

PROGAMME SPECIFICATION	
Admissions/Management Information	
Title of the Programme	
Bachelor of Food technology	
Vietnamese Qualification Framework (VQF) level	
Bachelor (Level 6)	
The following information is provided to students admitted to the training Programme:	Teaching place
Awarding institution	
Tra Vinh University	Tra Vinh University
Faculty	
School of Agriculture – Aquaculture	
Name of degree awarded	
Bachelor of Food technology	
Programme code	
7540101	
Admissions criteria	
<p>- Method 1: Considering the results of the National High School Examination, which is the plus point of 03 subjects according to the combination of examination subject reaching the minimum quality assurance threshold for university entrance as prescribed by the Ministry of Education and Training (Ground score, usually the total score of 3 subjects in the exam is ≥ 15)</p> <p>- Method 2: Considering the average score of the subjects in the 12th grade year of the selection subject combination. The minimum score threshold is 5.0 or higher for undergraduate majors.</p> <p>- Method 3: Direct recruitment of students who won prizes in national and international competitions for excellent students</p> <p>- Method 4: Consider the results of the Competency Assessment examination organized by the National University of Ho Chi Minh City</p> <p>Examination subject combinations:</p> <p>+A00: Maths – Physics – Chemistry</p> <p>+B00: Maths – Chemistry – Biology</p> <p>+D07: Maths – Chemistry – English</p> <p>+D90: Maths – Natural Science – English</p>	
Length and status of the Programme(s) and mode(s) of study	

Programme	Length (years)	Status (full-time/part-time)	Start dates/months (if applicable – for Programmes)	Mode
Bachelor of Food technology	4,5 years	Full-time	September	Face-to-face, campus-based
Language(s) of study				
Vietnamese				
Language(s) of assessment				
Vietnamese				
2. Programme accredited by profession, law or regulation				
According to the provisions of the Education Law				
3. Programme leader				
Ha Thi Thuy Vy				
4. Job profiles				
<p>Graduates can take up the following positions:</p> <ul style="list-style-type: none"> - Teaching staff, research staff of universities, research institutes; - Research And Development Specialist (R&D) - Nutrition consultant - Production Manager - Quality control and product inspection officer - Technical department officer - Analytical chemist and microbiologist technician - Industrial production staff 				

5. Purpose and learning outcomes of the Programmes	
5 a. Educational philosophy and teaching/learning strategy	
<p>Educational philosophy of Tra Vinh University and the Programme The university has an educational philosophy: <i>"Based on the practical, ethical and responsible training competencies, learners will develop into better individuals to serve a better society"</i>.</p> <p>The educational philosophy of the Programme is: "Learning by doing"</p>	
5b. Programme Objectives	
PO 1	Manage processing and preservation procedures in food production factories

PO 2	Construct, consult and manage food production and business units.
PO 3	Contribute to the global sustainability development by pursuing lifelong learning, self-improvement, professional development and social responsibility.
<i>c. Programme Learning Outcomes (PLOs)</i>	
PLO 1	Apply natural, social, technical and economic knowledge to solve problems in preservation, processing, testing, and research and development of food products.
PLO 2	Formulate production procedures based on the analysis of technical factors to ensure and enhance product quality.
PLO 3	Design quality management systems for processing plants to ensure food hygiene and safety.
PLO 4	Perform work planning, demonstrate creatively critical thinking, work independently and effectively as a team leader or member.
PLO 5	Demonstrate communication skills and use specialized English in food technology.
PLO 6	Operate production equipment in food manufacture factories.
PLO 7	Analyse product quality criteria in food preservation and processing procedures.
PLO 8	Design research to address technological and regulatory problems in the food industry through the evaluation of information, scientific data and information technology applications.
PLO 9	Work professionally, maintain professional ethics, social responsibility, and demonstrate personal physical development.
PLO 10	Demonstrate the spirit of entrepreneurship and life-long learning.
<i>d. Other Programme information</i>	
i) Learning about: The Programme aims to equip students with the skills to work in the Food laboratory, Food industry to meet the requirements of the VietNam and region labor market	
ii) Organization to participate in training The Programme provides learning opportunities for all students regardless of ethnicity, gender.	

6. Reference points and Programme regulations

6a. Internationalization

The Programme aims to equip students with the skills to work in the Food laboratory, Food manufacture to meet the requirements of the Viet Nam and regional labor market, compatible with regional and international standards. The Programme has students from the ASEAN region participating in the study. Students have the opportunity to participate in international academic exchange activities by thematic in countries in the region. Besides, the school has international exchange activities to create a multicultural communication environment.

6b. The potential students

The Programme provides learning opportunities for all students regardless of ethnicity, gender, or disability

7. Programme structure and requirements including levels, courses, credits, etc.

7.a. Programme Structure

No.	Code	Course name	Total	Theory		Practice		Self study	Note
				Cre dits	ho urs	Credi ts	hou rs		
● Semester I									
1. Core courses									
1.		Physical Education 1	1	0	0	1	30	20	
2.		National Defence Education	8 credits						
3.		English 1 (Beginner)	3	2	30	1	30	90	
4.		Basic principles of Marxism - Leninsm	3	3	45	0	0	105	
5.		Basic informatics	3	1	15	2	60	75	
6.		General biology	2	1	15	1	30	55	
7.		Statistics probability	2	1	15	1	30	55	
8.		Engineering Drawings	2	1	15	1	30	55	
9.		Orientation for food industry internship	1	0	0	1	80		2 weeks
Total			16	9	135	7	260	435	

● Semester II									
1. Core courses			17	11	165	6	180	505	
10.		Physical Education 2	1	0	0	1	30		
11.		English 2 (Elementary)	4	2	30	2	60	110	
12.		Marxism-Leninsm political economics	2	2	30	0	0	70	
13.		General law	2	1	15	1	30	55	
14.		Soft skill	2	1	15	1	30	55	
15.		Work Safety	2	2	30	0	0	70	
16.		Biochemistry	3	2	30	1	30	90	
17.		Thermal Engineering	2	1	15	1	30	55	
2. Elective courses			4	2	30	2	60	110	
18.		Business administration	2	1	15	1	30	55	
19.		Food marketing	2	1	15	1	30	55	

No.	Code	Course name	Total	Theory		Practice		Self study	Note
				Credits	hours	Credits	hours		
20.		Organic chemistry	2	1	15	1	30	55	
21.		Environmental science fundamentals	2	1	15	1	30	55	
Total			21	13	195	08	240	615	

● Semester III									
1. Core courses			14	10	150	4	120	430	
22.		Physical Education 3	1	0	0	1	30		
23.		Science socialism	2	2	30	0	0	70	
24.		English 3 (Pre- intermediate)	3	2	30	1	30	90	
25.		Mass and Energy Balance	2	1	15	1	30	55	
26.		Food Chemistry	3	2	30	1	30	90	
27.		Basic processes in food technology	2	2	30	0	0	70	
28.		Fluid Mechanics	2	1	15	1	30	55	
2. Elective courses			6	3	45	3	90	165	
29.		Analytical chemistry	2	1	15	1	30	55	
30.		Physical chemistry	2	1	15	1	30	55	
31.		Food colloids	2	1	15	1	30	55	
32.		Water treatment in food industry	2	1	15	1	30	55	
33.		Human nutrition	2	1	15	1	30	55	
Total			20	13	195	7	210	595	

● Semester IV									
1. Core courses			17	6	90	11	730	270	
34.		English 4 (Intermediate)	3	2	30	1	30	90	
35.		Ho Chi Minh Ideology	2	2	30	0	0	70	
36.		Food safety	2	1	15	1	30	55	
37.		Processing machine	2	1	15	1	30	55	
38.		Co-op 1 (Internship 1)	8	0	0	8	640		16 weeks

No.	Code	Course name	Total	Theory		Practice		Self study	Note
				Cre dits	ho urs	Credi ts	hou rs		
Total			17	6	90	11	730	270	

● Semester V									
1. Core courses			20	12	180	8	240	580	
39.		History of Vietnamese communist party	2	2	30	0	0	70	
40.		Mass Transfer	3	2	30	1	30	90	
41.		Food microbiology	3	2	30	1	30	90	
42.		Principles of food preserving and processing	3	2	30	1	30	90	
43.		Scientific research methodology	2	1	15	1	30	55	
44.		Physical Properties of Foods	2	1	15	1	30	55	
45.		Experimental design and statistical analysis	3	1	15	2	60	75	
46.		Food Packaging	2	1	15	1	30	55	
Total			20	12	180	8	240	580	

● Semester VI									
1. Core courses			16	5	75	11	730	235	
47.		Food sensory evaluation	2	1	15	1	30	55	
48.		Food micrological analysis	3	2	30	1	30	90	
49.		Chemical food analysis	3	2	30	1	30	90	
50.		Co-op 2 (Internship 2)	8	0	0	8	640		16 weeks
Total			16	5	75	11	730	235	

● Semester VII									
1. Core courses			10	6	90	4	120	290	
51.		Food additives	2	2	30	0	0	70	
52.		Food Technology Projects	2	0	0	2	90	10	
53.		Specialized English	2	1	15	1	30	55	
54.		Product development	2	1	15	1	30	55	

No.	Code	Course name	Total	Theory		Practice		Self study	Note
				Credits	hours	Credits	hours		
55.		Quality Management System	2	2	30	0	0	70	
2. Elective courses			8	4	60	4	120	220	
56.		Sugar Production Technology	2	1	15	1	30	55	
57.		Meat preservation and processing technology	2	1	15	1	30	55	
58.		Beverage production technology	2	1	15	1	30	55	
59.		Vegetables preservation and processing technology	2	1	15	1	30	55	
60.		Functional food	2	1	15	1	30	55	
61.		Food fermentation techniques	2	1	15	1	30	55	
62.		Entrepreneurship	2	1	15	1	30	55	
Total			18	10	150	8	240	510	

● Semester VIII									
1. Core courses			8	0	0	8	640		
63.		Co-op 3 (Internship 3)	8	0	0	8	640		16 weeks
2. Elective courses			8	4	60	4	120	220	
64.		Confectionery production technology	2	1	15	1	30	55	
65.		Cereal processing technology	2	1	15	1	30	55	
66.		Seafood preservation and processing technology	2	1	15	1	30	55	
67.		Eggs and dairy processing	2	1	15	1	30	55	
68.		Special topic	2	2	30	0	0	70	
69.		Food Canning Technology	2	1	15	1	30	55	
Total			16	4	60	12	760	220	

No.	Code	Course name	Total	Theory		Practice		Self study	Note
				Credits	hours	Credits	hours		
* Semester IX									
70.		Graduation thesis	7	0	0	7	400		10 weeks
Total			7	0	0	7	400		

7.c. Programme evaluation design

i) Contact the lecturer

The Bachelor of Food technology Programme is designed with 151 credits, 72 theories, 79 practice. Theoretically, besides having lessons in the classroom, students also self-study and self-research through channels such as e-learning, homework, group discussions, presentation ... Regarding practice, besides practicing at the laboratory, food processing lab under the direct guidance from teachers, the Programme was designed for internship at factories inside and outside the province so that students have the opportunity to apply theory into clinical practice through learning. In addition, students also learn by project.

ii) Students' self-study and research

Regarding E-learning online resources, students can take the initiative in their study time and study anytime, anywhere. There is an online learning exchange environment, with direct supervision and feedback from lecturers. In addition, students can actively search for documents, self-study and research at the University's Learning Resource Center. Modules that including practice skills expertise in biochemistry, food chemistry, food microbiology, food processing, food preservation and analysis at the labs, practice at the companies in and outside the province with the supervision and teaching of experienced clinical instructors provide students with the opportunity to improve their professional competence, communication skills and experience in a diverse internship settings.

8. Contribution of casual teaching staff and/or staff external to the University

The Bachelor of Food technology Programme of Tra Vinh University engages the participation of experts from hospitals and research institutes and health science training universities in Vietnam. Experts from many different units, such as Tra Vinh province (Tra Vinh Food Company, Tra Bac Joint Stock Corporation); outside Tra Vinh province (Bibica Corporation at Dong Nai, An Giang Plant Protection Joint Stock Company at An Giang, Minh Phu Seafood Corporation at Hau Giang, Tata coffee Vietnam company limited at Binh Duong). Based on the needs of the training Programme, the School of Agriculture – Aquaculture has effectively implemented through the form of Co-op training, a combination of academic knowledge and internships Programme, helping students to understand the knowledge they have learned at school as well as gain more practical experience. The lecturers involved in teaching theory and practice in The Bachelor of Food technology Programme come from prestigious universities, all of whom have teaching experience. Annually, lecture staff regularly participate in classes to update professional knowledge continuously and training courses on teaching methods for instructors. They actively teach and evaluate student learning outcomes based on regulations such as grades, rubrics, products, ...

9. Learning by doing

9.a. The Programme requires students to learning by doing

The Programme provides learning opportunities through three Co-op internships placement in practical working at enterprises and enterprises in the field of food activities, where students will take part in food processing stages, laboratory techniques, organizing production management in food processing companies, practical skills, and professional etiquette in food processing factories. They also have the opportunity to connect and build relationships with potential employers. Thereby expanding job opportunities after completing the course, or even being offered a job before graduation. Finally, graduation thesis will help students summarize their knowledge at laboratory university or a food company inside and outside the province.

9.b. Supporting students in Learning by doing

The Programme provides learning opportunities through practice in labs and food processing facilities, where students will take part in preservation, processing, food quality analysis, and production trials. This provides opportunities to perfect practical skills, while also improving crucial soft skills.

9.c. Brief details on the nature of work-based learning

1. Pre-practice (biochemistry, food chemistry, food processing, food preservation, food microbiology and chemistry analysis)
2. Professional practice: Co-op 1, co-op 2, co-op 3
3. Graduation internship

9.d. Who will be responsible for sourcing and placement?

The School of Agriculture – Aquaculture is responsible for establishing relationships with companies, enterprises, institutes inside and outside the province, establishing and cooperating with companies in the training process. The School normally has study plans for sending students before entering specific semesters. Based on the relationship network and a team of 25 technician lecturers, students have more choices of businesses, internship places and instructors which match to the students' demand.

Periodically students must report their progress and activities at the business to the School. At the end of the practical courses, students submit their full reports and present the results to an assessment council.

The school is responsible for establishing relationships with companies/food establishments inside and outside the province, establishing and cooperating with companies in the training process.

9.e. What is work-based learning time?

Practical learning through working at the enterprises will last 4 months per module and is allocated in an appropriate seasonal time and under suitable situations of the enterprises.

9.f. How will work-based learning be assessed?

Students' benefits from their internship at entities, enterprises are not only learning practical experience from the organisations' staff, but also performing actual topics given by experts or skillful people at the enterprises.

The assessment results are average of grade points marked by relevant stakeholders such as: (i) instructors at the enterprises; (ii) instructors at the School; (iii) an assessment council on product output (if any) and topic report presentation, total score should be over 5.0 points.

10. Students participate in Programme development How are current and/or alumni involved in the development of this proposal/Programme?

Students are allowed to contribute ideas for Programme improvement through surveys and regular and ad

hoc meetings of the Department with students. Student feedback on the quality of the instructors' teaching in each subject is collected through face- to face or online assessments at the end of each course. Feedback on teaching methods is provided through an annual survey and exit survey

11. Change the Programme

i) Transfer to the Programme will be? (please select Y/N) Y- Yes	Y - Yes	
ii) Moving out of the Programme will be? (please select Y/N)	N - No	

12. Quality and standards

The school has a framework in place to ensure that the standards of its Programmes are maintained and that the quality of the learning experience is enhanced.

Quality assurance and enhancement processes include:

- The academic supervisor of the Programme of training in the departments of the Council of Science and Education, including student representatives
- The monitoring Programme of the external examiners, who ensure that standards at Tra Vinh University is equivalent to other Programmes in the industry
- Managing monitoring and annual periodic assessment of Programmes and acquiring feedback from the faculty and students through the National Student Survey.

13. Date on which this Programme specification was written or revised December, 2022

14. Matrix showing how the Programme learning outcomes are achieved through the courses

Note: "I"=Introduced; "R"=reinforced and opportunity to practice; "M"=mastery at the senior or exit level

No	Course name	Programme learning outcomes									
		PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10
A. COURSES IN GENERAL EDUCATION											
Courses in Political theory											
1	Basic principles of Marxism-Leninism	I			I	I				R	R
2	Marxism-Leninism political economics	I			I	I				R	R
3	Science socialism	I			I	I				R	R
4	Ho Chi Minh Ideology	I			I	I				R	R
5	History of Vietnamese communist party	I			I	I				R	R
Courses in Social sciences and humanities											

6	General law	I			I	I				R	R
7	Scientific research methodology	R			R	R			R	R	R
Foreign Language Courses											
8	English 1 (Beginner)	I			I	I				R	R
9	English 2 (Elementary)	I			R	R				R	R
10	English 3 (Pre- intermediate)	R			R	R				R	R
11	English 4 (Intermediate)	R			R	R				R	R
Courses in Maths, Informatics and Natural science											
Core courses											
12	General biology	I			R	R				R	R
13	Statistics probability	I			R	R				R	R
14	Basic informatics	I			R	R				R	R
15	Engineering Drawings	R			R	R			R	R	R
16	Work Safety	I			R	R			R	R	R
Elective course											
17	Organic chemistry	I			R	R		I		R	R
18	Business administration	I			M	R				R	R
19	Food marketing	I			R	M				R	R
20	Environmental science fundamentals	I			R	R			I	R	R
21	Analytical chemistry	I			R	R		I		R	R
22	Physical chemistry	I			R	R		I		R	R
Extracurricular activity skills											
23	Orientation for food industry internship	I			I	I			I	I	I
24	Soft skill (Conditional as the University's regulations)	I			R	R				R	R
Physical and Defense and Security Education											
25	National Defence Education	I			R	R				R	R
26	Physical Education 1	I			R	R				R	R
27	Physical Education 2	I			R	R				M	R
28	Physical Education 3	I			R	R				M	R
B. COURSES IN PROFESSIONAL EDUCATION											

Fundamental courses											
29	Fluid Mechanics	I			R	R			R	R	R
30	Thermal Engineering	I			R	R			R	R	R
31	Basic processes in food technology	I			R	R			R	R	R
32	Processing machine	I			R	R	R		R	R	R
33	Food additives	I			R	R			R	R	R
34	Principles of food preserving and processing	R			R	R			R	R	R
35	Mass Transfer	I	R		R	R			R	R	R
36	Biochemistry	I			R	R	I	R		R	R
37	Mass and Energy Balance	I			R	R			R	R	R
38	Food Chemistry	R			R	R	R	R		R	R
39	Food microbiology	R	R		R	R			R	R	R
40	Physical Properties of Foods	I			R	R		M	R	R	R
41	Co-op 1 (Internship 1)	I		I	I	I	I	I		R	R
42	Co-op 2 (Internship 2)	R		I	R	R	I	R		R	R
43	Co-op 3 (Internship 3)	M		R	M	M	R	M		M	M
Specialized courses											
Core courses											
44	Food Micrological analysis	R			R	R		M		R	R
45	Chemical food analysis	R			R	R		M		R	R
46	Quality Management System	R		M	R	R				R	R
47	Food safety	R		R	R	R			R	R	R
48	Food Packaging	I			R	R	R		R	R	R
49	Food sensory evaluation	R			R	R		M	R	M	R
50	Experimental design and statistical analysis	R			R	R			M	M	R
51	Product development	R	R		R	R			R	R	R
52	Specialized English	R			R	M				R	R
53	Food Technology Projects	R	R		R	R			R	M	R
Elective course											

54	Human nutrition	R			R	R			R	R	R
55	Confectionery production technology	M	M		M	M	M		M	M	R
56	Cereal processing technology	M	M		M	M	M		M	M	R
57	Eggs and dairy processing	M	M		M	M	M		M	M	R
58	Special topic	R	R		R	R			R	M	R
59	Sugar Production Technology	M	M		M	M	M		M	M	R
60	Meat preservation and processing technology	M	M		M	M	M		M	M	R
61	Beverage production technology	M	M		M	M	M		M	M	R
62	Vegetables preservation and processing technology	M	M		M	M	M		M	M	R
63	Functional food	R	M		M	M	M		M	M	R
64	Seafood preservation and processing technology	M	M		M	M	M		M	M	R
65	Food Canning Technology	M	M		M	M	M		M	M	R
66	Entrepreneurship	R	R		R	R				M	R
67	Food fermentation techniques	M	M		M	M	M		M	M	R
68	Food colloids	R			R	R	R		R	R	R
69	Water treatment in food industry	R			R	R		R	R	R	R
Graduation											
70	Graduation thesis	M	M		M	M	M	M	M	M	M

Brief outline of all courses in the Progamme

No.	Subject name	Course description
Semester 1		
1	Physical Education 1	The Physical Education curriculum aims to provide knowledge and basic motor skills, develop exercise habits, and improve physical health, fitness, stature, and character development. It also enhances learning abilities, social interaction skills with a positive attitude and

		spirit, contributing to the achievement of comprehensive educational goals.
2	National Defence Education	After completing the National Defense and Security Education Programme, students will have a basic understanding of the Party and State's principles and guidelines regarding the construction of national defense and people's security, as well as their commitment to socialism. They will acquire fundamental knowledge about national defense and security work in the current situation. They will be fluent in following orders as individuals armed with firearms and familiar with their respective units. They will have a general understanding of the various arms and services within the Vietnam People's Army. They will possess initial knowledge of military maps and know how to defend against enemy attacks using advanced weapons. They will demonstrate basic skills in infantry combat techniques and individual tactics in offensive, defensive, and guard duties. They will also learn how to handle AK rifles and grenades. (According to Circular No. 05/2020/TT-BGDĐT dated March 18, 2020, by the Minister of Education and Training).
3	English 1 (Beginner)	This course aims to equip students with basic knowledge of simple present tense, simple past tense, present perfect tense, future tense, and some other grammatical points such as prepositions, articles, etc. It also helps students build vocabulary and develop basic communication skills in familiar topics such as friendships, shopping, food and dining, entertainment, travel, sports, health, and English and American culture through speaking and writing (productive language), listening and reading (receptive language). Additionally, the course helps students develop the right attitude and understanding of the significance and importance of the subject as a foundation for studying subsequent courses and serving their future professional needs.
4	Basic principles of Marxism-Leninism	This course provides students with a foundational understanding of dialectical materialism and historical materialism. Through this, students develop a materialistic worldview and the dialectical materialist method as a theoretical basis for comprehending the issues and content of other subjects. The course also helps students build confidence and revolutionary ideals by creatively applying the Marxist-Leninist philosophy in both cognitive and practical activities.
5	Basic informatics	This course aims to equip students with basic knowledge of the Windows operating system, the use of Microsoft Office tools, fundamental internet knowledge, and the relevant legal regulations when using information technology. It also focuses on developing students' skills in using Microsoft Word, Excel, PowerPoint, and the internet. Additionally, the course helps students cultivate the right

		attitude and understanding of the role of information technology in daily life.
6	General biology	This course provides students with knowledge of cell structure, the transport of substances across cell membranes, photosynthesis, respiration, molecular genetics and genetic engineering, basic knowledge of evolution, the structure and function of endocrine organs, and the transport of materials across cell membranes, photosynthesis, and respiration.
7	Statistics probability	This course provides students with knowledge of probability, random variables, estimation and hypothesis testing, as well as skills in applying probability and statistical inference to real-world research problems, including estimation and hypothesis testing.
8	Engineering Drawings	This course aims to equip students with basic knowledge in order to develop their ability to comprehend ideas presented in technical drawings and create various types of technical drawings according to Vietnamese Standards (TCVN) and International Standards (ISO). The course provides knowledge on the use of drawing tools, standards for presenting technical drawings, foundations, standards, methods of establishing and skills in analyzing and comprehending different types of graphical representations.
9	Orientation for food industry internship	This course provides specific orientations for students in the field of food technology. Students engage in practical visits to food processing factories/companies, where they learn about the technological processes involved in food processing. They study the technological processes and equipment used in food processing plants on an industrial scale, production capacity, market products, and development potential. Additionally, students explore the positions and roles of technical professionals within factories/companies, enabling them to determine their future career paths in the industry.
Semester 2		
Core courses		
10	Physical Education 2	The Physical Education course aims to provide students with knowledge and basic motor skills, as well as cultivate the habit of engaging in physical exercise and sports to enhance health, develop physical fitness, and improve personal character. It also contributes to enhancing learning abilities and social skills with a positive attitude and spirit, thereby supporting the achievement of comprehensive educational goals.
11	English 2 (Elementary)	This course provides intermediate-level knowledge to enable learners to use English with relative fluency in communication

		<p>(listening, speaking), reading English materials, and writing letters and short paragraphs on familiar topics. These topics may include cultural shocks experienced while living or studying in another country, meal schedules throughout the day, personal income, and English and American culture through speaking, writing (emergent language), listening, and reading (receptive language). The course also prepares students to take the A2 level examination according to the Common European Framework of Reference for Languages (CEFR).</p> <p>Furthermore, through the learning activities of this course, students develop necessary qualities such as self-learning ability, the ability to seek knowledge and share information, as well as the ability to generalize issues, fulfill learning tasks, and take responsibility for learning outcomes in terms of knowledge and communication skills. This creates a foundation for learners to self-improve their knowledge, equip themselves with search, research, and reference skills for other subjects in the training Programme.</p>
12	Marxism-Leninism political economics	<p>This course aims to equip students with fundamental and core knowledge of the Marxist-Leninist political economy within the context of the country's and the world's economic development today. The course also helps develop students' thinking abilities and analytical skills to assess and identify the essence of economic interest relationships in the socio-economic development of the country. It also contributes to fostering a sense of social responsibility in students, helping them build appropriate social responsibilities in their future job positions and lives after graduation. Additionally, the course aims to help students establish their own ideological standpoint and develop a Marxist-Leninist consciousness.</p>
13	General law	<p>This course aims to equip students with basic knowledge of the state and law, fundamental laws regarding the organization of the state apparatus in the Socialist Republic of Vietnam, human rights, citizen rights, gender equality, anti-corruption, civil matters, family and marriage, civil, commercial, and labor law. Additionally, the course is designed to develop students' skills in time management, critical thinking, communication, teamwork, independent work, and presentation. It also helps shape students' attitudes and foster a proper understanding of the Party's direction and policies, state laws, integrity, disciplinary consciousness, honesty, and the spirit of resolute struggle against legal violations. The course provides students with an overview and the ability to make coherent arguments during their studies and research in other subjects of the training Programme.</p>
14	Soft skills	<p>This course is designed to provide students with fundamental</p>

		knowledge as well as methods for developing and enhancing soft skills. Additionally, the course aims to cultivate essential soft skills for both academic learning and professional work. It also helps shape students' attitudes and foster a proper understanding of the necessity of acquiring and applying soft skills in their studies, work, and personal lives.
15	Work Safety	The course helps equip students with knowledge and a solid understanding of the hazards in work and the dangers associated with using machinery and equipment in production. It teaches methods to prevent harmful effects, avoid accidents in the workplace, and care for one's health to ensure personal well-being for future work purposes. It enables students to comprehend and grasp the hazards related to occupational safety such as lighting, noise, climate, hazardous substances, industrial hygiene, machinery operation, and electrical usage.
16	Biochemistry	The course aims to provide students with fundamental knowledge of carbohydrates, lipids, amino acids, proteins, enzymes, and vitamins. Additionally, the course also aims to develop students' skills in analyzing physical and chemical parameters in food technology, operating equipment and machinery for analysis purposes, planning and preparing appropriate materials, equipment, and chemicals for qualitative and quantitative analysis experiments, teamwork skills, report writing, and using foreign languages to read specialized literature in the field of biochemistry. The course also helps students develop the right attitude and awareness towards self-learning and adherence to laboratory safety rules.
17	Thermal Engineering	The course aims to equip students with fundamental knowledge of the physical properties of ideal gases, water vapor, and the laws of thermodynamics to study heat exchange processes and methods. Additionally, this course also helps develop skills in calculating parameters and properties of water vapor, heat exchange processes, and cycles. It trains students to have an attitude of problem-solving in independent research and working responsibly with assigned tasks.
Elective courses		
18	Business administration	The course "Business Administration" provides learners with a general overview of business management, types of enterprises, and the business environment. It covers topics such as strategic planning tools, resource management within businesses, operations management, leadership styles, motivation techniques for employees, and business planning.
19	Food marketing	The course aims to equip students with knowledge of the concepts, importance, nature, and basic functions of Marketing for businesses,

		the marketing environment, consumer and business behavior, market segmentation methods, as well as skills in identifying segmentation methods. Additionally, the course also aims to develop students' skills in market analysis, selecting target markets, product strategy, pricing strategy, distribution strategy, promotion strategy, planning, organizing, implementing, and controlling marketing activities. Moreover, the course helps students cultivate the right attitude and awareness towards positive work ethic, proactiveness, teamwork abilities.
20	Organic chemistry	The course aims to equip students with fundamental knowledge of the structure and chemical properties of hydrocarbons, alcohols, phenols, carbonyls, carboxylic acids, esters, amines, amides, and other organic compounds. Additionally, the course also focuses on developing students' practical skills in conducting experiments, qualitative analysis, and synthesizing simple organic compounds. It helps students cultivate the right attitude and awareness about the profession, build habits of self-study, enhance practical skills, and apply them to their professional practice.
21	Environmental science fundamentals	The course provides students with basic knowledge about the environment, its components, and the interrelationships between environmental components and natural resources. It covers tools and policies for managing these environmental components and natural resources. This course helps learners enhance their scientific understanding of the environment and environmental issues.
Semester 3		
Core courses		
22	Physical Education 3	The Physical Education Programme aims to provide knowledge and basic motor skills, as well as promote the development of exercise habits and sports participation. Its primary goal is to enhance overall health, physical fitness, character development, improve learning abilities, and develop social skills with a positive attitude and spirit. By doing so, it contributes to the achievement of comprehensive educational goals.
23	Science socialism	The course provides students with the most fundamental and core knowledge of Scientific Socialism, one of the three components that constitute Marxist-Leninist ideology. Additionally, the course aims to develop practical understanding and the application of knowledge in examining and evaluating socio-political issues in our country related to socialism and the path towards socialism. It also helps students cultivate the correct attitude and a proper understanding of Scientific Socialism specifically and the ideological foundation of our Party in general.
24	English 3 (Pre-	The course aims to equip students with basic/advanced knowledge

	intermediate)	<p>of foundational English language skills and communication skills equivalent to level A2 according to the Common European Framework of Reference for Languages (CEFR). It covers vocabulary related to daily communication, basic grammar points such as parts of speech, tenses, and some simple sentence structures. Additionally, the course focuses on developing students' reading comprehension skills to identify main ideas and details in texts with familiar topics in everyday communication. It also emphasizes listening comprehension of main ideas and details in conversations. Speaking practice includes discussing familiar topics using simple sentence structures and relevant vocabulary. Writing tasks involve composing a letter, a story of approximately 100 words, and short pieces of writing (messages, postcards) of about 35-45 words, using vocabulary, simple sentence structures, and punctuation. Students will also learn test-taking skills at levels A1-B1 based on the CEFR. The course helps students develop the correct attitude and awareness of improving English communication skills through everyday conversation patterns and using strategies such as asking for clarification. It also enhances basic soft skills such as presentation skills, time management, note-taking for presentations and conversations, teamwork, and active listening skills.</p>
25	Mass and Energy Balance	<p>The course provides students with foundational knowledge of physical quantities before delving into subjects such as heat transfer, mass transfer, and fluid mechanics. It equips students with the skills to calculate material and energy balances in basic technological processes within food technology, including mixing, concentration, drying, centrifugation, distillation, and more. Moreover, the course aims to cultivate students' abilities in collecting experimental data for calculations and predictions in equipment design projects. Additionally, the course helps students develop the correct attitude and a proper understanding of the role of material and energy balances in practical production calculations.</p>
26	Food Chemistry	<p>The course aims to equip students with knowledge of the physiological and biochemical changes that occur in plants after harvesting and animals after death. Additionally, the course focuses on developing students' skills in analyzing chemical parameters in food technology and operating equipment and machinery in analysis. It also covers planning for the appropriate procurement of materials, tools, equipment, and chemicals needed to carry out qualitative and quantitative analysis experiments. Students will develop teamwork skills, report writing skills, and the ability to read specialized literature in the field of food chemistry using foreign language sources. Furthermore, the course helps students cultivate the correct attitude and a proper understanding of self-learning</p>

		consciousness and adherence to laboratory safety rules.
27	Basic processes in food technology	The course aims to equip students with basic knowledge of fundamental technological processes in the production and processing of food products. It provides a general understanding of the nature of these processes and the equipment requirements for their implementation. Additionally, the course helps students develop the correct attitude and a proper understanding of issues related to food processing, as well as the ability to conduct independent research and product development.
28	Fluid Mechanics	The course aims to equip students with knowledge related to the properties of fluids, the laws of fluid balance and motion, and fluid transport devices. It helps students calculate and select equipment for efficient production management. Additionally, the course also focuses on developing students' skills in collecting experimental data for design calculations and equipment selection. Furthermore, the course helps foster the right attitude and a proper understanding of self-learning consciousness.
Elective courses		
29	Analytical chemistry	The course aims to provide students with basic knowledge in analytical chemistry, including qualitative analysis methods, quantitative analysis methods such as mass analysis and volumetric analysis, as well as instrumental analysis methods. Additionally, the course also focuses on training students in approaches and methodologies when studying food analysis in depth, enabling them to have specific directions for their learning abilities, research skills, and professional development.
30	Physical chemistry	The course provides students with fundamental knowledge of thermodynamics. It applies the principles of thermodynamics to chemical systems to calculate the thermal effects of reactions (enthalpy, entropy, Gibbs energy, and work processes), transform thermochemical functions and potential energies, and determine the direction and limitations of chemical and physical processes. Additionally, the course focuses on constructing phase equilibrium diagrams for some simple systems.
31	Food colloids	This course provides students with fundamental knowledge about the characteristics and properties of food gums and hydrocolloid systems. It covers the rheological properties of food gums, the formation of emulsions, foam formation in gel systems, and their applications in the production of food products such as meat, fish, milk, and eggs. Additionally, this course helps students develop skills in processing gel-like food products. It also fosters the right attitude and a proper understanding of issues related to food gums, encourages diligent professional work, and enhances students'

		ability to conduct research and develop products.
32	Water treatment in food industry	The course provides students with fundamental knowledge on: natural water sources, general description of the water treatment process for drinking water and wastewater. It covers different methods of treating water from various sources. It also addresses wastewater sources in food industry technology, analysis, assessment, and treatment of industrial wastewater. Additionally, this course helps students develop skills in analyzing the chemical and biological parameters of drinking water and wastewater in the food industry. It also fosters students' confidence, consciousness, and responsibility in their studies to enhance their professional competence.
33	Human nutrition	This course aims to equip students with specialized knowledge in the field of nutritional requirements and their metabolism in the body, energy requirements for different population groups, diseases caused by inappropriate food consumption, and principles of menu planning for humans. Additionally, this course focuses on training students in calculating and predicting the nutritional needs of surveyed individuals, formula development, analysis, and investigation of issues in the field of nutritional science. It also enhances the ability to calculate energy requirements and meal composition. Furthermore, this course helps students develop the right attitude and awareness of health-related issues in food consumption, fostering a sense of consciousness and responsibility towards their work, and a spirit of learning to enhance their professional competence.
Semester 4		
Core courses		
34	English 4 (Intermediate)	<p>This course provides learners with intermediate-level English knowledge to enable them to use English in fluent communication (listening, speaking), read English-language materials, and write letters of approximately 100 words, as well as short paragraphs in English about social and academic situations, following the Common European Framework of Reference for Languages (CEFR) 6 levels.</p> <p>Moreover, through the learning activities of this course, students develop necessary qualities such as self-learning ability, self-researching skills, and information sharing. They also acquire the ability to generalize issues, perform learning tasks, and take responsibility for learning outcomes in terms of knowledge and communication skills. This course lays the foundation for learners to self-enhance their knowledge, equip themselves with the ability to search, retrieve, and study learning materials and references for</p>

		other subjects in the training Programme.
35	Ho Chi Minh Ideology	This course aims to equip students with fundamental knowledge about the origins, foundations, stages of formation, and development of Ho Chi Minh's ideology. It covers the content of Ho Chi Minh's ideas on key issues of the Vietnamese revolution. The course also focuses on training students in skills such as analysis, comparison, synthesis of issues, and presentation skills. Additionally, this course helps foster the right attitude and proper awareness among students regarding the basic content of Ho Chi Minh's ideology.
36	Food safety	This course aims to equip students with knowledge of regulations on food safety, such as food safety laws, decrees, and circulars, and explain the significance of compromised food safety on human health. Additionally, this course focuses on training students in analyzing and evaluating the status of food safety in food processing plants, teamwork skills, and group reporting. It also helps foster the right attitude and proper awareness among students regarding the importance of self-learning, diligence, responsibility in their work, and professional ethics in food processing.
37	Processing machine	This course aims to equip students with basic knowledge of principles, structures, operation, and management of machinery and equipment used in the food industry. It also provides students with skills in teamwork, computer literacy, and problem-solving in the field of food processing. The course helps students develop the right attitude towards issues related to machinery and equipment in the food industry.
38	Co-op 1 (Internship 1)	This course equips students with knowledge in food processing, laboratory techniques, organizing production management in food processing companies, practical skills, and professional etiquette in food processing factories. The course also helps students develop skills in report writing, teamwork, and presentation
Semester 5		
Core courses		
39	History of Vietnamese communist party	This course provides students with fundamental knowledge about the establishment of the Communist Party of Vietnam and the revolutionary leadership process of the Party in Vietnam from 1930 to 2018. Additionally, this course aims to train students in skills such as analysis, presentation, and teamwork. It also helps students develop the right attitude and proper awareness regarding the Party, its establishment, and leadership. The course emphasizes respecting objective reality, enhancing pride and confidence in the Party's leadership.

40	Mass Transfer	This course provides students with knowledge about phase transition processes, mass exchange, energy exchange occurring in various food processing activities such as dehydration, evaporation, concentration, distillation, extraction, absorption, etc. Additionally, this course aims to train students in skills related to experimental data collection for design calculations, equipment selection, and process control in food processing. It serves as an important technical foundation in both chemical engineering and food processing. The course also helps students develop the right attitude and proper awareness regarding the importance of self-learning.
41	Food microbiology	This course provides students with knowledge of phase transition processes, mass exchange, and energy exchange occurring in various food processing activities such as dehydration, evaporation, concentration, distillation, extraction, absorption, etc. Additionally, the course aims to train students in skills related to collecting experimental data for design calculations, equipment selection, and process control in food processing. This course serves as an important technical foundation in both chemical engineering and food processing. It also helps develop the right attitude and proper awareness among students regarding the importance of self-learning.
42	Principles of food preserving and processing	This course aims to equip students with fundamental knowledge about the causes of food transformation and the impact of ingredient changes on food quality. Additionally, the course trains students in skills related to identifying factors causing food spoilage and proposing solutions for preventing food spoilage during preservation and processing. It also helps develop the right attitude and proper awareness among students regarding the necessity of adhering to food preservation and processing techniques to ensure the required food quality. Through this course, students will gain confidence in their professional competence.
43	Scientific research methodology	This course aims to equip students with fundamental knowledge about concepts and terminology related to scientific research. It covers topics such as general research proposals, detailed research outlines, and writing comprehensive research reports. Additionally, the course trains students in skills related to literature searching, writing detailed research outlines, and presenting scientific reports. It also helps develop the right attitude and proper awareness among students regarding the implementation of a scientific research topic. Through this course, students will gain confidence in conducting scientific research, enhancing their professional competence, fostering a sense of self-directed inquiry, responsibility in work, and synthesizing experience to develop critical thinking and reasoning skills.

44	Physical Properties of Foods	The course provides knowledge about the physical properties of food, including viscoelasticity, thermal properties, electrical properties, transport properties, optical properties, and water activity. It equips students with skills in applying these properties to evaluate, design, measure, and control the quality in food processing and preservation. The course also helps develop the right attitude and proper awareness regarding the importance of self-directed learning for students.
45	Experimental design and statistical analysis	This course provides students with knowledge of basic statistics, experimental design methods, and the ability to interpret research results in the fields of food technology and biotechnology. Additionally, it trains students in skills related to collecting experimental data, processing research results using SPSS software, interpreting statistical analysis outcomes, and presenting research findings through numbers and charts. The course also helps develop the right attitude and proper awareness among students regarding the importance of learning, teamwork, report writing, and ethical conduct in data analysis.
46	Food Packaging	This course aims to provide students with fundamental knowledge about the role, function, classification, and application of packaging in the food industry. It covers topics such as labeling food packaging, product codes, and barcodes on food packaging. Additionally, the course trains students in skills related to applying different types of packaging for food preservation to ensure quality and food safety. It also emphasizes teamwork, group reporting, and the use of foreign languages to read specialized literature in the field of food packaging. The course helps develop the right attitude and proper awareness among students regarding the importance of self-directed learning, diligence, and responsibility in their work.
Semester 6		
Core courses		
47	Food sensory evaluation	This course provides students with fundamental knowledge about the importance of sensory evaluation in food, sensory evaluation methods, and trains them in skills related to sensory evaluation of various food products. Additionally, the course helps develop the right attitude and proper awareness among students regarding issues related to sensory science, performing professional work diligently, and developing the ability to independently research, analyze, and report on sensory science-related topics.
48	Food micrological analysis	This course equips students with fundamental knowledge about organizing, managing, and using laboratory equipment, preparing culture media, sampling methods, and testing methods for microbial indicators in food. Additionally, the course trains students in skills

		related to using laboratory equipment, preparing culture media, sampling and analyzing microbiological samples (solid, liquid, and air), and testing microbial indicators in food. The course also helps develop the right attitude and proper awareness regarding the importance of following correct techniques and protocols in microbial testing of food. This fosters a sense of responsibility and enhances students' confidence in their professional competence in analyzing microbial indicators in food.
49	Chemical food analysis	This course provides students with knowledge of sampling principles, sample preservation, sample preparation, and chemical preparation prior to analysis. It focuses on testing food quality using physicochemical analysis methods. Additionally, the course trains students in skills such as sampling, sample preparation, chemical preparation, and analysis of physicochemical parameters in food. It also helps develop the right attitude and proper awareness among students regarding the skills required for analysis and reporting on issues related to food testing, emphasizing the importance of diligent professional work.
50	Co-op 2 (Internship 2)	This course equips students with knowledge in food processing, laboratory techniques, organizing production management in food processing companies, practical skills, and professional etiquette in food processing factories. The course also helps students develop skills in report writing, teamwork, and presentation
Semester 7		
Core courses		
51	Food additives	This course provides students with fundamental knowledge about the principles of using food additives, the roles, properties, and regulations regarding the usage limits of food additives in food preservation and processing. The course also helps develop the right attitude and proper awareness among students regarding the role of food additives in food technology, prohibited behaviors when using additives, and the need to comply with regulations on additive limits as specified by the Ministry of Health to ensure the requirements for food preservation and processing. This fosters students' confidence in their professional competence.
52	Food Technology Projects	This course aims to train students in the skills of designing food process flow including input factors (raw materials) to technological factors in the production process and the output of the process (products). It involves determining the equipment used, product standards, calculating material balance, and product cost. The course also helps develop the right attitude and proper awareness among students regarding the importance of diligent professional work, the

		ability to conduct independent research, and confidence in their professional competence.
53	Specialized English	This course helps students proficiently communicate (both orally and in writing) about four topics related to Food Science in English, including nutrition, food processing, food safety, and food security. Additionally, the course trains students in skills such as searching for and comprehending literature, presenting content, and writing on topics related to the field in English. It also helps develop the right attitude and proper awareness among students regarding the importance of developing English language skills, their application in the food processing industry, the ability to conduct independent research, and access new technologies worldwide.
54	Product development	This course provides students with fundamental knowledge about the importance of researching and developing products, product life cycles in the market, strategies corresponding to different stages of the product life cycle, and the process of product research and development. Additionally, the course trains students in skills such as generating ideas, analyzing and evaluating the feasibility of ideas, and conducting the necessary steps in the product research and development process. It also helps develop the right attitude and proper awareness among students regarding the necessity of product research and development for achieving effectiveness in business ventures, thereby fostering students' confidence in their research and product development capabilities.
55	Quality Management System	This course equips students with knowledge of the prerequisites when establishing a food processing plant, describing the sanitation requirements in food processing facilities, identifying potential risks that compromise food safety, and implementing measures to control these risks in food processing plants. Additionally, the course focuses on developing students' skills in report writing, group discussions, and group presentations. It also helps foster the right attitude and proper awareness among students regarding the importance of learning and maintaining a professional work ethic.
Elective courses		
56	Sugar Production Technology	This course provides students with knowledge of the chemical composition of sugarcane, sugar production processes, and the preservation of raw materials and products. It also covers methods to enhance efficiency during sugar production. Additionally, students will acquire skills in processing and preserving sugarcane products. The course aims to develop the right attitude and proper awareness among students regarding issues related to food processing, as well as their ability to conduct independent research

		and product development.
57	Meat preservation and processing technology	This course equips students with knowledge of the chemical composition of meat ingredients, the process of slaughtering livestock and poultry, meat processing and preservation techniques, methods of preserving meat ingredients, freezing methods for meat, and the equipment used in meat processing. It also covers the processing of traditional meat products and industrial meat products. Additionally, students will acquire skills in processing and preserving meat products. The course aims to develop the right attitude and proper awareness among students regarding issues related to food processing, as well as their ability to conduct independent research and product development.
58	Beverage production technology	This course provides students with specialized knowledge about the ingredients used in beverage production, factors affecting product quality, and product quality standards. It covers the technology of producing carbonated beverages and non-carbonated beverages. Additionally, it equips students with skills in teamwork and performing tasks within the food technology process, as well as sensory evaluation of beverages. The course helps students develop a responsible work ethic and a strong desire for learning to enhance their professional competence.
59	Vegetables preservation and processing technology	This course provides students with knowledge of the chemical composition of fruits and vegetables, techniques for preserving and processing them. It involves determining the quality of raw materials and evaluating the products after processing, identifying factors that affect the shelf life of fruits and vegetables, and ensuring compliance with food safety regulations during preservation and processing. Additionally, the course focuses on developing students' skills in selecting, preserving, and preparing ingredients, as well as performing operations in ingredient handling and processing. Students will also gain experience in operating relevant equipment related to the field of study. The course aims to develop the right attitude and proper awareness among students regarding issues related to food processing, as well as their ability to conduct independent research and product development.
60	Functional food	This course provides students with fundamental knowledge of functional foods, the biological roles of certain functional compounds in functional foods, the classification of functional foods, and the relationship between functional foods and human health. Additionally, the course trains students in basic techniques for producing various functional food products. It also helps develop the right attitude and proper awareness among students regarding issues related to functional foods, the importance of performing their professional duties diligently, and their ability to conduct

		independent research and product development.
61	Food fermentation techniques	This subject equips students with knowledge of the fermentation process in food technology; techniques of fermentation in food technology; protein hydrolysis processes in fermentation technology; anaerobic and aerobic fermentation processes. Additionally, the course provides skills in fermenting specific products such as fruit wine, soy sauce, and coconut jelly. The subject also helps students develop a proper attitude and awareness of learning consciousness and industrial etiquette.
62	Entrepreneurship	The course provides students with fundamental/deep knowledge of entrepreneurship as well as the methodology of writing a business plan. Additionally, the course aims to develop students' skills such as teamwork, time management, presentation skills for fundraising, and negotiation skills in business. The course also helps cultivate the right attitude and proper awareness among students regarding environmental protection issues in entrepreneurship, actively and proactively planning for startups, and paying attention to gender equality in business startups.
Semester 8		
Core courses		
63	Co-op 3 (Internship 3)	This course equips students with knowledge in food processing, laboratory techniques, organizing production management in food processing companies, practical skills, and professional etiquette in food processing factories. The course also helps students develop skills in report writing, teamwork, and presentation.
Elective courses		
64	Confectionery production technology	This course provides knowledge about the types of ingredients used in the confectionery industry, food additives, the role of key stages in the confectionery production process, and the transformations that occur during production. Additionally, the course also enhances students' skills in ingredient selection, preparation, handling, and processing, as well as operating some equipment related to the subject. The course also helps students develop the right attitude and awareness of issues related to food processing, as well as the ability to conduct independent research and product development.
65	Cereal processing technology	This course aims to equip students with knowledge about the structural characteristics, chemical composition, and physiological activities of harvested grains; post-harvest losses; and the equipment used in grain processing. Additionally, the course also focuses on developing students' skills in food preservation and processing. It helps students cultivate the right attitude and awareness of issues related to food processing, as well as their ability to conduct independent research and product development.

66	Seafood preservation and processing technology	This course aims to provide students with knowledge and skills regarding the preservation and processing of seafood, as well as identifying factors that can cause product spoilage and how to address issues that may arise during the production process. Additionally, the course also focuses on developing students' skills in seafood preservation and processing. It helps students cultivate the right attitude and awareness of issues related to food processing, as well as their ability to conduct independent research and product development.
67	Eggs and dairy processing	This course aims to equip students with fundamental knowledge about the properties, chemical composition, and factors influencing the quality of raw milk. It also covers standards for milk as a raw material, preservation techniques, and processing methods for milk and eggs. Additionally, the course aims to develop students' skills in applying various preservation and processing techniques for milk and related products. It helps cultivate the right attitude and proper awareness of the importance of adhering to preservation and processing techniques for milk and eggs to minimize undesired product changes. Ultimately, it fosters students' confidence in their professional competence.
68	Special topic	This course is conducted by leading experts in the field, either domestic or international, as well as professionals from industry. The purpose of this course is to provide students with updated, expanded, or in-depth knowledge in their specialized field. In cases where multiple experts are involved in teaching the course, each expert will have an assessment corresponding to the content they teach, along with at least one question for the final exam. The course is facilitated by teaching assistants (who may also serve as interpreters) to organize classes and evaluate student performance.
69	Food Canning Technology	This course provides students with knowledge about the causes of food spoilage, processing techniques, and product testing for canned foods. It covers methods for calculating sterilization and pasteurization, the structure and principles of operation of equipment used in canning technology. Additionally, the course also focuses on developing students' skills in analyzing the causes of canning defects, addressing, and remedying issues during the canning process, calculating the elimination time for microorganisms during sterilization and pasteurization, and using measurement devices and processing equipment related to canning technology. It helps foster the right attitude and proper awareness of the importance of self-learning.
Semester 9		
70	Graduation thesis	This course equips students with the necessary skills to conduct a

		<p>graduation thesis. Students go through various steps in carrying out their thesis, such as defining the objectives and content of the research topic, determining the timeline for completion, and providing an overview of the current research situation. They also review the latest relevant research findings to clarify the purpose of their own research topic, including the materials, research methods, experimental design, and data analysis. Additionally, students outline their implementation plan and budget estimation in detail while developing their research proposal.</p> <p>Each graduation thesis can be conducted by 1-2 students, depending on the scope of the topic or the requirements set by the assigned academic advisor. The duration for completion is typically set at 4.5 months.</p>
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