

---

# Inženir mehatronike/inženirka mehatronike

---

## Selected qualifications

<b>Name of qualification</b>	Inženir mehatronike/inženirka mehatronike
<b>Translated title (no legal status)</b>	Mechatronics engineer
<b>Type of qualification</b>	Višja strokovna izobrazba
<b>Category of qualification</b>	Izobrazba
<b>Type of education</b>	Short cycle higher vocational education
<b>Duration</b>	2 years
<b>Credits</b>	120 credits
<b>Admission requirements</b>	<ul style="list-style-type: none"><li>• Matura or vocational matura (previously school-leaving examination); or</li><li>• master craftsman/foreman/shop manager examination, three years' work experience and test in general education subjects at the level required for the vocational matura in secondary vocational education.</li></ul>

## ISCED field

Field  
Tehnika, proizvodne tehnologije in gradbeništvo

## ISCED subfield

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

## Qualification level

SQF 6  
EQF 5  
Short cycle

## Learning outcomes

Students will be able to:

(general competences)

- demonstrate familiarity with technical/theoretical knowledge in a field, sector or activity,
- manage basic and, in particular, methodologically relevant procedures to resolve technical problems for the development of innovations in work processes, procedures and media and for effective operations,
- use acquired knowledge for successful professional communication in both the domestic and international environments,
- demonstrate understanding of the relationship between the development of production, social development and the development of the environment; develop global awareness of the opportunities, limits and dangers of technological development,
- resolve more complex technical problems in the work process,
- link knowledge from various areas when using and developing new applications,
- carry out tasks in the preparation and control of working processes and, in particular, in the organisation and management of working processes,
- demonstrate mastery of the fundamental categories of enterprise, economics and finance, above all with regard to markets, manufacturing and related resources, and
- develop awareness of the importance of good-quality interpersonal relations and teamwork.

(specific vocational competences)

- acquire the specialised theoretical and practical knowledge for autonomous professional work that is needed in order to prepare and implement tasks in the field of mechatronics at a high level of quality,
- disseminate, enhance and reinforce knowledge from the field of mechatronics and build on the theoretical and practical vocational competences acquired in prior education,
- demonstrate familiarity with basic legislation, standardisation, technical regulations, certification and quality assurance systems in the mechatronics field and other fields tied to the basic activity,
- acquire and disseminate knowledge of mechatronics in connection with economics, management and business communication,
- develop confidence and decisiveness for business decisions and address specific technical issues,
- develop the capacity to autonomously keep abreast of the development of the profession and take the initiative for the introduction of new features in practice,
- develop the capacity to autonomously keep abreast of the development of the field and take the initiative for the incorporation of new developments,
- perfect their knowledge of foreign languages and technical terminology and use them for

international cooperation and for keeping abreast of new developments in other countries.

## 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

Students may progress to the second year if they have successfully completed first-year modules, subjects and practical training (including practical classes, seminar papers, projects, examinations, etc.) totalling at least 45 credits, where all practical classes and practical training course units must be completed in full.

## Transitions

First-cycle study programmes (SQF, level 7)

## Condition for obtaining certificate

In order to complete the programme, students must complete all compulsory modules and subjects for a total of 89 credits: Communications in engineering (20 credits), Basics of mechatronics (20 credits), Mechatronics 1 (20 credits), Basics of economics (8 credits), Mechatronics 2 (21 credits). One of the following elective modules, consisting of 16 credits: Automation (16 credits), Robotics (16 credits), Production systems (16 credits). One of the following elective subjects, consisting of 5 credits: Programming in automation (5 credits), Robotics Systems 1 (5 credits), Computer-supported technologies (5 credits), Development of software applications (5 credits), Electronics in mechatronics (5 credits), Multimedia (5 credits), Drives and mechanisms (5 credits), Logistical mechatronic systems (5 credits), Risk management in engineering (5 credits). A freely elective subject (5 credits) and a bachelor's thesis (5 credits).

## Awarding body

Higher Vocational Colleges

URL

<https://paka3.mss.edus.si/registriweb/ProgramPodatki.aspx?ProgramId=5129>

---