

## Dean's Directive No. 1/2018

### **Organization of Studies in PhD Study Programme TEXTILE ENGINEERING, study branch Textile Technics and Materials Engineering**

	Name	Position	Date	Signature
Guarantor:	Ing. Jana Drašarová, Ph.D.	Dean	15. 12. 2017	
Legal Control:	Mgr. Michal Prokop	Lawyer	15. 12. 2017	
Approved by:	Ing. Jana Drašarová, Ph.D.	Dean	15. 12. 2017	
Person in Charge:	Ing. Gabriela Krupincová, Ph.D.	Vice Dean	15. 12. 2017	
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#### **Article 1 Legislative Framework**

In accordance with Article 47 of [Act No. 111/1998 Coll., On Higher Education](#) (hereinafter "Act") and Article 16 and 17 Par. 1 of [Study and Examination Rules of the Technical University of Liberec](#) (hereinafter "SER TUL"), the following rules for the organization, process and evaluation of studies including the organization of State Doctoral Exams (hereinafter "SDE") and Defence of PhD Thesis are provided.

#### **Article 2 Study Duties**

1. Study in PhD Study Programme (hereinafter "PhD") in accordance with Art. 16 of SER TUL is carried out by an individual study plan (hereinafter "ISP") under the guidance of a supervisor and usually attended by a consultant appointed and dismissed by the Dean following the proposal of the Branch Board. The standard length of studies is 4 years.
2. The ISP provides subjects, their time and content sequence, pedagogical activity, determined by the Head of the department, the topic of scientific research or creative activity in the field of research and development, topic framework as a basis for the PhD Thesis, alternatively study and training at other institutions, including stays abroad. ISP is drawn up by the students in agreement with their supervisor or consultant, no later than 1 month from the enrolment to study and is submitted to the Study Department. (form - [Individual Study Plan of Student of PhD Study Programme](#))
3. To meet the study duties, students take exams in the five following areas of study. For drawing up the ISP, it is recommended to keep the listed order of subjects. In topics I to III students choose at least one of the given sub-topics.



#### **I. BASICS OF NATURAL SCIENCE:**

- Numerical and Applied Mathematics,
- Probability Theory and Mathematical Statistics

#### **II. BASIC OF APPLIED SUBJECTS:**

- Selected Topics from Chemistry,
- Selected Topics from Physics,
- Applied Mechanics.

#### **III. MAIN SUBJECTS OF THE FIELD:**

- Textile Materials,
- Textile Technology,
- Metrology.

#### **IV. SPECIALIZATION IN FIELD**

The student preferably chooses from the list of accredited subjects of TUL PhD study programmes. The subject shall be determined based on a supervisor's proposal approved by the Branch Council by the Dean of the Faculty, so that the content is related to the topic of the PhD Thesis. The ISP specifies to PhD student: the basic requirements for this examination (the examination topic, eventually the recommended study materials and other requirements) and the topic of the written report, which is usually connected with the topic of the PhD Thesis. It covers approx. 20 pages. The report is available to the Examination Committee at least 14 days prior to the examination date.

#### **V. EXPERIMENTAL TECHNIQUE OF THE TEXTILE**

The content of this subject shall be determined by the Dean of the Faculty based on a supervisor's proposal approved by the Branch Board, so that the content is related to the topic of the PhD Thesis and is linked to the execution of foreign and intersectional internships usually out of the parent university. More detailed specifications are contained in Art. 5 of this Directive.

4. The subjects of individual study areas, their contents and study materials are given in IS STAG and generally also in Appendix 1 of this Directive.
5. The students prepare for the prescribed examinations from the ISP subjects by visiting lectures, seminars or workshops in the scope defined for the selected subject or by self-study in accordance with their personal individual study plan. In fulfilling the study requirements, the standard time period of study must be respected, which is 4 years for both full-time and part-time form of studies. For the successful implementation of the study, it is deemed to pass at least three examinations in 24 months and meet study and other requirements in accordance with the ISP. In the case of non-fulfilment of study duties without a justifiable reason, the study is terminated in accordance with Article 56 Par. 1 (b) of the Act and Art. 30, Par. 2 of SER TUL.
6. Examinations are taken before a Committee appointed by the Dean following the supervisor's proposal. The Committee for partial (sub-) examinations consists of a minimum of three members. The guarantor of the subject fulfils the function of the examiner with the attendance of a supervisor, the chairman and if need be other experts. (form - [Proposal for Composition of the Committee for Special Examination of PhD Study](#)). The examination result is put upon record (form - [Registration of Special Examination in PhD Study Programme](#)).
7. ISP is approved by Branch Board.
8. The fulfilment of study duties is continuously checked. Every year, no later than on the 15 September of a calendar year, the students submit an annual evaluation (form - [Annual Assessment of a Student of PhD Study Programme](#)) and they submit updates of their ISP on the prescribed form - [Annual Study Plan of a Student of PhD Study Programme](#)). The results of their work and progress in resolving the PhD Thesis is presented by students at workshops for PhD students, which are organized for that purpose.
9. The annual evaluation of the PhD student made by the student, the supervisor, and the Head of the department and supplemented by Study Department is approved by Branch Board and consequently submitted to the Dean.



10. The students sign up for the SDE in the third year of their studies; otherwise their studies will be terminated accordance with Article 56 Par. 1 (b) of the Act and Art. 30, Par. 2 of SER TUL. In exceptional cases, based on the student's request, the Dean can decide on the postponement.
11. The application for SDE is submitted by the student on the prescribed form to the Study Department (form - [Application Form for PhD Examination](#)). The dates of the SDE are provided and announced by the Study Department in accordance with applicable regulations.

Integral parts of the application for SDE are:

- a) the opinion of the supervisor: recommended/not recommended taking SDE,
- b) the proposal of the Committee for SDE to be held in accordance with the Art. 20 of SER TUL
- c) a written theses of PhD Thesis in the prescribed form and format that is available from the website (model – [Theses of PhD Thesis](#))
- d) credit book with registered examinations and copies of all Registrations of examinations including Experimental Technique of the Textile (work experience).

12. The organization of the SDE is governed by Art. 20 of SER TUL.

13. The request for the defence of the PhD Thesis in the prescribed structure is submitted by the student to the Study Department (form – [Application Form for the Defence of PhD Thesis](#)). The date of the Defence of PhD Thesis is provided and announced by the Study Department in accordance with applicable regulations.

Integral parts of the application for the Defence of the PhD Thesis are:

- a) four copies of the PhD Thesis in the final version and layout according to the prescribed format in accordance with TUL Directive both in print and electronic form (Model of title pages of final theses)
- b) supported documents for the summary of PhD Thesis in the prescribed structure and according to the model in electronic form (model – [Summary of the PhD Thesis](#)), printing the required number of copies will be ensured by the Study Department,
- c) the opinion of supervisor: recommended/not recommended taking the Defence of PhD Thesis
- d) the proposal of Committee for the defence of PhD Thesis in accordance with Art. 23 of SER TUL
- e) credit book with registered examinations and copies of all Registrations of examinations including Experimental Technique of the Textile (work experience) and SDE.

14. The Defence of PhD Thesis is governed by Art. 21 to 23 of SER TUL. According to Art. 17, Par. 5 of SER TUL, the final deadline for application for the Defence of the PhD Thesis is a period of six years from the enrolment to the study, unless the Dean decides, in exceptional cases, otherwise.

15. A student can re-defend his/her PhD Thesis after having rewritten it only once at least 6 month in accordance with SER TUL Art. 23 Par. 13, unless the Dean decides, in exceptional cases, otherwise.

### **Article 3 Research and Publications**

1. The PhD Thesis must contain original research results. The PhD Thesis is the result of solving a specific scientific task, which means participation of the student in the external or internal research projects of a department related to the topic of PhD Thesis.
2. The PhD Thesis also must contain some original results of student research activities in accordance with Art. 21 Par. 3 (d) of SER TUL, especially in peer-reviewed scientific journals. Students consult the publications with their supervisors.
3. The results obtained within the course of solving their PhD Theses are presented by students mainly in magazines, at student scientific conferences and international conferences. When filing the application for the Defence of PhD Thesis, for a minimum of publication activities (within the meaning of original results) the results of three qualifying for inclusion into the information system of research, development and innovation (RIV) will be considered; out of which at least one article must be published in a scientific peer-reviewed journal impact factor with a major proportion of the student's copyright. A list of recommended journals is given in Appendix 2.



#### Article 4 Pedagogical Activities

1. Pedagogical activities specified in the ISP are important part of study duties. Within the teaching practice, students usually perform four hours (two teaching blocks) per week under the supervision of guarantors or lecturers of the subjects.
2. Where it is not possible to set student tutorials at a minimal extent, they are replaced by other activities of a similar range related to the professional activities of the departments. Realized activities are stated by students in their annual evaluation.

#### Article 5 Intersectoral and International Mobility

1. Part of the fulfilment of study duties during the standard period of study is to pass a six-month study stay usually out of TUL at other universities, scientific and research partner workplaces, preferably abroad and even better within the frame of Erasmus Program bilateral agreements between the faculty and other foreign institutions. The internship can be separated into several shorter stays.
2. The focus, implementation and administration of their internship are consulted by students with their supervisor, Study Department, or TUL International Office or Erasmus Office. For approval within ISP, the student submits the thematic classification and dates of the internship. For approval within Annual Study Plan the student submits details of the internship - theme, objectives, organizational conditions, method of financing.
3. Before the departure, the following must be submitted:
  - a) the thematic focus of the internship, including work schedule and planned outputs,
  - b) confirmation of the internship by the host organization,
  - c) the method of implementation and financing (dates of departure and arrival, costing financial demands).
4. After the return, the following must be submitted:
  - a) confirmation of the implementation of the internship from the host institution,
  - b) partial travel report, if it is a partial fulfilment of the six-month internship.
5. Presentation of the outcomes of the internship - the outcome is a report dealing with the course of the internship in terms of experimental results and their processing as a part of the solution of PhD Thesis, and benefits of the student's newly acquired knowledge and experience (the recommended range of 20 pages). The study is available at least 14 days prior to the exam **EXPERIMENTAL TECHNIQUE OF THE TEXTILE** at the disposal of the Examination Committee, before which the student presents and defences the obtained results. The student submits the material in a required number of copies and in an electronic form at the Study Department. The Study Department will forward it to the Committee.

#### Article 6 Obligations of Full-time PhD Students

1. The student is obliged to fulfil the study duties in cooperation with the supervisor, or the consultant and the Head of the department.
2. To expand their theoretical knowledge in the chosen field, students of a PhD programme attend seminars organized for this programme, conferences and other professional events.
3. Full-time PhD course is carried out in the workplace, which guarantees an individual study plan and organizes their work and stay at work. Students are obliged to be reachable in the workplace according to predefined conditions determined by the Head of a department and the supervisor, with the minimum working hours between 9:00 a.m. to 2:00 p.m. Attendance is recorded by secretaries of individual departments.
4. The student is obliged to report a short absence from the workplace in advance; not only to the supervisor, but also to the Head of the department (by phone or email).
5. In the event that a student is planning to travel abroad for longer than 1 week (conferences, internship, departure on holidays according to the schedule of academic year), it is necessary to



notify the supervisor, the Head of the department and the Study Department in writing (preferably by email).

6. Students in full-time and standard time of study are entitled to scholarship. The amount is specified by a separate Dean's Directive. In case of a failure to fulfil study requirements and other obligations or a failure to observe binding rules, scholarship may be suspended or reduced by the decision of the Dean.

#### **Article 7** **Final Provisions**

1. This Directive repeals Dean's Regulation No. 1/2017
2. Discussed by the Branch Council of the Doctoral Study Program of Textile Engineering on: 29. 6. 2017, Scientific Council of the Faculty of Textile Technology, Liberec 27. 11. 2017 and FT TUL Academic Senate on: 21. 11. 2017..



## PhD Study Programme P3106 – Textile Engineering

### Branch: Textile Technics and Material Engineering

#### I. BASICS OF NATURAL SCIENCE

compulsory optional subjects (B)

Course Title	Abbreviation	Scope	Completion	Year	Semester
Mathematical Statistics and Data Analysis	KAP/D02	2+0	Exam	1	WS
Numerical Methods	KAP/D40	2+0	Exam	1	WS
Differential Equations	KAP/D41	2+0	Exam	1	SS

Student chooses 1 subject from the offer.

#### II. BASIC OF APPLIED SUBJECTS

compulsory optional subjects (B)

Course Title	Abbreviation	Scope	Completion	Year	Semester
Macromolecular Chemistry	KNT/D18	2+0	Exam	1	WS
Mechanics of Fibrous Assemblies	DFT/D43	2+0	Exam	1	WS
Optics of Solids	KMI/D05	2+0	Exam	1	WS
Structural Mechanics of Fibrous Ass.	KTT/D51	2+0	Exam	1	WS
Physical-Chemistry Modelling	DFT/D42	2+0	Exam	1	SS
Heat and Mass Transfer in Porous Media	KHT/D17	2+0	Exam	1	SS
Textile Machines Dynamics	DFT/D44	2+0	Exam	1	SS
Hydrodynamics Process of Spinning	KNT/D53	2+0	Exam	1	WS, SS

Student chooses 1 subject from the offer.

#### III. MAIN SUBJECTS OF THE FIELD

compulsory optional subjects (B)

Course Title	Abbreviation	Scope	Completion	Year	Semester
Nanofibres and Nanotechnologies	KNT/D42	2+0	Exam	2	WS
Clothing Comfort	KHT/D52	2+0	Exam	2	WS
Practical Stereology	KNT/D44	2+0	Exam	2	WS
Sorption Processes	KMI/D13	2+0	Exam	2	WS
Structure and Properties of Textile Fibers	KMI/D07	2+0	Exam	2	WS
Structural Theory of Fibrous Assemblies	KTT/D11	2+0	Exam	2	WS
Textile Chemistry	KMI/D24	2+0	Exam	2	WS
Tissue Engineering	KNT/D40	2+0	Exam	2	WS
Chemical and Thermal Technologies of Nonwovens	KNT/D25	2+0	Exam	2	SS
Textiles Projection	KMI/D20	2+0	Exam	2	SS
Simulation of the Apparel Processes	KOD/D15	2+0	Exam	2	SS
Simulation in Material Engineering	KNT/D21	2+0	Exam	2	SS
Theoretical Textile Metrology	KMI/D08	2+0	Exam	2	SS
Transport Phenomena of Forming	KOD/D16	2+0	Exam	2	WS, SS
Image Processing and Analysis of Textile Structures	KHT/D54	2+0	Exam	2	SS

Student chooses 1 subject from the offer.



**IV. SPECIALIZATION IN THE FIELD**
**compulsory optional subjects (B)**

Course Title	Abbreviation	Scope	Completion	Year	Semester
Specialization in Field	DFT/D30	2+0	Exam	3	WS, SS

Student must comply with the subject.

**V. EXPERIMENTAL TECHNIQUE OF THE TEXTILE**
**compulsory optional subjects (B)**

Course Title	Abbreviation	Scope	Completion	Year	Semester
Experimental Technique of the Textile	DFT/D33	2+0	Exam	3	WS, SS

Student must comply with the subject.

**INTERSHIPS**
**optional subjects (C)**

Course Title	Abbreviation	Scope	Completion	Year	Semester
Internship in a Company I	DFT/D60	12T	CC	3	WS, SS
Internship in a Company II	DFT/D61	12T	CC	3	WS, SS
Internship Abroad I	DFT/D62	12T	CC	3	WS, SS
Internship Abroad II	DFT/D63	12T	CC	3	WS, SS

CC=Course Credit





### List of Recommended Journals

Selected impact journals recorded in the database of Thomson Reuters  
 (<http://apps.webofknowledge.com/>)

Journal*	ISSN	IF	Publisher
<i>Dyes and Pigments</i>	0143-7208	3,966	ESSEVIER SCI LTD, ENGLAND
<i>Cellulose</i>	0969-0239	3,573	SPRINGER, NETHERLANDS
<i>Textile Research Journal</i>	0040-5175	1,599	SAGE PUBLICATIONS LTD, USA
<i>Journal of Industrial Textiles</i>	1528-0837	1,349	SAGE PUBLICATIONS INC, USA
<i>Coloration Technology</i>	1472-3581	1,262	WILEY-BLACKWELL, ENGLAND
<i>Journal of Engineered Fibers and Fabrics</i>	1558-9250	0,986	INDA, USA
<i>Fibers and Polymers</i>	1229-9197	0,881	KOREAN FIBER SOC, SOUTH KOREA
<i>Journal of Vinyl &amp; Additive Technology</i>	1083-5601	0,859	WILEY-BLACKWELL, USA
<i>Wood and Fiber Science</i>	0735-6161	0,773	SOC WOOD SCI TECHNOL, USA
<i>Journal of the Textile Institute</i>	0040-5000	0,722	TAYLOR & FRANCIS LTD, ENGLAND
<i>Fibers &amp; Textiles in Eastern Europe</i>	1230-3666	0,667	INST CHEMICAL FIBERS, POLAND
<i>Indian Journal of Fibre &amp; Textile Research</i>	0971-0426	0,634	ATL INST SCIENCE COMMUNICATION-NISCAIR, INDIA
<i>Industria Textila</i>	1222-5347	0,570	INST NATL CERCETARE-DEZVOLTARE TEXTILE PIELARIE-BUCURESTI, ROMANIA
<i>Journal of The American Leather Chemists Association</i>	0002-9726	0,495	AMER LEATHER CHEMISTS ASSOC, USA
<i>Journal of Natural Fibers</i>	1544-0478	0,460	TAYLOR & FRANCIS INC, USA
<i>International Journal of Clothing Science and Technology</i>	0955-6222	0,350	EMERALD GROUP PUBLISHING LIMITED, ENGLAND
<i>Sen-I Gakkaishi</i>	0037-9875	0,315	SOC FIBER SCI TECHNOL, JAPAN
<i>Journal of the Society of Leather Technologists and Chemists</i>	0144-0322	0,264	SOC LEATHER TECHNOL CHEMISTS, ENGLAND
<i>Tekstil ve Konfeksiyon</i>	1300-3356	0,264	EGE UNIVERSITESI, TURKEY
<i>AATCC Review</i>	1532-8813	0,254	AMER ASSOC TEXTILE CHEMISTS COLORISTS, USA
<i>Fibre Chemistry</i>	0015-0541	0,224	SPRINGER, RUSSIA
<i>Autex Research Journal</i>	1470-9589	0,220	AUTEX, POLAND

\* Materials Science, Textiles (JCR, Thomson Reuters)

Journal	ISSN	IF	Publisher
<i>Polymer Testing</i>	0142-9418	2,240	ESSEVIER SCI LTD, ENGLAND
<i>Modelling and Simulation in Materials Science and Engineering</i>	0965-0393	2,167	IOP PUBLISHING LTD, ENGLAND
<i>Journal of Applied Polymer Science</i>	0021-8995	1,768	WILEY-BLACKWELL, WILEY-BLACKWELL
<i>Polymer Engineering and Science</i>	0032-3888	1,520	WILEY-BLACKWELL, WILEY-BLACKWELL
<i>Optical Fiber Technology</i>	1068-5200	1,300	ESSEVIER SCIENCE INC, USA
<i>Fiber and Integrated Optics</i>	0146-8030	0,615	TAYLOR & FRANCIS INC, USA
<i>Journal of Testing and Evaluation</i>	0090-3973	0,379	AMER SOC TESTING MATERIASS, USA
<i>Polymers &amp; Polymer Composites</i>	0967-3911	0,271	ISMITHERS, ENGLAND
<i>Vlákna a textil</i>	1335-0617	0,109	SLOVAK UNIVERSITY OF TECHNOLOGY IN BRATISLAVA





**Selected Non-impacted Journals Listed in Scopus Database ([www.scopus.com](http://www.scopus.com))**

Journal	ISSN	Publisher
<i>Journal of Cotton Science</i>	1523-6919	NATIONAL COTTON COUNCIL OF AMERICA, USA
<i>Journal of Textile Engineering</i>	1346-8235	TEXTILE MACHINERY SOCIETY OF JAPAN, JAPAN

**Other Recommended Journals**

Journal	ISSN	Publisher
<i>Asian Textile Journal</i>	0971-3425	INDIA
<i>Colourage</i>	0010-1826	INDIA
<i>International Journal of Fiber and Textile Research</i>	2277-7156	INDIA
<i>International Journal of Textile Science and Technology</i>	1732-xxx,	INTECH EUROPE
<i>International Journal of Textile Science</i>	1732-xxx,	USA
<i>International Nonwovens Journal</i>	1527-2494	USA
<i>Journal of Engineered Fibers and Fabrics</i>	1558-9250	USA
<i>Journal of Fiber Bioengineering and Informatics</i>	1940-8676	HONG KONG
<i>Journal of Textile and Apparel Technology and Management,</i>	1533-0915	USA
<i>Journal of Textile Engineering</i>	1346-8235	JAPAN
<i>Journal of Textile Science &amp; Engineering</i>	0971-3425	INDIA
<i>Journal of the China Textile Institute</i>	0040-5000	CHINA
<i>Journal of the Society of Dyers and Colourists,</i>	1478-4408	ENGLAND
<i>Man Made Textiles in India</i>	0377-7537	INDIA
<i>Melliand Textilberichte- International</i>	0198-7275	GERMANY
<i>Nonwovens Report International</i>	0953-1092	USA
<i>Polymer International</i>	1097-0126	KOREA
<i>Technical Textiles International</i>	0964-5993	KOREA
<i>Textile Asia</i>	0049-3554	KOREA
<i>Textile Chemist &amp; Colorist</i>	0040-490X	USA
<i>Textile Industries Digest</i>	0115-2351	SOUTHERN AFRICA
<i>Textile Industry Technology</i>	0021-3497	RUSSIA
<i>The Research Journal of Textile and Apparel</i>	1560-6074	HONG KONG
<i>World Journal of Engineering</i>	1708-5284	CANADA

