

STUDY PROGRAMME. INFORMATICS ENGINEERING (English)

General Description:

Objective(s) of a study programme:

To train specialists of higher college education who know the Informatics engineering application areas and understand theoretical principles that underpin emerging technologies, and who are able to: develop, implement, and maintain computer engineering, remote control and monitoring systems and software tools; create new and maintain existing software solutions; integrate, implement, and administer the hardware, software and computer networks.

Learning outcomes:

The graduates of the study programme will:

1. know and understand the basic conceptions and notions underlying the field of informatics engineering;
 2. know and understand the theoretical principles that underpin emerging technologies;
 3. know the informatics engineering application areas, understand the complexity of problems, choose problem solving methods, adapt the methods of other fields of science;
- the graduates of the study programme will be able to:
4. formulate informatics engineering application problems, carry out a systematic engineering analysis, and choose a suitable testing methodology;
 5. plan and perform applied research, implement an experimental development through the application of advanced technological knowledge;
 6. develop, implement and maintain computer engineering systems, remote control and monitoring software tools, choosing the right equipment, tools and methods;
 7. design and implement control and monitoring systems by applying the knowledge of signal processing, electrical engineering, electronics, hardware design and programming;
 8. apply software life cycle phases to development of new and maintenance or integration of existing software solutions;
 9. integrate, implement and administer the hardware, software and computer networks, evaluating the features of computer systems architecture and software;
 10. solve issues related to application areas taking into account technological, economic, social, and legal context;
 11. apply IT project, risk and change management practices while working independently and in teams, communicating with colleagues and external stakeholders;
 12. use the self-study skills necessary for continuing professional development.

Activities of teaching and learning:

Teaching and learning is oriented towards the learner. Lecture, practical work (based on a task), self-work, course paper and final thesis, independent study of the material, discussions, teamwork. Accumulative grading strategy is applied in the assessment of student learning achievements. Course learning outcomes are estimated during the semester through the passed tests, practical, laboratory, self-study work and other. The final assessment for the course consists of the Weighted average marks (WAM) obtained during the mid-assessments and the examination / term paper.

Framework:

Study subjects (modules), practical training:

Workload of general education – 15 credits.

- Standard of Language, Human safety
- Optional subjects – english for beginners (a1) / advanced english (a2), Business Economics (a3),

Personnel Management (a4).

Workload of the study field – 156 credits:

- Digital logics, Mathematics, Probability Theory and Statistics, Computer –Aided Graphics, Physics, Signal Processing, Electrical and electronic fundamentals, Digital Circuits, Computer Technical Systems Equipment, Microcontrollers, Introduction to Programming, Fundamentals Databases, Computer Architecture and Operation Systems, Object-Oriented Programming, Web Technology, Data Structures, Computer Networks, Systems Engineering, Network and Server Management Services, Computer Workstations and Network Management, Applied Research Methodology, Informatics Law, Information Security.
- Optional subjects: Graphical Interface Programming (a5), Cloud computing (a6), Smart technology equipment (a7)
- Practice - Systems Installation and Maintenance Practices, Speciality practices, Final Practice
- Optional subjects (3 modules)

Specialisations:

Optional courses:

Distinctive features of a study programme:

Lithuanian is the language of instruction. Knowledge and skills are formed to work in the areas of information systems engineering. The study programme is focused on the development of a personality with broad outlook, creative and critical thinking, able to communicate well and work in a team.

Access to professional activity or further study:

Access to professional activity:

Graduates will be able to work in various areas of information systems engineering : electronics and computer business companies, banks, transport, health care and other companies, in the state and private sectors.

Access to further study:

To continue studies in the second level