who have the skills and abilities to design, develop and manufacture innovative products that meet the requirements and needs of the most demanding customers. The ultimate goal of such a focus is to produce products that exceed the requirements of customers in every way and predict their future needs and demands.

The basic goal of the university study programme Textile and Clothing Planning is to train professionals capable of mastering the most technologically demanding processes in the textile and clothing industry, and of designing sophisticated products and technological processes, while providing them with the appropriate basic scientific and professional knowledge to continue their education with a master's degree.

In accordance with the principles of the Bologna process, the programme, compared to the previous ones, implies a departure from the teaching philosophy with an otherwise correct arrangement of different technologies applied to selected scientific content. The default learning philosophy is such that in addition to the acquired knowledge, other competences of graduates, their skills and abilities are important, in this case with a focus on mastering the theoretical foundations of rapidly developing technologies in the field of primary textile production and clothing industry. An important component of the programme is the development of students' awareness and accustoming them to the need for continuous education and the development of skills in the use of ICT, information resources, professional and ethical responsibility, and teamwork.

General competences (learning outcomes)

- expertise gained by the study of theoretical and methodological concepts;
- ability to transfer theoretical knowledge into practice and use it to solve problems, especially by seeking new sources of knowledge and using scientific methods;
- ability to experiment and visually transfer various concepts of thinking;
- developed capacity for independent learning in a specific professional area;
- initiative and independence in decision making and management of the most demanding work;
- ability to communicate with colleagues and experts in related disciplines, which facilitates active cooperation in teamwork and in the area of projects based on linking professional principles with the design practice;
- developed professional, ethical and environmental responsibility;
- ability to use modern tools, skills and dexterity, primarily in the field of ICT in daily professional and scientific research work.

Subject-specific competences (learning outcomes)

- in-depth knowledge of mathematics, physics and chemistry with the developed capacity for thinking in terms of natural sciences;
- theoretical knowledge that allows good judgment and linking properties of fibres to their morphological structure, or its modification during the technological processing of fibres;
- understanding the interdisciplinary development of modern fibre forming polymers by combining different scientific disciplines (chemistry, bio(techno)logy, nanotechnology, information technology) to create responsive and intelligent fibre forming polymers;
- capacity to link the effects of various raw materials and technological factors to the structure and properties of yarns, woven and knitted fabrics, nonwovens and knitwear;
- knowledge basic weaving and knitting structures, properties originating from them, and their advantages and shortcomings;
- capacity of optimising technological processes of clothing production by transferring theoretical knowledge into practice and achieving higher quality of the final product;
- knowledge of the theoretical basics of finishing, which forms the basis for independent creative research work in the fields of dyeing, printing, finishing and care of textiles;
- capacity of planning pre-finishing, dyeing, printing and finishing processes with regard to the constructional characteristics of textiles and with consideration for environmental requirements;
- mastering computer-assisted patterning of yarns, woven and knitted fabrics, knitwear and printing patterns;
- capacity of supervision, analysis and management of the production process, capacity of planning the production process using the methods of network planning and recognition of the possibility of introducing computer applications in the production process as well as their evaluation from the standpoint of cost and humanisation of work;
- ability to understand modern concepts of quality management systems and their importance in the context of global competition.

Enrolment conditions

Enrolment in the undergraduate study programme Textile and Clothing Planning shall be possible for:

a) any person who has passed the general matura exam,
b) any person who has passed the vocational matura exam in any secondary school programme and an examination in one of the matura courses; the chosen course cannot be the same course that the candidate has already passed at their vocational matura exam,
c) any person who has completed any four-year secondary school programme prior to 1 June 1995.

Criteria in the event of enrolment limitation

In case of limited enrolment, candidates from items a) and c) will be selected according to their:

- overall performance at the general matura exam or final examination (60%);
- overall performance in the 3rd and 4th years at secondary school (40%).

Candidates from item b) will be selected according to their:

- overall performance at their vocational matura exam (40%);
- overall performance in the 3rd and 4th years at secondary school (40%);
- performance in the chosen general matura course (20%).

Criteria for crediting knowledge and skills obtained before enrolment

Recognition can be given to students' knowledge that corresponds in contents to the learning contents of the courses of the undergraduate university study programme Textile and Clothing Planning, acquired in various forms of education. The recognition of knowledge and skills acquired prior to the enrolment is decided by the department Study Committee on the basis of students' written application, attached certificates and other documents proving the successfully acquired knowledge and its contents.

When crediting knowledge obtained before the enrolment, the department Study Committee will take into account the following criteria:

- whether the conditions for enrolling into a specific educational course are adequate (required prior education for starting the study programme);
- whether the scope of the completed educational course (number of hours of prior education compared to the scope of the course in question) adequately compares with the credited requirements;
- whether the areas covered by the prior education programme, which the applicant would like to have credited, adequately compare with the courses which are dealt with in the faculty study programme.

The acquired knowledge and skills may be credited as a completed study activity if the conditions for taking part in the educational programme were the same as for enrolling into the undergraduate university study programme Textile and Clothing Planning, if the prior educational programme encompassed at least 75% of the scope of the course and if at least 75% of its contents cover the same areas as the course which the applicant would like to have credited. If the Committee finds that the acquired knowledge can be credited, the same number of ECTS credits is granted as awarded for the course in question.

Assessment methods

Assessment methods are in accordance with the Statute of the University of Ljubljana and are specified in the curricula.

Requirements for progression through the programme

To enter into a higher class, a student must have confirmed attendance in all courses, completed all practical courses and the following number of ECTS credit points obtained for enrolment in each individual year:

- minimum 54 ECTS credits for enrolment in the 2nd year;
- 60 ECTS credits from the 1st year and minimum 54 ECTS credit points from the 2nd year for enrolment in the 3rd year.

The department Study Committee may exceptionally grant progression to a higher class to a student who has collected at least 42 ECTS credit points in the previous year if there are justified reasons for exception. Justified reasons are listed in the Statute of the University of Ljubljana.

To re-enrol in the same year (repetition of the same year), students need to have:

- all practical classes completed and minimum 28 ECTS credit points obtained for the 1st year;
- all practical classes completed and minimum 28 ECTS credit points obtained for the 2nd year.

During the course of studies, a student can repeat a class once or change the study programme once for having failed to meet their obligations in the previous study programme.

Transfer between programmes

Transfer is possible between two study programmes:

- that upon the completion of studies ensure the acquisition of comparable competences or learning outcomes;
- where, in line with the criteria for the recognition of knowledge and skills acquired prior to the enrolment in the undergraduate university study programme Textile and Clothing Planning, at least half of the obligations according to the European Credit Transfer System (ECTS) can be recognised from the first study programme, referring to compulsory courses of the undergraduate university study programme Textile and Clothing Planning.

An individual exam passed in the original study programme is recognised as passed in the undergraduate university study programme Textile and Clothing Planning if the contents of both courses are at least 75% compatible. The recognised exam is evaluated with credits in the original study programme; however, not with more credits as evaluated in the undergraduate university study programme Textile and Clothing Planning.

A candidate can enrol through transfer in the 2nd or 3rd year of the undergraduate university study programme Textile and Clothing Planning if:

- the requirements for the enrolment in the study programme are met;
- vacant places are available.

The department Study Committee determines for each applicant the extent to which it recognises their already completed study obligations, determines new obligations and which year the applicant can enrol in.

Requirements for completing studies

To complete the studies, students must meet the obligations in all enrolled courses, prepare a diploma thesis and defend it.

Professional or scientific title (and abbreviation)

Bachelor of Science (B.Sc.)

CURRICULUM OF THE STUDY PROGRAM WITH INTENDED COURSES AND LECTURERS

Year 1, compulsory

				Contact hours									
	University Course Code	Course title	Lecturers	Lectures	Seminar	Tutorials	Clinical tutorials	Other forms of study	Individual student work	Total hours	ECTS	Semesters	Elective
1.	0642798	Mathematics 1	Janko Bračič	45	0	45	0	0	90	180	6	1st semester	no
2.	0642800	Physics	Borut Paul Kerševan	45	0	45	0	0	90	180	6	1st semester	no
3.	0068727	Chemistry 1	Urška Lavrenčič Štangar	60	0	30	0	0	90	180	6	1st semester	no
4.	0068733	Fibres	Tatjana Rijavec	75	15	30	0	0	120	240	8	All-year	no
5.	0068729	Creativity and product development	Andrej Demšar	30	30	0	0	0	60	120	4	1st semester	no
6.	0068726	Interdisciplinarity of textiles	Brigita Tomšič, Tatjana Rijavec	45	15	0	0	0	60	120	4	1st semester	no
7.	0642799	Mathematics 2	Janko Bračič	45	0	45	0	0	90	180	6	2nd semester	no
8.	0642801	Physics 2	Borut Paul Kerševan	45	0	45	0	0	90	180	6	2nd semester	no
9.	0068728	Chemistry 2	Uroš Grošelj	45	15	30	0	0	90	180	6	2nd semester	no
10.	0068731	Spinning	Dunja Šajn Gorjanc	30	0	30	0	0	60	120	4	2nd semester	no
11.	0643006	Nonwovens	Dunja Šajn Gorjanc	45	0	15	0	0	60	120	4	2nd semester	no
		Total		510	75	315	0	0	900	1800	60		

Year 2, compulsory

				Contact hours									
	University Course Code	Course title	Lecturers	Lectures	Seminar	Tutorials	Clinical tutorials	Other forms of study	Individual student work	Total hours	ECTS	Semesters	Elective
1.	0068742	Statistics	Stanislav Praček	30	0	30	0	0	60	120	4	1st semester	no
2.	0068734	Weaving	Klara Kostajnšek, Matejka Bizjak	45	15	30	0	0	90	180	6	1st semester	no
3.	0068736	Woven structures	Klara Kostajnšek, Matejka Bizjak	30	0	30	0	0	60	120	4	1st semester	no
4.	0068737	Knitting	Živa Zupin	45	15	30	0	0	90	180	6	1st semester	no
5.	0068735	Knitted structures	Živa Zupin	30	0	30	0	0	60	120	4	1st semester	no
6.	0068740	Testing of textiles	Andrej Demšar	30	15	30	0	15	90	180	6	1st semester	no
7.	0068744	Theory of finishing	Barbara Simončič	45	15	0	0	0	60	120	4	2nd semester	no
8.	0068738	Pretreatment of textiles	Petra Eva Forte Tavčer	45	15	30	0	0	90	180	6	2nd semester	no
9.	0643007	Introduction to technical textiles and composites	Dunja Šajn Gorjanc, Tatjana Rijavec	30	15	15	0	0	60	120	4	2nd semester	no
10.	0068741	Development of clothing patterns	Živa Zupin	30	0	30	0	0	60	120	4	2nd semester	no
11.	0068743	English for specific purposes	Barbara Luštek Preskar, prof. angl. in nem.	0	60	0	0	0	60	120	4	2nd semester	no
12.	0111845	Optional course 1		30	0	30			60	120	4	2nd semester	no
13.	0111846	Optional course 2		30	15	15	0	0	60	120	4	2nd semester	no

	Total	420	165	300	0	15	900	1800	60		

Year 3, compulsory

				Contact hours									
	University Course Code	Course title	Lecturers	Lectures	Seminar	Tutorials	Clinical tutorials	Other forms of study	Individual student work	Total hours	ECTS	Semesters	Elective
1.	0068751	Apparel technology	Matejka Bizjak	45	15	30	0	0	90	180	6	1st semester	no
2.	0068750	Dyeing technology	Marija Gorjanc	30	15	45	0	0	90	180	6	1st semester	no
3.	0068749	Finishing	Barbara Simončič	45	30	15	0	0	90	180	6	1st semester	no
4.	0068752	Printing of textiles	Petra Eva Forte Tavčer	45	15	30	0	0	90	180	6	1st semester	no
5.	0068746	Colour measurement in textiles	Sabina Bračko	30	0	15	0	0	45	90	3	1st semester	no
6.	0068748	Information sources and methodology of thesis work	Danica Dolničar	30	15	0	0	0	45	90	3	1st semester	no
7.	0068747	Ecology in textiles and apparel	Petra Eva Forte Tavčer	30	15	15	0	0	60	120	4	2nd semester	no
8.	0068753	Textile care 1	Barbara Simončič, Brigita Tomšič	30	15	15	0	0	60	120	4	2nd semester	no
9.	0111847	Optional course 3		30	0	30	0	0	60	120	4	2nd semester	no
10.	0111848	Optional course 4		30	15	15	0	0	60	120	4	2nd semester	no
11.	0111849	Optional course 5		45	15	0	0	0	60	120	4	2nd semester	no
12.	0068745	Diploma work						150	150	300	10	1st semester	no
		Total		390	150	210	0	150	900	1800	60		

Year 2 and 3, elective 1, 2, 3, 4 in 5

				Contact hours									
	University Course Code	Course title	Lecturers	Lectures	Seminar	Tutorials	Clinical tutorials	Other forms of study	Individual student work	Total hours	ECTS	Semesters	Elective
1.	0068708	Computer-assisted design of yarns and woven fabrics	Klara Kostajnšek	30	0	30	0	0	60	120	4	2nd semester	yes
2.	0068707	Computer-assisted design of knitted fabrics and knitwear	Živa Zupin	30	0	30	0	0	60	120	4	2nd semester	yes
3.	0068706	Computer assisted processes in apparel manufacturing	Živa Zupin	30	0	30	0	0	60	120	4	2nd semester	yes
4.	0068709	Computer-assisted design for printing	Marija Gorjanc	15	30	15	0	0	60	120	4	2nd semester	yes
5.	0068710	Production management	Andrej Demšar	45	15	0	0	0	60	120	4	2nd semester	yes
6.	0108510	Marketing of textiles and clothing	Mateja Kos Koklič	45	15	0	0	0	60	120	4	2nd semester	yes
7.	0068705	Entrepreneurship	Blaž Zupan	30	0	30	0	0	60	120	4	2nd semester	yes
8.	0068712	Quality management	Andrej Demšar, Marica Starešinič	30	30	0	0	0	60	120	4	2nd semester	yes
9.	0068711	Leather and fur	Marija Gorjanc	15	30	0	0	15	60	120	4	2nd semester	yes
10.	0068703	Basics of 3D modelling	Helena Gabrijelčič Tomc	30	15	15	0	0	60	120	4	2nd semester	yes
11.	0642820	Technological design of textiles and clothing	Klara Kostajnšek, Matejka Bizjak , Živa Zupin	30	30	0	0	0	60	120	4	2nd semester	yes
12.	0642821	Special clothing patterns	Živa Zupin	45	15	0	0	0	60	120	4	2nd semester	yes

13.	0642822	Nonconventional fibrous materials	Marija Gorjanc, Tatjana Rijavec	30	0	30	0	0	60	120	4	2nd semester	yes
14.	0642823	Digital in Design	Karin Košak, Tanja Nuša Kočevar	30	30	0	0	0	60	120	4	2nd semester	yes
15.	0068373	Textile and clothing tradiction	Klara Kostajnšek, Živa Zupin	45	15	0	0	0	60	120	4	2nd semester	yes
16.	0642824	Practice/project work	Andrej Demšar, Barbara Simončič, Brigita Tomšič, Dunja Šajn Gorjanc, Marija Gorjanc, Matejka Bizjak , Petra Eva Forte Tavčer, Stanislav Praček, Tatjana Rijavec, Živa Zupin	0	0	0	0	60	60	120	4	2nd semester	yes
		Total		480	225	180	0	75	960	1920	64		