

Inženir bionike/inženirka bionike

Selected qualifications

Name of qualification	Inženir bionike/inženirka bionike
Translated title (no legal status)	Bionics engineer
Type of qualification	Višja strokovna izobrazba
Category of qualification	Izobrazba
Type of education	Short cycle higher vocational education
Duration	2 years
Credits	120 credits
Admission requirements	<ul style="list-style-type: none">• Matura or vocational matura (previously school-leaving examination); or• 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.
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)

- ensure moral and ethical work – i.e. honesty, accuracy and conscientiousness at work,
- plan and organise their own work and the work of others;
- ensure the quality and efficiency of work in the working environment in accordance with the standards and rules of the profession;
- use modern information and communication technologies;
- demonstrate understanding of professional and ethical responsibility;
- demonstrate awareness of the importance of continuing and lifelong education and impart knowledge;
- make rational use of energy, material and time;
- protect health and the environment and take responsibility for own safety and the safety of others;
- develop enterprise characteristics, skills and behaviour;
- cooperate in developing the profession and take the initiative to introduce new features in the profession;
- use a foreign language to keep abreast of technical developments abroad and to communicate using technical terminology.

(specific vocational competences)

- use computerised bionic processing tools in work procedures and processes;
- make decisions on technical and business matters and solve problems in the field of bionics;
- prepare implementation plans for bionic systems;
- participate in the preparation and running of bionics projects;
- participate in the planning, implementation, updating, supervision and optimisation of bionic processes;
- identify and analyse existing bionic processes and incorporate new findings;
- incorporate renewable and alternative energy sources into bionic processes;
- keep abreast of information on bionic processes;
- use interdisciplinary knowledge of biology and engineering to address concrete challenges in the environment.

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 course units (examinations, practical classes, seminar assignments, etc.), as follows: all compulsory modules and subjects, for a total of 85 credits; One elective module consisting of 15 credits – Microtechnologies and energy (15 credits) (Bionic micro- and nanotechnologies (5 credits), Energy in bionics (6 credits), Practical education – Microtechnologies and energy (4 credits)) – Artificial intelligence and energy (15 credits) (Bionic artificial intelligence (5 credits), Energy in bionics (6 credits), Practical education – Artificial intelligence and energy (4 credits)); A freely elective subjects consisting of 5 credits; Open curriculum consisting of 10 credits (Open curriculum subject/s (8 credits), Practical education – Open curriculum (2 credits)) and Bachelor's thesis (5 credits)

Awarding body

Higher vocational colleges

URL

<https://paka3.mss.edus.si/registriweb/ProgramPodatki.aspx?ProgramId=8319>
