

TEACHER'S GUIDE SHEET

MODULE	MODULE BIOMECHANICS: FOUNDATIONS OF BIOMECHANICS APPLIED TO THE LOCOMOTOR SYSTEM
DIDACTIC UNIT	<p>E: TECHNIQUES FOR THE INSTRUMENTAL ANALYSIS OF PHYSIOLOGICAL SIGNS AND ANTHROPOMETRIC AND MORPHOMETRIC PARAMETERS</p> <p>E.4. What are the applications of the analysis of anthropometric and morphometric parameters?</p>
TITLE OF ACTIVITY/CLASS	Demonstration of chosen anthropometric and morphometric analysis application on example of Body Mass Index computation and assessment.
OBJECTIVES	Understand the application of the determined anthropometric parameters and their usefulness in the assessment of health condition in disease prevention.
LENGTH	10 MINUTES OF CLASS IN TOTAL.
PREVIOUS KNOWLEDGE REQUIRED	It is advisable for the student to have at least basic knowledge about physics and human anatomy as well as read the theoretical document associated to this module.
TECHNICAL NEEDS	<p>PC with software for the reproduction of videos with audio and power point presentation.</p> <p>Projector and screen to show contents appropriately to all the students during class</p>
RESOURCES NEEDED	Cards prepared to compute a Body Mass Index from weight and height and BMI tables for adults to match the resulted BMI to particular category.



DESCRIPTION OF THE CLASS/ACTIVITY

A power point presentation will be used by the profesor in order to guide the class:

BASIC CONCEPTS

First, based on presentation the application of anthropometric and morphometric parameters analysis will be presented up to example of Body Mass Index description.

TASK:

After explaining the basic concepts, students will start to practically compute and asses Body Mass Index using prepared cards with sample weight and height data.

SOLUTIONS AND EXPLAINING:

Only after having collected them, the teacher continues with the presentation, by showing the proper formula and way to classify the Body Mass Index (BMI) correctly.

CONCLUSIONS OF THE CLASS

Last, the teacher will summarise, pointing out the important role of anthropometric and morphometric parameters in assessing the state of health of patients, in particular their degree of obesity, which is important for the prevention of the diseases of civilisation.

TASKS TO BE DEVELOPED BY THE STUDENT IN CLASS

TASK: Based on sample body weight and height data, students determine the BMI and classify it into the appropriate category according to reference table.

- When students work and compute the BMI values from weights and heights from table, it is important that they change the height units from [cm] to [m].

- After computing BMI value, students classify it to appropriate category using its abbreviation

They will have 5 minutes to do this task.

Once completed the task, the students will give the teacher back the completed BMI cards.

EVALUATION METHODOL

The teacher will collect the BM cards with table fulfilled from every student.

Each of them should be properly identified by the student, who must have written down their full names in the specific space destined to do so.

The teacher will evaluate generally the way of: 1. computing the BMI values and 2. classifying them to the category.

A general positive/negative overall score is awarded.

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