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| **UNIVERSITY OF NIŠ** | | | | | | |
| **Course Unit Descriptor** | | **Faculty** | | | Faculty of electronic Engineering | |
| **GENERAL INFORMATION** | | | | | | |
| Study program | | | | **Telecommunications** | | |
| Study Module (if applicable) | | | | Telecommunications and Signal Processing | | |
| Course title | | | | Stochastic processes, detection and estimation | | |
| Level of study | | | | ☐Bachelor x Master’s ☐ Doctoral | | |
| Type of course | | | | ☐ Obligatory x Elective | | |
| Semester | | | | ☐ Autumn xSpring | | |
| Year of study | | | | 1 | | |
| Number of ECTS allocated | | | | 4 | | |
| Name of lecturer/lecturers | | | | Prof. Dr Daniela Milović | | |
| Teaching mode | | | | xLectures ☐Group tutorials ☐ Individual tutorials  ☐Laboratory work x Project work ☐ Seminar  ☐Distance learning ☐ Blended learning ☐ Other | | |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** | | | | | | |
| Foundation for statistical signal processing and solving common communication problems. | | | | | | |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** | | | | | | |
| Introduction to fundamentals of detection and estimation theory. Stochastic processes - parameters, ensemble, stationarity, ergodicity, correlation functions, Wiener- Khinchin theorem. Discrete stochastic processes. Markov processes. Optimum receiver. | | | | | | |
| **LANGUAGE OF INSTRUCTION** | | | | | | |
| xSerbian (complete course) x 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** | | | **20** |
| **Practical teaching** | **30** | | **Oral examination** | | | **20** |
| **Teaching colloquia** | **20** | | **OVERALL SUM** | | | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** | | | | | | |