SLOVENSKO
OGRODJE
KVALIFIKACIJ

Diplomirani inženir mehatronike (vs)/diplomirana inženirka mehatronike (vs)

Selected qualifications

Name of qualification	Diplomirani inženir mehatronike (vs)/diplomirana inženirka mehatronike (vs)
Translated title (no legal status)	Bachelor of Applied Science in mechatronics
Type of qualification	Diploma prve stopnje (VS)
Category of qualification	Izobrazba
Type of education	Professional bachelor's education
Duration	3 years
Credits	180 credits
Admission requirements	• Matura or • vocational matura; or • school-leaving examination (prior to 1 June 1995) under any four-year secondary school programme

ISCED field

Field
Tehnika, proizvodne tehnologije in gradbeništvo

ISCED subfield

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

Qualification level

SQF 7
EQF 6
First level

Learning outcomes

The qualification holder will be able to:

(general competences)

- carry out a set task in accordance with performance standards;
- demonstrate mastery of procedures from the broader field of mechanical engineering, electrical engineering, computing and information technology, i.e. mechatronics;
- design, plan, construct, build and maintain mechatronic products and systems using professional critical judgement, self-critical assessment and responsibility, taking into account professional excellence, social utility, ethical responsibility, a commitment to professional ethics and criteria for the environmental integrity of the products and the processes used;
- creatively connect theoretical foundations with applied knowledge;
- analyse problems and foresee possible solutions and consequences;

(subject-specific competences)

- design and build mechatronic elements, assemblies, devices, machines, installations and complex mechatronic systems;
- use computer-supported construction, program controllers and regulatory systems, use internet technologies and tools;
- use modelling tools, optimise and simulate processes, machines, devices, manufacturing procedures, products, manufacturing installations and mechatronic systems;
- plan and develop less complex machines, devices and installations, elements of drive technology, sensors, controllers and the corresponding software;
- use, manage and maintain modern mechatronic systems, manufacturing technologies and automated and robotic manufacturing systems;
- manage information, material and energy flows in the planning, design, construction, building, assembly, disassembly and maintenance of products and mechatronic systems;
- organise and manage a simple manufacturing process;
- demonstrate proficiency in ensuring that products are of suitable quality by performing relevant quality measurements and checks;
- ensure measures for the faultless operation, maintenance and environmental integrity of mechatronic systems throughout their life cycle;
- demonstrate interdisciplinary understanding of activities in mechatronic systems;
- continuously develop skills in the application of knowledge in a specific professional field;
- use modern computer, information and communication technologies and systems in the professional field;

- demonstrate familiarity with and understanding of the history of mechatronics and its disciplines.

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 enrol in a higher year if by the end of the academic year they have met all enrolment requirements defined by the study programme.

Transitions

Second-cycle master's study programmes (SQF level 8)

Condition for obtaining certificate

In order to complete the programme, students must complete all course units prescribed by the study programme (examinations in all compulsory subjects, selected elective subjects, practical training and bachelor's thesis), for a total of at least 180 ECTS credits.

Awarding body

Faculty of Electrical Engineering, Computer Science and Information Science, Faculty of Mechanical Engineering, University of Maribor

URL

https://feri.um.si/en/