SLOVENSKO
OGRODJE
KVALIFIKACIJ

Diplomirani inženir mehatronike in adaptronike (un)/diplomirana inženirka mehatronike in adaptronike (un)

Selected qualifications

Name of qualification	Diplomirani inženir mehatronike in adaptronike (un)/diplomirana inženirka mehatronike in adaptronike (un)
Translated title (no legal status)	Bachelor of Science Engineer of mechatronics and adaptronics
Type of qualification	Diploma prve stopnje (UN)
Category of qualification	Izobrazba
Type of education	Academic bachelor's education
Duration	3 years
Credits	180 credits

Admission requirements

Conditions for enrolment in the first year:
• successfully completed matura, or
• successfully completed vocational matura and an examination in the matura subject Mathematics; if the candidate has already taken the considered subject under the vocational matura, he or she must pass any other matura subject; or
• successfully completed any four-year secondary school programme prior to 1 June 1995.
In case of a limited enrolment the following criteria will be considered in the candidates selection

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:

- Understand basic concepts and laws of scientific starting points of the discipline, which enable graduates to think analytically, and understand and breakdown complex technical, technological and economical corporate problems and situations;
- quickly acquire and understand new theoretical and applied interdisciplinary knowledge and their application in a business environment for addressing complex technical issues;
- quickly adapt to new occupational fields and new technologies while actualizing their knowledge;
- use the access to modern information sources, efficiently search, select and use relevant data and information, and follow and upgrade knowledge;
- transfer and apply theoretical knowledge in practice and resolve problems, above all by seeking new sources of knowledge and applying scientific methods;
- Demonstrate creative and innovative thinking and acting in the framework of technical business processes in a company, autonomously resolve concrete practical problems and at the same time intervene on individual scientific fields and address the problem in a scientific manner, and also develop individual scientific methods further;
- Form and communicate expert opinion, supported by argued viewpoints of the discipline, and demonstrate efficiency in oral and written communication and business communication in an interdisciplinary and international environment;
- Demonstrate professional, ethical and environmental responsibility, business consistency, scientific fairness and individual responsibility for work results;
- Demonstrate professional, business and ethical correctness in communication, documentation and publishing scientific findings and work results, taking into account intellectual property and

copyright;
- Continue their studies in the second-cycle university programmes and participate in scientific research work by having a strong professional and theoretical basic knowledge.

Subject-specific competences:

- Broaden, deepen and reinforce knowledge fro the fields of electrical engineering, mechanical engineering, materials, computer science, robotics and informatics, and upgrade theoretical and practical knowledge in the field of mechatronics and adaptronics;
- demonstrate an interdisciplinary approach, which is manifested as an understanding of the general structure of technical and natural science sciences and the links between individual disciplines and sub-disciplines,
- Demonstrate coherent mastery of basic knowledge, acquired by studying the compulsory subjects, and integration of specialist knowledge, and pragmatically apply their knowledge;
- acquire specialised theoretical and practical knowledge for autonomous professional work that is needed in order to prepare and implement tasks in the field of mechatronics and adaptronics at a high level of quality,
- Understand and apply the methods of critical analysis, theories development and their application in addressing theoretical or empirical and concrete work-related problems;
- use modern computer, information and communication technologies and systems in the professional field,
- Select and extract information, critically assess information in various forms, including the results of researches, technical manuals and standards, connect and scientifically interpret data, relevant for description, management and optimisation of products and systems;
- Demonstrate knowledge of control and processes quality assurance, familiarity with how to use basic legislation, standardisation, technical regulations, certification and quality assurance systems in the mechatronics and adaptronics field and other fields tied to the basic activity,
- Demonstrate communication skills to connect with experts from various fields of economic and social life, and various interest groups, and from self-confidence and determination fro business decisions and addressing concrete problems in the profession;
- 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;
- Interpret information, technical and scientific data, relevant for the work process, and for addressing technical and work-related problems;
- Develop a product and process in an industrial environment and transfer prototypes in serial production;
- Plan and implement target-oriented experimental development and applicative research projects, and master and manage projects and project technology;
- autonomously keep abreast of the development of the profession and take the initiative for the introduction of new features in practice,

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’ requirements for individual subjects are defined in the curricula and evaluated in ECTS, in which one credit represents 30 hours of a student’s work.

Progression to a higher year

Students may progress to a higher year if they have accumulated 48 credits from the current year and completed all course units from the
previous year. In exceptional cases students may enrol in a higher year even if they did not fulfil all the study programme defined requirements for progression, when they have justified reasons, for example: maternity, prolonged medical issues, exceptional family and social circumstances, recognised status of a person with special needs, active participation in top professional, cultural and sports events, active participation in the university bodies.

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 envisaged by the study programme and subjects syllabuses (homework, seminar papers, exams and a successful completion of a project under the subject Common project work), and under the seminar defend a final project paper. By all this students accumulate 180 credits.

Awarding body

University of Primorska, Faculty of Mathematics, Natural Sciences and Information Technologies

URL

https://www.famnit.upr.si/sl/