SYLLABUS

1. Course title:

Diagnostics of energy systems

2. Code:

(max. 20 characters)

3. Cycle of study:

1

4. ECTS credits:

3

5. Type of course:

○ Mandatory ◉ Elective

6. Prerequisites:

No

7. Class restrictions:

No

8. Duration / semester:

1 7

9. Weekly contact hours:

9.1. Lectures:	2
9.2. Seminars:	0
9.3. Laboratory/Practice classes:	1

10. Faculty:

Faculty of Mechanical Engineering

11. Department/study program:

Energy Engineering

12. Lecturer:

Dr.sc.Izudin Delić, assistant profesor

13. Lecturer's e-mail:

izudin.delic@untz.ba

14. Web site:

www.mf.untz.ba

15. Course aims:

Achieve basic knowledge in diagnostics of energy systems.

16. Learning outcomes:

After completing the course, students will be able to:
- analyze and evaluate the method of diagnosis applied in the real example
- analyze the results of the diagnostic equipment
- examine certain power machines and identify anomalies in their work

17. Course content:

Concept and significance of diagnostics of energy systems. Tasks of technical diagnostics. Scientific basis of energy system diagnostics. System of technical diagnostics. Life expectancy (anticipation) of parts of the energy system. Automation and organization of energetic system diagnostics. Subjective diagnostic procedures. Objective diagnostic procedures. Diagnosing the status of a boiler plant. Diagnosing the condition of a turbine plant. Diagnosing the condition of the pump cells. Diagnostic monitoring systems.

18. Learning methods:

Lectures, practical exercises and consultations.

19. Assessment methods:

Knowledge assessment methods:
- Making semester work
- Tests in the classroom

Final exam in written or oral form
- The exam evaluation is formed on the basis of semester work, written and verbal part of the examination of knowledge.

20. Assessment components:

The assessment of the exam is based on the total number of points the student has obtained by fulfilling the pre-requisites and passing the exam and contains a maximum of 100 points and according to the following scale
Student Obligations Points
Presentation of lectures 10
Test I 20
Test II 20
Total pre-exam 50
Final Exam 25 - 50

21. Required reading list:

1. Baldin A., Furlanetto L.: Održavanje po stanju, OMO, Belgrad, 1980.
2. Adamović Ž.: Tehnička dijagnostika, Zavod za udžbenike i nastavna sredstva, Belgrad, 1997.
3. R.Mantz: Measurement and Diagnostics for Energy Systems, USA, 2009

22. Web sources:

www.untz.mf.ba

23. Applicable starting from the academic year:

2015/16

24. Adopted in the Faculty/Academy session:

01.06.2016