

PROGRAMME SPECIFICATION

Training major: **ELECTRICAL AND ELECTRONICS ENGINEERING TECHNOLOGY**

Training level: Bachelor

Major code: 7.51.03.01

Date revised: December 2021

1. Awarding institution: Lac Hong University

2. Name of the final award: Engineer in Electrical and Electronics Engineering Technology

3. Training form: Full time

4. Training time: 4 years

The normal period of study for a full-time bachelor's degree is four years and the maximum period is eight years.

5. Admission criteria:

High school graduate candidates have a total mark of Mathematics, Physics and Chemistry (group A); or Mathematics, Physics and English (group A1); or Mathematics, Literature and English (group D1) in an annual National High School Graduation Examination held in July by MOET higher than the entrance mark set by the LHU based on the student admission quota from MOET. The entrance mark will be published in August.

6. Program educational objectives (PEO):

The objectives of the Electrical and Electronics Engineering Technology (EEET) programme are that most graduates within 2 to 3 years will:

- PEO1: Acquire advanced degrees or engage in advanced study in the EEET field;
- PEO2: Manage the manufacturing process in the EEET field;
- PEO3: Analyze, design, operate, and develop the EEET systems following specific requirements by organizations and enterprises;
- PEO4: Start-up by themselves as practicing engineers in the EEET field.

7. Student outcomes (SO)

After successful completion of the EEET programme, graduates will be able to attain the following SOs:

- SO1: An ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve broadly-defined engineering problems appropriate to the discipline;
- SO2: An ability to design systems, components, or processes meeting specified needs for broadly-defined engineering problems appropriate to the discipline;
- SO3: An ability to apply written, oral, and graphical communication in broadly-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature;
- SO4: An ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results to improve processes; and
- SO5: An ability to function effectively as a member as well as a leader on technical teams.

8. Programme structures

The programme structure comprises of the following 8 semesters.

Code	Courses	Credit number				Hours	Note
		Total credit	Theory	Practice	Exercise		
	National defense education					165	
102014	General informatics	3	2	1	0	75	
102016	Advanced mathematics A1	3	2	0	1	60	
114048	Introduction to EEE	2	2	0	0	30	
114049	Electric Circuits	3	3	0	0	45	
116068	Descriptive Geometry & Technical Drawing	4	4	0	0	60	
102055	English 1	2	2	0	0	30	
114008	Basic electrical practice	1	0	1	0	45	
Total 1st semester		18	15	2	1	345	
102018	Advanced mathematics A2	4	4	0	0	60	
102067	General physics	2	1	1	0	60	
102068	English 2	3	3	0	0	45	
114050	Digital systems	3	3	0	0	45	
115062	Technical programming	3	3	0	0	45	
114051	Electronics fundamentals	3	3	0	0	45	
115060	Sensors and measurement techniques	3	3	0	0	45	
114040	Practice design of application electronic circuits	2	1	1	0	60	
Total 2nd semester		23	21	2	0	405	
102002	Physical Education 1	0	0	0	0	30	

116009	Pneumatic and hydraulics technology	3	3	0	0	45	
102069	English 3	3	3	0	0	45	
114052	Electric and CAD techniques	3	3	0	0	45	
115061	Sensors and measurement techniques practice	2	0	1	1	75	
114053	Power electronics	3	3	0	0	45	
114054	Printed circuit board design	3	3	0	0	45	
114055	Electric machinery	3	3	0	0	45	
115026	PLC programming	3	3	0	0	45	
Total 3rd semester		23	21	1	1	420	
102003	Physical Education 2	0	0	0	0	30	
102063	Marxist - Leninist philosophy	3	3	0	0	45	
102064	Marxist - Leninist political economics	2	2	0	0	30	
102065	Scientific socialism	2	2	0	0	30	
102070	English 4	3	3	0	0	45	
114001	Power electronics practice	1	0	1	0	45	
115064	Microcontroller	4	4	0	0	60	
115065	PLC1 programming practice	2	0	1	1	75	
Elective courses (Select 1 in 2 courses)							
114003	Machine winding practice	1	0	1	0	45	
114047	Calculation and repairing of electrical machine						
Total 4th semester		18	14	3	1	375	
102004	Physical Education 3	0	0	0	0	30	
114033	English for EEE	2	1	0	1	45	
102006	Viet Nam general law	2	2	0	0	30	
115021	Microcontroller practice	2	1	1	0	60	
115066	PLC2 programming practice	2	0	1	1	75	
114056	Electrical equipment practice	2	0	1	1	75	
114057	Electricity supply and its project	4	3	0	1	75	
114034	Electrical equipment	3	3	0	0	45	
Elective courses (Select 1 in 2 courses)							
114058	Electrical and electronic project	2	2	0	0	30	
114059	IoT (Internet Of Things)						
Total 5th semester		19	12	3	4	435	

102033	Ho Chi Minh' theory	2	2	0	0	30	
102071	English 5	3	3	0	0	45	
114063	Electricity supply practice	1	0	0	1	30	
114022	Electrical system design	4	4	0	0	60	
114060	Refrigeration technique	3	3	0	0	45	
115039	Image processing	3	3	0	0	45	
114062	Industrial electrical equipment	3	3	0	0	45	
116063	Internship 1	2	2	0	0	30	
Elective courses (Select 1 in 2 courses)						0	
116037	Industrial Robot	3	3	0	0	45	
115007	Advanced microcontroller						
Total 6th semester		24	23	0	1	375	
102066	History of Vietnamese communist party	2	2	0	0	30	
102072	English 6	3	3	0	0	45	
114037	Renewable energy and management	2	1	1	0	60	
114021	Relay protection and automation	3	3	0	0	45	
114061	Technology project	2	2	0	0	30	
115077	Mechanical and electrical systems	3	3	0	0	45	
Elective courses (Select 1 in 2 courses)							
116049	Industrial maintenance	2	1	0	1	45	
114039	Industrial Robot practice						
Total 7th semester		17	15	1	1	300	
116067	Internship 2	2	2	0	0	30	
66666	Graduation project	10	10	0	0	150	
Total 8th semester		12	12	0	0	180	
Total		154	133	12	9	2835	

9. Progression points

Students must obtain a mark of 5.0 (scale of 10.0) for all courses. In cases, the students fail to accumulate a GPA (Grade Point Average) of 3.0 for the first year, or 3.5 for the second year, or 4.0 for the third year or 4.5 from the fourth year or over allowable study time, they will be required to withdraw from the programme.

10. Special features

A five-day introduction in the first week of the first year; a four-week internship at companies in the third and fourth year; a Robot project that orally defended for the final semester; three course's projects; many courses related to experiments and practices.

11. Job opportunities

Graduates can design, develop, test and supervise the manufacturing of electrical equipment such as electric motors, communication system, and power generation equipment. In addition, the graduates also design the electrical system and automation of the manufacturing.

12. Date of issue and revision

The programme was issued in December 2019 and revised in December 2021.