

## Faculty of Medicine



### MEFY2120 Complement of Physical Medicine and Rehabilitation

[15h] 2 credits

**Teacher(s):** Léon Plaghki  
**Language:** French  
**Level:** Second cycle

#### Aims

In depth study of normal and pathological gait including de methods of investigation. The student shall be able to interpret a laboratory protocol of gait analysis.

#### Main themes

The first part of this course introduces the student to the major displacements of the body (kinematics) during walking and the smoothing mechanisms of the pathway of center of mass. The second part concerns the relation between energy expenditures and speed in level walking and in walking with technical aids. The third part introduces the modelling of gait in order to familiarise the student with the methods of inverse dynamics, i.e. the analysis of forces that generate the displacements of the body.

The last part introduces the methods of electromyography to identify the phasic activity of muscles during walking. A visite of the gait laboratory allows to illustrate the theoretical concepts by pratical examples.

#### Content and teaching methods

For the theoretical part of the course on normal and pathological gait analysis, comprehensive written notes are available. A visite of the gait laboratory allows to illustrate the theoretical concepts by pratical examples.

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

Support : syllabus

Written examination: The student has to comment three figures of the syllabus and to interpret a laboratory protocol of gait analysis in normal and pathological conditions.

Phone contact : Leon Plaghki : 32 (0)2 764 1668 or 32 (0)2 764 1682 (secretariat).

#### Other credits in programs

|                   |  |             |           |
|-------------------|--|-------------|-----------|
| <b>ESP31DS/EX</b> | Première année du diplôme d'études spécialisées en santé publique (médecine d'expertise et évaluation du dommage corporel) | (1 credits) |           |
| <b>MED22</b>      | Deuxième année du programme conduisant au grade de docteur en médecine   | (1 credits) |           |
| <b>MESP31DS</b>   | Première année du diplôme d'études spécialisées en médecine du sport   | (2 credits) | Mandatory |