



[22.5h] 3 credits

This course is taught in the 2nd semester

**Teacher(s):** Jean Lebacq

Language: french

Level: 1st cycle course

## Aims

- to supply a comprehension of the human body functioning, based on the knowledge of the cell life
  - to prepare to the study of the nervous system and to psychophysiology

## Main themes

Introductory study of human body functioning. The emphasis is put on the exchanges of material, of energy and of information, between the body and its environment, on one hand, and between the different body parts on the other hand. Among the subjects treated: the main systems (cardio-vascular, respiratory, urinary, digestive, blood, reproduction) and the control systems; endocrine and autonomic nervous systems by evidencing the constraints these systems exert on behaviour.

## **Content and teaching methods**

Introductory study of human body functioning: from the knowledge of the animal cell acquired in General Biology, the study will bear on the various tissues combined in the physiological systems (epithelium, connective and derived tissues, motion tissues, nerve tissue); the main systems will then be approached (blood, circulatory, respiratory, digestive, urinary) by showing how each system enables the whole body life by the transfer of material and energy with the other systems and with the environment.

The emphasis will be put on the information exchanges inside the body: hormonal mechanisms harmonising the development and insuring the upholding of homeostasis; nervous information mechanism (the action potential and its conduction by the synapses, nerve cells group organisation). This part directly prepares for the study of the nervous system physiology and for psychophysiology.

Finally, the functioning of the reproduction system in man and woman and its hormonal regulation will be studied.

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

The course is widely based on the knowledges acquired in the General and Genetic Biology course which should have been attended previously.

**Other credits in programs**

<b>EDUS1EP</b>	Année de formation préparatoire à la licence en sciences de la santé publique (promotion de la santé, éducation pour la santé)	Mandatory
<b>EDUS21</b>	Première licence en sciences de la santé publique (Promotion de la santé, éducation pour la santé)	
<b>ELEC23</b>	Troisième année du programme conduisant au grade d'ingénieur civil électricien	(3 credits)
<b>ELME23/M</b>	Troisième année du programme conduisant au grade d'ingénieur civil électro-mécanicien (mécatronique)	(3 credits)
<b>MATR23</b>	Troisième année du programme conduisant au grade d'ingénieur civil en science des matériaux	(3 credits)
<b>PSP11BA</b>	Première année de bachelier en sciences psychologiques et de l'éducation	(3 credits) Mandatory
<b>SEX1EP</b>	Année de formation préparatoire à la licence en sciences de la famille et de la sexualité	(4.5 credits) Mandatory