

| Course Description                                                  |                                                                                                                                       |                                             |                         |                           |      |
|---------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-------------------------|---------------------------|------|
| Name                                                                | Code                                                                                                                                  | Semester                                    | T+A Hour                | Credit                    | ECTS |
| PHYSICS II LAB                                                      | EEE1210753                                                                                                                            | Spring Semester                             | 0+2                     | 1                         | 2    |
| <b>Prerequisites Courses</b>                                        | MATEMATİK I                                                                                                                           |                                             |                         |                           |      |
| <b>Recommended Elective Courses</b>                                 |                                                                                                                                       |                                             |                         |                           |      |
| <b>Language of Instruction</b>                                      | English                                                                                                                               |                                             |                         |                           |      |
| <b>Course Level</b>                                                 | First Cycle (Bachelor's Degree)                                                                                                       |                                             |                         |                           |      |
| <b>Course Type</b>                                                  | Required                                                                                                                              |                                             |                         |                           |      |
| <b>Course Coordinator</b>                                           | Assoc.Prof. Muhammed Fatih TOY                                                                                                        |                                             |                         |                           |      |
| <b>Name of Lecturer(s)</b>                                          | Assist.Prof. Sultan YILDIZ                                                                                                            |                                             |                         |                           |      |
| <b>Assistant(s)</b>                                                 | Teaching Asistants                                                                                                                    |                                             |                         |                           |      |
| <b>Aim</b>                                                          | To support and deepen theoretical knowledge with experiments of electricity and magnetism                                             |                                             |                         |                           |      |
| <b>Course Content</b>                                               | This course contains; Electrostatics,Ohm's Law and Kirchoff's Law,RC Circuits,Lorentz Force,Transformers and Rectifiers,RLC Circuits. |                                             |                         |                           |      |
| <b>Course Learning Outcomes</b>                                     |                                                                                                                                       |                                             | <b>Teaching Methods</b> | <b>Assessment Methods</b> |      |
| Can correctly use measuring equipment                               |                                                                                                                                       |                                             | 17                      | E                         |      |
| Can setup and operate basic electric circuits                       |                                                                                                                                       |                                             | 17                      | E                         |      |
| Can experimentally test basic laws of electricity and magnetism     |                                                                                                                                       |                                             | 17                      | E                         |      |
| Compares experiment results with theory and offers interpretation   |                                                                                                                                       |                                             | 17                      | E                         |      |
| Discusses experiment results                                        |                                                                                                                                       |                                             | 17                      | E                         |      |
| <b>Teaching Methods</b>                                             | 17: Experimental Technique                                                                                                            |                                             |                         |                           |      |
| <b>Assessment Methods</b>                                           | E: Homework                                                                                                                           |                                             |                         |                           |      |
| <b>Lecture Schedule</b>                                             |                                                                                                                                       |                                             |                         |                           |      |
| <b>Sequence</b>                                                     | <b>Topics</b>                                                                                                                         | <b>Preliminary Preparation</b>              |                         |                           |      |
| 1                                                                   | Electrostatics                                                                                                                        | Reading the experiment manual- experiment 1 |                         |                           |      |
| 2                                                                   | Ohm's Law and Kirchoff's Law                                                                                                          | Reading the experiment manual- experiment 2 |                         |                           |      |
| 3                                                                   | RC Circuits                                                                                                                           | Reading the experiment manual- experiment 3 |                         |                           |      |
| 4                                                                   | Lorentz Force                                                                                                                         | Reading the experiment manual- experiment 4 |                         |                           |      |
| 5                                                                   | Transformers and Rectifiers                                                                                                           | Reading the experiment manual- experiment 5 |                         |                           |      |
| 6                                                                   | RLC Circuits                                                                                                                          | Reading the experiment manual- experiment 6 |                         |                           |      |
| <b>Evaluation Methods</b>                                           |                                                                                                                                       | <b>Weight(%)</b>                            |                         |                           |      |
| Midterm Exam                                                        |                                                                                                                                       | 30                                          |                         |                           |      |
| General Exam                                                        |                                                                                                                                       | 70                                          |                         |                           |      |
| <b>Resources</b>                                                    |                                                                                                                                       |                                             |                         |                           |      |
| Istanbul Medipol University - General Physics 2 - Experiment Manual |                                                                                                                                       |                                             |                         |                           |      |