## Course title: Data acquisition and analysis

Lecturer or lecturers (last name, middle name): Nedeljković Č. ALeksandar; Mirkov M. Dragan

**Course status:** Obligatory

**ECTS: 15** 

**Condition:** Completed course: Information Systems in Physical Education and Sport (or similar if the Candidate comes from other Institution)

## **Course objectives:**

To introduce basic concepts in data collection, analysis and interpretation of physiological signals

### **Course outcome:**

After completing the course, students will be able to:

Select and routinely use appropriate measurement tools in solving practical research problems.

Create custom made software application for data acquisition, analysis and interpretation.

## **Course description**

Biomechanical measurements. Electrophysiological measurements. Assessment of physical abilities. Data aquisitiona and analysis. Virtual instrumentation; A/D conversion; Bacisc of software application (DADisp, LabView);

#### **References:**

- 1. Tomkins W.J. Biomedical Digital Signal Processing. University of Wisconsin-Medison. Wiliam Tomkins. 2000
- 2. Mark J. T. Smith MJT, Mersereau RM. Introduction to Digital Signal Processing: A Computer Laboratory Textbook. New York. John Wiley & Sons, Inc. 1991

No. of active classes Lectures: Study research work: 6

# **Teaching method:**

**Small groups; Seminars** 

**Knowledge assessment (maximum score 100)** 

Class Activites - 10 Practical Activities - **20** 

Colloquium -30

Final Exam - 40