

Subject: BIOMECHANICS

GENERAL INFORMATION

Organization unit	Faculty of: Physical Education
	Chair of: Biomedical sciences
	Chairman:prof. Andrzej Mastalerz
Course name	Biomechanics
Subject code	15/2/I/PE
Teaching language	English
Type of subject	obligatory
(obligatory/ facultative)	
Level of studies (eg. bachelor, master)	bachelor
Study year	2
Semester	3 or 4
ECTS points	4
Professor	Anna Mazurkiewicz
Studies program in which the subject is realized	Sports, PE
Method of realization	stationary
(stationary/ distance learning)	
Prerequisites	Anatomy, biology, biochemistry, physiology

DETAILED INFOMATION

Course aims and objectives

Knowledge and skills connected with understanding the causes and results of forces in human body movement

Knowledge about structural, geometric , informational and energy-related parameters of human body movement abilities

Ability to perform selected biomechanical measurements (maximum Torque of selected group of muscles in static conditions, ground reaction force)

Main topics

No	Торіс			
Lectures/classes				
1.	Introduction to biomechanics			



ion of biomechanics in science, sport and physical
etric, informational and energy-related parameters of
vement abilities
cepts of mechanics in physics in: the statics, dynamics
nd its practical application in sport and sport science
I maximum torque of selected muscle group in static
ground reaction force in countermovement jump.
of metrology and rules and methods of data analysis

CONDITIONS FOR PASSING CLASSES:

The assessment model is composed 2 criteria:

- theoretical evaluation (writing test/exam)
- proper conducting of measurements and proper analysis of measured data (paper work or presentation)

Each criteria is graded from 2 to 5. Grade 2 means that student did not reach the evaluation criteria. In order to evaluate student has to achieve at least grade 3 in each criteria.

1 ECTS point = 25 hours students work (contact + self study)

	TYPES OF CLASSES	HOURS	
1.	Contact classes	30	
2.	Students' preparations of the presentations	30	
3.	Self study as preparation to the written exam	30	
4.	Self study as reading text prepared by the	30	
	teacher		
	Total = 100 hours- ECTS points 4		

Author of the class card:	Name, surname and email
Date: 16.04.25	Anna Mazurkiewicz, anna.mazurkiewicz@awf.edu.pl