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# Doktor znanosti/doktorica znanosti s področja tekstilnih materialov

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## Selected qualifications

Magister managementa/magistrica managementa 

### Name of qualification

Doktor znanosti/doktorica znanosti s področja tekstilnih materialov

### Translated title (no legal status)

Doctor of Philosophy in the field of textile materials

### Type of qualification

Doktorat

### Category of qualification

Izobrazba

### Type of education

Doctoral education

### Duration

3 years

### Credits

180 credits

## Admission requirements

Enrolment in the third-cycle doctoral study programme in Textile Materials is open to candidates who have completed:

- a second-cycle (Bologna) study programme;
- an integrated Bologna master's programme consisting of 300 credits in an engineering or natural science field;
- an academic higher education programme adopted before 11 June 2004 consisting of at least 240 ECTS credits;
- a professional higher education programme, adopted before 11 June 2004, and study programme leading to a specialisation; the following course units from the second-cycle programme in Design and Textile Materials, totalling 30 ECTS credits, are defined for such candidates and must be completed before enrolment: Analytical methods in textiles, Mechanical properties of textile materials, Surface properties of polymer materials, Methods of recycling textile materials, Nanomaterials – these course units must be completed by students whose doctoral dissertation is focused on the field of materials and technologies, while those students whose doctoral research will be connected with design must complete Colour metrics, Presentation techniques and virtual catalogues, Fashion design, Management of textile product development, Visual communication or Multifunctionality in design. Students choose the first or second group of five subjects, depending on the study discipline (materials and technologies or design) within which they wish to complete their doctoral studies.

• Admission requirements are also met by candidates who have completed an equivalent qualification in another country, subject to formal recognition in Slovenia. In the case of limited enrolment, the selection of candidates will be based on: average grades in previous studies (20%); bachelor's or master's thesis grade (30%); and a selection examination (50%). Candidates may substitute up to 30% of the selection examination with scholarly or specialist work completed before enrolment in the programme, as demonstrated by relevant publications in scholarly and specialist literature. Criteria for evaluating scholarly and specialist work are laid down by the FS Senate.

## ISCED field

Field  
Tehnika, proizvodne tehnologije in gradbeništvo

## ISCED subfield

subfield interdisciplinarne izobraževalne aktivnosti/izidi, pretežno tehnika, proizvodne tehnologije in gradbeništvo

## Qualification level

SQF 10  
EQF 8  
Third level

## Learning outcomes

Qualification holders are qualified to:

(general competences)

- demonstrate in-depth understanding of theoretical and methodological concepts and mastery of relevant research methods;
- demonstrate independent professional judgement;
- develop a capacity for critical thinking and the ability to generate new ideas, adapt to new conditions, work in an interdisciplinary group and make decisions when addressing problems;
- apply the knowledge they have acquired in other research projects or successfully apply it to specialist fields in practice;
- form expert groups and lead expert groups set up to resolve specific highly complex problems;
- work successfully in a team to address complex and demanding tasks;
- demonstrate a capacity for ethical reflection and a commitment to professional ethics.

(subject-specific competences)

- work autonomously, innovatively and creatively to address the most complex scientific problems connected to the development of new multifunctional textile materials or modern technologies;
- identify, analyse and resolve concrete problems in the field of materials and technologies or engineering design;
- communicate knowledge in the form of lectures, expert appraisals and advice,
- acquire new advanced knowledge about fibrous materials, demonstrate knowledge of the connections and interdependence between material, process of manufacture, properties and utility;
- demonstrate understanding of the history of industrial, graphic and one-off design, design concepts and design activities in the context of the development of society, culture, aesthetics, art, function and technology;
- find new solutions and use a research approach to the design and manufacture of products that are connected to new techniques and the most advanced technologies;
- demonstrate understanding of the methods of critical analysis and the development of theories and apply them in the development of new knowledge and in addressing specific problems; demonstrate in-depth understanding of theoretical and methodological concepts;
- independently develop new knowledge.

## Assessment and completion

Students' knowledge is assessed by means of practical exercises and seminar papers, and also via products, projects, performances, services, etc. and by examinations. Examination performance is scored as follows: 10 (excellent); 9 (very good: above-average knowledge but with some mistakes); 8 (very good: solid results); 7 (good); 6 (adequate: knowledge satisfies minimum criteria); 5–1 (inadequate). In order to pass an examination, a candidate must achieve a grade between adequate (6) and excellent (10).

## Progression

In order to progress to the second year, students must complete the following first-year course units: all three compulsory subjects (18 ECTS credits), at least two elective subjects (12 ECTS credits) and Research methods 1 (12 ECTS credits).

In order to progress to the third year, students must have completed all first-year course units (60 ECTS credits) and the following second-year course units: Individual research I (30 ECTS credits) and II (30 ECTS credits), which must be successfully presented to the competent chair.

## Condition for obtaining certificate

In order to complete the third-cycle Textile Materials programme, students must complete all course units, for a total of 180 ECTS credits (pass all examinations prescribed by the third-cycle Textile Materials programme, complete research work and write and successfully defend a doctoral dissertation). Doctoral candidates must also have an article on a subject from the field of the doctorate accepted for publication by a journal indexed by the SCI or SSCI, with an indication of the impact factor. Public presentation of the doctoral thesis before a dissertation commission.

## Awarding body

Faculty of Mechanical Engineering, University of Maribor

URL

<http://www.fs.um.si/en/study/study-programme/third-cycle/>

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