



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Indoor cycling / Rowing machine [C_CS>RS15]

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

mgr Katarzyna Wasielewska

katarzyna.wasielewska@put.poznan.pl

mgr Agata Ostrowska

agata.ostrowska@put.poznan.pl

Lecturers

mgr Arkadiusz Jarentowski

arkadiusz.jarentowski@put.poznan.pl

Prerequisites

no contraindications

Course objective

Classes on a rowing ergometer enable endurance training that evenly engages all major muscle groups and improves the efficiency of the cardiovascular system. In addition, they support fat burning and increase the body's ability to absorb oxygen. The natural rowing movement allows you to harmoniously shape the muscles of the legs, back, shoulders, buttocks, arms and abdomen, while improving the functioning of the circulatory and respiratory systems. These classes have a great impact on improving health and instill in the trainee the desire to continue caring for their own health and physical and mental condition. Exercise bike classes are one of the forms of aerobic training. Classes are held on Spinner Pro Plus and Shwinn Evolution bikes. They are conducted by qualified instructors to the rhythm of carefully selected music, which helps maintain the appropriate driving rhythm. The classes consist of three parts: warm-up (consisting of riding at a leisurely pace, preparing for further riding), the main part (consisting of continuous riding with variable pace and load) and the final part (the so-called cool-down, during which we slow down the rotational movement and calm the body after intense driving). During typical classes that last approximately 75 minutes, participants burn up to 800 calories, increase physical and mental strength, and improve endurance. They also reduce the risk of cardiovascular diseases. The benefits of cycling to music include: increasing general efficiency and improving fitness increasing the efficiency of the circulatory system prevention of coronary heart disease and hypertension increasing the efficiency of the respiratory system strengthening the skeletal system prevention of osteoporosis change in body composition mental relaxation :)

Course-related learning outcomes

The student is able to correctly set the equipment according to its parameters
Knows the rules of warm-up and aerobic or anaerobic training
It can estimate your fitness level based on your heart rate
Performs calming and stretching exercises independently
Adjusts the difficulty of tasks to individual needs
Is able to make an objective self-assessment in relation to the requirements set for himself

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Completing the course is achieved through active and regular participation in classes.
One absence is allowed without the obligation to make up or justify it for 15 hours per semester.
The student is obliged to make up for remaining absences and short-term sick leave in consultation with his/her teacher.
It is possible to complete two classes a week.
You can participate in physical education classes no more than once a day.
Classes must be made up on a day other than the scheduled classes.

Programme content

Getting to know the equipment, adjusting the settings to your own body parameters
Learning the technique
Conducting a warm-up
The use of equipment to develop motor skills - strength and endurance
Using your heart rate to determine your physical activity level

Course topics

Rules for the safe use of a rowing ergometer
Setting the equipment according to body parameters
Technique of riding on a rowing ergometer
General endurance training
Special endurance training
Heart rate measurement and physical load
Harmonious shaping of the muscles of the legs, back, shoulders, buttocks, arms and abdomen
Training with a variable pace
Group competition

Rules for safe use of an exercise bike

Setting the equipment (saddle and handlebar) according to body parameters

Stationary bike riding technique

Learning the warm-up (riding at a leisurely pace, preparing for further riding), the main part (continuous riding with variable pace and load) and the final part (so-called calming down and calming down the body after intense work. Maintaining an appropriate riding rhythm.

Teaching methods

practical methods: practical exercises,

reporting methods: description and explanation with underlining most often

mistakes made

exposing methods: demonstration, error analysis

Bibliography

ERGOMETER CONCEPT II

USER'S GUIDE

Cycling.Training basics

Dominik Lau

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 |