

Algebra B 3 – Commutative Algebra.
Course description.

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Commutative algebra is a basis of Algebraic Geometry and several other fields of Mathematics. In this course I will explain main methods and prove basic of commutative algebra. I will try to explain how to think about these results from the geometric point of view.

This course also can be taken by Master students.

There will be regular problem sessions - we will decide on their schedule in the class.

Books.

In my exposition I mostly follow the books:

- (1) Introduction to commutative algebra by M.F. Atiyah and I.G.MacDonald.
- (2) Commutative Algebra by H. Matsumura

Home assignments.

I will be giving problem assignments weekly. These problem assignments are the integral part of the course - they will contain many important points for which there is not enough time in the course itself.

The grades for home assignments will be a factor in the final grade for the course.

Exams.

There will be a midterm exam in class and a final take home exam.