



Electrical Engineering

The Academic Enrichment Program is considered to be one of the most important universal methods used to enrich the knowledge of talented students in STEM fields. In collaboration with the world's best places of expertise in talent and creativity, Mawhiba designed the courses to fit and challenge the students participating in the program. Mawhiba also aims to increase the depth and diversity of the scientific courses as students advance in education level and participate year after year.

Mawhiba also included interpersonal skill development as part of the program's main goals. To ensure students build their character and personality alongside their academic education, some of these include innovative thinking, cyber safety, Logical reasoning, and other important modern-day skills.

Course Description

The Electrical Engineering course is one of the courses under the "Engineering Science" path, in which students begin to learn the basic principles of Electric current, voltage, resistance, energy, and magnetism. For example, students map the electrical field lines generated by an electric charge, then apply the concepts they learned so that they draw and build parallel chains and circuits that work with resistors, capacitors, inductors, duplexes, and transistors.

Students will also learn about an important physical principle in the study of modern electronics which is electromagnetism, and how to apply it to their homes (or school) devices, such as motors, magnets lift, and loudspeakers. They will also be able to create plug-in models for similar devices using mathematical tools, such as the Ohm Law and Kirchhoff Laws, to guide their circuit designs.

At the end of the course, students would have learned about the latest scientific discoveries in this field, including the physics behind solar cells, and solid-state electronics and would have a better understanding of electrical engineering and its many applications in their daily lives.



Acquired Skills

Students will be building and developing their academic and personal skills such as "teamwork, problem solving, reading and analyzing scientific literature, listening and understanding, as well as other important skills, that are taught using an educational kit provided by specialized tutors:

1. leadership and social impact.
2. innovation and creative thinking.
3. Pride and love for their nationality.

What to Expect When Taking this Course

- An in-depth scientific material.
- Practical activities and scientific projects.
- Skills development.

Course's Calendar

Key dates					
#	Program's start & end dates	Start	End	Start	End
1	Session 1	3/11/1442	21/11/1442	13/6/2021	1/7/2021