

BACHELOR TRAINING PROGRAMS IN FOOD TECHNOLOGY

(Issued in accordance with Decision No: /QĐ-ĐHNCT date month year 2022 of The principal of Nam Can Tho University)

Name of Program : **Food Technology Training Program**
Degree training : **Full-time university**
Major : **Food Technology**
Code : **7540101**
Type of training : **Full-time**

1. Describing the training program

1.1 Introduction to Food Technology

The training program of Food Technology trains the Bachelor of Food Technology who is full of knowledge, skills, political qualities, morality, professional behavior, and good health to be able to work effectively in the fields related to Food Technology.

1.2 General information about the training program

Name of Program (Vietnamese)	Công nghệ thực phẩm
Name of Program (English)	Food Technology
Major Code	7540101
Degree University	Nam Can Tho University
Diploma Title	Bachelor of Food Technology
Training Level	Undergraduate
Required number of credits	135
Training Form	Full-time
Training Time	4 years
Enrollment Object	High School Graduates
Assessment Scale	4
Graduation Requirement	<ul style="list-style-type: none">- Accumulating enough modules and volume of the training program to reach 135 credits;- The cumulative GPA of the whole course is 5.0 or higher;- Achieving the output standards of English and computer skills according to the general regulations of the University;- Achieving output standards Soft skills and Occupational skills;- Having a certificate of National Defense - Security Education and completing the required modules
Career Position	<ul style="list-style-type: none">- Operators and testers in food manufacturing factories;- Staff managing the food quality assurance system;- Employees working in departments, departments,

	businesses, and organizations related to food.
Learning to advance level	It is possible to continue studying for a master's degree at home country and abroad.
Reference Program	Undergraduate training programs in Food Technology, Can Tho University, Can Tho University of Technology and Engineering, University of Food Industry in Ho Chi Minh City. Ho Chi Minh City, Nha Trang University, and the University of Nottingham UK.
Update Time	April 2022

1.3. Training Target

1.3.1 General Target

- Training human resources with a bachelor's degree who are enough health, solid knowledge, and professional capacity to satisfy the social requirements and needs of learners that are suitable for the process of industrialization and modernization of the country.

- Having ethical qualities, the ability to self-study, and self-research in order to achieve output standards in terms of knowledge, skills, and capacity for autonomy and responsibility.

- Training qualified human resources to work at agencies, factories, and companies related to the field of food technology.

1.3.2. Specific Target

M1: Understanding and applying the foundational and in-depth knowledge of the field of food technology in professional work.

M2: Forming professional ideas in Food Technology and developing the management capacity and operate an individual and collective scale.

M3: Satisfying the requirements of professional skills, and soft skills from society, working, and research environment.

M4: Organizing and performing professional operations of the food industry, thereby developing creative capacity at work.

M5: Forming the ability to self-study and self-research in the professional field, thereby developing the corresponding competencies in the whole life and guiding the people around, thereby changing and improving their social life.

2. Training Time: 4 years

3. the volume of knowledge of the whole course: 135 credits (excluding Physical Education and National Defense Education modules), are assigned:

KNOWLEDGE	Compulsory/ Required Knowledge	Elective Knowledge	Total
General Education Knowledge	44	2	46
Specialized Educational Knowledge	75	14	89
- Basic knowledge	40	4	44
- Specialized Knowledge	31	4	35
- Graduation internship	4		4
- Graduation thesis/Alternative subjects		6	6

Total	119	16	135
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4. Enrollment Object

Admission is based on the results of the national high school graduation exam or the high school transcript scores according to the combination of subjects by industry and nationwide admission.

5. Training process, graduation requirements

5.1 Training procedure

Implement the regulations on Full-time university and college training according to the credit system and current training regulations of Nam Can Tho University.

5.2 Graduated Requirement

- Students who complete the training program will be considered for graduation and recognized for graduation according to Article 27 of the training regulations under the credit system.

- Achieving the level of English and Information Technology according to the general regulations of the University (for Informatics, from modules 01 to 06 of the standard of skills in using information technology according to Circular 03/2014/TT-BTTTT)

- Obtaining the Certificate of National Defense Education; Physical education; Soft Skills and Occupational Skills.

- Evaluation of division points and course points shall comply with Articles 22 and 23 of the training regulations according to the credit system.

- Ranking of an academic year, and ranking of graduation is done according to Articles 14 and 28 of the training regulations according to the credit system.

6. THE CONTENT OF THE TRAINING PROGRAM

6.1 The content of General Education

Number	Module Code	Name of Module	Number of credits	Theory	Practice	Type
A	Political Theory		11			
1	0101000889	Marxist-Leninist Philosophy	3	3		
2	0101000641	Political Economy	2	2		
3	0101000890	Scientific Socialism	2	2		
4	0101000900	Ho Chi Minh's Ideology	2	2		
5	0101000869	History of the Communist Party of Vietnam	2	2		
B	Humanities and Social Sciences		4+2			
6	0101000891	General Law	2	2		
7	0101000881	General Logics	2	2		
8	0101001141	Environment and Human	2	2		Elective
9	0101000903	General Sociology	2	2		Elective
C	Foreign Language		11			
10	0101000861	Basic English 1	3	3		
11	0101000862	Basic English 2	3	3		

12	0101000863	Basic English 3	3	3		
13	0101000168	English in Food Technology	2	2		
D	Math, Informatics, Natural Science		18			
14	0101000258	Biochemistry	2	2		
15	0101000261	Biochemistry - Practice	1		1	
16	0101000892	General Biology	2	2		
17	0101000957	General Biology- Practice	1		1	
18	0101000269	Analytical Chemistry	2	2		
19	0101000270	Analytical Chemistry - Practice	1		1	
20	0101000898	Advanced Math 1	3	3		
21	0101000902	General Physics	2	2		
22	0101000960	General Physics - Practice	1		1	
23	0101000896	Basic Informatics	3	2	1	
E	Physical Education		3			
24	0101000872	Physical Education 1 (*)	1		1	Required
25	0101000873	Physical Education 2 (*)	1		1	Required
26	0101000874	Physical Education 3 (*)	1		1	Required
F	National Defence Education		8			
27	0101000871	National Defence Education (*)	8			Required

(*) Cumulative GPA is not calculated for Conditional Module.

6.2 The volume of professional education knowledge:

Number	Module Code	Name of Module	Number of credits	Theory	Practice	Type
Industry Background Knowledge Section			40+4			
1	0101001688	Introduction of Food Technology	1	1		Compulsive
2	0101000274	Food Biochemistry	3	3		Compulsive
3	0101000970	Food Biochemistry – Practice	1		1	Compulsive
4	0101000077	Descriptive Geometry and Technical drawing	3	3		Compulsive
5	0101000099	Electrical Engineering	2	2		Compulsive
6	0101000287	Thermal Engineering	2	2		Compulsive
7	0101000442	Nutrition	2	2		Compulsive
8	0101000567	Microbiology	2	2		Compulsive
9	0101000942	Microbiology- Practice	1		1	Compulsive

Number	Module Code	Name of Module	Number of credits	Theory	Practice	Type
10	0101000295	Food Engineering 1	3	3		Compulsive
11	0101000296	Food Engineering 2	3	3		Compulsive
12	0101000297	Food Engineering 3	2	2		Compulsive
13	0101001070	Food Engineering (Factory) - Internship	2		2	Compulsive
14	0101001069	Food Engineering (Project)	2		2	Compulsive
15	0101000417	Food Microbiology and Analysis	2	2		Compulsive
16	0101000966	Food Microbiology and Analysis-Practice	1		1	Compulsive
17	0101000416	Food safety and hygiene	2	2		Compulsive
18	0101000354	Food Quality Management and Food Laws	2	2		Compulsive
19	0101000327	Research and Development of Food Products	2	2		Compulsory
20	0101001539	Management and utilization of by-products in the food production process	2	2		Compulsive
21	0101000424	Food Packaging	2	2		Elective
22	0101000284	Food Processing Techniques	2	2		Elective
23	0101000718	Food Marketing	2	2		Elective
24	0101000401	Functional Food	2	2		Elective
25	0101000326	The Technology of water supply, wastewater	2	2		Elective
Specialized Knowledge Section			31+4			
26	0101000315	Food machinery and equipment	2	2		Compulsive
27	0101000328	Principles of Food Preservation and Processing	3	3		Compulsive
28	0101000207	Food Fermentation Technology	2	2		Compulsive
29	0101001346	Food Fermentation	1		1	Compulsive

Number	Module Code	Name of Module	Number of credits	Theory	Practice	Type
		Technology- Practice				
30	0101001072	Experimental Statistics in Food Technology	2	2		Compulsive
31	0101000123	Scientific Research Methodology and Report Writing	2	2		Compulsive
32	0101000348	Food Additives (Phụ gia thực phẩm)	2	2		Compulsive
33	0101000241	Food Sensory Evaluation	2	2		Compulsive
34	0101001071	Food Sensory Evaluation -Practice	1		1	Compulsive
35	0101000465	Food Toxicology	2	2		Compulsive
36	0101000224	Postharvest technology of vegetables, fruits, and cereals.	2	2		Compulsive
37	0101001076	Postharvest technology of vegetables, fruits, and cereals - Practice	1		1	Compulsive
38	0101000190	Food Cold-Preservation Technology	2	2		Compulsive
39	0101001393	Food Cold-Preservation Technology- Practice	1		1	Compulsive
40	0101000197	Thermal Processing Technology of Products	2	2		Compulsive
41	0101001394	Thermal Processing Technology of Products - Practice	1		1	Compulsive
42	0101001074	Food Technology – Laboratory Practice	2		2	Compulsive
43	0101000228	Food Technology – Factory Internship	1		1	Compulsive
44	0101000223	Production Technology of Wine,	2	2		Elective

Number	Module Code	Name of Module	Number of credits	Theory	Practice	Type
		Beer, and Beverage.				
45	0101000199	Processing Technology of Meat and Meat Products	2	2		Elective
46	0101000292	Food Traceability	2	2		Elective
Graduation Internship			4			
47	0101000410	Graduation Internship (Food Technology)	4		4	Compulsive
Graduation thesis/Alternative modules			6			
48	0101000307	Graduation thesis (Food Technology)	6		6	Elective
49	0101000219	Processing Technology Of Vegetable Oil	2	2		Elective
50	0101000191	Processing Technology Of Sugar, Cakes and Candies	2	2		Elective
51	0101000198	Processing Technology of Milk and Dairy Products	2	2		Elective

7. TEACHING PLAN (EXPECTED)

7.1 The First Semester

Number	Name of Module	Number of credits	Total number of credits	Number of credits		Type
				Theory	Practice	
1	Basic English 1	3	45	45		Compulsive
2	National Defence Education	8	165	75	90	Required
3	Physical Education	1	30		30	Required
4	General Logics	2	30	30		Compulsive
5	Marxist-Leninist Philosophy	3	45	45		Compulsive
6	General Law	2	30	30		Compulsive
7	Advanced Math 1	3	45	45		Compulsive
Total accumulated Credits		13				

7.2. The second semester

Number	Name of Module	Number	Number	Total number of	Type
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		of credits	of credits	credits		
				Theory	Practice	
1	Biochemistry	2	30	30		Compulsive
2	Biochemistry - Practice	1	30		30	Compulsive
3	Political Economy	2	30	30		Compulsive
4	Basic English 2	3	45	45		Compulsive
5	Physical Education 2	1	30		30	Required
6	Scientific Socialism	2	30	30		Compulsive
7	General Biology	2	30	30		Compulsive
8	General Biology- Practice	1	30		30	Compulsive
9	Basic Informatics	3	60	30	30	Compulsive
10	The Introduction of Food Technology	1	1	15		Compulsive
11	General Sociology	Choosing one Module	2	30	30	Elective
12	Environment and Human		2	30	30	Elective
Total accumulated Credits		19				

7.3 The Third Semester

Number	Name of Module	Number of credits	Total number of credits	Total number of credits		Type
				Theory	Practice	
1	Descriptive Geometry and Technical drawing	3	45	45		Compulsive
2	Food Biochemistry	3	45	45		Compulsive
3	Food Biochemistry - Practice	1	30		30	Compulsive
4	Microbiology	2	30	30		Compulsive
5	Microbiology - Practice	1	30		30	Compulsive
6	Basic English 3	3	45	45		Compulsive
7	Physical Education 3	1	30		30	Required
8	Ho Chi Minh's Ideology	2	30	30		Compulsive
9	General Physics	2	30	30		Compulsive
10	General Physics - Practice	1	30		30	Compulsive
Total accumulated Credits		18				

7.4 The Forth Semester

Number	Name of Module		Number of credits	Total number of credits	Number of credits		Type
					Theory	Practice	
1	Electrical Engineering		2	30	30		Compulsive
2	Analytical Chemistry		2	30	30		Compulsive
3	Analytical Chemistry – Practice		1	30		30	Compulsive
4	Food Engineering 1		3	45	45		Compulsive
5	Food Microbiology and Analysis		2	30	30		Compulsive
6	Food Microbiology Analysis - Practice		1	30		30	Compulsive
7	History of the Communist Party of Vietnam		2	30	30		Compulsive
10	Food processing techniques	Choosing one Module	2	30	30		Elective
11	Food Packaging		2	30	30		Elective
12	Food Marketing		2	30	30		Elective
Total accumulated Credits			15				

7.5 The fifth semester

Number	Name of Module		Number of credits	Total number of credits	Number of credits		Type
					Theory	Practice	
1	English in Food Technology		2	30	30		Compulsive
2	Thermal Engineering		2	30	30		Compulsive
3	Food Engineering 2		3	45	45		Compulsive
4	Principles of Food Preservation and Processing		3	45	45		Compulsive
5	Food safety and hygiene		2	30	30		Compulsive
6	Food Toxicology		2	30	30		Compulsive
7	Food Engineering (Factory) - Internship		2	60		60	Compulsive

8	Food Fermentation Technology	2	30	30		Compulsive
9	Food Fermentation Technology- Practice	1	30		30	Compulsive
	Total accumulated Credits	19				

7.6 The Sixth Semester

Number	Name of Module	Number of credits	Total number of credits	Number of credits		Type
				Theory	Practice	
1	Food Sensory Evaluation	2	30	30		Compulsive
2	Food Sensory Evaluation -Practice	1	30		30	Compulsive
3	Food Engineering 3	2	30	30		Compulsive
4	Food machinery and equipment	2	30	30		Compulsive
5	Nutrition	2	30	30		Compulsive
6	Food Engineering (Project)	2	60		60	Compulsive
7	Experimental Statistics in Food Technology	2	30	30		Compulsive
8	Food Quality Management and Food Laws	2	30	30		Compulsive
9	Postharvest technology of vegetables, fruits, and cereals.	2	30	30		Compulsive
10	Postharvest technology of vegetables, fruits, and cereals - Practice	1	30		30	Compulsive
	Total accumulated Credits	18				

7.7 The Seventh Semester

Number	Name of Module	Number of credits	Total number of credits	Number of credits		Type
				Theory	Practice	
1	Food Cold-Preservation	2	30	30		Compulsive

Number	Name of Module	Number of credits	Total number of credits	Number of credits		Type
				Theory	Practice	
	Technology					
2	Food Cold-Preservation Technology- Practice	1	30		30	Compulsive
3	Thermal Processing Technology of Products	2	30	30		Compulsive
4	Thermal Processing Technology of Products - Practice	1	30		30	Compulsive
5	Food Technology – Factory Internship	1	30		30	Compulsive
6	Food Technology – Laboratory Practice	2	60		60	Compulsive
7	Food Additives	2	30	30		Compulsive
8	Processing Technology of Meat and Meat Products	Choosing 2 modules	2	30	30	Elective
9	Food Traceability		2	30	30	
10	Production Technology of Wine, Beer, and Beverage.		2	30	30	
11	The Technology of water supply, wastewater	Choosing 1 module	2	30	30	Elective
12	Functional Foods		2	30	30	
	Total accumulated Credits	17				

7.8 Học kỳ 8

Number	Name of Module	Number of credits	Total number of credits	Number of credit		Type
				Theory	Practice	

1	Scientific Research Methodology and Report Writing	2	30	30		
2	Research and Development of Food Products	2	30	30		
3	Management and utilization of by-products in the food production	2	30	30		
4	Graduation Internship (Food Technology)	4	120		120	
7	Processing Technology Of Sugar, Cakes and Candies	Choosing Graduation thesis (Food Technology) or Studying 3 Alternative modules*	2	30	30	
8	Processing Technology of Milk and Dairy Products		2	30	30	
9	Processing Technology Of Vegetable Oil		2	30	30	
10	Graduation thesis (Food Technology)		6	180		180
Total accumulated Credits		16				

(*)If the student is not eligible to undertake the graduation thesis, alternative modules will be taken

8. INSTRUCTIONS FOR IMPLEMENTATION OF THE TRAINING PROGRAM

8.1 For Faculty and Department

- The Faculty of Professional Management is responsible for reviewing and presiding over the compilation of detailed outlines of the modules in the basic and specialized knowledge according to the number of credits of this program. Providing the list of textbooks, lectures, and reference materials of all modules to the University Library and keeping it in the Faculty Office. At the beginning of each semester, faculty coordinate with units of the University to implement the training plan on schedule.

- Assigning lecturers with a master's degree or higher (in the same discipline or related major) to teach theoretical modules, providing detailed outlines for lecturers to ensure that they follow the general teaching plan of the University.

- The academic advisor must thoroughly understand the entire credit-based training program to guide students to register for modules.

8.2 For lecturers

- When a lecturer is assigned to teach one or more modules, it is necessary to carefully study the content of the detailed module outline in order to prepare the lecture and appropriate teaching aids and materials.

- Lecturers must fully prepare lectures, textbooks, and materials and provide them to students to prepare before going to class.

- Organizing Seminars, focusing on organizing group study, and guiding students to make essays and projects. Lecturers identify methods of transmission; class presentations, guiding discussions, solving problems in class, in the practice room, and the laboratory as well as guiding students to write essays.

- Paying attention to developing students' self-study and self-research ability during the module of teaching and guiding practice and practice.

- It is necessary to pay attention to the logic of imparting and absorbing knowledge, specifying prerequisite modules of compulsory modules, and preparing lecturers to meet the requirements of teaching elective modules.

8.3 For students

- Students must consult/refer to the academic advisor to select the module to suit their progress. Students must study the lesson themselves before going to class in order to easily absorb the lecture. Students must have enough time in class to listen to the lecture instructions. Students must be self-disciplined in self-study and self-research, and actively participate in a group study, fully attend Seminar sessions.

- Actively exploiting online resources and the university's library to serve self-study, self-research, and graduation projects. Strictly complying with regulations on examination, examination, and evaluation.

- Regularly participate in mass and cultural activities to practice communication skills and understanding of society and people.

8.3 Facilities and equipment for teaching and practice, internship:

- System of theoretical classrooms with traditional equipment is equipped with additional teaching aids (projectors).

- Computer practice rooms are installed with software for basic informatics training.

- Practical room for basic modules of general physics, general chemistry, organic chemistry, and analytical chemistry with equipment for visual training.

- The practice rooms specialized in food technology are equipped with suitable machines, equipment, and tools.

Rector
(*signed*)

Academic Affairs
Department

Faculty

Dr. NGUYEN VAN QUANG

