



The Hebrew University of Jerusalem

Syllabus

Category Theory - 80779

Last update 13-09-2024

HU Credits: 2

Degree/Cycle: 2nd degree (Master)

Responsible Department: Mathematics

Academic year: 0

Semester: 2nd Semester

Teaching Languages: Hebrew

Campus: E. Safra

Course/Module Coordinator: Shaul Zemel

Coordinator Email: shaul.zemel@mail.huji.ac.il

Coordinator Office Hours: By appointment

Teaching Staff:

Dr. Shaul Zemel

Course/Module description:

Introductory course in category theory for 3rd year undergraduate students and 1st year graduate students.

Course/Module aims:

Familiarity with the basic concepts and theorems of category theory and proficiency in the categorical language with emphasis on examples.

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

See course aims.

Attendance requirements(%):

0

Teaching arrangement and method of instruction: Lecture

Course/Module Content:

In the course we will discuss the basics of the language of categories, tentatively:

1. Categories, functors, natural transformations, equivalence of categories
2. Universal properties, representable functors, Yoneda lemma.
3. Limits and colimits
4. Adjoint functors

Notice! Additional, or other, topics might be taught.

Required Reading:

none

Additional Reading Material:

Grading Scheme:

Written / Oral / Practical Exam 100 %

Additional information: