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|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty** |  |
| **GENERAL INFORMATION** |
| Study program  | TECHNOLOGICAL ENGINEERING  |
| Study Module (if applicable) | - |
| Course title | Scientific Research Methodology |
| Level of study | ☐ Bachelor ☐ Master’s ☒ Doctoral |
| Type of course | ☐ Obligatory ☒ Elective |
| Semester  | ☒ Autumn ☒Spring |
| Year of study  | 1 |
| Number of ECTS allocated | 8 |
| Name of lecturer/lecturers | Sandra Konstantinović  |
| Teaching mode | ☒Lectures ☐Group tutorials ☐ Individual tutorials☐Laboratory work ☐ Project work ☐ Seminar☐Distance learning ☐ Blended learning ☐ Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| Introduction to the scientific research methodology, sources and methods of using scientific information in the planning and preparation of scientific research, projects and presentation of the achieved through original scientific papers. Definition of the actual scientific problem. Using information technology in searching data, writing a scientific (expert) work, planning and implementation of scientific projects. |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| Scientific research methodology: the concept, origin and development of science. Basic general and special scientific methods. The structural elements of scientific knowledge: scientific facts, concepts, sizes, laws, hypotheses and theories. Scientific explanation and prediction. The process and stages of scientific research: collection of experimental data, measurement errors and statistical data processing, graphical and tabular presentation of the data and quality assurance of measurement data. Professional and scientific papers. The composition of scientific work. Reviewing manuscripts. Research projects: menagment, criteria for evaluation, concept and categorization. Ethics and plagiarism. |
| **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** | **-** | **Oral examination** | **50** |
| **Teaching colloquia** | **40** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |