האוניברסיטה העברית בירושלים
THE HEBREW UNIVERSITY OF JERUSALEM

The Hebrew University of Jerusalem

Syllabus

INTRODUCTION TO ELECTRICAL ENGINEERING - 83335

Last update 11-11-2018

HU Credits: *5*

Degree/Cycle: *1st degree (Bachelor)*

Responsible Department: *Applied Physics*

Academic year: *0*

Semester: *1st Semester*

Teaching Languages: *Hebrew*

Campus: *E. Safra*

Course/Module Coordinator: *Meir Grajower*

Coordinator Email: *Meir.Grajower@mail.huji.ac.il*

Coordinator Office Hours: *Coordinate in advance*

Teaching Staff:

Prof Ori Katz,
Mr. Jeremy Boger-Lomba,
Mr. Benzy Laufer

Course/Module description:
In this course we will learn methods for analyzing electrical circuits in the lumped elements model in the time- and frequency-domains. Within this framework, we will go over the relevant equations, basic components of electronic circuits.

Course/Module aims:
See learning outcomes

Learning outcomes - On successful completion of this module, students should be able to:
Analysis of electrical circuits in the time and frequency plain(first and second order).

Attendance requirements(%):
0

Teaching arrangement and method of instruction: Frontal lecture

Course/Module Content:
Lumped circuits and elements; Kirchoff's laws; Thevenin and Norton equivalents; Serial and Parallel connections; Non linear sources and elements; low signal analysis; First order circuits; ZIR and ZSR of linear circuits. Second order circuits: ZIR and ZSR, High order circuits using Laplace method; Introduction to linear and time-invariant circuits; Convolution; Phasors; Sinusoidal steady-state analysis; Resonant circuits. Coupling Elements: Inductors, transformers and controlled sources. Introduction to Diodes

Required Reading:
NA

Additional Reading Material:
.McGraw-Hill, 1969 .Basic Circuit Theory .E. Kuh and .Desoer, C

Course/Module evaluation:

End of year written/oral examination 80 %
Presentation 0 %
Participation in Tutorials 0 %
Project work 0 %
Assignments 20 %
Reports 0 %
Research project 0 %
Quizzes 0 %
Other 0 %

Additional information:

NA