



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Swimming [C\_CS>Pły15]

### Course

Field of study

Biomedical Engineering

Year/Semester

2/3

Area of study (specialization)

Medical and Rehabilitation Devices

Profile of study

general academic

Level of study

second-cycle

Course offered in

polish

Form of study

full-time

Requirements

elective

### Number of hours

Lecture

0

Laboratory classes

0

Other (e.g. online)

0

Tutorials

15

Projects/seminars

0

### Number of credit points

0,00

### Coordinators

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### Lecturers

mgr Waldemar Olejniczak

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### Prerequisites

No health contraindications to physical exercise and swimming. Ability to swim with elementary technique, hold on to deep water, dip the body under the water surface, perform any jump from the edge of the pool. General knowledge and interest in swimming issues.

### Course objective

Organizational activities. Regulations of the course. Conditions for passing the semester. Dissolution. Test of skills. Exercises, games and games familiarizing with the water environment,. Exercises fun and games shaping elements of swimming technique. Exercises and games for those who can swim. Dorsal style. Teaching NN, RR work and coordination of NN work, RR with breathing, starts and turns. Freestyle. Teaching the work of the NN, RR and coordination of the work of the NN, RR with breathing, starts and turns. Classical style. Teaching the work of the NN, RR and the coordination of the work of the NN, RR with breathing . Butterfly style. Teaching the work of NN, RR and coordination of the work of NN, RR with breathing Practical credit - 50 m in backstroke and freestyle - evaluation of technique and time.

## Course-related learning outcomes

The student acquires the ability to behave in an aquatic environment, Submerging the head, opening the eyes underwater, breathing, lying on the chest and back, sliding on the chest and back.

- coordination of arm and leg work in backstroke kraul.
- straight backstroke in backstroke kraul.
- starting from the water for the backstroke kraul.
- coordination of arm and leg work and breathing in the backstroke kraul.
- straight backstroke in breaststroke kraul.
- headlong water jump.
- coordination of arm work, leg work and breathing in classic style.
- jumping into the water and turning in classical style.

The student is able to swim 50 m in each of the learned styles

## Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Active participation in program activities and demonstration of knowledge resulting from the content of the program implemented in each semester.

Demonstration of the ability to swim with four techniques including starts and turns over a specified distance with notation of time.

Demonstrate theoretical knowledge of the issues implemented during the course of the subject.

## Programme content

Man in the water environment - physical properties of the water environment, chemical properties of water, buoyancy of bodies, static swimming and dynamic swimming. Motor activity in the aquatic environment. The impact of the aquatic environment on the functioning of the human body.

Swimming technique according to skills (elementary technique, standard technique and sports technique).

Biomechanical analysis of sports swimming technique in backstroke, freestyle, classic, butterfly. General characteristics of the technique

of swimming, body positioning, muscle work during swimming, kinematic characteristics of upper and lower limb movements. Starts, turns.

## Teaching methods

Teaching methods - based on practical action of students, demonstrative, verbal.

Synthetic, analytical, comprehensive method.

Play method - imitative, play - classical.

Lecture - multimedia presentation.

## Bibliography

Karpinski R., Swimming, AWF Katowice, 2005.

Bartkowiak E., Sport swimming, Central Sports Center, Warsaw, 1999.

Czabański B., Fiłon M., Zatoń K., Elements of swimming theory, AWF Wrocław, 2003.

## Breakdown of average student's workload

|   | Hours | ECTS |
|---|-------|------|
| Total workload  | 15    | 0,00 |
| Classes requiring direct contact with the teacher   | 15    | 0,00 |
| Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation) | 0     | 0,00 |