

(Table 5.2) Course unit description

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|---|-----------------------|------------------------|-----------------------|----------------------|
| Study program : Chemistry | | | | |
| Type and level of studies: Master in chemistry | | | | |
| Course unit: Methods for teaching chemistry to gifted students | | | | |
| Teacher in charge : Prof. Dr Zorica Bugarčić | | | | |
| Language of instruction: English | | | | |
| ECTS: 5 | | | | |
| Prerequisites: entered the first year of study program | | | | |
| Semester: Winter semester | | | | |
| Course unit objective | | | | |
| The aim of this course is to prepare chemistry teachers for taking care and working with gifted students; as well as to broad their theoretical knowledge in the field of education of gifted students and methods for their identification and motivation. . | | | | |
| Learning outcomes of Course unit | | | | |
| After completing this course students will be able to apply the gained knowledge in the field of gifted education. In addition, students will be prepared for the practical work with gifted pupils. | | | | |
| Course unit contents | | | | |
| <i>Theoretical classes:</i> Definition of gifted students. Creativity in chemistry. Theories of creativity and intelligence. The criteria for assessing creativity. Identification of gifted students in chemistry. Gifted students in mixed classes. Microgrouping of pupils according to their abilities. Teaching strategies for gifted students. Learning environment: organization and classroom management. Social and economic climate. Differentiation content: Compact plans and flexible rhythm, models of curriculum differentiation. The motivation of gifted students. Psychology of success. The students' research papers in chemistry. Methods and strategies of work with gifted students in chemistry. Self-directed independent learning. Problem-based learning, seminars. The literature search. | | | | |
| <i>Practical classes:</i> Written reports, Colloquiums and seminars | | | | |
| Literature | | | | |
| Chemistry for the Gifted and Talented, Tim Jolliff, Royal Society of Chemistry, 2007. | | | | |
| Number of active teaching hours | | | | Other classes |
| Lectures: 2 | Practice:2 | Other forms of classes | Independent work: / | |
| / | | | | |
| Teaching methods | | | | |
| Lectures, seminars, colloquiums | | | | |
| Examination methods (maximum 100 points) | | | | |
| Exam prerequisites | No. of points: | Final exam | No. of points: | |
| Student's activity during lectures | 5 | oral examination | 55 | |
| practical classes/tests | 20 | written examination | | |
| Seminars/homework | 10 | | | |
| Project | | | | |
| Other (colloquiums) | 10 | | | |
| Grading system | | | | |
| Grade | No. of points | | Description | |
| 10 | 91-100 | | Excellent | |
| 9 | 81-90 | | Exceptionally good | |
| 8 | 71-80 | | Very good | |
| 7 | 61-70 | | Good | |
| 6 | 51-60 | | Passing | |
| 5 | <51 | | Failing | |