Syllabus

Category Theory - 80779

Last update 30-01-2024

<u>*HU Credits:*</u> *2*

<u>*Responsible Department:*</u> *Mathematics*

<u>*Academic year:*</u> *0*

<u>*Semester:*</u> *1st Semester*

<u>*Teaching Languages:*</u> *Hebrew*

<u>*Campus:*</u> *E. Safra*

<u>*Course/Module Coordinator:*</u> *Yakov Varshavsky*

<u>*Coordinator Email:*</u> [*yakov.varshavsky@mail.huji.ac.il*](mailto:yakov.varshavsky@mail.huji.ac.il)

<u>*Coordinator Office Hours:*</u> *By appointment*

<u>*Teaching Staff:*</u>
Prof Yakov Varshavsky

<u>*Course/Module description:*</u>
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: