

# KINE2121 Theoretical basis of physical therapy

[90h] 7 credits

Teacher(s): Language: Level: Jacques Denayer, Philippe Hanson (coord.), Jean Roeseler French Second cycle

#### Aims

By the end of this course, students should be familiar with the basic physiopathology and symptomatology of the principal neurological, orthopaedic, traumatic, rheumatic and respiratory pathologies in adults.

They should also be aware of the indications and objectives of Physiotherapy and Electrotherapy treatments. They should know the basics of the principal rehabilitation techniques currently in use and be able to adopt a critical approach towards these techniques. They will have learnt how to adapt their treatments in accordance with the properties of particular biomaterials to prevent tissue lesions. They will also be able to design and justify personalized treatment plans, adapted to the degree of severity and stage of development of each pathology. They will be familiar with the instruments used to evaluate perceptual-motor and functional skills

#### Main themes

The main topics dealt with in this course are: neurological pathologies (stroke, spinal cord injuries, traumatic brain injuries, Parkinson's disease, multiple sclerosis, peripheral nerve lesions and myopathy), orthopaedic, traumatic and rheumatic pathologies of limbs and rachis, cardio-respiratory rehabilitation, burns and perineal rehabilitation. For each of these topics, teachers will draw students' attention to the physiopathological issues crucial to a proper understanding of the consequences of the affections requiring therapeutic intervention.

Students will be taught the principles and techniques of treatment as they relate to different stages of development of these affections. They will also be introduced to the instruments used to evaluate the state of advancement and development of a particular affection.

## Content and teaching methods

This course aims to teach students the physiopathology, symptomatology, indications and physiotherapy techniques for each of the pathologies listed in the course description. It examines in detail the different stages of development of these pathologies, with particular emphasis on the therapeutic requirements, indications and contraindications at each stage, and the objectives and limitations of treatment. As such, this course should prepare students for active involvement in dealing with the principal pathologies of the nervous system during their first on-the-job training period.

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

Pre-requisite: Anatomy and Physiology of the Nervous, Musculo-Skeletal and respiratory Systems, Biomechanics and Movement Analysis, Basic Techniques in Physiotherapy. Evaluation: oral examination with written preparation Support: course handout and/or course books Supervision: course-holders and technical advisors

## Other credits in programs

KINE21	Première licence en kinésithérapie et réadaptation	(7 credits)	Mandatory
KINE21/PS	Première licence en kinésithérapie et réadaptation	(7 credits)	Mandatory