Study Program: Physics

Type and level of studies: Bachelor studies

Course name: Physics Teaching Methodology 1

Lecturer**: Odalović Mihajlo**

Status: Compulsory

ECTS: 6

Attendance prerequisites: Pedagogy with Psychology

Course aims

Physics Teaching Methodology 1 is the initial (theoretical) training of a student for successful participation in the teaching process within the subject teaching of physics.

Course outcome

Gaining basic knowledge of the methodology of teaching physics is necessary for successful inclusion in teaching process with the aim of acquiring teaching competence through practical work in natural (school) conditions.

Course content

Theoretical part

The core of the teaching process. Teaching as a learning process and a cognitive process. Teaching as a necessary, sociologically conditioned, extension of experience. Physics teaching methodology. Organization of teaching. Teaching objectives. The tasks of teaching natural sciences. The teacher and his/her role in overseeing the teaching process. Teaching system. *Basic didactic principles on which the teaching of natural sciences is based*. The scientific and the systematic in teaching work and presentation. Experiment and theory in teaching natural sciences. Unity of theory and practice. Accessibility of teaching materials. Obviousness in teaching. Awareness and activity in the adoption of teaching materials. Development of formal/logical and dialectical opinions. *Methods of teaching natural sciences and organization of the teaching process*. Classification of methods in teaching natural sciences. Learning methods and class structure. Lesson presentation. Experiment in teaching natural sciences. *Problems and problem-solving*. Significance and classification of practice problems in natural sciences.

Problem-solving methodology. *Knowledge and skill assessment methodology*. The significance and purpose of testing students' knowledge and skills. Forms of knowledge testing. Evaluation. The need and importance of evaluation. Textbooks. Technical aids in teaching natural sciences. The role of technical aids. Educational film. Methodology of educational film application. Programmed learning. Linear and branching programming materials. Programmed textbook. Learning machines.

Practical Part:

Written and practical preparation for teaching physics.

Literature

1. Милан Распоповић: Методика наставе физике
2. Томислав Петровић: Дидактика наставе физике
3. Ђорђе Басарић: Методика наставе физике, Научна књига, Београд, 1979
4. Милан Јанушевић : Дидактика, Вук Караџић, Београд, 1967.
5. Уџбеници физике за основну и средњу школу

Number of active classes				Other classes
Lectures: 2	Practical classes: 2	Other forms of teaching:		

Teaching methods

Lectures (2 classes per week during the semester), practical classes in classroom conditions (2 classes per week during the semester).

Assessment (maximum 100 points)

Course assignments	**points**	Final exam	**Points**
Lectures	10	oral exam	50
Practical classes	40		
Term tests		.....	
Total			50