



Course title: Selected Subjects in Organismic Evolution

Name of the lecturer: Ram Reshef, reshefr@sci.haifa.ac.il

Course credit: 2 points

Requirements: N/A

Attendance: 80%

Course program: The course deals with the evolution of life on Earth and the revolutionary ideas that provided mechanistic explanations for its existence. The course contain the following subjects:

1. The idea of organic evolution and the various disciplines in its research.
2. Evidence for the existence and action of evolution.
3. Historical background for the development of the evolutionary theory.
4. The Darwinian theory, the modern synthesis and their implications in life sciences research.
5. The history of life on Earth.
6. Principles of Macro-evolution – creation and development of new species.
7. Sexual selection as an evolutionary force.
8. The discipline of Evolutionary Development
9. Mass extinctions.
10. Human evolution.
11. Evolution and creationism.

Basis of final grades: 100% exam

Bibliography:

1. **The problems of evolution – Mark Ridley.**
2. **Evolutionary Biology – Douglas Futuyma**
3. **Evolution – Douglas Futuyma**
4. **Evolution - A developmental Approach – Wallace Arthur**
5. **Evolutionary Analysis – Scott Freeman and Jon Herron**