Level: bachelor

Course title: Methodology of Scientific Research

Status: obligatory

ECTS: 5

Requirements: none

Learning objectives

The goal of this course is to enable students to apply the standard methodology in solving problems in scientific research in the field of chemistry. In addition, one of the goals is to provide broad and balanced knowledge, which will enable students to independently collect, sort, study and write a scientific paper.

Learning outcomes

Upon successful completion of this course the student is able to:

- understand the importance of scientific research and to recognize a scientific paper,
- choose suitable methodological approach used in the selection of topics for the scientific research,
- independently gather, sort and study the literature required for writing a scientific paper by applying knowledge gained in the use of the KOBSON index database and adequate services for literature search in electronic and paper form,
- properly plan an experiment with the application of appropriate scientific methods,
- process, present the results of independent research and write a research paper with proper citation of the literature.

Syllabus

Theoretical instruction

The importance of scientific research. Recognizing the scientific article. Stages of scientific research. The choice of topics. Review of the literature. Experiment. The structure and writing a scientific paper. Types of research papers. Evaluation of scientific work.

Practical instruction

The techniques of collection, processing and analyzing literature. Search selected electronic databases (KOBSON, Scopus, Web of Science, Scirus, Cobiss, etc.). Interpreting the results. Graphical presentation of data. Writing a paper. Citing references.

Weekly teaching load				Other:
Lectures: 1	Exercises:	Other forms of teaching: 3	Student research:	