

Strojni tehnik SI/strojna tehnica SI

Selected qualifications

Name of qualification	Strojni tehnik SI/strojna tehnica SI
Translated title (no legal status)	Mechanical engineering technician SI
Type of qualification	Srednja strokovna izobrazba
Category of qualification	Izobrazba
Type of education	Upper secondary technical education
Duration	4 years
Credits	253 credits
Admission requirements	<ul style="list-style-type: none">• Elementary education or• lower vocational education or• equivalent education under previous regulations.
ISCED field	Field Tehnika, proizvodne tehnologije in gradbeništvo
ISCED subfield	subfield metalurgija, strojništvo in kovinarstvo

Learning outcomes

Certificate holders will be able to:

- use professional knowledge, information technology and software in the addressing of real practical problems within the field;
- size and shape machine parts, select standard machine components and construct assemblies;
- mathematically resolve technical problems in their professional field and create analytical and graphic presentations;
- use technical terminology, process data in order to obtain information and manage technical and technological documentation;
- study and use technical and technological documentation, technical regulations and standards, technical drawings and manufacturers' instructions;
- perform measurement and control procedures and use measurement and control machines, devices, tools and accessories;
- plan steps from idea to execution of a product or service;
- participate in the planning and construction of new products and proposals for improvements to existing products;
- select a technological procedure for processing, forming or joining materials with regard to the type of material and the purpose of use;
- select and use materials and tools for processing and processes in various machine engineering fields;
- apply judgement on the rational use of energy, use of energy sources and waste management;
- assess possibilities for the development and use of unconventional energy sources and the rational use of energy;
- assess the environmental justification of the use of individual machines, devices and systems;
- implement and provide for measures for occupational health and safety, environmental protection, fire safety and accident prevention;
- seek rational and professional solutions in the implementation of activities in the working environment;
- apply entrepreneurial thinking and critical assessment, and conduct themselves responsibly and in a social manner in the working environment;

(elective)

- carry out parametric spatial modelling of products, prepare assemblies and draw up technical documentation;
- select machining processes and program NC machines by setting and correcting machining parameters;
- construct tools and instruments, and assemble, disassemble, test and maintain tools;
- plan technological processes and draw up basic technological documentation for manufacturing, taking into account ergonomic effects;
- analyse the operation of control functions, determine the type of automation in manufacturing and assess the effects of robotics;
- determine and select energy installations and machines and maintain and optimise energy systems;
- plan elements and systems of building heating, cooling and ventilation installations;
- monitor and supervise technological processes of heat generation and distribution.

The programme is adapted for provision in Slovene as the language of instruction in the ethnically mixed area of Slovenian Istria and also has the following special objectives:

- to develop communication skills in Italian and Slovene,
- to develop knowledge of the natural, cultural and historical heritage of the Italian national community and its mother nation,
- to teach respect for and understanding of ethnic and cultural diversity and promote cooperation between members of the Slovene nation and Italian national community. Certificate holders build on their key vocational knowledge and abilities with key general knowledge in line with national standards.

Assessment and completion

Students' vocational competences and skills, and the fulfilment of conditions to obtain credits in accordance with the education programme are established through testing and assessment. Assessment of students also takes into account non-formally acquired knowledge, which must be adequately demonstrated. Students are assessed using scores from 5 (excellent) to 1 (inadequate).

Progression

Students may progress to the next year if at the end of the academic year they achieve a positive assessment in all general education subjects and relevant vocational modules set out in the school's operational curriculum and have completed all extracurricular activities and work placement requirements.

Transitions

Matura/vocational course, higher vocational education (SQF level 6), professional higher education (SQF level 7) and academic higher education (SQF level 7).

Condition for obtaining certificate

Students must successfully (i.e. with positive scores) complete general education subjects, compulsory and elective vocational modules, and the open part of the curriculum. They must also complete extracurricular activities and work placement requirements and pass the vocational matura examination. The vocational matura comprises a compulsory section (written and oral examinations in Slovene and healthcare) and an elective section (written and oral examination in mathematics, a foreign language or Italian, and service with oral presentation).

Awarding body

Secondary vocational and technical schools.

URL

<https://paka3.mss.edus.si/registriweb/ProgramPodatki.aspx?ProgramId=8851>
