Study program: Industrial engineering – Mechanical engineering

Course title: Maintenance Engineering

Professor/assistant: Rajković Dragan

Type of course: Elective

ECTS credits: 6

Prerequisites: none

Aims of the course:

Students acquire knowledge and skills in the field of maintenance engineering of technical systems, they understand the role and importance of the maintenance in the economy. Students master maintenance methods, documents and technologies.

Learning outcomes:

The student independently and in a team designs maintenance technologies, selects methods, creates documentation and organizes maintenance of technical systems in the economy.

Syllabus:

Theoretical part:

Introduction; The basics of technical system maintenance; Characteristics and state of technical systems; Reliability and efficiency; Classification of maintenance methods; Corrective and preventive maintenance; Technical diagnostics; Identifying the cause of system failure; Organization and logistics of the maintenance system; Quality and safety in maintenance; Maintenance documentation.

Practical part:

Independent production of programs related to the maintenance of technical systems. Maintenance of technical systems, practical application for selected systems. A visit to a factory and introduction to appropriate systems and methods of maintenance.

Literature:

- 1. Todorović P., Osnovi održavanja, Fakultet inženjerskih nauka, Kragujevac 2016.
- 2. Jeremić B., Terotehnologija: tehnologija održavanja tehnickih sistema, Eskod, 1992.
- 3. Papić Lj., Održavanje i pouzdanost tehničkih sistema, DQM, Prijevor 2007.

| Total number of active places, 75 | Lastronge 15 | Drastical alagaan 20 |
|---|--------------|-----------------------|
| Total number of active classes: 75 | Lectures: 45 | Practical classes: 30 |

Teaching methods:

Lectures: interactive approach;

Practical classes –tasks solving, preparation of term papers, analysis of examples from practical work, consultations.

Grading system (maximum 100 points)

grading scale from 5 to 10: below 51 points grade 5, grade 6 from 51- 60 points, grade 7 from 61-70 points, grade 8 from 71-80 points, grade 9 from 81-90 points, grade 10 from 91- 100 points.

| Pre-exam obligations: | Points: | Final exam: | Points: |
|-----------------------------|---------|--------------|----------------|
| Activity during lectures | max 5 | Written exam | 50 |
| Practical training | max 5 | | |
| Written test(s) | max 20 | | |
| Term papers | max 20 | | |
| Minimum requirement for the | 30 | | |
| final exam | | | |