SYLLABUS

1. Course title:

ENVIRONMENTAL DEVELOPMENT

2. Code:

(max. 20 characters)

3. Cycle of study:

1

4. ECTS credits:

3

5. Type of course:

○ Mandatory ◉ Elective

6. Prerequisites:

None

7. Class restrictions:

None

8. Duration / semester:

1 2

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:

Indira Buljubašić, Associate Professor

13. Lecturer's e-mail:

indira.buljubasic@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 and 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:
- define the concept of sustainable development;
- present ways to achieve sustainable environmental development of the use of energy efficiency measures;
- define renewable and non-renewable energy sources and ways of utilization of the same with measures to boost intensive use of renewable power schemes;
-define negative impacts on the environment as a result of human activities and measures for their reduction or neutralization.

17. Course content:

- definition and goals of sustainable development.
- Mechanisms of achieving the goals of sustainable development (energy efficiency, renewable energy and reduction of environmental pollution)
-Demographic expansion and economic growth.
- Introduction to ecology.
- Air, water and soil pollution.
- Sociological causes of environmental threats.
- Non-renewable energy sources.
- Renewable sources of energy.
- Energy and environment.

18. Learning methods:

Teaching units of this course the students will be presented through classical lectures with video presentations. During laboratory exercises students will be shown methods of measuring the concentration of pollutants in the water / air / soil as well as measures to neutralize or decrease these pollutants.

19. Assessment methods:

Assessment will be made as follows:

- Tests with theoretical questions
- Seminar paper /essay
- Written report on performed laboratory exercises
- Final written/oral exam

20. Assessment components:

Overall on the subject examinations I based on the following scale:

• The presence of the sets (3 lectures + practice 2) -5 points,
• Tests with questions of theory (2 x 20 points) - 40 points
• Report on the laboratory exercises - 10 points,
• Final exam- 45 points

21. Required reading list:

1. Đonlagić M.: Energija i okolina, Tuzla, 2005.
2. Begić S.: Ekologija, Tuzla, 2000.
3. Bjelajac S.: Ekosistem i društvo, Zagreb, 2004.

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