



## *The Hebrew University of Jerusalem*

### *Syllabus*

## **ALGEBRAIC GEOMETRY - 80637**

*Last update 20-09-2024*

*HU Credits:* 4

*Degree/Cycle:* 1st degree (Bachelor)

*Responsible Department:* Mathematics

*Academic year:* 0

*Semester:* 2nd Semester

*Teaching Languages:* English

*Campus:* E. Safra

*Course/Module Coordinator:* Dr. Borys Kadets

*Coordinator Email:* [borys.kadets@mail.huji.ac.il](mailto:borys.kadets@mail.huji.ac.il)

*Coordinator Office Hours:*

*Teaching Staff:*

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Dr. Borys Kadets

Course/Module description:

*Algebraic Geometry In The Language of Schemes*

Course/Module aims:

*Algebraic Geometry*

Learning outcomes - On successful completion of this module, students should be able to:

*Algebraic Geometry*

Attendance requirements(%):

*None*

*Teaching arrangement and method of instruction: Lecture*

Course/Module Content:

*Affine and projective schemes, local and global properties, sheaves and cohomology, algebraic curves.*

Required Reading:

*None*

Additional Reading Material:

*Hartshorne Algebraic Geometry*

Grading Scheme:

*Active Participation / Team Assignment 20 %*

*Submission assignments during the semester: Exercises / Essays / Audits / Reports / Forum / Simulation / others 80 %*

Additional information:

*Prerequisites: commutative algebra on the level of Atiyah and Macdonald's book.*

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*This course is geared towards master and doctorate students who would like to be proficient in scheme theory.*