SLOVENSKO
OGRODJE
KVALIFIKACIJ

# Magister gospodarski inženir/magistrica gospodarska inženirka

## Selected qualifications

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| **Name of qualification** | Magister gospodarski inženir/magistrica gospodarska inženirka |
| **Translated title (no legal status)** | Master of Science in industrial 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 programme in the field of engineering, industrial engineering, natural sciences, economics or organisation consisting of at least 180 credits; graduates of programmes in other fields must pass differential examinations consisting of 10–60 credits; or
• any completed accredited professional higher education program (pre-Bologna) in the field of engineering, industrial engineering, natural sciences, economics or organisation consisting of at least 180 credits; graduates of programmes in other fields must pass differential examinations consisting of 10–60 credits.

## ISCED field

Field
Tehnika, proizvodne tehnologije in gradbeništvo

## ISCED subfield

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

## Qualification level

SQF 8
EQF 7
Second level

## Learning outcomes

The qualification holder will be able to:

(general competences)

- applying research methods and engineering procedures from the science/engineering and economics/organisational fields in order to address a broad spectrum of professional problems from these fields, including in new or altered circumstances,
- strategically manage and administer the most complex business systems,
- apply knowledge in practice,
- demonstrate autonomy in professional work and research,
- demonstrate autonomy in decision-making,
- communicate skilfully and cooperate within the discipline and between disciplines, with an emphasis on the ability to lead an interdisciplinary working group,
- adopt a critical attitude and show responsibility,
- demonstrate creativity,
- search for new sources of knowledge in the relevant professional and academic field,
- undertake constant study (lifelong learning),

(subject-specific competences)

- demonstrate in-depth understanding of the theory of enterprise economics and technological systems as a basis for optimal engineering decisions,
- demonstrate familiarity with and understanding of modern technological systems (biotechnology, process technologies, environmental technologies, information technologies, nanotechnologies, etc.),

- demonstrate familiarity with the manufacturing and service sectors,
- demonstrate mastery of theoretical and practical knowledge for strategic management and operation of the most complex work systems according to modern organisational/economic principles as a basis for mastery of enterprise development,
- demonstrate proficiency in the use of selected higher mathematical tools to solve problems in science, engineering and economics,
- integrate knowledge from various fields (technology, organisation, economics) at an in-depth level, process it systemically and apply it practically in order to improve the effectiveness and efficiency of operations (optimisation in production, development of new products and services, deployment of new technologies, reorganisation, etc.),
- use ICT in the business environment and demonstrate familiarity with management information systems and computer-supported decision-making,
- demonstrate mastery of the knowledge necessary for creative participation in the supervision and management of the development of business information systems,
- demonstrate practical mastery of project management methods and software,
- demonstrate understanding of the mutual connections between technologies and social and environmental questions,
- demonstrate familiarity with the principles of safe, economical, environmentally friendly and reliable management of energy and production systems,
- demonstrate mastery of in-depth knowledge from selected fields of technology (automatic system management, measuring techniques, robotics, modern materials, plasma technologies, etc.),
- demonstrate mastery of in-depth knowledge from selected informatics fields (methods and systems for decision support, optimisation of resources and processes, information systems and open source, manufacturing information systems, data mining, knowledge management, etc),
- demonstrate mastery of in-depth knowledge from selected environmental fields (industrial ecology, environmental management, etc.),
- demonstrate familiarity with the basics of intellectual property law,
- demonstrate familiarity with the functioning of the EU,
- demonstrate familiarity with the theoretical basis of working with people and mastery of relevant practical skills: business communication, leadership, the psychological aspects of group work, promoting creativity, strengthening and maintaining own personality stability, resistance to stress and constructive resolution of conflict situations,
- practically address complex real-life problems in concrete working environments,
- demonstrate mastery of research methodology and carry out independent research with an emphasis on resolving problems from concrete working environments.

## 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

Students may progress to the next year if by the end of the academic year they have completed all requirements defined by the study programme for progression to the next year.

## Transitions

Third-cycle doctoral study programmes (SQF level 10)

## Condition for obtaining certificate

In order to complete the programme, students must complete all course units prescribed by the study programme.

## Awarding body

University of Nova Gorica, School of Engineering and Management

URL

http://www.ung.si/en/study/