



## *The Hebrew University of Jerusalem*

### *Syllabus*

## **CHROMATHOGRAPHY - 69505**

*Last update 03-11-2015*

*HU Credits:* 3

*Degree/Cycle:* 2nd degree (Master)

*Responsible Department:* chemistry

*Academic year:* 0

*Semester:* 1st Semester

*Teaching Languages:* Hebrew

*Campus:* E. Safra

*Course/Module Coordinator:* Prof. Eli Grushka

*Coordinator Email:* [eli.grushka@mail.huji.ac.il](mailto:eli.grushka@mail.huji.ac.il)

*Coordinator Office Hours:* By appointment

*Teaching Staff:*

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Prof Eli Grushka

Course/Module description:

*This is a detailed introductory course for all chromatography techniques. The course covers the theoretical basis for chromatographic separations, and a detailed description for each method (including chromatographic equipment), ways to improve the chromatographic resolution, development of chromatographic methods, chiral separations.*

Course/Module aims:

*See Learning Outcomes.*

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

*Explain the theoretical background of chromatography.*

*Distinguish between different kinds of chromatography.*

*Own a "toolbox" for improving chromatographic separations.*

*Develop methods for chromatographic separations.*

Attendance requirements(%):

*None.*

*Teaching arrangement and method of instruction: Lecture.*

Course/Module Content:

*General introduction to chromatography by discussing extraction and continuous extraction;*

*Thermodynamic aspects of chromatography;*

*Kinetic aspects of chromatography;*

*Chromatographic efficiency;*

*Resolution and methods to improve it;*

*Liquid chromatography of all kinds, including equipment;*

*Gas chromatography of all kinds, including equipment;*

*Chiral separations;*

*Reproducibility and repeatability of chromatographic methods.*

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Required Reading:  
*Presentation slides.*

Additional Reading Material:

Course/Module evaluation:

*End of year written/oral examination 100 %*

*Presentation 0 %*

*Participation in Tutorials 0 %*

*Project work 0 %*

*Assignments 0 %*

*Reports 0 %*

*Research project 0 %*

*Quizzes 0 %*

*Other 0 %*

Additional information:

*Final exam with open books.*