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|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty**  | Faculty of Occupational Safety in Niš |
| **GENERAL INFORMATION** |
| Study program  | Environmental Engineering |
| Study Module (if applicable) | / |
| Course title | Scientific Research Methods |
| Level of study | ☐Bachelor ☐ Master’s ☒ Doctoral |
| Type of course | ☒ Obligatory ☐ Elective |
| Semester  | ☒ Autumn ☐Spring |
| Year of study  | First year |
| Number of ECTS allocated | 10 |
| Name of lecturer/lecturers | Vesna Miltojević |
| Teaching mode |  ☒Lectures ☐Group tutorials ☒ Individual tutorials ☐Laboratory work ☐ Project work ☒ Seminar ☐Distance learning ☐ Blended learning ☐ Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| *Understanding the concept of scientific truth, the goals of scientific research, basic methodological tools and methodological novelties of the ruling scientific paradigms with the aim to find the answers how to grasp the nature of current phenomena and Processes in technical and technological sciences. Theoretical and practical know ledge about the methods, tools and techniques for conducting scientific research. Students’ ability to think scientifically and creatively, to determine and methodologically study diverse phenomena and issues; and be methodologically competent to individually make scientific discoveries and to place them at the disposal of others.* |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| The concept and the subject of research methodology. The significance of scientific research. The basic epistemological issues and problems. Division of sciences. The objectives and characteristics of research. Types of scientific research. The facts, hypotheses, laws and theories in scientific research. Theoretical and methodological basis of scientific research. The term, important features and classification of scientific research. The basic structure of the research. Research design: conceptualization and reconceptualization. The choice of research topic. Research project as scientific and operational ‐ organizational document. The structure of the draft of scientific idea. Methods, techniques, procedures and instruments of scientific research. Research design: problem formulation, the subject and the goals of scientific research. Ethical issues in scientific research. The interdependence of teaching and research in the field of safety. Writing and publishing scientific paper. Doctoral thesis writing. Evaluation of scientific results. |
| **LANGUAGE OF INSTRUCTION** |
| ☒ 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** |  |
| **Practical teaching + term papers** | **15+35** | **Oral examination** | **40** |
| **Teaching colloquia** |  | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |