

**Subject:****I. General information**

Organization unit	Faculty of Physical Education Department: Physiology and Sports Medicine Supervisor: Dr hab. Ryszard Zarzeczny, prof. AWF
Course name	Physiology of Physical Effort
Subject code	21/1/II/PE
Teaching language	English
Type of subject (obligatory/ facultative)	obligatory
Level of studies (eg. bachelor, master)	master
Study year	1
Semester	2
ECTS points	4
Teacher/e-mail	Dr Piotr Żmijewski piotr.zmijewski@awf.edu.pl
Studies program in which the subject is realized	PHYSICAL EDUCATION
Method of realization (stationary/ distance learning)	stationary
Prerequisites	Knowledge of human biology, anatomy, biochemistry and physiology

II. Detailed Information**Course aims and objectives**

A1	to expand the knowledge of physiological systems functioning during exercise
A2	to understand how the separate systems interact to yield integrated physiological responses to exercise
A3	to give students a theoretical basis of physiological responses and adaptations to

	acute and chronic exercise
A4	to introduce students to basic methods of assessment of exercise capacity

Learning outcomes

Learning outcome	Subject's learning outcomes
Knowledge	
K_W01	Demonstrates expanded knowledge of human physiology.
K_W03	Knows the positive and negative physiological effects of physical training.
K_W11	Demonstrates knowledge of physiological mechanisms associated with exercise.
K_W11	Knows the terms commonly used in exercise physiology.
Skills	
K_U08	Applies the basic tools and equipment commonly used in exercise physiology.
K_U03, K_U05, K_U08	Demonstrates the ability to administer and interpret body's responses to aerobic and anaerobic exercise.
Social Competences	
K_U07	Respects safety issues during exercise testing.

Syllabus contents

No	Title
Classes/ Practical classes	
SC1	Classifications of physical exercises.
SC2	Skeletal muscle: structure and function.
SC3	Nervous control of muscular movement.
SC4	Pulmonary responses to exercise.
SC5	Cardiovascular responses to exercise.
SC6	Bioenergetics - Energy sources.
SC7	Measurement of energy expenditure.
SC8	Physical capacity.
SC9	Direct measurement of maximum oxygen uptake.
SC10	Indirect methods of evaluation of aerobic capacity.
SC11	Physiological effects of physical training.

1 ECTS point = 30 hours students work (contact + self study)

TYPES OF CLASSES	HOURS
Contact hours	30
Self study	90
Total = 120 hours = 4 ECTS	