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# FYSL1211 Cardiovascular and Respiratory Physiology

[30h+8h exercises] 4 credits

**Teacher(s):** Guy Heyndrickx, Giuseppe Liistro

Language: French
Level: First cycle

#### Aims

Introduction to the physiological bases of the cardiovascular and respiratory systems as a basis for the study and understanding of the cardio-respiratory patho-physiology and the pathology in internal medicine.

#### Main themes

## A. Theoretical lectures

1. Cardiovascular physiology:

this part is devoted to the general mechanisms of function and regulation of the cardiac function, systemic circulation and special circulations. Special attention will be paid to the cardiac cycle, control of cardiac output, pressures and resistances, cardiovascular receptors, reflexes and central control mechanisms, cardiovascular responses during stress.

2. Respiratory physiology:

this part is devoted to the static and dynamic properties of the respiratory system, to the gaseous exchanges, the transport of gases by the blood, the ventilation - perfusion ratio of the lung and to control of breathing.

B. practical works:

They are intended to illustrate certain points of the theoretical course by a demonstration to help the student in his personal efforts of integration of the theoretical course. They include sessions of exercises carried out by the students on themselves (in the form of a "clinical investigation").

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

Essential knowledge from general physiology, general biochemistry, histology and anatomy (given in MED 12). The evaluation of knowledge is done by written examination. //Participation of the academic, scientific and technical personnel of unit HEDY and ENDO to practical work.

A number of colleagues not co-titular contribute to this teaching. Contacts are maintained with various departments, in particular the department of cardiology, to ensure an optimal integration. The data-processing approach is used for the interpretation of the results of these exercises in order to stimulate the reflection of the students and a critical discussion of the experimental results.

### Other credits in programs

MED12BA Deuxième année de bachelier en médecine (4 credits) Mandatory