האוניברסיטה העברית בירושלים
THE HEBREW UNIVERSITY OF JERUSALEM

The Hebrew University of Jerusalem

Syllabus

APPLIED PROBABILITY - 52819

Last update 19-03-2025

HU Credits: *3*

Degree/Cycle: *2nd degree (Master)*

Responsible Department: *Statistics*

Academic year: *0*

Semester: *2nd Semester*

Teaching Languages: *Hebrew*

Campus: *Mt. Scopus*

Course/Module Coordinator: *Prof. Offer Kella*

Coordinator Email: *offer.kella@gmail.com*

Coordinator Office Hours: *By appointment*

Teaching Staff:

Prof. Offer Kella

Course/Module description:
This course is intended to develop the knowledge of the students in stochastic processes and models with an emphasis on queueing theory.

Course/Module aims:
To prepare the students for research in applied probability, in general and in queueing theory in particular

Learning outcomes - On successful completion of this module, students should be able to:
To be able to understand research papers in applied probability and to enable the students begin to develop learning and research skills in the area.

Attendance requirements(%):
no

Teaching arrangement and method of instruction: Frontal teaching homework assignments.

Course/Module Content:
Little's formula, Renewal theory,continuous time Markov chains. Queueing theory: single server queues, open and closed networks of queues.

Required Reading:
None.

Additional Reading Material:
Soren Asmussen, Applied Probability and Queues, 2nd Edition, Springer

Grading Scheme:
Written / Oral / Practical Exam 100 %

Additional information:

Prerequisites:
52817 - Probability and Stochastic Processes or equivalent, with instructor's approval.