SYLLABUS

1. Course title:

RENEWABLE ENERGY SOURCES

2. Code:

(max. 20 characters)

3. Cycle of study:

1

4. ECTS credits:

5

5. Type of course:

(•) Mandatory ( ) Elective

6. Prerequisites:

None

7. Class restrictions:

None

8. Duration / semester:

1 6

9. Weekly contact hours:

9.1. Lectures: 2

9.2. Seminars: 1

9.3. Laboratory/Practice classes: 0

10. Faculty:

Faculty of Mechanical Engineering

11. Department/study program:

Energy Engineering

12. Lecturer:

Sead Delalić, Full Professor

13. Lecturer's e-mail:

sead.delalic@untz.ba

14. Web site:

www.mf.untz.ba

15. Course aims:

Acquisition of theoretical knowledge in the field of sustainable development and fulfillment of requirements of energy efficiency, use of renewable energy sources and a reduced negative impact on the environment.

16. Learning outcomes:

At the end of the semester / course successful students, who during the entire period of teaching continuously perform their duties, will be able to:

- categorize non-renewable and renewable energy sources,
-Identify technical and economic aspects of the utilization of the same with measures to boost intensive use of renewable energy sources and the existing limitations due to legal regulations,
-Use the advantages of using renewable energy sources,
- Define world-wide trends in the use of renewable energy sources,
-Make overview of the situation and the possibility of using renewable energy sources in Bosnia and Herzegovina;

17. Course content:

• Generally about energy, renewable energy sources, environmental protection.
• Solar energy.
• Wind energy.
• Water flow energy.
• Hydrogen energy.
• Biomass energy.
• Energy from the environment.
• Future of Renewable Energy: New Technologies and Materials.
• Share of renewable energy sources in primary energy production in the future.

18. Learning methods:

Teaching units of this course will be presented to students through:

-classical lectures with video presentations, and

- presentation of group and individual seminar papers

19. Assessment methods:

Assessment methods include:

- Theoretical and problem solving tests;
- Written/oral Report on performed seminar work.
- Written/oral exam.

20. Assessment components:

• Presence in classes (lectures 5 + practice 3) -8 points,
• Tests with issues of theory and assignments (2 x 15 points) - 30 points
• Seminar work (1 x 15 points) -15 points,
• Final exam- 24-47 points

21. Required reading list:

1. Buljubašić I. etc.: Energetsko-procesna mjerenja, Tuzla, 2013.
2. Đonlagić D.: Mjerenje temperature i pritiska, Maribor, 1995.
3. Žanetić R., Stipišić R.: Mjerni pretvornici u procesnoj industriji, skripta, Split, 2005.

22. Web sources:

(max. 687 characters)

23. Applicable starting from the academic year:

2015/16

24. Adopted in the Faculty/Academy session:

01.06.2015