



# Full Syllabus



## Course Title

Introduction to Ecology

## Lecturer

Michal Gruntman

## Semester

A

## Course requirements

## Final grade components

Final exam (100%) and weekly assignments (each assignment with a passing score gives one bonus credit point in the final grade, if the final exam's grade is at least 60%).

## Course schedule

Class no. / Date	Subject and Requirements (assignments, reading materials, tasks, etc.)
1	<b>Introduction:</b> the scientific method in ecology, levels of organization in ecology
2	<b>Evolution:</b> microevolution, natural selection, genetic drift, and gene flow
3	<b>Evolution:</b> macroevolution, the biological species concept and speciation
4	<b>Population ecology:</b> population dynamics, life-history strategies
5	<b>Small populations:</b> endangered species conservation and metapopulations
6	<b>Competition:</b> types of competition, niche partitioning and species coexistence
7	<b>Predation, herbivory and parasitism:</b> models, coevolution and adaptations
8	<b>Mutualism:</b> models, coevolution and adaptations
9	<b>Community ecology:</b> patterns of species richness and diversity across scales
10	<b>Ecological succession:</b> models of succession and management implications
11	<b>The biodiversity crisis:</b> anthropogenic effects on species richness
12	<b>Ecosystem ecology:</b> trophic levels, food webs and ecosystem services
13	<b>Applied ecology:</b> species conservation in Israel

## Optional course reading

Begon M., Townsend C.R. & Harper J. 2006. Ecology: From Individuals to Ecosystems. Willey-Blackwell

Real L.A. & Brown J.H. (eds). 1991. Foundations of ecology: classic papers with commentaries. University of Chicago Press.