|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **UNIVERSITY OF NIŠ** | | | | | | |
| **Course Unit Descriptor** | | **Faculty** | | | Faculty of Electronic Engineering | |
| **GENERAL INFORMATION** | | | | | | |
| Study program | | | | Electrical Power Engineering | | |
| Study Module (if applicable) | | | |  | | |
| Course title | | | | Selected Chapters of Power System Analysis | | |
| Level of study | | | | ☐Bachelor ☒ Master’s ☐ Doctoral | | |
| Type of course | | | | ☐ Obligatory ☒ Elective | | |
| Semester | | | | ☐Autumn ☒Spring | | |
| Year of study | | | | 1 | | |
| Number of ECTS allocated | | | | 6 | | |
| Name of lecturer/lecturers | | | | Dragan S. Tasić | | |
| Teaching mode | | | | ☒Lectures ☐Group tutorials ☒ Individual tutorials  ☒ Laboratory work ☒ Project work ☐ Seminar  ☐Distance learning ☐ Blended learning ☐ Other | | |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** | | | | | | |
| *Objective of the course is that students learn the modern methods for calculating steady states and also disordered states in power systems.* | | | | | | |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** | | | | | | |
| **Power flow calculation for unbalanced load. Fuzzy approach for power flow calculation. Short-circuit current calculations. Fault current distribution. Time flow of short-circuit currents. Distribution of the aperiodic component of short-circuited current throughout the network. Simultaneous faults. Multi-machine system models for stability analysis at large disturbances. Numerical methods for transient stability analysis. Voltage stability.** | | | | | | |
| **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** |
| **Project** | **30** | | **Written examination** | | | **20** |
| **Practical teaching** | **10** | | **Oral examination** | | | **20** |
| **Teaching colloquia** | **20** | | **OVERALL SUM** | | | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** | | | | | | |