University of Bahrain
MICRO-CREDENTIAL

Understanding Electrical Engineering for Non-Electrical Engineers (EENEE) Through MATLAB/SIMULINK and Hands-On Experience

GENERAL INFORMATION

Duration: 8 Weeks

Total Hours: 80 hours

Date: To be announced

Venue: To be announced

Fees: 500 BHD

Credits: 2 credits

Level: Undergraduate

Language: English

Pre-requisite: Calculus 1

INSTRUCTORS BIOGRAPHY

Prof. Khaled Zehar

Professor, Electrical and Electronics Engineering

Dr. Maamar Taleb

Associate Professor, Electrical and Electronics Engineering

Dr. Salwa Baserrah

Assistant Professor, Electrical and Electronics Engineering

Micro-credential is a short, focused course designed to equip learners with specific skills and knowledge within a specialized area. It serves as a pathway to earning an equivalent certification for a core course, offering a flexible and targeted learning experience.

COURSE OVERVIEW

This micro-credential provides non-electrical engineers with a clear understanding of electrical engineering basics, ensuring practical application without complex mathematics. Using MATLAB/SIMULINK modules approved by industry institutes, it covers electrical circuits, faults, electric machines, and applications, with hands-on learning through computer facilities and laboratory tests.

DELIVERY MODE

The micro-credential is delivered in a hybrid format, including:

- 24 hours in-person (3 hours per week for 8 weeks)
- 16 hours synchronous online (2 hours per week for 8 weeks)
- 24 hours asynchronous learning (3 hours per week for 8 weeks)
- 16 hours guided project work (individual assignment)

ASSESSMENTS

- Written assignments on analyzing and problem solving (20%)
- Computer simulation assignments (20%)
- Practical experimental tests (20%)
- Final project (40%)

TARGET AUDIENCE

High school students, current students, prospective students, adult learners, alumni, business/industry partners, P-12 partners and students and community partners.

KEY TOPICS COVERED

- Basic Concepts -DC Circuits
- Basic Concepts -AC Circuits
- Electromagnetic Energy Conversion
- Electromechanical Energy Conversion
- Electric AC Machines
- Electric DC Machines
- Familiarization with MATLAB/SIMULINK
- Validating MATLAB/SIMULINK with Praxis

Scan the code
for Registration

For further Information, please contact:

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https://microcredentials.uob.edu.bh/