האוניברסיטה העברית בירושלים
THE HEBREW UNIVERSITY OF JERUSALEM

The Hebrew University of Jerusalem

Syllabus

Proofs from the Book - 67706

Last update 17-11-2024

HU Credits: *3*

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

Responsible Department: *Computer Sciences*

Academic year: *0*

Semester: *2nd Semester*

Teaching Languages: *Hebrew*

Campus: *E. Safra*

Course/Module Coordinator: *Nati Linial*

Coordinator Email: *nati@cs.huji.ac.il*

Coordinator Office Hours: *By appointment*

Teaching Staff:

Prof Nati Linial

Course/Module description:

Pal Erdös has coined the term "proofs from the book". These are proofs which are particularly pretty and elegant. Mathematicians M. Aigner and G. Ziegler have collected various proofs that meet these criteria. We will study these proofs in this class.

Course/Module aims:

To expose the students to a variety of methods and tools which are particularly elegant in several basic mathematical disciplines.

Learning outcomes - On successful completion of this module, students should be able to:

To self-read and study advanced and varied mathematical literature.

Attendance requirements(%):

None

Teaching arrangement and method of instruction: Lecture+Homework

Course/Module Content:

see http://cslabcms.nju.edu.cn/problem_solving/images/b/b3/Proofs_from_THE_BOOK_%28Fifth_Edition_2014%29.pdf

Required Reading:

None. Aigner and Ziegler's book is available online

Additional Reading Material:

According to how we progress, I may appeal to additional material, e.g., https://kam.mff.cuni.cz/~matousek/stml-53-matousek-1.pdf

Grading Scheme:

Written / Oral / Practical Exam 100 %

Additional information:

There will be weekly homework assignment. In order to be able to take the final interview, students will have to hand in at least 80% of them with a "pass" grade.