


 Faculty of Sciences

BIOL2181 Animal morphology and physiology

[45h+37.5h exercises] 7.5 credits

This course is taught in the 2nd semester

Teacher(s): Jean-François Rees, Claude Remacle, Philippe van den Bosch Sanchez de Aguilar
Language: French
Level: Second cycle

Aims

To study the functioning of big systems integrating anatomical and histological data necessary to their comprehension and bringing attention on the multiple expressions of these functions in aerial, terrestrial and aquatic sites.

Main themes

1. Neurophysiology: a) Structural and fonctionnal bases of nervous tissue and evolution - b) Illustration of sensorial reception: evolution of photoreception. 2. Endocrinology : a) Organisation of endocrinian axes - b) Examples of regulation. 3. Circulation system: the cardiac pump, roles of the vasculary system of high and low pressure, open and closed; function of elements composing the circulation liquids. 4. Respiratory system: mecanisms of bringing O₂ and taking away CO₂, connection with aerial structures (lungs and tracheid) and aquatic structures (branchiae). 5. Digestive system: structure and fonctionning of digestive system. Particular aspects: a) energy needs depending on metabolism at rest and in activity - b) mecanisms controlling digestion and absorption - c) qualitative aspects of nutrition. 6. Excretion system: evolution of nephridian system; excretion and osmoregulation functions of excretion system.

Assisted work: the teaching will favor learning by consulting reference books, discussion on tough questions, iconographic documents, histologic slides and anatomical pieces, fine dissection of nervous, cardiovascular, respiratory system, digestive and urogenital components.

Other information (prerequisite, evaluation (assessment methods), course materials recommended readings, ...)

Prerequisites: General physiology (BIOL 2121).
 Evaluation: oral examination, June and September sessions.
 Support: syllabus.

Other credits in programs

BIOL21/B Première licence en sciences biologiques (Biologie des organismes et des populations)