Introduction to Electrical Engineering

Spring Semester

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COURSE DESCRIPTION

The course "Introduction to Electrical Engineering" introduces the fundamental engineering tools that will accompany the students along their way in the faculty. The tools include functions, operators, rigorous display forms for problem solutions and common electric components.

The course objectives may be achieved by consistent study of the course material throughout the semester, active participation during lectures and recitations and by carrying out the course assignments independently. It should be noted that the first year of study in the faculty of engineering requires a great effort. You are expected to make this effort in order to provide yourself with a good infrastructure for the future. The course team offers a variety of aids that enable the students to deepen and broaden their knowledge of the course subjects. The course website offers the recitations, homework assignments and their solutions. The course team will provide the students with office hours that may be utilized.

COURSE TOPICS

Week 1: Circuit elements, Kirchhoff's laws and wave functions (Chap 1-2)
Week 2: Simple circuits (Chap 3)
Week 3-4: First order circuits (Chap 4)
Week 5-8: Second order circuits and resonant circuits (Chap 5)
Week 9-10: Circuits of any order, convolution (Chap 6)
Week 11-12: Sinusoidal steady-state analysis (Chap 7)
Week 13-14: Coupled elements (Chap 8)

ASSIGNMENTS

Homework assignments and solutions will be displayed continuously on the course site in MOODLE. The homework assignments will not be reviewed or graded; however, not solving the homework will greatly reduce your chance for success in the course.

MIDTERM COURSE POLICY

A midterm exam will be scheduled in the beginning of the semester. During an examination, student shall not use books, papers, or other materials not authorized by the instructor. The midterm count for 15% of the final grade.

FINAL COURSE POLICY

The final exam will cover the entire course material and will count for 85% of the total course grade The duration will be 3 hours. During an examination, student shall not use books, papers, or other materials not authorized by the instructor.
Students will have a first exam, Moed A. If the student does not pass, they can retake the exam, Moed B. The last exam taken will be the student's final grade for the exam.

REQUIRED READING

C.A. Desoer and E.S. Kuh: *Basic Circuit Theory*, Mc-Graw-Hill, International Edition.

ADDITIONAL READING
No additional reading is required.