

**BIO1342 Plant morphogenesis**

[45h+30h exercises] 6 credits

This course is taught in the 2nd semester

**Teacher(s):** François Chaumont  
**Language:** French  
**Level:** First cycle

**Aims**

To allow the student to understand how a plant elaborates its body plan throughout its life thanks to its meristems and how an organism fixed to its substrate adapts its edification processes to face environmental changes.

**Main themes**

Structural and functional characteristics of plant cells are first analyzed. Regulation mechanisms of cell cycle, cytokinesis plan, growth and cellular differentiation are then examined. Different processes of morphogenesis are studied. Emphasis is put on the edification of the vegetative structures, particularly focussing attention on the root system. The differentiation of the vascular tissues and secondary growth processes are reviewed. Programmed cell death processes and in vitro organogenesis are also considered. The student is finally initiated to scientific communication by critical analysis of the form and content of scientific papers covering the processes of morphogenesis.