

PROGRAM SPECIFICATION

Title of program: Engineering in Food Technology Program

Training level: University Degree

Degree training: Food Technology

Program code: 7.54.01.01

Mode of Training: Regular Full- time

Training time: 4 years

Time for enrollment: since 2019

Build time/ update curriculum program: since 9/2018

1. GENERAL INFORMATION OF THE PROGRAM

1.1. Program educational objectives (PEOs)

Training engineers in Food Technology industry meets the following requirements:

PEO1: Training engineers in Food Technology industry with solid expertise, teamwork ability and good communication skills

PEO2: Training engineers in the Food Technology industry with good professional ethics, high professionalism, and enough qualifications and capacity to work at food manufacturing and processing factories.

PEO3: Training Food Technology engineers capable of designing and developing food product production processes towards sustainable development, less waste, and safety for the environment and people.

PEO4: Training Food Technology engineers to use specialized English and communication English in work and research.

PEO5: Training engineers with a foundation of knowledge and the ability to continue pursuing postgraduate training programs and develop scientific research.

PEO6: Training engineers capable of taking on management and supervisory roles at factories and businesses operating in the field of Food Technology.

1.2. Job titles of graduates

- Work at companies and food processing plants as a production executive; technical department staff; quality management department staff; production planning department staff; Research and product development department staff; in the business of equipment, chemicals, packaging, additives and food flavorings.

- Work at food quality measurement and inspection centers, food hygiene and safety departments, district and city preventive health centers.

- Able to teach and work at universities, colleges, vocational schools and research institutes.

1.3. Length of program and mode of study

- Mode of Training: Regular Full- time
- Training time: 4 years

2. ADMISSION CRITERIA

According to the current regular university admission regulations of LHU and the Ministry of Education and Training.

3. PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the programme, graduates able to:

ELO1: Present basic knowledge of philosophy, law, politics, society and basic principles of Marxism-Leninism; Revolutionary policy of the Communist Party of Vietnam; Ho Chi Minh Thought.

ELO2: Apply foundational knowledge in basic fields such as mathematics, physics, chemistry... Ability to apply learned natural science knowledge to work in general and specialized engineering fields study in particular.

ELO3: Can use English (foreign language) in study, research and work. Apply basic knowledge and skills in information technology such as: hardware operating system, software, etc., proficiently use office software such as Microsoft Word, Excel, Power Point, exploit and use Internet use, Email.

ELO4: Knowledge of raw materials, products as well as product manufacturing processes in the fields of Food Technology. Knowledge of analyzing and evaluating the quality of raw materials used in a Food Technology process as well as evaluating the quality of corresponding food products

ELO5: Knowledge to participate in research and development of products in the Food Technology industry, with the ability to participate as a researcher in scientific research projects.

ELO6: Understanding of quality management methods and food quality management systems according to GMP, SSOP, HACCP... as well as the legal system of the State of Vietnam regulating issues related to safety All foods meet high technology requirements.

ELO7: Skills to understand and use a system of basic and modern laboratory equipment. Skills in building and conducting experiments, ability to analyze and process analytical data, thereby participating in the system of analytical laboratories to determine the standards of raw materials, products or sales. finished products, wastewater samples during the production of Food Technology products.

ELO8: Understand and quickly grasp the entire operating process of production processes from which you can participate in operating, managing, and solving professional tasks scientifically.

ELO9: Handle problems and situations that arise in the production technology process well. Design and plan production; project planning; Operating and managing

technology, for production facilities and Food Technology product processing plants. Read and understand technical drawings, can evaluate and operate equipment systems.

ELO10: Good understanding of social issues, communication skills and ability to lead a team, time management skills, overcoming crises and pressure at work.

ELO11: Skills to behave, communicate, make reports, and make presentations in a methodical, professional and convincing manner in the process of operating and managing production as well as other economic activities of the factory. Skills in working in groups and production teams through discussion activities and using modern tools and facilities to improve productivity and product development.

4. KNOWLEDGE BLOCKS

Knowledge Block		Total Credits	Note
General Knowledge Block	Political Theory	11	
	Language	12	
	Social Sciences	2	
	Mathematics, Computer Science, Natural Sciences, Technology	13	
Specialized Knowledge Block	Specialized Foundation	62	
	Specialization	24	
Graduation	Business Internship (if any), Project (if any))	10	
	Thesis or Graduation Project		
Minimum Cumulative Credits for the Entire Program		134	

5. CURRICULUM PROGRAM

Course Code	Course Name	Credits				No. of Periods
		Total credits	Theory	Practice	Assignment	
	Defense Education	0	0	0	0	165
102002	Physical Education 1	1	0	0	1	30
102008	General physics	3	3	0	0	45
102025	Advanced mathematics 1	2	1	0	1	45

102055	English 1	2	2	0	0	30
117006	General Chemistry	2	1	0	1	45
117009	Internship	1	0	1	0	45
117043	Basic marketing	2	2	0	0	30
117010	Labs Technology Skills	1	0	1	0	45
Total Semester 1		14	9	2	3	315
102003	Physical Education 2	1	0	0	1	30
102011	Experiments in general physics	1	0	1	0	45
102014	Office Information	3	2	1	0	75
102062	Advanced mathematics 2	2	1	0	1	45
102056	English 2	2	1	0	1	45
117001	Experiments In General Chemistry	1	0	1	0	45
117002	Organic Chemistry	3	3	0	0	45
102034	Probability Statistics	2	1	0	1	45
117007	Inorganic Chemistry	3	3	0	0	45
Total Semester 2		18	11	3	4	420
102004	Physical Education 3	1	0	0	1	30
117024	General biotechnology	2	1	0	1	45
102057	English 3	2	1	0	1	45
117037	Analytical chemistry	3	3	0	0	45
117046	Process and Technology Equipment I	4	4	0	0	60
117055	Experiments in Organic chemistry	1	0	1	0	45
117057	Experiments in Inorganic chemistry	1	0	1	0	45
120033	Microbiology and microbiological testing method	3	3	0	0	45
120023	Physical Chemistry	2	1	0	1	45
Total Semester 3		19	13	2	4	405

102005	Basic tenets of Marxism-Leninism	5	4	0	1	90
102006	General Law	2	2	0	0	30
102058	English 4	2	1	0	1	45
117003	Analytical chemistry experiments	1	0	1	0	45
117047	Process and Technology Equipment II	4	4	0	0	60
122016	Labor safety	2	2	0	0	30
120004	Practical Of Microbiology	1	0	1	0	45
Elective courses (choose 2 out of 4)						
121052	General biology	2	2	0	0	30
117031	Descriptive Geometry	2	2	0	0	30
122017	Human and Environment	2	2	0	0	30
117028	Pharmacokinetics	2	2	0	0	30
Total Semester 4		21	17	2	2	405
120035	Chemical Equipment Design and Calculation	2	1	0	1	45
102059	English 5	2	1	0	1	45
120024	Biochemistry	3	3	0	0	45
117029	English academic writing	2	2	0	0	30
117056	Experiment of Physical Chemistry	1	0	1	0	45
117058	Experimental Design and Data Analysis	1	0	1	0	45
117060	Technical internship	1	0	1	0	45
Elective courses (choose 3 out of 6)						
121009	Molecular biology	2	2	0	0	30
117040	Environmental technology	2	2	0	0	30
117042	Rheology	2	2	0	0	30

117045	Scientific research methodology	2	2	0	0	30
120029	Functional Food	2	2	0	0	30
121045	Bioenergy technology	2	2	0	0	30
Total Semester 5		18	13	3	2	390
102001	Revolutionary lines of Vietnamese Communist Party	3	3	0	0	45
102033	Ho Chi Minh's ideology	2	2	0	0	30
102060	English 6	2	1	0	1	45
117030	English technical presentation	2	2	0	0	30
117062	Process and technology Internship	1	0	1	0	45
117068	Quality Management	2	2	0	0	30
117072	Specific Project	2	1	1	0	60
120012	Food processing technology	2	1	0	1	45
Elective courses (choose 2 out of 6)						
120044	Food analysis techniques	2	2	0	0	30
121044	Natural products technology	2	2	0	0	30
117005	Modern analytical methods	2	2	0	0	30
120018	Post-harvest technology	2	2	0	0	30
120021	Nutrition and Food Safety	2	2	0	0	30
120026	Food packaging technology	2	2	0	0	30
Total Semester 6		20	16	2	2	390
Elective courses 7.1 (choose 4 out of 5)						
120045	Practical oil and grease production technology	1	0	0	1	30
120046	Practical Meat and	1	0	0	1	30

	seafood processing and preservation					
120047	Practical Dairy and Bakery Processing Technology	1	0	0	1	30
120048	Practical Sensory Evaluation	1	0	0	1	30
120049	Practical Tea, Coffee, Vegetables and Fruits Processing Technology	1	0	0	1	30
Elective courses 7.2 (choose 5 out of 8)						
120050	Meat and seafood processing and preservation	2	2	0	0	30
120051	Dairy and Bakery Processing Technology	2	2	0	0	30
120052	Tea, Coffee, Vegetables and Fruits Processing Technology	2	2	0	0	30
120020	Sensory Evaluation and Food Quality Management	2	2	0	0	30
120013	Fermentation technology	2	2	0	0	30
120036	Food culture	2	2	0	0	30
120017	Technology of soft drinks and fruit juices	2	2	0	0	30
120015	Oil and grease production technology	2	2	0	0	30
Elective courses 7.3 (choose 2 out of 3)						
120003	Biochemistry practice	1	0	1	0	45
120053	Experiment of fermentation technology	1	0	1	0	45
120042	Experiment of soft drinks and fruit juices processing	1	0	1	0	45
Total Semester 7		16	10	2	4	360
66666	Thesis	10	10	0	0	150

Total Semester 8	10	10	0	0	150
Total	136	99	16	21	2835

6. GRADUATION REQUIREMENTS

Students accumulate enough courses and 133 credits of the program.

Students must meet the criteria according to the regulations on regular university and college training for the cohort 2019-2023, issued under Decision No. 721/QĐ-ĐHLH dated September 13, 2018 by the Rector of Lac Hong University.