

Course Syllabus No. 2740251 Spring 2026
Name of the Course Evolution Credit Points 2.0

Course teaching staff

Course coordinator Ruth Hershberg
Contact Information ruthersh@technion.ac.il
Reception times to be coordinated via email
Additional lecturers in the course:
Ido Solt (i_solt@rambam.health.gov.il)
Ella Preger (pregere@technion.ac.il)
Yoni Savir (yonisavir@technion.ac.il)

Course structure and times

Lecture Days and Hours **Thursdays 12:00-14:00** Lecture room **Zoom/Red Hall**

Exams

Exam Date Moed A 5/8/26
Exam Date Moed B 1/9/26

Course attendance

Lecture attendance : **Attendance in lectures is highly recommended**

pre-course requirements

Prerequisites for the Course: General Genetics 2740165, 2740243 Molecular Bio.and Regulatory Mechanisms

Recommended resources for the course:

Overarching goal: Understanding the major evolutionary forces of mutation, selection, and stochastic forces such as genetic drift and learning about their influence on important medical phenomena.

Details of the course objectives: The students will know to distinguish between the major evolutionary forces and will understand how they can act separately and in concert to affect patterns of variation and biological phenomena and in particular how they affect medically relevant biological phenomena such as the emergence of pathogens, development and spread of antibiotic resistance and cancer. The students will be exposed to central areas of research in evolutionary biology including the study of genome evolution, experimental evolution and evo-devo (evolution and development).

The Lecture topics in the course according to the weeks of the semester

Name of lecturer	Subject of the lecture	Date	Notes
Ruth Hershberg	Introduction to population genetics	16/4/26	Lecture given via Zoom
Ido Solt	Evolution and Obstetrics	23/4/26	Lecture given via Zoom
Ruth Hershberg	The major evolutionary forces part I	14/5/26	
Yoni Savir	Evolution of social traits	18/5/26	Monday instead of Thursday
Ruth Hershberg	The major evolutionary forces part II	28/5/26	
Ruth Hershberg	Genome evolution	4/6/26	
Ruth Hershberg	Experimental Evolution	11/6/26	
Ruth Hershberg	Pathogen evolution	18/6/26	
Ruth Hershberg	Evolution of Antibiotic Resistance	25/6/26	
Ella Pregger	Evolutionary developmental biology (Evo-devo) 1	2/7/26	
Ella Pregger	Evo-devo 2	9/7/26	
Ruth Hershberg	Cancer evolution	26/7/26	

Teaching methods (please leave the relevant)

Frontal lecture

Assessment tools: (leave the relevant one)

Final exam

Composition of Course Grade (leave the relevant ones)

Final exam grade 100%

Students must pass the final exam with a grade of 55 in order to receive a passing grade in the course