

1. Nazwa przedmiotu: Biochemistry of exercise
2. Typ zajęć: Lecture and practical exercises
3. Forma zaliczenia: graded assignment
4. Semestr: winter
5. Proponowana liczba godzin (10h of lectures and 10h of exercises)
6. Sylabus (maksymalnie 12 wierszy)

L1) Homeostasis, cell organelles, aminoacids and proteins properties

L2) Energy sources for muscular activity, skeletal muscle structure and function

L3) Carbohydrates and lipids, the structure and metabolism

L4) Principles of metabolic regulation

L5) High-intensity exercise vs endurance exercise, biochemical differences

P1) Properties of peptide bond, protein denaturation

P2) Alpha-amylase activity

P3) Reducing properties of sugars

P4) pH of foodstuffs, properties of buffer solutions

P5) Metabolic gains

7. Efekty kształcenia:

Knowledge: After the course students get the knowledge about protein structures and functions, metabolic processes during physical exercises, with special regard to glucose and free fatty acids catabolism and acidic alkaline balance in the body

Skills: After the course students are able to use basic laboratory equipment, make some simple biochemical procedure and interpret the results of tests.

Social competence: The student is able to collaborate with others, to solve complex problem.

8. Określenie kwalifikacji I i II stopnia
9. Jednostka organizacyjna realizująca przedmiot: Department of Physiology and Biochemistry
10. Osoba prowadząca przedmiot PhD Justyna Kuśmierczyk
11. Warunki realizacji zajęć: with group
12. Proponowana liczba punktów ECTS: 4
13. Możliwość zajęć zdalnych: 10h