

SYLLABUS

1. Course title:

Electric Power Systems Planning

2. Code:

EEMS111

3. Cycle of study:

1

4. ECTS credits:

6

5. Type of course: Mandatory Elective**6. Prerequisites:**

[EEMS006] Low Voltage Electrical Installation

7. Class restrictions:**8. Duration / semester:**

1

8

9. Weekly contact hours:

9.1. Lectures:

3

9.2. Seminars:

1

9.3. Laboratory/Practice classes:

1

10. Faculty:

Faculty of Electrical Engineering Tuzla

11. Department/study program:

Electrical Engineering and Computer Science

12. Lecturer:

Dr.sc. Nedžmija Demirović, associated profes

13. Lecturer's e-mail:

nedzmija.demirovic@untz.ba

14. Web site:

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15. Course aims:

The goal of this course is to enable students to knowledge about the planning of modern power systems. To attending this course students will be familiar with all the essential elements of the planning process and planning principles. The methods and algorithms of long-term and medium-term expenditure planning will be presented as well as method of discounting as the basis for the planning of power systems. Students need to master the basic knowledge of planning production capacity, transmission and distribution networks planning, and industrial power systems planning.

16. Learning outcomes:

At the end of the semester students, who continuously were performing their obligations during the entire teaching period, will be able to: know the basic tasks of power system planning, know the basics of engineering economics, know the methods of load forecasting, know energy technical characteristics of aggregate, know how to use the method to expand the electricity network and the purpose of power system reliability, know the basics of planning the development of transmission and distribution networks.

17. Course content:

Elements relevant for power system planning, principles of planning, forecast electricity consumption and power, electrical energy consumption planning, engineering economics, production unit, the economic characteristics of the transmission lines elements, production capacity planning, planning of electric power networks, transmission planning, distribution and industrial networks planning.

18. Learning methods:

Lectures - Obligatory attendance. The power presentation is shown, the board and chalk are used for additional explanations.

Auditory Exercises are carried out on board.

Laboratory exercises: On laboratory exercises students used appropriated software for study case simulation .

Attendance to all forms of teaching is mandatory.

19. Assessment methods:

Exam is taken written and orally. The written exam (2) is a combination of theoretical issues and computational examples done on lectures and exercises. The final exam is oral exam consisting of essay and discussion of theoretical issues.

20. Assessment components:

Rating exam is based on the total number of points a student expansion by completing pre-exam and a final exam. The student can achieve a maximum of 100 points according to the following scale:

The presence of lectures and exercises:10

test 1:20

test 2:20

Seminar: 10

Total Prerequisites: 60

Final exam: 40

Total: 100

21. Required reading list:

Milan S. Čalović, Andrija T.Sarić, „Principi i metodologija planiranja elektroenergetskih sistema“
V.A.Levi, “Planiranje razvoja elektroenergetskih sistema pomoću računara”, Stylos, Novi Sad 1998
B. Udovičić:“Elektroenergetika“, Školska knjiga Zagreb, 1983.
Notes and slides from lectures

22. Web sources:**23. Applicable starting from the academic year:**

2016/2017

24. Adopted in the Faculty/Academy session:

04.04.2016