

The Department of Mathematics

2020–21–A term

Course Name Introduction to C^* -algebras

Course Number 201.2.5361

Course web page

<https://www.math.bgu.ac.il/en/teaching/fall2021/courses/introduction-to-c-algebras>

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Office Hours <https://www.math.bgu.ac.il/en/teaching/hours>

Abstract

Requirements and grading¹

Course topics

1. Background material in functional analysis and Hilbert space theory; basics of Banach algebras, and Gelfand theory.
2. Basic results: commutative C^* -algebras, positivity, ideals and quotients, states and representations, the GNS construction, the algebra of compact operators.
3. A discussion of some basic examples in the theory (e.g. AF algebras, Toeplitz and Cuntz algebras, irrational rotation algebras, as time permits). Introduction to K-theory.

Further topics as time permits.

¹Information may change during the first two weeks of the term. Please consult the webpage for updates