

Course TITLE: Introduction to the Mystifying Electrical Technology

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Title/Position : Associate Professor

Institution : Petra Christian University



Course Overview:

This is a quick and easy introductory course. The aim is to make students, especially non-electrical engineering, familiar and enjoy with electricity.

By the end of the course, students will be able to:

- 1) Understand the principle of electricity
- 2) Understand the applications, problems dan benefits of electricity
- 3) Use the electricity safely (for safety awareness)
- 4) Use the electricity wisely (for energy saving – sustainable energy awareness)

This is a very basic electrical technology course. There is no prerequisite for this course (welcome to students who forget about physics). During this class, students will learn about basic knowledge of electricity including its history, characteristics and problems. Furthermore, students will explore some applications of the electricity to their daily life (at home, school, bus, etc.). They will investigate about energy saving and renewable energy as well.

Using a learner-centered approach, the learning process uses an enjoyable method.

Several simple experiments and games will help them to understand the concepts. Students also conduct library research, group presentation and discussion. Students are required to write reports to demonstrate their understanding.

Class duration: 90 minutes

Estimated Number of Students: Minimum **10 students** and Maximum **20 students** in a class.

Grading:

- Attendance 20% ;
- Assignments 50% ;
- Exam 30%