

Bachelor of Engineering in Electrical Engineering

Programme details:

The programme consists of core (required) and elective modules as indicated below. Some modules may have pre-requisites (i.e., may require students to pass another module or set of modules first). Some modules may be co-requisite (such modules are required to be taken together). The number at the end of the module in parenthesis indicates the credit load of the module. 1 credit is equal to 10 hours of learning (guided, in-class and independent combined); therefore a 10-credit module requires an average of 100 hours of learning from the student.

Fundamental Modules:

- E5-PCM-23 Pre-calculus Mathematics (10)
- E5-EWP-20 Engineering Workshop Practice (10)
- E5-PEE-23 Principles of Electrical Engineering (10)
- C5-CE1-20 Computer and its essentials – 1 (10)
- E5-GC1-23 General Chemistry – 1 (15)
- E5-PH1-23 Physics – 1 (15)
- E5-PH2-23 Physics – 2 (15)
- E5-GC2-23 General Chemistry – 2 (15)
- E5-EM1-23 Engineering Mathematics – 1 (10)
- C6-CE2-20 Computer and its essentials – 2 (10)
- E6-LAM-23 Linear Algebra (10)
- D6-ASM-20 Academic writing for STEM (10)
- E6-EM2-23 Engineering Mathematics – 2 (10)
- E6-EM3-23 Engineering Mathematics – 3 (10)
- E6-EM4-23 Engineering Mathematics – 4 (10)

Core modules:

- E5-END-20 Engineering Drawing (10)
- E6-PPC -23 Procedural Programming in C and Python (10)
- E6-SAS-23 Signals and System Design (10)

- E6-ECA-23 Electrical Circuit Analysis (10)
- E6-EMW-23 Electromagnetism & Waves (10)
- E7-SES-23 Sustainable Energy Systems (10)
- E7-PTD-23 Power Transmission and Distribution (10)
- E7-AMT-23 Applied mechanics and thermo-fluids (10)
- E6-EDC-23 Electronic Devices and Circuits (10)
- E6-DP1-23 Year 2 design make project (10)
- E6-AET-23 Analogue Electronic Circuits Design (10)
- E6-DET -23 Digital Electronics (10)
- E6-ADE-23 Analog and Digital Electronics Lab (10)
- E7-MAD-23 Microprocessor & Microcontrollers Design (10)
- E7-MML-23 Microprocessor & Microcontroller Design Lab (10)
- E7-DSP-23 Digital Signal Processing (10)
- E7-CSD-23 Control System Design (10)
- E7-CSL-23 Control System Design Laboratory (10)
- E7-DP2-23 Year 3 design make project (10)
- E7-IPP-23 Instrumentation and PLC programming (10)
- E8-RMS-20 Research Methods in STEM (10)
- E8- EPS-23 Electrical Power Systems Design (10)
- E8-ESL-23 Electrical Power Systems Design Lab (10)
- E8-EMD-23 Electrical Machines and Drives (10)
- E8-EML-23 Electrical Machinery Lab (10)
- E7-EED-23 Electrical Engineering Design (10)
- E7-PSA-23 Power System Analysis (10)
- E8 -EIS-23 Engineers in Society (10)
- B8- ENT-23 Entrepreneurship and Innovation (10)
- E8-P0D-23 Power Electronics and Drives (10)
- E8-PR1-23 Research Project 1 (10)
- E8-ESD-23 Embedded System Design (10)
- E7-HVE-23 High Voltage Engineering (10)
- E8-MEC-23 Modern Energy Conversion (10)
- E8-PR2-23 Research Project 2 (10)
- E8-PPR-23 Professional Practice (60)

Elective Modules:

- E7-MSS-23 Measurement Systems (10)
- E7-PSG-23 Protection and Switchgear (10)
- E7-MIN-23 Medical Instrumentation (10)
- E7-PER-23 Power Electronics for Renewable Energy Systems (10)
- E7-CDE-23 CAD design of Electrical services (10)
- E7-EEC-23 Engineering Economics (10)

Recommended full-time study path (5½ years):

Semester 1

- E5-PH1-23, E5-GC1-23, C5-CE1-20, E5-PEE-23, E5-END-20, E5-PCM-23

Semester 2

- E5-PH2-23, E5-GC2-23, E5-EM1-23, E5-EWP-20, C6-CE2-20, E6-LAM-23

Semester 3

- E6-PPC-23, D6-AWS-20, E6-EM2-23, E6-SAS-23, E6-ECA-23, E6-EMW-23

Semester 4

- E7-SES-23, E7-PTD-23, E6-EM3-23, E7-AMT-23, E6-EDC-23, E6-DP1-23

Semester 5

- E6-AET-23, E6-DET-23, E6-ADE-23, E6-EM4-23, E7-MMD-23, E7-MML-17

Semester 6

- E7-DSP-23, E7-CSD-23, E7-CSL-23, E7-DP2-23, E7-IPP-23, E8-RMS-20

Semester 7

- E8-EPS-23, E8-ESL-23, E8-EMD-23, E8-EML-23, E7-EED-23, **select one** (E7-MSS-23, E7-PSG-23, E7-MIN-23)

Semester 8

- E7-PSA-23, E8-EIS-23, E8-ENT-23, E8-POD-23, E8-PR1-23, **select one** (E7-PER-23, E7-CDE-23, E7-EEC-23)

Semester 9

- E8-ESD-23, E7-HVE-23, E8-MEC-23, E8-PR2-23

Semester 10

- E8-PPR-23

Admissions Criteria

1) BGCSE/equivalent with 5 Passes including English, Mathematics and Physics/Double Sciences/Physics + Chemistry.

2) Applicants in possession of a Diploma or Higher Diploma in related field will be given exemptions based on the credit point equivalency.

3) For enquiries and more information please visit our website: **www.bothouniversity.com**

