The Department of Mathematics
2019–20–B term

Course Name Introduction to Commutative Algebra

Course Number 201.1.7071

Course web page

Lecturer Dr. Moshe Kamensky, <kamenskm@bgu.ac.il>, Office 104

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

Abstract

Requirements and grading

The grade is determined as follows:

• Exam: 67 points

Requirement: You must score at least 3 points on the exam. For each problem solved correctly, you will receive 11 points. You can earn up to 100 points. If you solve all problems correctly, you will receive 100 points. However, you cannot receive more than 100 points.

Course topics

1. Rings and ideals (revisited and expanded).


3. Noetherian rings and modules over them.

Information may change during the first two weeks of the term. Please consult the webpage for updates.
4. Hilbert’s basis theorem.

5. Finitely generated modules over PID.

6. Hilbert’s Nullstellensatz.

7. Affine varieties.

8. Prime ideals and localization. Primary decomposition.