

TEACHER'S GUIDE SHEET

MODULE	BIOMECHANICS OF GAIT
DIDACTIC UNIT	BIOMECHANICS OF NORMAL GAIT
TITLE OF ACTIVITY/CLASS	Description of normal gait
OBJECTIVES	<ul style="list-style-type: none"> • Find out how gait is defined. • Learn how gait is described - division into phases. • Find out what the attributes and determinants of gait are. • Find out what kinematic parameters are used to describe the biomechanics of gait and what changes these parameters subject during the gait cycle. • Find out what dynamic parameters are used to describe the biomechanics of gait and what changes these parameters subject during the gait cycle. • Find out what muscle work looks like during a gait cycle.
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.



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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