ELECTRICAL ENGINEERING TECHNOLOGY: DIPLOMA

Program Mission

Working in partnership with industry, the Diploma in Electrical Engineering Technology program provides quality education that prepares highly skilled technicians capable of serving the community and fulfilling personal ambitions with excellence. Graduates may choose to continue into the additional two years of the program to become innovative engineers.

Program Goal

The Program Educational Objectives of the Diploma in Electrical Engineering Technology program are to:

1. Provide electrical engineering professionals with the technical knowledge and skills required by the industry to develop, design, and maintain electrical systems to highest level of industry standards.

2. Prepare graduates for a successful career as effective decision makers with strong communication and teamwork skills and an understanding of the global, ethical and social implications of the industry and Electrical Engineering profession.

3. Provide graduates with strong commitment to lifelong learning, continuing education, and professional growth.

4. Provide graduates with leadership qualities and commitment to contribute actively to achieving the Abu Dhabi Vision 2030.

Program Learning Outcomes

Upon graduation, a HCT graduate in Diploma in Electrical Engineering Technology should demonstrate an ability to:

1. Apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve well-defined engineering problems appropriate to the Electrical Engineering Technology.
2. Design solutions for well-defined technical problems and assist with the engineering design of systems, components, or processes appropriate to the Electrical Engineering Technology.
3. Apply written, oral, and graphical communication in well-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature.
4. Conduct standard tests, measurements, and experiments and to analyze and interpret the results.
5. Function effectively as a member of a technical team.

Requirements

Completion Requirements

Diploma in Electrical Engineering Technology

Students must successfully complete a minimum of 72 credits, including:

Code	Title	Credit Hours
Program Core Courses		45
Mathematics and Science Courses		9
General Studies course		18
Total Credit Hours		**72**

Code	Title	Credit Hours
Electrical Engineering Core Courses		
Required Credits: 45		
EGN 1001	Engineering Workshop	1
EGN 1133	Design Thinking in Technology	3
EGN 2712	Applied Programing for Engineers	2
EGN 2806	Work Placement I	6
ELE 2114	Electrical Circuits	4
ELE 2181	Circuit Lab	1
ELE 2213	Digital Circuits	3
ELE 2303	Power Generation and Transmission	3
ELE 2314	Principles of Machines and Power	4
ELE 2403	Electronics I	3
ELE 2573	Electric Circuit Design and PCB Manufacturing	3
ELE 2603	Instrumentation and Control	3
ELE 2613	Industrial Automation	3
ELE 2903	Sophomore Design Project	3
ELE 3323	Electrical Machines	3
Mathematics and Science Required Courses		
Required Credits: 9		
MTH 1203	Calculus I	3
MTH 2103	Calculus II	3
PHY 1203	Physics II	3
General Studies		
Required Credits: 18		
English, Arabic or other Languages		
Required Credits: 6		
LSC 1103 and AES 1013		
Humanities or Art		
Required Credits:		
Information Technology and Mathematics		
Required Credits: 6		
ICT 2013 and MTH 1113		
The Natural Sciences		
Required Credits: 3		
PHY 1103		
The Social or Behavioral Sciences		
Required Credits: 3		
LSS 1003		

Description	Data
Total Required Credits	72
Maximum Duration of Study	3 years
Minimum Duration of Study	2 years
Cost Recovery Program	No
Program Code	DELET
Major Code	ELE

Ideal Study Plan
Recommended Sequence of Study

Year 1		
Semester 1		**Credit Hours**
EGN 1001	Engineering Workshop	1
LSC 1103	Professional Communication and Reporting	3
LSS 1003	Life and Future Skills	3
MTH 1113	Statistics for Engineering	3
MTH 1203	Calculus I	3
PHY 1103	Physics I	3
	Credit Hours	**16**
Semester 2		
AES 1013	Arabic Communications	3
EGN 1133	Design Thinking in Technology	3
ICT 2013	Computational Thinking and Coding	3
MTH 2103	Calculus II	3
PHY 1203	Physics II	3
	Credit Hours	**15**
Summer		
ELE 2114	Electrical Circuits	4
ELE 2181	Circuit Lab	1
	Credit Hours	**5**
Year 2		
Semester 3		
EGN 2712	Applied Programing for Engineers	2
ELE 2213	Digital Circuits	3
ELE 2314	Principles of Machines and Power	4
ELE 2403	Electronics I	3
ELE 2603	Instrumentation and Control	3
	Credit Hours	**15**
Semester 4		
ELE 2303	Power Generation and Transmission	3
ELE 2573	Electric Circuit Design and PCB Manufacturing	3
ELE 2613	Industrial Automation	3
ELE 2903	Sophomore Design Project	3
ELE 3323	Electrical Machines	3
	Credit Hours	**15**
Summer		
EGN 2806	Work Placement I	6
	Credit Hours	**6**
	Total Credit Hours	**72**