

TEACHER'S GUIDE SHEET	
MODULE	BIOMECHANICS OF GAIT
DIDACTIC UNIT	BIOMECHANICS OF NORMAL GAIT
TITLE OF ACTIVITY/CLASS	Description of normal gait
OBJECTIVES	<ul> <li>Find out how gait is defined.</li> <li>Learn how gait is described - division into phases.</li> <li>Find out what the attributes and determinants of gait are.</li> <li>Find out what kinematic parameters are used to describe the biomechanics of gait and what changes these parameters subject during the gait cycle.</li> <li>Find out what dynamic parameters are used to describe the biomechanics of gait and what changes these parameters subject during the gait cycle.</li> <li>Find out what dynamic parameters are used to describe the biomechanics of gait and what changes these parameters subject during the gait cycle.</li> <li>Find out what muscle work looks like during a gait cycle.</li> </ul>
LENGTH	110 MINUTES OF CLASS IN TOTAL
PREVIOUS KNOWLEDGE REQUIRED	NO REQUIREMENTS
TECHNICAL NEEDS	PC with projector
RESOURCES NEEDED	PC, at least 2 smartphones with possibility to transfer films to the PC, program enabling analyses of films and pictures.

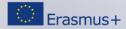




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# **DESCRIPTION OF THE CLASS/ACTIVITY**

A power point will be used by the professor in order to guide the class. Class activities will include:

- Presentation of gait analysis history
- Description of normal gait
- Description of gait determinants
- Description of time-space parameters
- Description of kinematic and dynamic parameters characteristic for normal gait
- Description of muscle work during gait

# TASKS TO BE DEVELOPED BY THE STUDENT IN CLASS

## Preparation for the task

Selection of 2 - 3 volunteers.

## Preparation for conducting measurements

Students have to prepare smartphones and mark selected points on the body of examined person.

#### Carrying out measurements

Recording gait of a person

#### Analysis of measurement results

Determination and analysis of time-space values, gait determinants and angle courses.









# TASKS TO BE DEVELOPED BY THE STUDENT OUTSIDE OF CLASS (If required)

Not required

## **EVALUATION METHODOLOGY**

The teacher will collect tests.

Each of test should be signed by a student.

The teacher will punctuate the answers given by a student. Each of the answers will be punctuated out of 0 - 2 points (2 if correct). In the end, the punctuations will be added.

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