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| Program | Level of studies | | First cycle | |
| | Program name | | Educational Physics | |
| Course name | PHYSICS LABORATORY III | | | |
| Course ID | Semester | Course status | ECTS credits | L+E |
| PHY3411 | IV | MANDATORY | 4 | 0+3 |
| Lecturer | Prof. dr. Senad Odžak | | | |
| Aims and intended learning outcomes | <p>The aim of the course is that students get familiar with phenomena and physical laws of electricity and magnetism, through practical laboratory exercises, as well as operating and using electrical devices and instruments.</p> <p>It is expected that students gain confidence in handling laboratory equipment and be capable of that on the basis of instruction, control the work of the apparatus and gain results which should be approached with criticism.</p> | | | |
| Course content | | | | |
| <ol style="list-style-type: none"> 1. An introduction. The basic instructions for work in the laboratory for electromagnetism, explaining the duties, the prearrangement of work, getting familiar with the plan and the program of the course. 2. Electrostatic field. An entrance colloquium. 3. Electric resistance. Colloquy of the first finished exercise. 4. The sources of constant electromotive force. Colloquy of the second finished exercise. 5. Measuring inductivity and capacity. Colloquy of the third finished exercise. 6. Geomagnetic measurements. Colloquy of the fourth finished exercise. 7. Electronic tube – triode. Colloquy of the fifth finished exercise. 8. Midterm exam. Colloquy of the sixth finished exercise. 9. Determination of resistance and capacity in a circuit with alternating current using a graphical method. An entrance colloquium. 10. Energy of alternating current. Colloquy of the first finished exercise. 11. Cathode oscilloscope. Colloquy of the second finished exercise. 12. Electromagnetic measurements. Colloquy of the third finished exercise. 13. Ferromagnetism. Colloquy of the fourth finished exercise. 14. Electric motor and generator. Colloquy of the fifth finished exercise. 15. Colloquy of the sixth finished exercise. | | | | |
| Student workload (hours) | | | Grading | |
| Lectures and Exercises | 45 | Assessment method | Bodovi | |
| Exam preparation | 30 | Midterm exam | 38 | |
| Assignments | 15 | Exercises | 24 | |
| Other | 10 | Final exam | 38 | |
| Total | 100 | | | |
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| Literature | | | | |
| <ol style="list-style-type: none"> 1. N. Gabela, Z. Hadžibegović, A. Gazibegović Busuladžić, L. Gabela, Praktikum iz elektromagnetizma, Sarajevo, 2007. 2. V. Vučić, Osnovna mjerenja u fizici, Beograd, Naučna knjiga, 1998. | | | | |
| Remarks | | | | |
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