



# Full Syllabus



## Course Title

Plant Ecology

## Lecturer

Michal Gruntman

## Semester

B

## Course requirements

Previous participation in an introductory ecology course, attendance in at least 80% of the classes

## Final grade components

Exercise in the botanical garden and its presentation in class (20%) and final exam (80%)

## Course schedule

| Class no. | Subject and Requirements (assignments, reading materials, tasks, etc.)  |
|-----------|---|
| 1         | Plant life history strategies: phenology, mating systems, trade-offs, allometry   |
| 2         | Plant life history strategies: theories of plant strategies and environmental effects.  |
| 3         | Pollination ecology: floral traits and pollination syndromes.   |
| 4         | Pollination ecology: flower constancy and deception.  |
| 5         | Herbivory: evolution of resistance and tolerance, environmental effects, induced defenses, effects on community productivity, diversity and species composition.            |
| 6         | Exercise at the botanical garden  |
| 7         | Intraspecific competition: size hierarchies and size-asymmetric competition.  |
| 8         | Interspecific competition: models of interspecific competition, experimental designs, competition indices and competitive effect and response.                              |
| 9         | Facilitation: positive plant-plant interactions and environmental effects.  |
| 10        | Seed dispersal: dispersal mechanisms and seed and fruit traits.   |
| 11        | Seed dispersal: costs of dispersal, heterocarpy and community level implications.   |
| 12        | Interactions with soil biota: evolution of mutualistic interactions with fungi and bacteria, environmental effects, punishment and reward and effects on plant competition. |
| 13        | Carnivorous plants: costs and deception, mutualistic interactions with other species.   |

## Required course reading

Will be provided during the course

## Optional course reading

- Keddy P, Plant Ecology: Origins, Processes, Consequences (Cambridge University Press, 2017).
- Crawley MJ, Plant Ecology (Oxford: Blackwell Science, 1997).