



Faculté des sciences

SC

BIOL2121 **Physiologie générale**

[60h+30h exercices] 5 credits

This course is taught in the 1st semester

Teacher(s): Patrick Gilon, Jean-François Rees
Language: french
Level: 2nd cycle course

Aims

To describe the common fundamental mechanisms of energy, substance and information transfer through the living organisms.

Main themes

1. Description of the interior environment and of mechanisms put into place to maintain its composition despite the variations of parameters of the exterior environment. A) composition of interior environment B) ionic and hydric regulation: aquatic organisms, terrestrial organisms. C) Effects of atmospheric pressure: on organisms, isolated tissues, on proteins, mechanisms of action on molecular pressure D) Effects of temperature : Q10 and physiological process E) Effects of light: UV rays and the biosphere, biological effects of light, photosensitivity and photodynamism, photoperiodism and biological rhythms. 2. Exchanges of substance and transport mechanisms: transport of neutral molecules by diffusion, water movements, electrolyte diffusion, assisted transports. 3. The transport of information: membrane potential, excitability, conduction of action potentials, SYNAPTIC transmission. 4. Motility: the filamentous structures of cells, elementary movements, cardiac muscles, XX unitary and multiunitary muscles, the tonic muscles of Molluscs.

Other credits in programs

VEETE12	Deuxième candidature en médecine vétérinaire	(10 credits)	Mandatory
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