SYLLABUS

1. Course title:

ELECTRICAL WORKS IN MINING ENGINEERING

2. Code:

LRUDELR

3. Cycle of study:

1

4. ECTS credits:

4

5. Type of course:

Elective

6. Prerequisites:

No

7. Class restrictions:

No

8. Duration / semester(s):

1 | 4

9. Weekly contact hours and student workload:

				Workload: (hours)	
Semester (1)		Semester (2)	(for two-semester courses)		
9.1. Lectures	2			Classes:	33,75
9.2. Seminars	0			Individual work:	67,42
9.3. Laboratory / Practice classes	1			In total:	101,17

10. Faculty:

Mining, Geology and Civil Engineering

11. Department/study program:

Mining Engineering

12. Lecturer:

Faculty of Electrical Engineering Tuzla

13. Course aims:

Familiarization with basic concepts related to electrical engineering, fundamental characteristics, and issues related to electrical installations and devices in mining. Mastery of methods for simple measurements and calculations in electrical engineering.

14. Learning outcomes:

At the end of the course, successful students who have continuously fulfilled their obligations throughout the entire teaching period will be able to:

- **Utilize available literature related to solving various problems of this course.**
- **Solve problems of varying complexity, both individually and in teams, and present their solutions in written or verbal form.**
- **Understand the significance of this course in solving various practical problems.**
- **Pass the final exam in the first exam periods at the end of the semester.**

15. Course content:

INTRODUCTION TO ELECTRICAL ENGINEERING, ELECTRO KINEMATICS, DIRECT CURRENT CIRCUITS, ELEKTRO STATICS, ELEKTROMAGNETISM, ALTERNATING CURRENT, VOLTAGE LEVELS, DEVICES AND INSTALLATIONS IN MINES (Transformers, Asynchronous machines, Synchronous machines, DC power, Electric power systems and voltage levels in mines, Fundamentals of explosion protection of electrical devices)

16. Learning methods:

Lectures and
- **Exercises**

17. Assessment methods:

Student assessment methods include the following criteria:

1. **Attendance and participation in lectures**
2. **Individual project/seminar paper**
3. **Tests**
4. **Final oral exam**

18. Assessment components:

The total number of points is obtained by summing the maximum possible points from all activities during the semester:

- **Attendance in lectures and exercises: 5 points**
- **Participation in class: 5 points**
- **Individual project/seminar paper: 15 points**
- **Written exam/tests: 25 points**
- **Pre-exam activities: 50 points**
- **Final exam: 50 points**
- **TOTAL: 100 points**

The final success of a student, after all prescribed forms of knowledge assessment, is evaluated using a system comparable to the ECTS grading scale as follows:

a) 10 (A) – Outstanding performance with no or minor errors, 95-100 points
b) 9 (B) – Above average, with some errors, 85-94 points
c) 8 (C) – Average, with noticeable errors, 75-84 points
d) 7 (D) – Generally good, but with significant shortcomings, 65-74 points
e) 6 (E) – Meets the minimum criteria, 54-64 points
f) 5 (F, FX) – Does not meet the minimum criteria, less than 54 points

19. Mandatory reading list:

1. **N. Berbić, «Autorizovana predavanja » RGGF, Tuzla,2005. God**
2. **E.Dolamić, Elektrotehnika I dio**

20. Additional reading list:

21. Web sources:

22. Applicable from the academic year:

2025/26

23. Adopted in the Faculty/Academy session: