

## The Department of Mathematics

2017–18–B term

**Course Name** Homological Algebra

**Course Number** 201.2.2091

**Course web page**

[https://www.math.bgu.ac.il/~amyekut/teaching/2017-18/hom-alg/course\\_page.html](https://www.math.bgu.ac.il/~amyekut/teaching/2017-18/hom-alg/course_page.html)

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

### Abstract

### Requirements and grading<sup>1</sup>

### Course topics

Course Topics:

1. Categories and functors: natural transformations, equivalence, adjoint functors, additive functors, exactness.
2. Derived functors: projective, injective and flat modules; resolutions, the functors *Ext* and *Tor*; examples and applications.
3. Nonabelian cohomology and its applications.

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