

### 3262 Lightning Equipment

**ECTS credits:** 3

**Weekly workload:** 3L+0S+2Lab+0P

**Assessment:** continuous assessment

**Type of exam:** written

**Departments involved:** Department of Electrical Power Supply and Electrical Equipment, Faculty of Electrical Engineering, Electronics and Automation

**Lecturers:**

Assoc. Prof. Radoslav Ivanov Kuchukov, MSc (Eng), PhD, Department of Electrical Power Supply and Electrical Equipment, tel: 888 377, E-mail: [rivanov@ru.acad.bg](mailto:rivanov@ru.acad.bg)

**Abstract:**

The subject has the objective to give to the students theoretical knowledge and practical experience in the sphere of the lightning equipment. Issues about the norms and the lightning and electrical parts of the lightning equipment are discussed. Attention is paid to the design of the lightning equipment and systems with concrete designation. The lightning role as ergonomic and energy economic factor is discussed. The subject is based on knowledge, obtained from the basic courses in "Lightening and installation equipment", "Physics", "Higher Mathematics" and "Electrical Power Supply". The subject is a prerequisite of the Final Year project.

**Course content:**

Lightening as ergonomic factor. Norms of lightning equipment. Specialized lightning element base of lightning equipment. Calculation of street and projector lightning equipment. Joint design of artificial and natural lightning. Electrical parts of the lightning equipment. Lightning as energy and economic factor.

**Teaching and assessment:**

Teaching is based on using both classical and modern forms. WEB site of the subject is used, which contains all basic parts according to the syllabus. Acting models are used during the laboratory exercises and specialized object exercises are envisaged. The students' preparation on the particular study material is checked before each laboratory exercise. The final mark is formed on the basis of the results from: a) two tests for two halves of the study material; b) development of an individual practical assignment; c) solving and forming the problems from the exercises. The total mark has the following proportions: item a – 0,35 for each of the two tests; item b – 0,2; item c – 0,1.