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|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty**  | Faculty of Science and Mathematics |
| **GENERAL INFORMATION** |
| Study program  | **Chemistry**  |
| Study Module (if applicable) | Professor of chemistry |
| Course title | H-214 Methodology of teaching chemistry 1 |
| Level of study | ☐Bachelor X Master’s ☐ Doctoral |
| Type of course | X Obligatory ☐ Elective |
| Semester  |  X Autumn ☐Spring |
| Year of study  | First year of Master’s study  |
| Number of ECTS allocated | 5 |
| Name of lecturer/lecturers | Prof. dr Milena N. Miljkovic |
| Teaching mode |  X Lectures ☐Group tutorials ☐ Individual tutorials X Laboratory work ☐ Project work X Seminar ☐Distance learning ☐ Blended learning ☐ Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| *Through the methodology of teaching chemistry 1, future chemistry professors are educated to make pupils chemistry easy, reasonable and interesting science. During the entire teaching, chemistry professors must keep in mind the fact that the pupil is the subject in the process of education and they must have, also, different individual capabilities of his/her (pupil’s) development. The aim of the subject is also higher quality of pedagogical and methodical design classses. Students are acquiring knowledge on methods which they will as future chemistry professors transfer particular knowledge (teaching material for chemistry of 7th and 8th grades of primary school) and get knowledge on methods pupils need to overcome in the process of learning. Also the future chemistry professors are trained to make educational process more efficient, and intensive with maximum engagement of intellectual power of pupils.* |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| *Lectures*1. **View of historical developemnt of chemistry and methods of teaching chemistry**
2. **Subject and task of method of teaching chemistry**
3. **Connection of method of chemistry teaching with other scientific disciplines**
4. **Chemistry as school subject; aim, importance and tasks of teaching chemistry**
5. **Rooms for teaching chemistry**
6. **Developement of logical thinking of pupils in chemistry**
7. **Sources of knowledge in chemistry**
8. **Microarticulation of the class in chemistry teaching**
9. **Thematic work plan and selection of material**
10. **Determination of the volume of the material; determination of the order of processing material during the class**
11. **Building up concepts in chemistry teaching; Introduction of pupils to the language of chemistry (chemical symbolism)**
12. **Method of the introduction of pupils with the langauage of chemistry**
13. **Exercises and tasks in chemistry teaching**
14. **The course of solving problems and problematic tasks**
15. **Methods in chemistry teaching**

**Practical classes:Exercises, other forms of instruction, Study work*** **Demonstration classes on chemistry classes in primary school during one semester**
* **Preparation and execution of selected teaching units in primary school**
* **Writing of the preparation of chosen teaching units**
* **Preparation and execution of chosen experiments in laboratory**
* **Writing of the preparation for thechosen experiments in laboratory**
* **Submission of reports on demonstration classes by writing demonstration classes diaries with the signature**
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| **LANGUAGE OF INSTRUCTION** |
| X Serbian (complete course) ☐ English (complete course) ☐ Other \_\_\_\_\_\_\_\_\_\_\_\_\_ (complete course)☐Serbian with English mentoring ☐Serbian with other mentoring \_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| **ASSESSMENT METHODS AND CRITERIA** |
| **Pre exam duties** | **Points** | **Final exam** | **points** |
| **Activity during lectures** | **10** | **Written examination** | **30** |
| **Practical teaching** | **10** | **Oral examination** | **20** |
| **Teaching colloquia** | **30** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |