

Faculty of Medicine



FYSL1210 General Physiology

[60h+24h exercises] 8 credits

Teacher(s): Philippe Gailly, Jean Lebacq
Language: French
Level: First cycle

Aims

General physiology is taught at the beginning of a cycle of two years leading to an understanding in depth of the organization and functioning of a healthy human body. The mechanisms of elementary functions common to all living cells are analysed in terms of basic laws of physics and chemistry. The course is a prerequisite for studying human physiology of and pathology.

Main themes

The animal is an open thermodynamic system : it is characterized by its ability to exchange matter and energy with its environment and to maintain itself in a steady-state by using the energy transformed in metabolic processes. If it follows basic laws of physics, it also has its own properties: in particular, it controls the thermodynamic exchanges via information transmitted between cells, organs and external milieu. Some basic functions therefore depend on cellular properties, others are due to characteristics of the whole organism.

Content and teaching methods

Lectures are oriented in a physico-chemical perspective. Solid bases in these scientific matters, acquired in BAC1, are therefore required. Besides, physiology is an experimental discipline: laws describing basic functions of living cells are deduced from experimental observations.

Practicals: Two aims:

- to illustrate some chapters of theoretical lessons ;
- to introduce students to the experimental method, to the adequate and precise description of the results obtained with simple methods, critical analysis.

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

Knowledge evaluation is based on an oral examination after written preparation.

Other credits in programs

MED12BA	Deuxième année de bachelier en médecine	(8 credits)	Mandatory
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