SLOVENSKO
OGRODJE
KVALIFIKACIJ

# Magister tekstilni inženir/magistrica tekstilna inženirka

## Selected qualifications

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| **Name of qualification** | Magister tekstilni inženir/magistrica tekstilna inženirka |
| **Translated title (no legal status)** | Master of Arts in textile engineering |
| **Type of qualification** | Diploma druge stopnje |
| **Category of qualification** | Izobrazba |
| **Type of education** | Master's education |
| **Duration** | 2 years |
| **Credits** | 120 credits |

## Admission requirements

• A completed first-cycle study programme in: textiles technology, natural sciences, engineering, technology, computer science, information science, economics, organisation of work or design; or
• a completed first-cycle programme in another field, if prior to enrolment the candidate has completed course units essential for further studies, totalling 10–60 ECTS credits; or
• a completed pre-Bologna professional higher education programme in: textile technology, natural science, engineering, technology, computer science, information science, economics, organisation of work or design; or
• a completed professional higher education programme under the former programme in another field, if prior to enrolment the candidate has completed course units essential for further studies, consisting of 10–60 credits.

## ISCED field

Field
Tehnika, proizvodne tehnologije in gradbeništvo

## ISCED subfield

subfield  tekstilna, oblačilna, čevljarska in usnjarska tehnologija

## Qualification level

SQF 8
EQF 7
Second level

## Learning outcomes

The qualification holder will be able to:

(general competences)

- demonstrate mastery of advanced technical knowledge acquired through the study of theoretical and methodological concepts, linked to training in searching for new sources of knowledge using scientific research methods,
- undertake critical reflection,
- experiment and visually communicate various intellectual concepts,
- learn independently in their own professional and academic field,
- demonstrate understanding of the interdependence of technology and design,
- demonstrate understanding of artistic language and its technological translation into graphic products,
- show initiative and autonomy in decision-making and in managing the most complex working systems,
- demonstrate social and communication skills in leading teamwork, including in the field of projects based on integration of scientific laws from various fields,
- demonstrate professional, ethical and environmental responsibility,
- use modern tools and skills, above all from the ICT field, in everyday professional work and research,

(subject-specific competences)

- demonstrate advanced knowledge of mathematics, technical mechanics, organic and physical chemistry and a developed capacity for scientific thinking,
- demonstrate detailed knowledge of high-performance (HP) fibres, their structure at various structural levels (nanometric, microfibrillar, macrofibrillar), morphology and achievements, use of HP fibres in high technology: in medicine, pharmacy, biomedicine, biotechnology, optics, electronics, transport technology, information science, nuclear energy; and fibres with specially modified properties of standard fibres, enabling specific comfort in use (high-touch fibres),
- demonstrate understanding of scientific methods, critical analysis and synthesis and their application in the addressing of concrete problems: analysis, development and manufacture of advanced products with improved characteristics and high added value (yarns, nonwoven textiles, knitted textiles, knitting yarns); plan, analyse and implement advanced mechanical textile processes,
- integrate knowledge from the fields of the structural, mechanical, physical and chemical properties of textiles with finishing processes, for the purpose of the technological design of a multifunctional textile with high added value,
- demonstrate understanding of the difference between innovation management and management of routine operation,
- demonstrate in-depth theoretical familiarity with the integrated process of textile planning, taking into account design and functional starting points,
- demonstrate in-depth knowledge of the effects of climate conditions, human thermophysiological responses and sensory responses on the planning of clothing for different purposes of use,
- demonstrate familiarity with innovations in modern textiles, in particular intelligent textiles and high-comfort textiles, which are based on multifunctionality and an interdisciplinary approach to development,
- demonstrate mastery of knowledge of the latest special processes of physical and chemical modification of fibre-forming polymers.

## Assessment and completion

Examination performance is graded 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 enrol in the second year, students must have completed at least 54 ECTS credits.

## Transitions

Third-cycle doctoral study programmes (SQF level 10)

## Condition for obtaining certificate

To complete their studies, students must complete all course units in all subjects in which they have enrolled and prepare and defend a master's thesis.

## Awarding body

University of Ljubljana, Faculty of Natural Sciences and Engineering

URL

http://www.ntf.uni-lj.si/en/