



CAN THO UNIVERSITY

SELF-ASSESSMENT REPORT

FOR AUN-QA

**BACHELOR OF ENGINEERING IN
FOOD TECHNOLOGY**



The 252nd AUN Quality Assessment at
Program Level

**Department of Food Technology
COLLEGE OF AGRICULTURE**

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IN FOOD TECHNOLOGY**

COLLEGE OF AGRICULTURE

2021



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FOR AUN-QA

for the Bachelor of Engineering in Food Technology

We hereby confirm to approve this AUN-QA Self-Assessment Report of the Bachelor of Engineering in Food Technology programme for assessment in accordance with the AUN-QA Criteria (V3.0)

.....

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.....

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Rector of Can Tho University

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LIST OF ABBREVIATIONS

Abbreviations	Full Forms
AUN	ASEAN University Network
AUN-QA	ASEAN University Network Quality Assurance
BEFT	Bachelor of Engineering in Food Technology
CGPA	Cummulative Grade Point Average
CoA	College of Agriculture
CTU	Can Tho University
FT	Food Technology
FTD	Food Technology Department
FTE	Full-Time Equivalent
HR	Human Resources
IT	Information Technology
Lab	Laboratory
LMS	Learning Management System
LRC	Learning Resource Center
MDR	Mekong Delta Region
MOET	Ministry of Education and Training
PLO	Programme (Expected) Learning Outcomes
PO	Programme Objective
QAC	Quality Assurance Center
QMC	Quality Tagamet Center
SA	Self Assessment
SAR	Self-Assessment Report
SAT	Self Assessment Team
T&L	Teaching and learning
VQF	Vietnamese Qualifications Framework

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PART 1. INTRODUCTION

1.1 Executive Summary of the Self-Assessment Report (SAR)

This SAR is submitted to the ASEAN University Networks-Quality Assurance (AUN-QA) by the Food Technology Department (FTD) of the College of Agriculture (CoA), Can Tho University (CTU), Viet Nam. This is a part of CTU's commitment to quality enhancement. It is expected that the Bachelor of Engineering in Food Technology (BEFT) should obtain feedbacks for self assessment (SA) and continuous improvements.

Since the establishment, along with CTU, CoA has determined to enhance the quality of training to meet social demands. CoA participated in SA for BEFT programme in accordance with the Ministry of Education and Training (MOET) standards in 2009 and in accordance with the AUN-QA criteria in 2018 [00-01].

This SAR follows the AUN-QA guidelines (Version 3.0) and it is organized into 04 parts as follows:

- Part I briefly introduces about CTU, CoA, FTD and BEFT, including description of the whole quality assurance system at various levels in CTU.

- Part II presents in detail about the 11 criteria according to AUN-QA requirements including the learning outcomes, programme specification, programme structure and content, student assessment, academic staff quality, support staff quality, student quality and support, facilities and infrastructure, quality enhancement, and output.

- Part III analyses the BEFT's strengths, weaknesses, improvement plans and the AUN-QA SA checklist.

- Part IV lists evidence in relation to the SAR. For convenient reference, some evidences are duplicated in several criteria.

The key information on BEFT is tabulated as follows (Table 1.1.1):

Table 1.1.1: The Basic Information on BEFT

Program name	Bachelor of Engineering in Food Technology
Programme code	7450101
Administration unit	College of Agriculture
Award	Engineer in Food Technology
University name	Can Tho University
Award title	Engineer in Food Technology
Opening year	1978
Number of graduated cohorts	39
Mode of study	Full-time, Regular
Training time	4.5 years (maximum 9.0 years)
Eligibility for graduation	Students must complete 150 credits, including 113 compulsory credits and 37 elective credits and meet other requirements
Number of graduates until June, 2021	3,400
Number of students currently enrolled	135
Language of instruction	Vietnamese (apart from English courses)
Career prospects and higher education	Position: - Staff/managers of technical department, production management, food quality control, research and development (R&D), project management at enterprises, food processing companies in Vietnam and overseas. - Staff/managers of science and technology department in state agencies and organizations. - Lecturers/researchers of FT at universities/colleges/institutes in

Program name	Bachelor of Engineering in Food Technology
	Vietnam and overseas. - Self-employer/ owner of food production enterprises. - Student in higher education - study and research at postgraduate programmes in Vietnam and overseas.
Internal Assessment	Date of issuance: September 01 st , 2018; Date of expiry: August 31 st , 2023
Latest programme revision	2019

1.2 Organisation and Approach of SAR

The SA activities of the BEFT are based on Decision No.1254/QĐ-DHCT dated April 26th, 2019 on the establishment the SA Council, the Secretary Committee, and the SA Team for BEFT [00-02].

To formulate this SAR, the SA Team collects the information and evidence from the documents archived in CTU, CoA, and the FTD. In addition, the Team collects evidence through interviews, discussions in seminars/workshops and conferences. The Team members then analyse and evaluate the data and evidence, meet for discussion and comment in writing and building up the SAR of BEFT.

Table 1.2.1 presents the structure of the SA Team for BEFT. Figure 1.2.1 shows the roles of the SAR Team.

Table 1.2.1: The SA Team for BEFT

No	Staff ID	Name	Title/Unit	Roles
1	1120	Nguyen Cong Ha	Head of FTD	Leader
2	1619	Tong Thi Anh Ngoc	Deputy Head of FTD	Secretary
3	2856	Tran Chi Nhan	Deputy Head of FTD	Member
4	1190	Huynh Thi Phuong Loan	Lecturer, CoA	Member
5	1421	Bui Thi Quynh Hoa	Lecturer, CoA	Member
6	2254	Nguyen Nhat Minh Phuong	Lecturer, CoA	Member

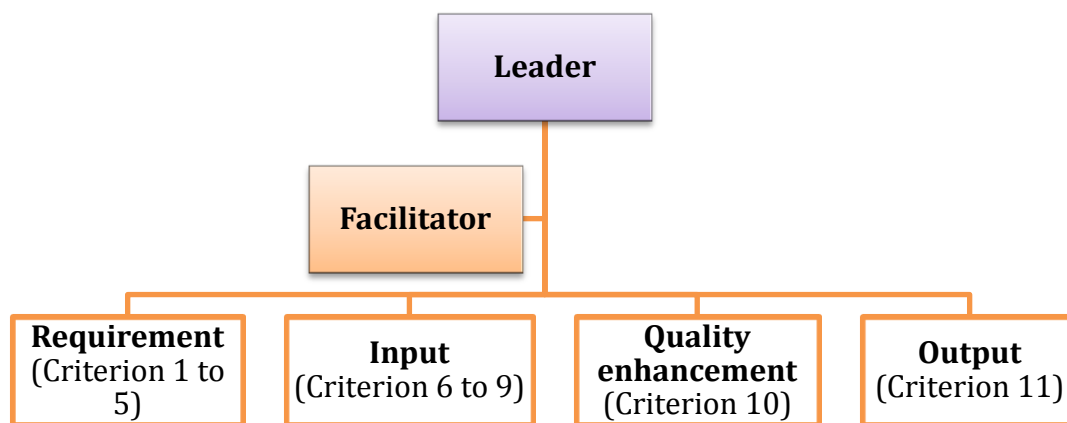


Figure 1.2.1: The structure and roles of the SAR Team for BEFT

1.3 Brief description of the University

Located in the heart of the Mekong Delta Region in Viet Nam, Can Tho Institution of Higher Education (*Vien Dai hoc Can Tho*) was established on March 31st, 1966. In its early years, the Institution offered education and training in sciences, law, social sciences, literature, teacher education, and agriculture. After 1975, it was renamed as Can Tho University and provided education and training mainly on teacher education and agriculture sectors such as crops production and animal husbandry, and mechanical engineering.

CTU has long been a key university in Vietnam [00-03] and has now become a multi-disciplinary university. As of June 2021, CTU offers 99 undergraduate programs (02 advanced, 08 high quality), 48 master's programmes (01 international and 03 in English) and 19 PhD

programmes. In particular, CTU has had 09 undergraduate programmes successfully assessed against AUN-QA criteria, namely Agricultural Economics (in 2013), Advanced Biotechnology and Advanced Aquaculture (in 2014), Information Technology and International Business (in 2018), Software Engineering, Computer Network and Data Communication, Mathematics Education, and Mechatronics Engineering (in March 2021) [00-04]. The organisational structure of CTU is shown in Figure 1.3.1. Service units, academic units and supporting units are described in detail via <https://en.ctu.edu.vn/units-of-ctu.html>.



Figure 1.3.1: The organisational structure of CTU

CTU has set the mission, vision, core values and the quality policy statement as follows.

1.3.1 The Mission

The Mission of CTU is to operate its resources to be the leading national institution for education, research and technology transfer, making significant contributions to the development of high quality human resource, fostering the talents and the advancement of science and technology to cater for the regional and national socio-economic development. CTU is the crucial driving force for the development of the Mekong Delta Region.

1.3.2 The Vision

CTU targets to be one of the leading higher education institutions in terms of quality in Vietnam and one of the top universities in training and research recognized in the region and the world.

1.3.3 The Core values

Consensus, Devotion, Quality, and Innovation

1.3.4 The Quality policy statement

Recognising the significant needs for qualified HR in the society as well as strong competition in training for high quality HR upon the local and global innovation contexts, CTU is committed to ensuring its quality through continual innovation and integration in education, creativity and dynamics in research and technology transfer; incorporating theory with practice to prepare graduates with sufficient knowledge and skills to be able to perform their work efficiently, to formulate their leadership and to adapt themselves to changes.

CTU is committed to the full establishment and implementation of an efficient, creative, innovative, professional, and responsible governance system. All activities of the University will be systematically and effectively governed through computerized procedures, applying innovative approaches and undergoing regular monitoring and assessment [00-05].

1.3.5 Educational Objectives

The training activities aim to provide high qualification human resource, enhance knowledge of common people, nurture and promote talented people; the research activities in science and technology aim to create knowledge and new products in serving the demands of social economic developments and assuring the national security and defence, and international integration.

To train learners to grow comprehensively in terms of ethics, intelligence, health, and aesthetics; to possess knowledge, skills and professional responsibilities; to be able to seize advance in science and technology in relevance to the level of education; to possess competency for

independent learning, creativity, and adaptability to the working environment; to exhibit the mindset of entrepreneurialism and the sense of serving people.

1.4 Brief description of CoA, FTD and BEFT

1.4.1 The College of Agriculture

The College of Agriculture (CoA) was founded in 1968. It is one of the largest colleges of CTU and was awarded the Labour Hero Medal by the Government in 2000. As of June 2021, the total number of staff in CoA is 199, 115 of whom are full-time lecturers. The proportion of full-time lecturers who have postgraduate qualifications is 100%, including 6 Professors (5.3%), 32 Associate Professors (27.8%), 55 Doctors (47.8%), and 22 Masters (19.1%). CoA is the training unit that has the highest number of Professors and Associate Professors in CTU. CoA offered 14 undergraduate programs (01 high-quality training program), 09 master's programs (01 program taught in English), and 06 doctoral programs. Furthermore, CoA has organized several short-term training and developing courses in agricultural fields. With such significance, CoA has identified the following mission, vision, and scope of activities.

1.4.1.1 The Mission

The College of Agriculture strives to be the leading institution in education, research, and technology transfer, making significant contributions to the development of high quality human resource and science and technology advancements to cater to national and international socio-economic development.

1.4.1.2 The Vision

The College of Agriculture continues to maintain its ranking position in the world's top 251-300, according to the Quacquarelli Symonds (QS) system, and to be one of the leading higher education units in Agriculture of Vietnam and a recognized higher education unit for training and research in the region and the world.

1.4.1.3 The Activities

The Training Activities

CoA offers educational programmes leading to several different degrees within various fields and levels

- Doctor of Philosophy: Animal Science, Crop Science, Food Technology, Pathology and Treatment of Animals, Plant Protection and Soil Science.
- Master of Science: Animal Science, Climate change and sustainable tropical agriculture, Crop Science, Food Technology (in Vietnamese and in English), Plant Genetics and Breeding, Plant Protection, Postharvest Technology, Soil Science and Veterinary Medicine.
- Undergraduate (Bachelor of Engineering; Veterinarian): Agronomy, Animal Science, Applied Biological Sciences, Crop Science, Food Technology, Food Technology (high-quality program), Horticulture and Landscape Design, Innovative Agriculture, Pharmacology Veterinary Medicine, Plant Breeding Technology, Plant Protection, Postharvest Technology, Soil Management and Fertilizer Technology, and Veterinary Medicine.

The number of students per each training level is shown in Table 1.4.1.

Table 1.4.1: The number of students per each training level at CoA (as of June 2021)

No	Program levels	Number of students
1	Doctor of Philosophy	83
2	Master of Science	270
3	Undergraduate (Engineer; Veterinarian)	5,282

The Research Activities

CoA conducts effective scientific research and education cooperation with multiple partners such as Kagoshima University and Tokyo University (Japan), Ghent University and KU Leuven (Belgium), Charles Sturt University (Australia), Prince of Songkla University (Thailand), etc. Various research projects have been successfully implemented. Efforts are made to increase

CoA’s training scale, to improve the quality of its academic staff, to upgrade the facilities, and to search for more collaboration opportunities

CoA cooperates with various agricultural partners in training agricultural professional skills for students and developing agricultural products. It also builds in-depth cooperation with many provinces and cities in Vietnam in applying scientific research results in agricultural production and technology transfer.

The research strengths of CoA are to transfer new technology methods, products for agricultural production.

The Industry Connect Activities

CoA also participates in numerous collaboration activities with foreign organizations and businesses to develop and test solutions and products for agricultural production in the Mekong Delta. These activities aid in compiling teaching materials, scientific research, and the transfer of applied processes and products into manufacturing practice. Currently, CoA collaborates with approximately 30 companies and enterprises from various fields related to crops, livestock, and food processing. Thanks to this cooperation, companies and businesses sponsor more than 01 billion VND in scholarships for excellent students, students with difficult circumstances, and students involved in extra-curricular activities every year [00-06].

1.3.2.4 The Organisational Structure

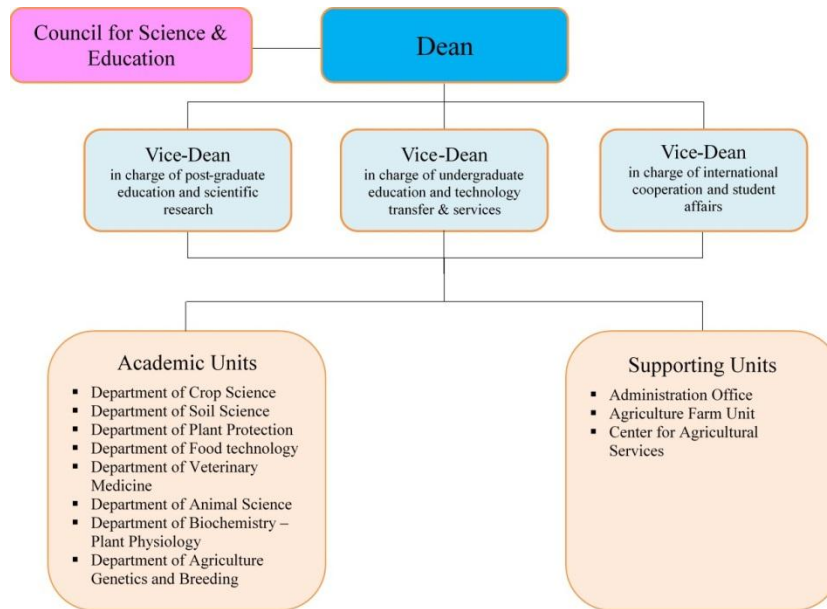


Figure 1.4.1: The organisational structure of CoA (as of June 2021)

As of June 2021, the total number of staff in CoA is 199, 115 of whom are full-time lecturers. The proportion of full-time lecturers who have postgraduate qualifications is 100%, including 06 Professors (5.3%), 31 Associate Professors (27.2%), 55 Doctors (48.2%), and 22 Masters (19.3%). CoA is the training unit that has the highest number of professors and associate professors in CTU.

CoA consists of 08 academic departments, 03 supporting units (including the Center for Agricultural Service) as shown in Figure 1.4.1.

1.4.2 The Department of Food Technology

FTD, formerly known as the Department of Food Processing, was established in 1978 in the Faculty of Animal Science, Fisheries and Food Processing. By 1981, the Department of Food Processing developed into the Faculty of Food Technology. The Department became a core unit of CoA in 1996. FTD’s mission and vision are similar to the mission and vision of CoA, aiming at training high-quality human resource in FT, conducting scientific research, and transferring technology to serve the regional and national socio-economic development. Currently, FTD manages the programmes: Food Technology (Table 1.1.1) and Post Harvest Technology. These are from the undergraduate (BE) to post-graduate (Master and Doctor) level. Particularly in the

last 05 years, it has an enrolment of about 1,400 undergraduate students; approximately 100 students have been following the Master's programs; and 15 students are Ph.D. candidates. Additionally, there have been 09 master students from Indonesia, Laos, Cambodia, Nigeria, Ethiopia, Tanzania obtaining master's degree (English program) in FT programme sponsored by VLIR network (Belgium).

At the present, the workforce of FTD includes 25 permanent and 05 on-contract staffs, with 02 professors, 07 associate professors, 18 doctors, 09 masters and 03 bachelors. Currently, FTD has 04 labs, including: Lab of Food Technology & Engineering, Food Biotechnology & Microbiology, Post Harvest Technology, and New Product Development & Food Safety. Besides teaching, FTD conducts effective scientific research with multiple international collaborators such as U.S, Belgium, and Japan and with many provinces and cities in Vietnam. Various research projects have been successfully implemented and these results obtained have been applied into reality.

1.5 Quality Assurance at CoA

CoA has focused much on improving and developing the quality of education and training programmes towards the national standards and the trend toward regional as well as international integration. Hence, the Quality Assurance Team (QAT) of CoA has established processes in order to check and evaluate the quality of education and training programs regularly; and to take responsibility for long-term quality and effective operation.

The QAT of CoA is a partner unit of the Quality Management Center (QMC) of CTU and responsible for QA activities such as course assessment, teaching diary evaluation, and programme SA.

The QAT sets the schedule and assigns groups to collect and analyse evidence and write reports. For effective collaboration, the QAT assigns specific tasks to each staff. Based on the reports from the departments, the QAT evaluates the result and finalises the reports.

10 CoA's undergraduate programmes were successful in CTU's internal assessment from 2009 to 2019 including: Food Technology (2009), Animal science (2010), Animal science and Crop science (2011), Plant protection (2012), Soil science (2013), Agronomy (2015), Food Technology, Crop Science and Veterinary medicine (2018), Horticulture and Landscape Design (2019).

PART 2. AUN-QA CRITERIA

2.1 Criterion 1. Expected Learning Outcomes (PLOs)

2.1.1 The expected learning outcomes have been clearly formulated and aligned with the vision and mission of the university

The PLOs of the BETT programme are formulated, reviewed and promulgated according to CTU's guidance according to Decision 3627/QD-DHCT dated October 27th, 2020 [01.01.01], and aligned with CTU's vision and mission. They are also based on regulations and guidelines of the Ministry of Education and Training (MOET) (Dispatch No. 2196/BGDDT-GDDH dated April 22nd, 2010; Circular No. 07/2015/TT-BGDDT dated April 16th, 2015; Circular No. 04/2016/TT-BGDDT dated March 14th, 2016; Circular No. 22/2017/TT-BGDDT dated September 6th, 2017) [01.01.02]; the Vietnamese Qualifications Framework (VQF) issued under Decision No. 1982/QD-TTg of the Prime Minister dated October 18th, 2016) [01.01.03], Law on Higher Education approved by the National Assembly on June 14th, 2019, taking effective on July 1st, 2019 [01.01.04]. The PLOs are also based on the recognition of the trend of international integration in higher education.

CTU's vision and mission were announced according to Decision 1086/QD-DHCT dated April 17th, 2014 [01.01.05]. They are widely communicated in both Vietnamese and English on CTU website, across the campuses and at various public places [01.01.06]. Based on CTU's vision and missions, CTU has formulated educational objectives for its training programmes [01.01.07]. CoA's mission and vision are developed to be aligned with CTU's mission and vision [01.01.08].

BEFT has been formulated with programme objectives (POs) and programme learning outcomes (PLOs) in alignment with the vision and mission of both CTU and CoA, taking into considerations stakeholders's feedbacks [01.01.09]. It was reviewed by the Science and Education Councils of CoA [01.01.10] and CTU [01.01.11] prior to submission to CTU Rector for approval and promulgation [01.01.12]. Alignment between BEFT's POs and PLOs with CoA and CTU's vision and mission is presented in Table 2.1.1. The POs and PLOs are regularly revised and modified partly every 02 years and wholly every 5 years.

The POs of BEFT are articulated as below:

- + PO1: To train students with sufficient knowledge, practical capacity, career commitment, political ethics, social responsibility and skills to support the continuous professional development, contributing to the sustainable development of food processing and quality management in modern, safe and effective way.

- + PO2: To equip students with professional knowledge and skills to promptly identify and solve the requirements of businesses (factories, enterprises) in the field of food processing.

- + PO3: To train students with ability to approach market needs, research, acquire and implement new technologies to improve productivity and quality of food products.

- + PO4: To train students with effective teamwork skills and self-study skills to improve their specialised knowledge in FT and its closely related fields.

Table 2.1.1: Alignment between BEFT's POs and PLOs with CoA and CTU's vision and mission

Can Tho University	College of Agriculture	BEFT Programme
Vision	Vision	PO1
Mission	Mission	PO2 PO3
Educational Objectives	Programme Objectives	PO4

2.1.2 The expected learning outcomes cover both subject specific and generic (i.e. transferable) learning outcomes

The PLOs of BEFT are formulated in alignment with the main tasks of CTU including training, scientific research and technology transfer in support of socio-economic development of the MDR. They are also aligned with POs aiming to train engineers with knowledge of food quality assessment and management, research and development of new products, supervision and control of the processing process. The PLOs are formulated in alignment with MOET's regulations on credit-based training system and the VQF [01.01.03], administered by CTU and referred to ASEAN Qualifications Reference Framework and Institute of Food Technologists (IFT) criteria [01.02.01].

The Programme Learning Outcomes (PLOs) of BEFT are as follows

PLO1: Apply general knowledge of Marxism-Leninism, general law, social sciences and humanities; incorporate this knowledge with natural science knowledge to study issues in food technology.

PLO2: Demonstrate basic knowledge of English and information technology to meet the requirements at work, in research and communication.

Fundamental knowledge

PLO3: Demonstrate an understanding of the structure and operating principles of basic machinery and equipment in food processing technology to operate, troubleshoot, and improve machine performance.

PLO4: Demonstrate the mastery of knowledge about scientific research organisation, experiment arrangement, data processing, research skills and scientific research methodology.

Specialised knowledge

PLO5: Master changes in the production process in order to explain the mechanisms of physical, chemical and microbiological changes of food during processing and preservation.

PLO6: Exhibit systematic and modern knowledge of FT; understanding of contemporary issues such as climate change, the relationship between food and the environment.

PLO7: Apply supplementary knowledge in career development, adapt to diverse job duties in scientific institutions, production management enterprises or self-employed businesses in food processing.

PLO8: Demonstrate the development in professional skills such as analysing and evaluating product quality, processing food to ensure food quality and safety.

PLO9: Proficiently use laboratory equipment and tools in scientific research and production practices.

PLO10: Organise experiments scientifically, collect and process data and present experiment results.

PLO11: Exhibit the following skills: communication, self-study and teamwork.

PLO12: Demonstrate autonomy, confidence and a sense of lifelong learning, activeness to improve professional qualifications in learning, research and application of specialised knowledge in FT.

PLO13: Demonstrate the professional ethics, good sense of responsibility and discipline at work as well as civic duties.

PLOs are logically distributed, correlating with the POs (Table 2.1.2). PLOs cover both subject specific and generic learning outcomes (Table 2.1.3). The generic PLOs (1, 2, 4, 9, 10, 11, 12, 13) are about skills, attitudes and social responsibility while specific PLOs (3, 5, 6, 7, 8) are related to the development of an FT engineer's competence. Every year, CTU conducts a survey on the achievement of PLOs with new graduates and employers. The survey results are used to develop a plan for modification of the programme.

PLOs are communicated to students in opening ceremonies of the academic year, commencement ceremonies at the beginning of the academic year [01.02.02]; CTU Website; Facebook-Department of Academic Affairs [<https://tansinhvien.ctu.edu.vn/sinh-hoat>]. The PLOs are aligned with CTU's mission and vision to become the leading university in the Asia Pacific

region in terms of training quality, research and development, and training students with knowledge and solid skills, ability to participate in the scientific research community in the region and internationally, social responsibility, professional ethics and sense of lifelong learning.

Table 2.1.2: Alignment between POs and PLOs of BEFT

POs	PLOs													
	1	2	3	4	5	6	7	8	9	10	11	12	13	
1	X					X	X						X	X
2			X		X		X	X	X					
3		X			X	X		X						
4		X		X	X			X		X	X			

Note: X is the correlation between the POs and PLOs.

	General knowledge		Hard Skills
	Fundamental knowledge		Soft Skills
	Specialised knowledge		Attitudes, Autonomy, Responsibility

Table 2.1.3: The classification of BEFT's PLOs into generic and specific ones

PLOs	
Generic	PLOs 1, 2, 4, 9, 10, 11, 12, 13
Specific	PLOs 3, 5, 6, 7, 8

2.1.3 The expected learning outcomes clearly reflect the requirements of the stakeholders

BEFT and PLOs are formulated based on the feedbacks of employers, alumni, graduates, lecturers, support staff (hereby referred to as stakeholders). These feedbacks are the basis for reviewing and modifying BEFT so as to better satisfying the stakeholders' requirements. According to CTU's guidance, the POs and the PLOs of BEFT have been formulated as follows:

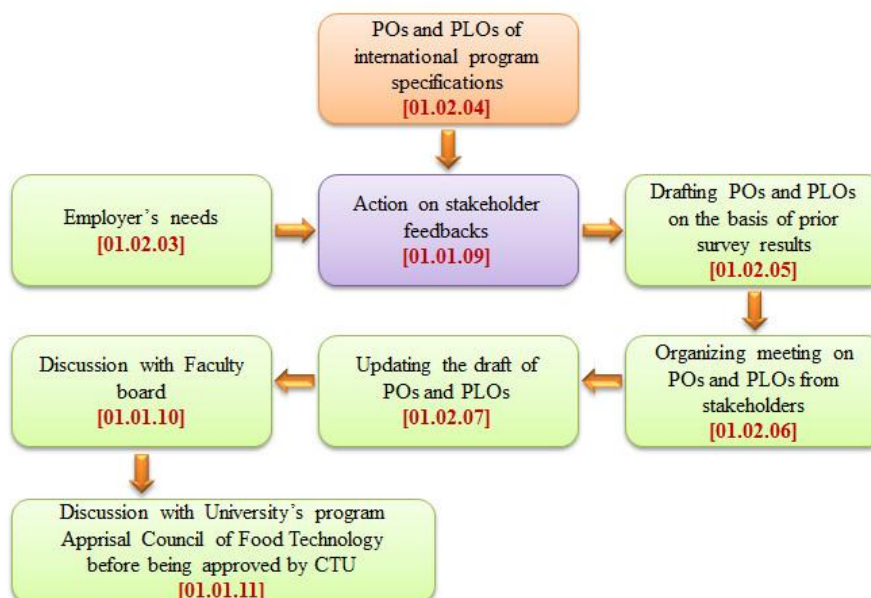


Figure 2.1.1: The process of developing the POs and PLOs of BEFT

[\[01.02.04\]](#), [\[01.02.03\]](#), [\[01.01.09\]](#), [\[01.02.05\]](#), [\[01.01.10\]](#), [\[01.02.07\]](#), [\[01.02.06\]](#), [\[01.01.11\]](#)

The POs and the PLOs clearly reflect the stakeholders' requirements as shown in Table 2.1.5, which also shows the matching of stakeholders' feedbacks with the PLOs.

In order to assure the quality of training, CTU Rector issued Decision No. 4225/QD-DHCT and Decision No. 4235/QD-DHCT dated September 26th, 2018, on the establishment of the Steering

Committee, Secretariat, and Team for modifying CTU programme which is uniformly applied from Cohort 45 (academic year 2019-2024) [01.02.08]. References to VQF in 2016, BEFT had to be updated with an increase of total credits from 140 to 150 (in effect since Cohort 45, academic year 2019-2024). The primary change is to enhance the fundamental and specialised knowledge. The programme has been modified 03 times in 2009, 2014, and 2019 [01.02.09]. In 2020, the PLOs have been slightly modified on the basis of lessons learned, stakeholders' feedbacks and timely overcome weaknesses, aiming to improve the levels of meeting the stakeholders' requirements. Moreover, BEFT has applied AUN-QA guidance on formulating PLOs in alignment with stakeholders' requirements. Specific solutions are to reduce the number of PLOs from 20 to 13; to remove some PLOs that are no longer relevant (PLO 3, 5, 14, 19), or the CTRs whose content can be compiled (PLO 1 & 2, 9 & 10, 16 & 17) [01.02.10].

Table 2.1.4: Mapping between stakeholders' feedbacks and PLOs

Stakeholders	Information channels and contact forms	Feedbacks	PLOs
State administration units [01.01.02]	MOET's regulations and guidance	After graduation, students must meet the minimum requirements of competence as promulgated.	PLO 1-13
Employers [01.02.06]	Survey for employers on the draft of PLOs	BEFT is required to: - enhance students' soft skills such as communication, critical thinking, foreign language (English); - improve knowledge of the quality assurance system; - improve problem-solving skills	PLO 2, 8, 10, 11
	Meetings with stakeholders about the PLOs		
	Internship evaluation process		
Alumni [01.02.06]	Survey for alumni on the draft of PLOs	BEFT is required to: - enhance students' communicative English; - remove the courses having no relation with PLOs - improve student' capacity in food product development.	PLO 2, 5, 6, 10
	Meetings with stakeholders about the PLOs		
	Vietnamese Teachers' Day, End-of-Year Party		
Lecturers/ Support staff [01.02.06]	Meetings at FTD	BEFT must be compared with national and international programmes accredited by IFT, ABET.	PLO 1-10
	Survey on the draft of PLOs		

2.2 Criterion 2. Programme Specification

2.2.1 The information in the programme specification is comprehensive and up-to-date

The specification of BEFT programme is developed under the guidelines of CTU using the common template applied to all programmes of CTU [02.01.01].

It is compiled for (i) prospective students to learn about BEFT programme; (ii) employers to know the knowledge and skills graduates gained from the programme; (iii) FT associations, State management agencies and organisations to access for accreditation and quality assessment; (iv) related lecturers and support staff to develop appropriate teaching and assessment plans.

It includes general information on BEFT, CTU's and CoA's educational objectives, mission and vision, POs, PLOs, admission criteria, training time, eligibility for graduation, T&L strategies and assessment methods. The programme specification also consists of curriculum map, skills matrix presenting the relationship and contributions made by courses, course structure, training plan of the whole programme, and course specifications. In addition, information on career prospects is mentioned [02.01.02].

The key contents of the programme specification are available on CTU and CoA's website [\[02.01.03\]](#). The programme specification is regularly reviewed, updated according to the MOET's and CTU's requirements and in reference to the stakeholders' feedbacks.

Before 2011, it was displayed in a general List of Programmes, in volume 1, page 65. The course specifications were presented in volumes 2 and 3. The programme code was defined in the MOET's Circular No. 14/2010/TT-BGDĐT [\[02.01.04\]](#).

Since 2012, based on the credit-based system issued by the MOET, the socio-economic development needs and Bloom's taxonomy, BEFT programme has been reviewed and revised. The total number of credits increased from 120 to 140 and from 140 to 150 in 2009-2014 and 2014-2019, respectively. The programme specification of BEFT programme (version 2014) [\[02.01.05\]](#) is revised in 2019 [\[02.01.02\]](#). Changes in updated versions are presented in Table 2.2.1.

Table 2.2.1: Changes in updated BEFT programme specifications in 2009, 2014 and 2019

Version	Credits	Training time (years)	Changes in comparison with previous version
2009	120	4	<ul style="list-style-type: none"> - The total number of credits was 120. - No PLO.
2014	140	4	<ul style="list-style-type: none"> - The total number of credits increased from 120 to 140. - 20 PLOs were added. - Career opportunities were introduced.
2019	150	4.5	<ul style="list-style-type: none"> - PLOs were reviewed and updated and reduced to 13. - The training plan was updated; the number of semesters increased to 9. - New courses were added: Entrepreneurship and Innovation, Field Trip, Physico-chemistry in FT, Laboratory Seminar, Sensory Evaluation and Consumer Research, Technology of Wine, Beer and Beverages. - Course specifications were changed (Table 2.2.2).

2.2.2 The information in the course specification is comprehensive and up-to-date

The course specifications are developed under the guidelines of CTU using the common template for all programmes of CTU (Dispatch No. 2736/DHCT, 16/11/2020) [\[02.02.01\]](#). FTD assigns lecturers with appropriate specialisation to compile the course specifications. They are reviewed based on the CTU's template by units at the same level before they are approved as a part of the whole BEFT programme. They provide students with an overview of the course, learning and assessment methods during the training process. All course specifications include course name, course code, number of credits, distribution of theory, practice and self-study hours, lecturers, course description, learning materials, course objectives, CLOs, mapping between the CLOs and the PLOs, assessment methods, study plan and course regulations. The CLOs are clearly presented according to Bloom's taxonomy and aligned with the PLOs. After each semester, CTU conducts on-line surveys to collect students' feedback on their courses. As a result, the course specifications are revised and updated. Their improvements are thanks to updates in 2010, 2017 and 2019 [\[02.02.02\]](#). Compared to the 2010 and 2017 versions, the 2019 one has some changes as presented in Table 2.2.2.

Table 2.2.2: Changes in updated BEFT course specifications in 2010, 2017 and 2019

Version	Changes in comparison with previous version
2010	- General course objectives and assessment methods were added.
2017	- CLOs were updated. - Teaching contents were linked to CLOs. - Self-study was added.
2019	- CLOs were updated (according to Bloom's taxonomy). - Mapping between the CLOs and the PLOs was added. - Details of teaching, learning and assessment methods were added. - Teaching contents were updated and linked to CLOs.

2.2.3 The programme and course specifications are communicated and made available to the stakeholders

The programme and course specifications are important materials providing useful information to the stakeholders. They are communicated through various channels for easy access (Table 2.2.3).

Table 2.2.3: Channels for accessing the programme and course specifications

Type of specification	Targets	Channels
Programme specification [02.01.02]	Students	- Direct contact with first year students in the first orientation week - Students' Handbook - Academic advisors and Department of Academic Affairs - CTU's and CoA's websites
	Employers and alumni	- CTU's and CoA's websites - Cooperation agreement
	Prospective students	- Surveys on the PLOs and the programme framework - Meetings (traditional meetings, meetings on Teachers' day, internships, etc.)
	Others (high school students and their parents)	- Leaflets and posters - Admission Consultancy Day - On-line admission consultancy
Course specification [02.02.02]	Students	- Documents stored in FTD
	Lecturers	- Lecturers in the first class meeting
	Administration unit	E-learning
	Others	

The course specifications of BEFT programme are available on the website of CTU [https://www.ctu.edu.vn/ctdt/k46/mota/7540101_CongNgheThucPham.pdf] and the website of CoA [<https://coa.ctu.edu.vn/282-chuong-trinh-dao-tao-bac-dai-hoc/961-khoa-nong-nghiep-nganh-cong-nghe-thuc-pham-ma-nganh-7540101.html>] for the stakeholders to easily access; the printed ones are stored in FTD for lecturers and students to refer to.

Some of their contents such as the PLOs and the programme framework are communicated to employers, alumni and students via surveys. In addition, necessary information of the programme specification is informed to high school students and their parents via leaflets and posters in CTU's annual events such as Admission Consultancy Day, admission consultancy and career orientation in high schools [\[02.03.01\]](#).

Every admitted student is provided with a student's handbook [\[02.03.02\]](#) with adequate information on training policies and programme specification so that he or she can learn about the study programme and develop his or her study plan [\[02.03.03\]](#). This information is also

conveyed to first year students of BEFT programme in the first meeting with the Dean of CoA and the Head of FTD when the programme begins [02.03.04].

All course specifications are introduced by lecturers at the beginning of the course. Moreover, CoA staff and alumni exchange information on BEFT programme and other training issues at annual events such as Welcome Freshmen, Traditional Meeting of BEFT Alumni. Lecturers in the Department also have opportunities to meet employers during students' internship to collect feedbacks from companies, enterprises on BEFT programme and graduates.

2.3 Criterion 3. Programme Structure and Content

2.3.1 The curriculum is designed based on constructive alignment with the expected learning outcomes

BEFT curriculum is designed based on constructive alignment with the PLOs. It is formulated based on the regulations defined in the MOET's Decision No. 43/2007/QD-BGDDT and Circular No.17/VBHN-BGDDT on promulgating the regulations on full-time undergraduate education applying the credit-based system. The programme structure has a balance among 03 knowledge blocks (Figure 2.3.1) including general knowledge (34.7%), fundamental knowledge (28%) and specialised knowledge (37.3%). It is aligned with CTU's and CoA' educational objectives, vision and mission as well as the requirements of the stakeholders and labour market. The programme content is up-to-date with knowledge, helping students fulfil the needs of the labour market. The curriculum is designed based on constructive alignment with the PLOs. Students can look up details of structure, objectives and brief descriptions of courses in the curriculum in "Programme Specification" published by CTU [02.01.02] or on its website [<https://www.ctu.edu.vn/dao-tao/ctdt-dai-hoc.html>].

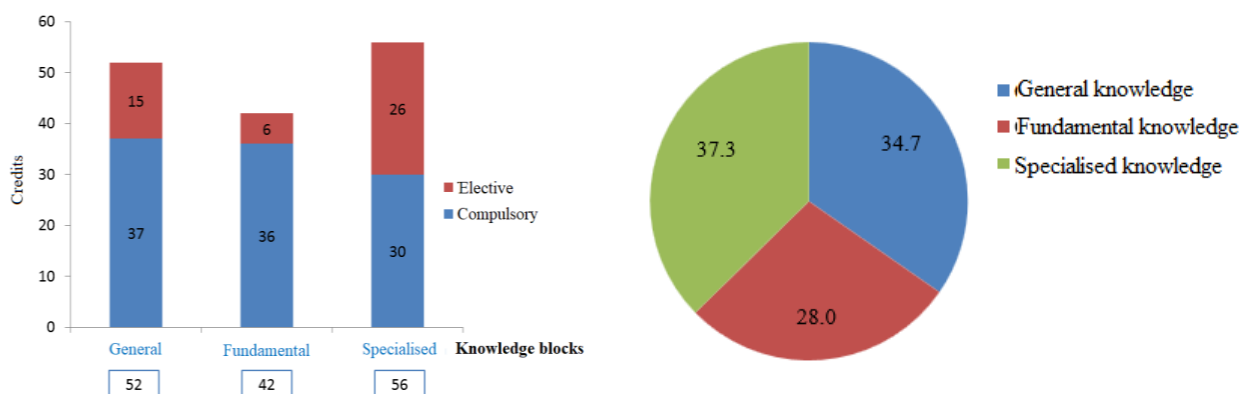


Figure 2.3.1: The number of credits and proportion (%) of knowledge blocks in BEFT programme

The general knowledge block (52 credits) provides students with 03 knowledge clusters: national defence, political science and supportive courses on social sciences, which helps them prepare well for their study, research and future jobs. In fact, political courses introduce students to basic principles of Marxist-Leninist doctrine, Ho Chi Minh ideology and the revolutionary pathway of Vietnamese Communist Party. Courses on social science help students understand the concepts in law and fields of social science. In addition, students pay attention to physical training and national defence thanks to courses on physical education and national defence and security education. 10 credits of general foreign languages (English or French), equivalent to level 3/6 of Vietnam's Framework of Foreign Language Proficiency (i.e. level B1 according to the Common European Framework of Reference for Languages), enable them to communicate in English during their working, learning and research process. Furthermore, they can make good use of statistical software and apply information technology to the food sector. Basic courses on chemistry, mathematics and electrical and thermodynamic engineering provide students with important knowledge that is useful in their studying specialised courses related to mathematics and chemical transformations in FT.

The fundamental knowledge block (42 credits) equips students with general knowledge about food processing such as biochemistry, physico-chemistry, heat transfer, mass transfer, material and energy balance, and biological processes. To enhance self-study and research competence, the course on scientific research methodology supports them in searching materials and brainstorming ideas to design a scientific research project and a complete scientific report.

The specialised knowledge block (56 credits) trains students to analyse and evaluate food quality, research and develop new food products, monitor production processes, quality assurance in production and processing and preservation technology of various food at industrial level for export. In addition, students are equipped with necessary skills such as soft skills, creative thinking skills, teamwork skills and problem-solving skills to meet the needs of the labour market.

2.3.2 The contribution made by each course to achieve the expected learning outcomes is clear

Each course in BEFT curriculum makes specific contributions to achieving the PLOs. The curriculum is divided into 08 knowledge clusters closely arranged to achieve the PLOs and POs. These clusters are 1) national defence, 2) political science, 3) supportive courses on social science, 4) complementary courses, 5) advanced courses, 6) internship and field trip, 7) practice (laboratory) and 8) graduation thesis (Table 2.3.1). Students are instructed to develop a study plan in which courses in general, fundamental and specialised knowledge blocks are logically arranged to master necessary knowledge and skills provided in the study programme [\[02.01.02\]](#), [\[02.03.02\]](#). Prerequisites are compulsory to accumulate enough knowledge for taking the next specialised courses. In addition, corequisites are taken first or simultaneously with fundamental and specialised courses. Students can choose elective courses either to expand their knowledge in relevant sectors or undertake in-depth research on the major. Also, all courses on national defence, physical education and foreign languages must be completed as requisites for completing the study programme. Courses in the curriculum are designed with logic and systematic objectives and structure to achieve the POs and the PLOs [\[03.03.01\]](#).

Table 2.3.1: Mapping between the course clusters and the PLOs

Course clusters		PLOs													
		1	2	3	4	5	6	7	8	9	10	11	12	13	
1	National defence	x	x											x	x
2	Political and social science	x	x											x	x
3	Supportive courses	x	x											x	x
4	Complementary courses			x	x					x	x	x	x	x	x
5	Advanced courses					x	x	x	x	x	x	x	x	x	x
6	Internship & field trip			x	x	x	x	x	x	x	x	x	x	x	x
7	Practice			x	x	x	x	x	x	x	x	x	x	x	x
8	Graduation thesis	x	x	x	x	x	x	x	x	x	x	x	x	x	x

2.3.3 The curriculum is logically structured, sequenced, integrated and up-to-date

2.3.3.1 The curriculum is logically structured, sequenced, and integrated

Courses in the curriculum have a close connection to reinforce and enhance specialised knowledge and skills. In detail, general and fundamental courses are arranged in the first semesters in the study plan to equip basic and necessary knowledge to study specialised courses in the last semesters. Most courses in the general and fundamental knowledge blocks are prerequisites for specialised courses. Prerequisites make students' approach and achievement of the CLOs better, whereas corequisites are to facilitate students to develop their study plan and timetable. Also, there is a list of elective courses for students to choose either to undertake in-depth research in the major or expand their knowledge in relevant majors. Details of the distribution of knowledge blocks are presented in Figure 2.3.2.

Moreover, the study programme is aligned with the system and basis of courses (general, fundamental and specialised) to ensure the achievement of the PLOs. Courses are connected to provide students with fundamental, specialised and graduation knowledge and skills to achieve the PLOs.

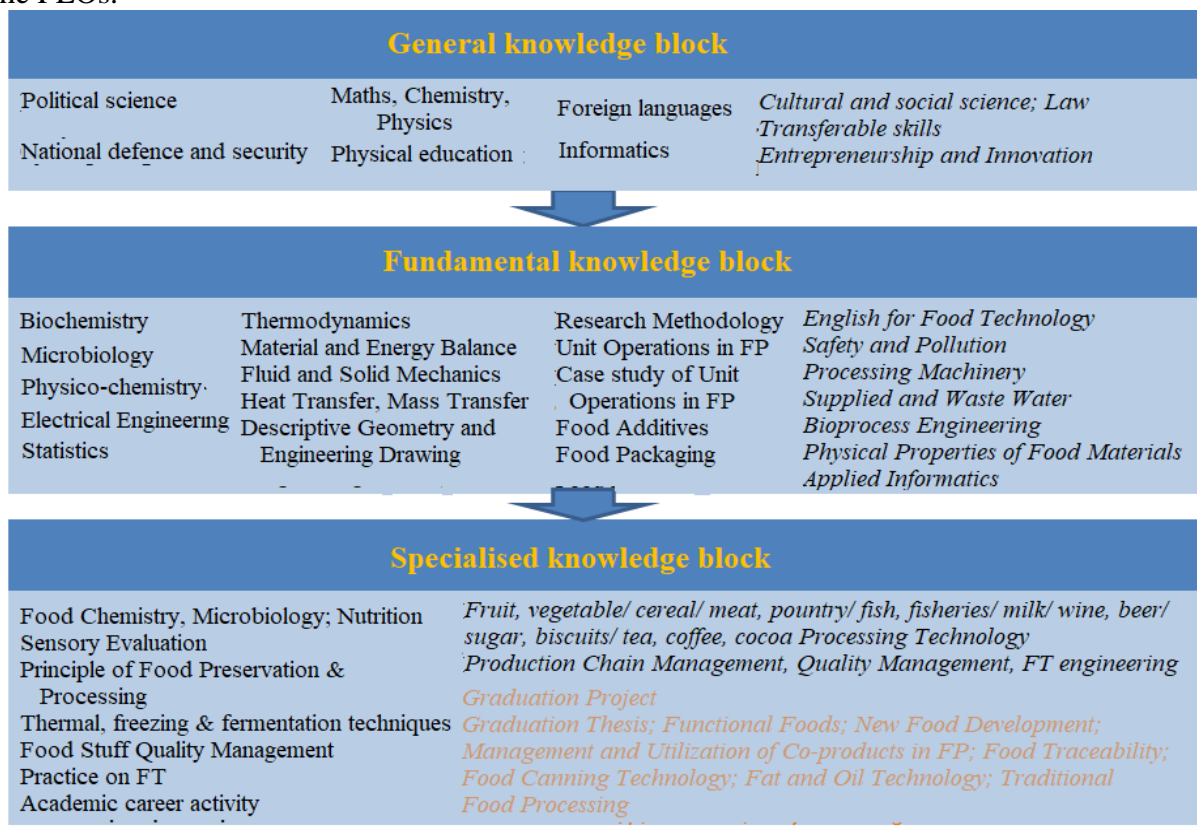


Figure 2.3.2: Details of the knowledge blocks in BEFT programme (2019)

2.3.3.2 The curriculum is updated

Since the credit-based system was applied in 2006, BEFT programme has been revised several times in accordance with the MOET's regulations to meet the needs of the labour market. Before 2013, it had 120 credits. At the beginning of 2014, it was revised and applied for Cohort 40, in semester 1 of the academic year 2014-2015. The important revisions were to increase the number of credits from 120 to 140 with more credits in mathematical courses (advanced mathematics, physico-chemistry and analytical chemistry) and food engineering courses (heat transfer, mass transfer, fluid mechanics, material and energy balance, refrigeration engineering, and thermal engineering in food processing). The latest revision was in 2019. The study programme had an increase in the number of credits from 140 to 150 to intensify practice, elective and graduation ones. In detail, the number of credits increased from 38 to 42 in the fundamental block and from 50 to 56 in the specialised block (Figure 2.3.3). This revision aims at adapting to the tendency of more practice and internship hours, which helps students train

practical skills as well as have more opportunities to learn diverse courses in the major and conduct scientific research.

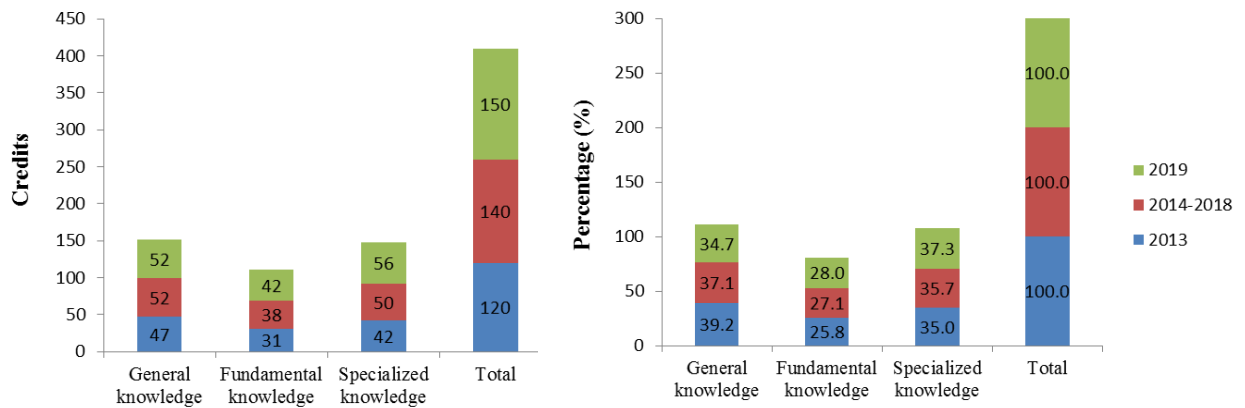


Figure 2.3.3: The number of credits and percentage of the knowledge blocks in the study programme in 03 periods of 2013, 2014-2018 and 2019

In addition, during the 05 years between the 02 major revisions, lecturers in the Department regularly modified course contents to accord with the students' learning competence and the requirements of the employers and the practical production in the region. CoA along with FTD organises workshops to collect the stakeholders' feedbacks, thereby developing orientation towards programme revision [01.02.09]. Every year, QMC sends the survey results of graduates' employment status [03.04.01] as a reference for the College and the Department to revise the study programme. Besides, CoA also has a network of alumni to regularly receive their feedback on the programme improvement [01.02.06].

2.4 Criterion 4. Teaching and learning approaches

2.4.1 The educational philosophy is well articulated and communicated to all stakeholders

The educational objective of CTU, as promulgated in Decision No. 3627/QĐ-DHCT issued on October 27th, 2020 [04.01.01], is based on the educational objectives stipulated in the Law on Higher Education issued on July 14th, 2019 [04.01.02]. The objective is "aim to provide high qualification human resource, enhance knowledge of common people, nurture and promote talented people; the research activities in science and technology aim to create knowledge and new products in serving the demands of social economic developments and assuring the national security and defense, and international integration". CoA's mission is "to be the leading institution in education, research and technology transfer, making significant contributions to the development of high quality HR and the advancements of science and technology to cater for the national and international socio-economic development". This mission is communicated to stakeholders via many channels, such as the website of CTU and CoA, and is introduced to students during the week of student orientation [01.01.05],[01.01.08].

CTU has established the general training objectives for all programmes [01.01.07]. In order to apply this objective into practice, BEFT programme has integrated these activities with T&L activities as well as scientific research and practical activities. Regarding active learning (integrated into PLOs 4, 7, 8) in some courses such as case study, internship and graduation thesis, students are encouraged to use critical thinking to solve problems, develop ideas for new products, conduct scientific research projects that are associated with practical applications [04.01.03],[04.01.04] and [04.01.05].

Integrating the educational objectives of CTU and CoA into the BEFT programme has brought about several benefits: BEFT graduates are positively estimated and recruited by the employers [01.02.03],[03.04.01] the employability of BEFT graduates within 01 year after graduation is high, accounting for 97.6% [03.04.01], 20 BEFT students have participated in scientific research projects at institutional level and have earned high awards in the National Scientific Research Contest [04.01.06], 10 BEFT graduates have attended domestic and international master's

programmes [04.01.07], and they are also active in social, community and extra-curriculum activities during their study [04.01.08].

2.4.2 Teaching and learning activities are constructively aligned to the achievement of the expected learning outcomes

CTU has established guidelines on how to design a syllabus as well as T&L activities to help the students achieve the POs and PLOs [02.01.02],[02.03.02], which are described in the Programme Specification [02.01.02]. This is a basis for lecturers to come up with several T&L activities to bring about the achievement of the POs and PLOs (Table 2.4.1).

Besides, the T&L methods are improved based on students' online feedbacks (https://oss.ctu.edu.vn/). The courses have focused more on developing essential skills for students such as problem-solving, team-working, English, organising skills, etc. [04.01.03], [04.01.04] and [04.01.05]. Thanks to these improvements, the quality of BEFT graduates meets the demand of society. Specifically, the pass rates have gradually increased in the past 3 years (88%, 92% and 97% in 2019, 2020 and 2021, respectively) [03.04.01]. During the Covid-19 pandemic, CTU encourages the implementation of off-campus education via online learning tools such as Google Meet, Zoom, etc. BEFT programme has overcome the difficulties thanks to the efforts of CTU, CoA and especially, the lecturers and students.

Table 2.4.1: Correlation matrix of teaching/learning activities and the PLOs

Teaching and learning activities	Programme Learning Outcomes												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Interactive learning: Presentation, discussion	x	x	x	x	x	x	x	x	x	x	x	x	x
Typical scientific research			x	x	x	x	x	x				x	x
Independent learning	x		x	x	x	x	x	x		x		x	x
Lecture-based learning	x		x	x	x	x	x	x				x	x
Groupwork (practice)	x		x	x	x	x	x	x	x		x	x	x
Project/Fundamental assignment			x	x	x	x	x	x		x	x	x	x
Laboratory experiments	x		x	x	x	x	x	x	x	x	x	x	x
Scientific research project	x	x	x	x	x	x	x	x	x	x	x	x	x

2.4.3 Teaching and learning activities enhance life-long learning

BEFT programme pays attention to the European Union Commission criteria for life-long learning [04.03.01]. T&L activities focus on developing students' skills and competences, including: (1) Literacy, (2) Multilingualism, (3) Numerical, scientific and engineering skills, (4) Digital and technology-based competences, (5) Interpersonal skills, and the ability to adopt new competences, (6) Active citizenship, (7) Entrepreneurship, and (8) Cultural awareness and expression. Table 2.4.2 shows the correlation between the T&L strategies of BEFT programme and the criteria mentioned above.

Besides, field practice activities, scientific research and case studies are integrated into the BEFT programme to develop students' life-long learning skills. BEFT students are encouraged to participate in extra-curriculum activities that focus on the community benefits to enhance their communication skills, organising skills, problem-solving skills and social competence, etc. [04.03.02]. "Soft skills" courses, training workshops, internships (including international student exchanges) have contributed to the enhancement of such skills among students [04.03.02],[04.03.03] and [04.03.04]. Besides, individual learning is one of the activities that help students develop life-long learning skills. In each textbook, time allocated for self-learning and the outcomes of self-learning activities are determined and evaluated through individual and group assignments [04.03.05].

In addition, data and images from scientific research projects, graduation theses at all levels and practice/field practice assignments (in laboratories and factories) of previous cohorts are added to the new theoretical lectures so lecturers and students are able to compare between theory and

practice. Lecturers ask students questions to compare their theoretical and practical knowledge (in laboratories and factories). On the other hand, students also ask lecturers practical questions to find the answers for problems in scientific research and practice/field practice. This is a basis for students to strengthen their learning skills. The assessment outcomes of students' independent learning ability are reflected in the assessment of their ability to solve arising problems during a course using their knowledge, as well as skills in using multimedia presentation tools. In addition, lecturers also fluently, flexibly and effectively apply teaching methods (face-to-face or online) to facilitate students in practicing lifelong learning skills [04.03.04].

Table 2.4.2: Teaching and learning activities that meet the criteria for life-long learning

Teaching/learning strategies and methods	EUC criteria for life-long learning (LLL)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
I. Direct teaching								
Specific explaining	x		x	x	x			
Lecturing	x		x	x	x			
II. Indirect learning								
Open questioning	x		x		x			
Problem-solving	x		x		x		x	
Situation-based learning	x		x		x		x	
Online learning	x		x	x	x			
III. Learning from experiences								
Learning from field practice	x		x	x	x	x		x
Practice	x		x	x	x			
Project-based learning	x		x	x	x		x	
IV. Interaction guides								
Debating	x		x		x		x	x
Discussing	x		x		x		x	x
Cooperative teaching	x		x	x	x	x	x	x
V. Self-learning								
Homework	x		x	x	x			

Note: x = support.

2.5 Criterion 5. Student Assessment

2.5.1 The student assessment is constructively aligned to the achievement of the expected learning outcomes

2.5.1.1 Assessment activities

CTU follow the University Enrolment Regulations and the Academic Regulations for student assessment activities with a synchronous procedure including admission, continuous testing and evaluation during the training process and at the end of the course, etc. Candidates who are admitted to the programme based on their performance at the National High School Graduation Exam have to take an entrance assessment test [05.01.01]. Students' learning outcomes are evaluated through a graduation thesis report [05.01.02],[05.01.03]. During the courses, the lecturers use various assessment methods to evaluate students' learning process through mid-term exam(s), attendance checking, and end-term assessment methods such as: written exam, multiple choice exam and/or oral exam. The content and format of exam questions and rubrics are approved by FTD [05.01.04],[05.01.05]. At the end of the semester, CTU establishes an Examination Council at college level to organise and manage the final exams by CoA. At the same time, CTU also closely monitor the inspection and examination activities during the organisation of final exams through examination activities by Department of Academic Affairs [05.01.06]. The security and storage of exam question and students' exam papers is done is

strictly carried out. All exam questions and students' exams are sealed and stored at CoA [\[05.01.07\]](#).

2.5.1.2 The student assessment is constructively aligned to the achievement of the expected learning outcomes

The assessment tests and exams cover relatively the contents and objectives of the programme as well as of each course. At the end of each course, the lecturer summaries statistics on the performance of students during the final exam, and thus come up with appropriate modifications for the content of the exam questions, the teaching contents of the course to help students do better at the final exam [\[05.01.08\]](#).

Based on CTU's regulations on graduation consideration and graduation consideration plan in each semester [\[05.01.02\]](#),[\[05.01.09\]](#), FTD arranges 2 to 3 sessions of thesis defense to create the most favourable conditions for students so they are able to graduate on schedule. For the assessment of students' graduation theses, BEFT programme established a scoreboard that includes specific criteria for the content and format of the thesis, presentation skills, etc., with appropriate weight distributions for each assessment criterion in accordance with the PLOs [\[05.01.10\]](#). Aside from mentoring students on their graduation thesis, the supervisors also help them with the content of their report and presentation [\[05.01.11\]](#). The graduation outcomes of students are very positive, demonstrating the great efforts of both lecturers and students [\[05.01.12\]](#).

2.5.2 The student assessments including timelines, methods, regulations, weight distribution, rubrics and grading are explicit and communicated to students

In the course syllabus, lecturers provide information on the teaching and assessment methods [\[04.01.03\]](#),[\[04.01.04\]](#),[\[04.01.05\]](#). Also, the lecturer in charge of the course is supposed to provide students with adequate information on student assessment activities such as:

- + The main contents of the course, content distribution, learning regulations;
- + Teaching methods: Theoretical, practical, problem-solving, group presentation, etc.
- + The weight distribution of each course is calculated by percentage (%) as follow: Mid-term exam (20-30%), group presentation and practical exam (10-30%), end-term exam (50-60%).
- + The overall grade of a course is the total number of all component grades multiplied by the respective percentages. It is graded on the 10-point scale, rounded to one decimal place, and then converted to a letter grade (A, B, C, D, F) and to a 4.0-point scale as shown in Table 2.5.1. A course is accumulated only when getting a grade of D or higher.

Table 2.5.1: Ten-point scale in correspondence with letter scale and four-point scale

Grades in ten-point scale	Grades in letter	Grades in four-point scale
9.0-10	A	4.0
8.0-8.9	B+	3.5
7.0-7.9	B	3.0
6.5-6.9	C+	2.5
5.5-6.4	C	2.0
5.0-5.4	D+	1.5
4.0-4.9	D	1.0
<4,0	F	0.0

Lecturers inform students of the conditions for participation in the end-term assessment exam, absence, exam exemption, reservation, and revalidation. When preparing exam questions and rubrics, lecturers need to pay attention to the weight distribution of assessment methods. The exam questions and rubrics must be approved by the Heads of FTD [\[05.01.04\]](#),[\[05.01.05\]](#). Course evaluation is carried out at the end of each semester, usually in the 17th-18th week and the assessment outcomes are announced in the 19th-21st week of the semester; especially in the 3rd semester, the assessment activities are flexible as they heavily depend on the T&L situation as well as the time when the course ends. CTU also promulgates regulations on extra-curricular scores for undergraduate students. The assessment outcomes are based on 5 criteria: (i) sense of

participation in learning; (ii) compliance with the rules and regulations of CTU; (iii) participation in political, social, cultural and sport activities; (iv) civic awareness in community relations; (v) participation in collective work, class cadres, etc. The extra-curricular activities score is the total number of all scores for each criterion, which is scored based on a 100-point scale, and the extra-curricular activities score classification is presented in Table 2.5.2.

Table 2.5.2: Extra-curricular score classification

Total score	Classification
90-100	Excellent
80-89	Good
65-79	Fair
50-64	Average
35-49	Weak
<35	Very weak

Extra-curricular activities scores are evaluated in each semester and each academic year, and recorded in students' profiles by CTU. The extra-curricular activities score is required for scholarship consideration, as well as rewards and punishments, etc. The outcome of extra-curricular activities score evaluation during the study programme is used to consider whether a student is eligible enough to take the graduation exam or conduct the graduate thesis. These scores are recorded in students' academic transcript and kept in the students' dossiers when they graduate.

2.5.3 Methods including assessment rubrics and marking schemes are used to ensure validity, reliability and fairness of student assessment

Lecturers are equipped with pedagogical knowledge and trained on student assessment methods. They are allowed to use different assessment methods such as written exams or multiple choice exams. The lecturer in charge of a course must establish the rubrics and the marking scheme. In terms of courses that are taught by more than one lecturer, there an agreement on the teaching content and the assessment methods among lecturers is required. The exam questions and rubrics are approved by the Heads of FTD before the end-term exam takes place. After the grades are available, all lecturers evaluate the difficulty levels of exam the questions and students' percentage of completion. This is a basis for the lecturers to adjust the marking scheme [\[05.01.06\]](#). From these experiences, the lecturers modify the setting and content of the exam, and appropriately adjust the marking scheme. Students' performance during the final exam is continuously enhanced, according to statistics on the final exam results. The rates of quite good grades and above are more than 50%, showing the effectiveness improvements in teaching and student assessment activities.

2.5.4 Feedback of student assessment is timely and helps to improve learning

According to CTU's Academic Regulations, the lecturer is responsible for returning students' tests and exam papers in class [\[05.04.01\]](#). At the end of the course, lecturers enter the students' grades in the LMS. Lecturers and students will meet and discuss all complaints and questions about grades and exam performance within a week after the results are announced. Students can also discuss with their lecturers through emails in case they are unable to meet face-to-face. Through tests and exams, students are provided with explanations on concepts they are unsure about. This helps the students understand more thoroughly about professional issues, thus improve their learning process. In addition, CTU has a system to monitor the assessment outcomes, implement academic warnings, etc. to ensure that students decide the appropriate learning methods to improve their academic performance [\[04.03.02\]](#), [\[04.03.03\]](#).

2.5.5 Students have ready access to appeal procedure

The rules and procedures for complaints and appeals are stated in the Academic Regulations of CTU. CoA is responsible for handling all complaints related to the students' performance in a course administered by the CoA and the procedure is only conducted within 01 week from the announcement date [\[05.04.01\]](#). At the end of each course, after entering data on the results of

the final exam, the lecturer notifies the students via the email of the course's study group (created by CTU as a communication and discussion channel between lecturers and students). At the same time, the lecturer also announces specific timelines for students who have questions and complaints about the test, before the lecturer locked the right to access the LMS. However, very few cases of complaints from BEFT students about the grades are recorded [\[05.05.01\]](#).

2.6 Criterion 6. Academic Staff Quality

2.6.1 Academic staff planning (considering succession, promotion, redeployment, termination, and retirement) is carried out to fulfil the needs for education, research and service

To facilitate staff development, evaluation and quality enhancement, FTD always encourages its staff to learn and enhance qualifications at different levels from short-term training courses to PhD and postdoctoral studies. As a result, the qualifications of staff are always improved. Table 2.6.1 presents the procedure for FTD staff's enhancing qualifications and academic titles in the latest 05 years.

The Department's important change in personnel is due to the replacement of staff to be retired. Every year, the University announces a plan for arranging for staff to be retired every 06 months [\[06.01.01\]](#). CoA sends notice to those who are at retirement age (60 years for men and 55 years for women), then CTU issues a retirement decision [\[06.01.02\]](#). If staffs over retirement age still wish to make contributions, CTU and MOET consider extending their working time (applied for lecturers with high professional qualifications, experience, and titles of professor, associate professor and PhD) [\[06.01.03\]](#). A list of retired staff is made to develop recruitment plans and ensure the workload, professional tasks and training quality.

Table 2.6.1: Staff's professional development in the last 05 years

Academic titles	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	Total
Professors	0	0	0	2	0	2
Associate professors	0	2	0	2	0	4
Postdocs	0	1	0	1	1	3
PhDs	1	1	1	1	1	5
PhD students	1	0	1	1	0	3

*Note: *The statistics were collected as of June 2021*

CTU also implements periodic planning of leaders through reviewing, supplementing and appointing new Dean and Vice Dean, Head and Deputy Head of Department [\[06.01.04\]](#). According to the actual situation, in each term, the appointment of leaders must be based on a list of planned staff, a clearly regulated procedure for new appointment and re-appointment [\[06.01.05\]](#), [\[06.01.06\]](#), [\[06.01.07\]](#).

Academic staff should always learn to enhance qualifications to fulfil their positions, which is specifically defined in the requirements for lecturers' development procedure [\[06.01.08\]](#). This planning is based on the status of academic staff (Table 2.6.2) and the FTE ratio of students to staff in the latest 05 years (Table 2.6.3). If there is a shortage of academic staff and lab staff, the Heads of FTD requests the University to allow recruitment. Consequently, CTU issues recruitment announcements [\[06.01.09\]](#) and carries out the procedure for recruiting appropriate positions [\[06.01.10\]](#). Currently, a plan of FTD is going to have 07 labs, it leads to promote research, directly serving training and community service [\[06.01.11\]](#).

Table 2.6.2: The positions of BEFT lecturers

Category	Male	Female	PhD holder lecturers	Staff number	Percentage of PhD
Professors	1	1	2	2	100
Associate professors	4	3	7	7	100
Full-time lecturers	9	14	18	23	78.3

Note: *The statistics were collected as of June 2021

2.6.2 Staff-to-student ratio and workload are measured and monitored to improve the quality of education, research and service

In the latest 05 years, the student intake of BEFT gradually increased [06.02.01], which showed a relatively high need for learning and requirement of the society for BEFT to fulfil. Meanwhile, academic staff constantly learnt and enhanced qualifications (Table 2.6.2), which considerably affected the staff-to-student ratio of the programme. The result of analysing the FTE ratio of students to staff in Table 2.6.3 showed a large increase in 05 years (FTE from 12 to 22.37), but it was in the permitted range of quality assurance. In the academic year 2020-2021, this ratio began to exceed the benchmark (>20). The Department recruited new lecturers to satisfy the qualified requirements, but this has not made up for the number of academic staff pursuing higher education in the US, Australia, Korea, Japan, etc. in recent years [06.02.02]. Currently, 01 academic staff is studying for PhD in Japan and 03 PhD holders are postdoctoral researchers abroad [06.02.03]. This FTE ratio is expected to be revised in the next 02 years thanks to the increase in the number of lecturers who have completed their study and postdoctoral research and return to work. FTD also has the plan and announcement for recruiting one PhD staff in 2021. This helps maintain the FTE ratio of students to staff at the limit of 20, ensuring the training quality. The summary of the staff-to-student ratio is presented in Table 2.6.3.

Table 2.6.3: Staff-to-student ratio in the latest 05 years

Academic year	Total FTEs of academic staff*	Total FTEs of students**	Staff-to-student ratio
2016-2017	18.17	218	12
2017-2018	18.18	274	15
2018-2019	18.17	305	16.78
2019-2020	16.39	285	17.39
2020-2021	17.30	387	22.37

*FTE of academic staff is calculated as the ratio of the standard hours in the year that they are assigned to directly teach the third and fourth year of BEFT [06.02.04] to the total standard teaching hours regulated for each title of lecturers according to Decision No. 871 dated July 14th, 2021 (Table 2.6.3) [06.02.05].

**FTE of students is calculated as the number of credits in the year that they directly study BEFT. FTE=1.0 if students study >30 credits/year of BEFT; FTE=0.5 if from 09 to 14 credits/year; FTE=0.3 if 08 credits/year. The maximum number of credits for each semester is regulated under Decision No. 2748 dated July 12th, 2019 [06.02.06], and students must develop the study plan by each academic year [06.02.07].

2.6.3 Recruitment and selection criteria including ethics and academic freedom for appointment, deployment and promotion are determined and communicated

CTU/CoA has a clear and transparent recruitment plan officially published on CTU's website [06.03.01],[06.03.02]. The University's recruitment policy must ensure an adequate number of lecturers to implement the main contents of the study programme. Moreover, at least 02 lecturers are assigned to take responsibility for each course so that the course is available if 01 lecturer temporarily stops teaching because of his or her study or temporary leave under the regime. FTD develops plans for the teaching workload of each lecturer based on the number of credits in the curriculum, the newly-developed courses and the current number of lecturers. Therefore, the scales of quantity and quality of lecturers are identified to develop recruitment

plans for the unit. The Department's plan is submitted to the Dean Board. CoA develops the plan for recruiting new staff on the basis of proposals from its departments at the beginning of each year. Thereafter, the plan is approved by the Rectorate Board. Recruitment criteria and procedure are explicitly defined in "Staff Recruitment Regulations" issued by CTU [06.03.03]. These criteria are officially announced to all candidates on CTU's website. The University establishes a Recruitment Council to evaluate candidates' profiles and conduct interviews. The recruitment and selection results are decided on a regulated grading, in descending order and by the recruitment quota and communicated to stakeholders [06.03.04]. In addition, there are other requirements for candidates as follows: (a) Clear career orientation; (b) Have a master's degree in Food Technology and a full-time undergraduate degree with Fair classification. Therefore, CoA and FTD staff have sufficient competence to carry out teaching and scientific research.

2.6.4 Competences of academic staff are identified and evaluated

The competences of academic staff are shown through their academic titles [06.01.12],[06.04.01] and [06.04.02]. Lecturers of FTD are in charge of teaching almost all courses in the fundamental and specialised blocks. There are 02 professors, 07 associate professors, 18 PhD holders (01 PhD undertaking postdoctoral research in Australia, 01 in the US and 01 in Korea) [06.02.02], 01 PhD student in Japan [06.02.01], 01 PhD student in Vietnam and 03 master's holders. Most of the academic staff are well-trained in advanced countries in the world, including the US, France, Belgium, Russia, Germany, Italy, Australia, Japan, Korea and Thailand. As a result, FTD staffs are qualified for the standards for lecturers in accordance with MOET's regulations [06.04.03]. Because the majority of lecturers are trained abroad at master and PhD levels, they are proficient in English. Therefore, those who are in charge of courses administered by the Department can participate in teaching high-quality programmes [06.04.04], international master's programmes [06.04.05] and courses relatively similar to their trained specialization.

The competences of academic staff are identified and evaluated based on the completed workload in the year [06.04.06]. Teaching and other tasks are assigned by the Head of Department in accordance with the staff management regulations. Before each semester, the Department assigns lecturers courses and the number of students to supervise their thesis [06.02.03]. On the basis of specific assignments, lecturers achieve the quota of hours registered for the academic year.

Also, staff's competences are evaluated based on the results of research and technology transfer [06.04.07],[06.04.08],[06.04.09],[06.04.10] and [06.04.11]. Although the workload is assigned in accordance with the regulations on academic titles [06.02.04], FTD staffs constantly participate in scientific research activities and publish research papers in domestic and international scientific journals, which results in the difference in workload of each staff. In the latest 05 years, a large number of scientific articles were published [06.04.09]. The cumulative standard hours of each staff are different because their research and teaching experience helps them write more articles and textbooks, which is recognised in terms of the standard hours by the University. This shows that lecturers keep on researching and improving the quality of lectures to help ensure and enhance the training quality.

2.6.5 Training and developmental needs of academic staff are identified and activities are implemented to fulfil them

Training and developmental needs of academic staff are significant factors in the quality assurance of human resources and training. Therefore, CTU requires its units to identify the training needs every year and issues staff training plans in 05 years from 2021-2025 [06.05.01]. As a result, the University facilitates its units to train and foster staff to fulfil the requirements for professional knowledge and skills, serving the quality assurance of the programme. The training needs of administration staff and academic staff holding PhD qualifications in the Department are submitted for approval in order to receive support from the State budget such as the 89.2021 project [06.05.02],[06.05.03]. In addition, FTD always encourages and facilitates its staff to learn and enhance qualifications at different levels from short-term training courses to PhD studies. As a result, the qualifications of staff are always enhanced and presented in the

development procedure for enhancing qualifications and academic titles in the latest 05 years (Table 2.6.1). Through international cooperation activities, the Department has a lot of training courses to help staff enhance professional competence, educational skills [\[06.05.04\]](#),[\[06.05.05\]](#) and lab management skills [\[06.05.06\]](#).

2.6.6 Performance management including rewards and recognition is implemented to motivate and support education, research and service

Head of Department discusses and assigns courses to staff. Based on the teaching requirements, courses in the study programme are arranged in line with staff's competence [assignment criteria: (1) *Accord with the field of the PhD training*; (2) *Have evidence for the understanding of the course (publications on international journals)*; (3) *Teach for a long time*] to ensure that the assignment offers students the best benefits. FTD ensures that the assignment is appropriate to the staff's specialisation and shows relative equality of the number of hours among lecturers, developing their competence the most. All lecturers understand their responsibilities and duties and make efforts to complete the professional workload as regulated [\[06.06.01\]](#).

Performance management and reward mechanism are aimed at improving the academic staff quality. First of all, management of professional tasks for lecturers is done in accordance with the Regulations on management of professional tasks for lecturers issued by CTU [\[06.06.01\]](#). At the beginning of each academic year, CTU makes an announcement on registering for professional workload and emulation for the whole year [\[06.06.02\]](#). At the end of each academic year, lecturers complete a staff appraisal form as a basis for emulation and reward evaluation for the academic year under the regulations [\[06.06.03\]](#). The Emulation - Reward Council has 03 levels: Department, College, University. The emulation results are publicised in units and rewards are provided according to MOET's regulations and CTU's Internal Expenditure Regulation [\[06.06.04\]](#). Over the past 5 years, many FTD lecturers gained a lot of achievements and rewards with diplomas of merit and certificates [\[06.06.05\]](#),[\[06.06.06\]](#),[\[06.06.07\]](#),[\[06.06.08\]](#).

2.6.7 The types and quantity of research activities by academic staff are established, monitored and benchmarked for improvement

Research activities by academic staff are focused and encouraged. The number of projects at all levels managed by FTD is presented in Table 2.6.4.

Table 2.6.4: Scientific research activities

Academic year	Institutional	Provincial and Ministerial	National	International	Total	No. of publications per academic staff
2016-2017	6	6	0	0	12	2.05
2017-2018	1	4	1	3	9	1.91
2018-2019	4	1	0	2	7	2.36
2019-2020	2	2	0	0	4	3.32
2020-2021	3	6	1	1	11	7.73

*Note: *The statistics were collected as of June 2021.*

The number of scientific research projects at all levels varies from year to year depending on the local needs and the status of facilities for research in the Department. Every year, the Department of Scientific Research Affairs has plans and schedules with project managers to monitor and inspect their research activities [\[06.07.01\]](#). The number of scientific research projects and international publications increases proves the academic staff quality. This contributes to the quality assurance of BEFT better and better.

2.7 Criterion 7. Support Staff Quality

CTU guarantees the quantity and professional qualification of support staff to meet the demand of academic staff and students. Criteria and methods for the recruitment of support staff are clearly defined, ensuring objectivity, fairness and transparency of the procedure. During their

work, the support staffs participate in training courses to improve their professional qualifications. CTU has an annual plan to evaluate staff's capacity and determine their level of work completion, along with reasonable reward regimes.

2.7.1 Support staff planning (at the library, laboratory, IT facility and student services) is carried out to fulfil the needs for education, research and service

CTU and CoA always pay attention to the planning of support staff, which is demonstrated in the average- and long-term development plan at department and college level in accordance with the master development plan of CTU [07.01.01]. CoA annually implements a recruitment plan based on the needs of FTD and the general plan of CTU [07.01.02]. Based on the Overall Development Plan to 2022 [07.01.01] CTU has planned and completed the job position scheme, issued regulations on the functions and duties of subordinate departments as well as announced the working procedure at CTU in accordance with Decision No. 2346/QD-DHCT [07.01.03]. Tasks and functions of support staff have also been processed by functional departments to continuously improve the quality of services [07.01.04]. The support staffs of CTU and CoA include staff working in departments, centers, CoA's office, LRC, CoA's library, labs, Information Technology (IT) systems, medical office, Facility Management Board, Dormitory Management Board. CoA has 19 support staffs in total, who are directly in charge of the support activities of the BEFT programme. They are assigned specific tasks by CoA, such as academic and student affairs, international student exchange, teaching facilities, financial issues, students' scientific research and experiments in the laboratories, etc.

Besides ensuring the professional competence of staff, CTU also have annual plans for to ensure the health of staff, including the support staff. For example, CTU covers the expense for annual health check-up of all staff. The University also has priority regimes for female staff, including annual gynaecological check-up. CTU offers toxic allowances to support staff working in hazardous environments such as laboratories depending on their job duties [07.01.05]. Thanks to the transparent recruitment plan and annual support plan by CTU, the quantity and quality of support staff are guaranteed, thus adequately fulfil the needs of learning and research. Support staff at university level is presented in Table S.7.1. Besides, number of support staff at university, college and department level is described in Table 2.7.1. Thanks to the professional characteristics of CoA in general and BEFT programme in particular, the laboratory staff including full-time staff and researcher team provide support in practice courses, instructions on usage of laboratory instruments and equipment, and the implementation of analytical and research techniques in the labs [07.01.06].

Table 2.7.1: Number of support staff in CoA and FTD (as of June 2021)

Support staff	Highest Educational Qualifications			Total
	High school	Bachelor's	Master's	
Library personnel	1		1	2
IT personnel	1			1
Administrative personnel	5	1	2	8
Laboratory personnel *		3	5	8
Total	7	4	8	19

**Including laboratory staff of CoA who work as laboratory instructors.*

Researchers of FTD who support the lecturers in teaching practice and experimental courses are also included in this table. (Source: College of Agriculture, 2021)

At the same time, CTU assigns lecturers with solid professional competence and good consultancy abilities with academic advisors' tasks to guide students throughout their learning and training process. The roles and duties of academic advisors are specified in Academic

Regulations by CTU [\[07.01.07\]](#). Every year, CTU assigned academic advisors to newly admitted classes, usually 01 academic advisor/class. The average number of students in one class is about 50 [\[07.01.08\]](#).

2.7.2 Recruitment and selection criteria for appointment, deployment and promotion are determined and communicated

CTU has promulgated documents on the recruitment of support staff, including criteria to ensure staff's expertise and professional knowledge, foreign language proficiency and computer skills. The arrangement of HR is in accordance with the criteria of the Government and CTU [\[07.02.01\]](#). To ensure the quality and working efficiency of the support staff, CoA pays great attention to recruitment procedure. The vacant positions and number of support staff to be recruited of CTU and CoA are based on the master plan and general criteria on qualifications, competence, working experience, and specific standards in accordance with the characteristic of the positions of each group of support staff. A typical example is administrative staff [\[07.02.02\]](#) and laboratory support staff [\[07.02.03\]](#). Criteria for lecturer recruitment are also specifically promulgated by CTU. Lecturers who are assigned to academic lecturers must have good professional qualifications and experience in teaching and scientific research, and at the same time must be equipped with knowledge on undergraduate psychology [\[07.02.04\]](#). Recruitment information is widely communicated to the units and made public on the website of CTU.

CTU facilitate the advancement of support staff during their working process by providing them opportunities to take rank advancement exams, promotions, etc. in accordance with the regulations of the MOET. Criteria for promotion are also clearly defined and implemented by CTU. Support staffs who wish to take rank advancement exam must meet the criteria about job position, professional qualifications, competence, working experience, foreign language proficiency, computer skills, and must participate in scientific research [\[07.02.05\]](#). To encourage administrative staff to participate in scientific research as a condition to register for the rank advancement exam, CTU has added staffs who are specialists to the priority list for scientific research topic approval [\[07.02.06\]](#). Thereby, CTU creates favourable conditions for staff to participate in scientific research to fulfil the conditions for the rank advancement exam as well as contribute to the improvement of support staff's competence. CoA has 4 support staff from BEFT programme who are principal investigators of scientific research projects at Institutional and ministerial levels, and more than 15 supporting staff participating in scientific research projects at all levels [\[07.02.07\]](#).

Once every 5 years, a support staff who meets the criteria prescribed by the State and the requirements on quality and capacity for each management position will be promoted to ensure stability, inheritance and development of management/leadership staff. This creates opportunities for management/leadership staff to be fostered and trained through practice, thus improve the quality and efficiency of CTU's operations. The appointment procedure is carried out in accordance with the regulations on appointment, rotation, resignation and dismissal of leaders from CTU's subordinate units [\[07.02.08\]](#). Feedbacks from lecturers and students determine whether the arrangement and distribution of support staff is appropriate [\[07.02.09\]](#). In terms of contract employees, the evaluation is conducted when their contract expires. If the employees have fulfilled their duties, the contract will be renewed.

2.7.3 Competences of support staff are identified and evaluated

The establishment and standardisation of staff, including support staff, have always been the foremost concern in the development strategies of CTU [\[07.03.01\]](#). Qualifications, years of experience and workload of support staff reflect their competence. Support staff are evaluated and classified annually regarding their ethical values, specialities and professional qualifications, performance of assigned tasks in the year in accordance with their registered professional activities and emulation [\[07.03.02\]](#) and [\[07.03.03\]](#). According to the outcomes of support staff evaluation by CoA, the level of task completion is high, showing that these staffs meet the requirements on competences for the positions [\[07.03.04\]](#).

Besides the assessment procedure mentioned above, academic advisors are regularly evaluated during meetings between Dean Board of CoA and academic advisors which take place once every 6 months, or university-level seminars and direct feedback collections with students on the academic advisors [\[07.03.05\]](#).

2.7.4 Training and developmental needs of support staff are identified and activities are implemented to fulfil them

Enhancing the training quality for support staff to meet the increasing requirements in teaching and scientific research of lecturers as well as the needs in learning of students has always been identified as the central task of CoA. Every year, CoA in general and FTD prepare a form for support staff to if they have any training requirements and a list of CTU’s policies on developing professional competence. This is a basis for CoA and FTD to develop a plan for the training procedure [\[07.04.01\]](#). According to the plan of CTU, CoA always has staffs who register for training and further-training courses every year. All staff earn positive achievements after the training and further-training courses [\[07.04.02\]](#). CTU also pays attention to other training contents for the support staff such as librarianship, management, clerical work, reception and computer skills [\[07.04.03\]](#).

Every year, support staff, especially researchers, are encouraged and facilitated to study and enhance professional skills in Vietnam or abroad. CTU supports these staff with time and funding as specified in its regulations on internal expenditure scheme [\[07.04.04\]](#). This creates favourable conditions for staff to apply for scholarships and enhance their competence [\[07.04.05\]](#). Among BEFT lecturers who are researchers, 01 staff is preparing their doctoral report and 01 researcher has earned a Ph.D scholarship in Thailand. From 2017 to now, 58 support staffs of BEFT programme have been sent to courses for professional development and pedagogical skills when desired. These activities are to help support staff fulfil their duties effectively (Table 2.7.2).

After their completion of training courses, staffs are required to report about the results and submit certificates of completion to the University, and report in the staff’s yearly evaluation session.

Table 2.7.2: Number of CoA and FTD support staff sent to training courses in 2016-2020

No.	Training mode/type	Academic year				
		2016-2017	2017-2018	2018-2019	2019-2020	2020-2021
1.	Professional tasks	3	5	4	2	13
2.	Intensive training, workshops, fieldtrips	5	3	6	1	5
3.	Conferences, seminars	2	1	3	1	4
Total:		10	9	13	4	24

Source: College of Agriculture (2021)

2.7.5 Performance management including rewards and recognition is implemented to motivate and support education, research and service

CoA commends the performance results of the support staff in accordance with CTU regulations on commendation [\[07.05.01\]](#) 100% of staff from CoA and FTD are recognised as Progressive Labourer [\[07.05.02\]](#). The title of Emulation Fighter at institutional level is a form of commendation for employees who excellently completing their work and at the same time, having initiatives to improve work efficiency during the year. For most teaching staff, the criteria for this title are easier to achieve. However, thanks to individual efforts as well as the

attention and encouragement of CoA, 02 support staffs have been awarded with the title of Emulation Fighter at institutional level in the past 2 years [\[07.05.03\]](#). These two forms of commendation are the most common. Besides, the support staffs of CoA have also achieved other forms of commendation implemented by the MOET. Specifically, 01 staff has been awarded with a certificate of merit and 04 staffs have been awarded with the Achievement Award for Education by the MOET [\[07.05.04\]](#). Support staff who have achieved the emulation fighter at institutional level and progressive labourer titles also have their salary increased ahead of schedule by CTU [\[07.05.05\]](#). According to CoA's data, 09 support staff have their salary increased ahead of schedule [\[07.05.06\]](#).

2.8 Criteria 8. Student quality and support

2.8.1 The student intake policy and admission criteria are defined, communicated, published, and up to date

CTU publishes the University admission project every year including essential information about target candidates and recruitment regions, selection method, admission score, and tentative study fees [\[08.01.01\]](#). The information is posted in CTU website [\[05.01.01\]](#) for easy public access. Every year, FTD participates in developing CTU admission project and its activities by CTU, CoA such as: total admission quota, changes in the study programmes, graduates' employability [\[08.01.02\]](#). BEFT is periodically assessed and modified based on reference to international study programmes of famous international universities, feedbacks of employers and alumni as well as current students [\[08.01.03\]](#).

2.8.2 The methods and criteria for the selection of students are determined and evaluated

CTU's admission policy is implemented in accordance with the admission regulations of the MOET and admission quota of each major. In 2020, the University's student intake policy and exam results (national high school graduation exam) of candidates of CTU are updated regularly, ranked in order of their test scores on CTU's website [\[08.02.01\]](#). Admission to the BEFT is based on scores of one of the following exam blocks: A00, A01, B00 and D07 or academic records (2020 and 2021). The admission score of the BEFT is always higher than the threshold of admission scores of the University [\[08.02.01\]](#). In fact, the admission score for the BEFT is 23.5 (in 2020) and 25 (in 2021), belonging to the group of majors with high admission scores compared to others in the University. There has been a change in the number of full-time regular students admitted to BEFT over the past 05 years, presented in the following tables:

Table 2.8.1: Number of first-year students in the last 5 years

Academic year	Candidate		
	Number of applications submitted	Number of applications accepted	Number of admissions (enrolled)
2016-2017	363	208	176
2017-2018	3,723	185	156
2018-2019	3,572	346	301
2019-2020	2,907	542	426
2020-2021	4,102	489	349

Table 2.8.2: Total number of students enrolled in BEFT in the last 5 years

Academic year	Students					Total
	1st Year 1	2nd Year	3rd Year	4th Year	The following years	
2016-2017	174	191	138	7	3	513
2017-2018	155	168	186	18	4	531
2018-2019	298	146	167	18	9	638
2019-2020	421	286	142	21	4	874
2020-2021	345	404	279	19	9	1056

Tables 2.8.1 and 2.8.2 show that the demand of students wishing to enroll in BEFT is quite high, and the training scale is constantly increasing [\[08.02.02\]](#). In the last 5 years, the number of students enrolled in the programme has increased annually by 20-50%, indicating the attractiveness of the study programme to candidates [\[08.02.02\]](#). With the combined admission form between academic records and national high school exam results, the successful candidates have met the requirements of knowledge and skills when studying BEFT.

2.8.3 There is an adequate monitoring system for student progress, academic performance, and workload

According to Decision No. 43/QĐ-BGDĐT dated August 15th, 2007 of the MOET on the promulgation of the Regulations on full-time regular university and college training on the credit-based system, CTU has changed from the learning-unit system to the credit-based one for all of its study programmes. Thereby, students can design their own study plan based on the study programme framework and the guidance of the academic advisor.

According to the BEFT programme specification, the training period is 150 credits for Cohort 45 (2019) onward. Also, students only have to study 30-35 credits/year. Students are allowed to register for a maximum of 20 credits/main semester, 25 credits for final semester and 8 credits for subordinate semester (semester 3 or Summer semester). Therefore, students can reduce their study time to only a minimum of 4.0 years or a maximum of 9 years, depending on their ability based on the current study programme framework of 150 credits, at the beginning of the first year, the academic advisor assists students in developing the study plan for the whole course [\[02.01.02\]](#). This is the basis for students to register for the course, ensuring the number of credits in accordance with the academic regulations for each semester [\[05.04.01\]](#) and [\[08.03.01\]](#). Depending on the ability of each student, the academic advisor checks, meets and advises students to adjust their study plan in each subsequent semester.

CTU has effectively applied IT in student management and provided this information for academic advisors, Departments and College to manage students' learning and training. With the given account to access the LMS, each student can develop the study plan, register for courses, view exam results, and evaluate training scores. At the end of each semester, students' learning results are updated in the LMS, so students can easily monitor their study [\[02.01.02\]](#). Academic advisors can monitor each student's academic performance via the study results of the whole class after each semester. Thereby, the academic advisors can understand students' learning progress and level of completing the study programme. Moreover, when students have difficulties in learning, they can directly contact lecturers in charge of that course or the Department for prompt assistance.

During regular class meetings and meetings with class leaders and class Youth Union Committee, academic advisors announce the contents related to the study, training and Youth Union activities [\[08.03.02\]](#). Academic advisors also learn about students' part-time jobs and their schedules and advise them on how to manage time or choose the right job. Academic advisor always encourages final year students to focus on completing the graduation thesis and the courses in BEFT, ensuring that they graduate on schedule.

BEFT has a number of courses for excursions, field trips or internships at food processing factories and agencies. For appropriate supervision for these courses, lecturers in charge accompany the students to the practice site and coordinate with the factory staff to provide direct guidance to the students [\[08.03.03\]](#). For effective and reliable evaluation of students' knowledge and skills accumulated from internship, lecturers organise interviews at the end of the internship, combined with the monitoring of the intern process.

2.8.4 Academic advice, extra-curricular activities, student competitions, and other student support services are available to improve learning and employability

2.8.4.1 Academic advice

Before applying for CTU, students and parents can refer to BEFT programme specification for detailed information about the structure, objectives, brief course description published by the University as well as brochures, admission counselling sessions in person or online [\[02.01.02\]](#).

After enrolled officially, the academic advisors are responsible for providing students with advice on academic affairs according to Decision No. 3873/QĐ-ĐHCT on regulations on academic counselling [07.01.07]. In addition, support units such as Department of Student Affairs, Department of Academic Affairs, LRC, Information and Network Management Center along with academic units implement enrolment procedures: receive student enrolment profiles, issue student ID, divide classes, organise orientation sessions, health check-ups, and help their registration for courses on the LMS [08.04.01]. If academic advises cannot solve any question, they can forward it to the CoA or support units. Quarterly, academic advisors write a report and have a meeting with CoA Board to present actual situation of the class in charge, as well as difficulties that need the support of all levels [08.03.02],[08.04.03].

First-year students are very confused with the learning methods at the CTU and have to adapt to a new life, so their learning results are often not good. In addition, final year students spend a lot of time working part-time, so their academic results decrease. These are common reasons for a reason a small percentage of students that have academic warnings [08.04.03]. Academic advisors are responsible for finding out the reasons, motivate students, help them modify the study plan for the whole course, facilitate them to learn new courses as well as retake courses that they fail. To develop students' group work skills for better academic achievement, academic advisors divide groups of students with mixed academic competence, assign the good to the others. In case students suspend or decide to stop their study, academic advisors meet them, find out the causes, encourage them and inform their family. After that, students are required to consult Department of Student Affairs Department on the procedures.

Every year, FTD organises 2 to 3 internships and field visits at factories and enterprises for the 1st, 3rd and 4th year students, in order to help them get practical experience, understand production reality, machinery and equipment of modern production lines. These are useful learning activities for students during their study at CTU [08.04.04]. Regarding the impact of Covid 19 pandemic in the last two years, students have online visits to food processing factories instead [08.04.05].

2.8.4.2 Extra-curricular activities

CoA and FTD regularly organise seminars on topics presented by foreign professors. The schedules are widely communicated to the College staff and students. This attractive activity also inspires students to expand their knowledge in many different fields related to their major [08.04.06].

At the same time, after completing their master or doctoral study, lecturers disseminate their research findings to others and students so that they can learn more about research directions and scientific achievements in Vietnam and abroad. Graduation thesis defence sessions at undergraduate and graduate levels, graduate students' seminars are also widely communicated to students, and they usually participate in these activities very actively with the desire to learn more about the major, thereby choose the appropriate research fields [08.04.07].

2.8.4.3 Student competitions

Every year, CTU has student exchange programmes with international universities, creating conditions for students to study, exchange cultures, improve professional knowledge, foreign language ability and communication skills. To be eligible for this programme, students are required to take a selection session. On average, every year, about 2-3 BEFT students meet the selection requirements, and participate in student exchange programs with Thai universities [08.04.08].

In addition, CTU pays great attention to the scientific research activities of students. Every year, it allocates funds exclusively for students' scientific research. FTD regularly encourages students to participate in scientific research with the guidance of lecturers. This activity contributes to helping students access scientific research activities early and developing their creativeness [08.04.09].

CTU Center for Student Consultancy and Start - up regularly organises activities related to part-time employment, job fairs, exchanges, seminars, student contests about start-up ideas

[\[08.04.10\]](#). A large number of students have participated in these activities actively, which helps them have a good orientation in career development, learning motivation, self-discipline and will to learn.

Also, academic advisors are always interested in finding talented students in arts and sports, encouraging them to form their own teams, cultural groups and a healthy playground [\[08.04.11\]](#). With this core force, BEFT students are always ready to participate in sports competitions or music contests or other festivals organised by the Department, College and University every year or by FTD alumni periodically. Besides, students actively participate in movements, competitions, extracurricular activities organized by the Youth Union and CTU Student Association. Especially during the ongoing Covid-19 impact, BEFT students enthusiastically participate in volunteer activities such as taking samples at checkpoints and sampling points, helping people living in the restricted area [\[08.04.11\]](#).

2.8.4.4 Student support services

To maximize students' learning and research, BEFT academic staff include lecturers with doctoral degrees, accounting for more than 90% of staff teaching basic and specialised courses. This is a great advantage for students to improve professional skills, and scientific research skills. In addition, FTD labs are well equipped to serve the needs of scientific research of staff and students. They have implemented many valuable projects, contributing to development of the processing and preservation of agricultural products in the Mekong Delta [\[08.04.12\]](#).

In each semester, based on students' academic performance, CTU considers awarding scholarships for students in order to encourage outstanding achievements [\[08.04.13\]](#). At the same time, every year the FTD is cooperated with the BEFT Alumni Association, giving scholarships to poor students who strive to overcome difficulties to study well [\[08.04.13\]](#). FTD organises alumni meetings and seminars for students to meet alumni who are working at factories, companies, and agencies. These occasions help students understand the professional areas, have career orientation, and more information about the requirements of the labour market [\[08.04.14\]](#).

In July 2021, during the Covid-19 pandemic, CTU Youth Union organises the program "Student Fair-CTU" to partially support the students [\[08.04.15\]](#). The University also actively supports financial, facilities, and equipment to student volunteers to serve the local and national Covid-19 prevention and control programme.

2.8.5 The physical, social and psychological environment is conducive for education and research as well as personal well-being

CTU Rector decided to establish Center for Students Consultancy, Assistance and Start-ups under the management of the Department of Student Affairs to increase student support [\[08.05.01\]](#). Students receive comprehensive guidance and help on problems such as housing, scholarships, job prospects, and career advice. They are also given an email account and a password to access the University's public computers [\[08.05.02\]](#). CTU is very interested in all counselling and student support services, as evidenced by student's feedback organised by the QMC via online on CTU website [\[08.05.03\]](#). The functional units involved in student support work are full-time staff to communicate and help students to make them feeling secure during their study at school [\[08.05.04\]](#). The University has been flexible in shifting the mode of instruction from face-to-face (in person) to online the Covid-19 pandemic, guaranteeing that the 5K rule (mask – disinfection – distance – no gatherings – medical declaration) is followed on campus to protect the health of lecturers, students, and staff [\[08.05.05\]](#). Students can also study outside of airy classrooms and spacious CoA library [\[08.05.06\]](#).

Every year, the FTD hosts a Welcome Ceremony for New Students to foster a positive environment and provide an opportunity for students to meet lecturers, alumni and businesses. Therefore, they are no longer be confused with the new environment, have knowledge about their major, creating a good premise for them to make more efforts in studying and living on campus [\[08.05.07\]](#). In harmony with the activities of the Youth Union, each class organises

class Youth Union meetings, parties, camping, picnic activities, etc. which create links among students as well as beautiful memories in student life [\[08.05.08\]](#).

2.9 Criterion 9. Facilities and Infrastructure

2.9.1 The teaching and learning facilities and equipment (lecture halls, classrooms, project rooms, etc.) are adequate and updated to support education and research

By 2021, CTU has 378 classrooms and lecture halls with a total area of 58,881.30 m². The facilities are fully equipped with large LCD screens, projectors, teaching and research equipment [\[09.01.01\]](#). The CoA has 19 classrooms and 02 halls (1,369 m² and 256 m²), 41 laboratories distributed in 8 departments (3,936 m²), 01 net house, 1 experimental greenhouse (6,222 m²), 01 experimental farm (2.43 ha) and 02 pilot plants (256 m²) [\[09.01.02\]](#). In addition, the CoA has a number of rooms that are fully equipped for studying and teaching of master classes and students of high quality classes (E003, 207/NN). Hall B007 (100 seats) is used for seminars and conferences; and a smaller one for weekly meetings of the Dean Board and Heads of Departments [\[09.01.02\]](#). Every year, the College is funded by CTU for maintenance and upgrading the labs [\[09.01.03\]](#). In addition, the CoA has a large number of clean and beautiful open self-study spaces and a free Wi-Fi system for students' self-study and research activities [\[09.01.04\]](#).

According to "CTU Improvement Project", FTD will manage a new site of 2,995 m², whose construction costs about 2.6 million USD (about 57 billion VND) and its 7 laboratories is 1.59 million USD (57 billion VND) [\[09.01.05\]](#). Every year, a survey on students' satisfaction with the learning and teaching facilities is conducted. Table 2.9.1 shows that they satisfied with current learning and teaching facilities (mean score: 3.2/4) [\[09.01.06\]](#).

Table 2.9.1: BEFT students' satisfaction of learning and teaching facilities

Year	2016	2017	2018	2019	2020
Satisfaction level	3.08	3.21	3.14	3.28	3.28

2.9.2 The library and its resources are adequate and updated to support education and research

CTU has a learning resource center (LRC) [\[09.02.01\]](#) and 14 libraries of the Colleges and Departments on campus. The LRC with an area of 7,560 m² has 23 reading rooms with 1,000 seats. The LRC is fully equipped with modern computer rooms, conference rooms, training rooms, self-study rooms, multimedia rooms with the internet connection, meeting the students' needs and bringing a professional and comfortable learning and working environment [\[09.02.02\]](#).

By June 2021, LRC was updated with more than 300,000 references of different kinds and in different languages including books, coursebooks, reference books, as shown in Table 2.9.2. The number of newly added printed materials is 1,031 titles/1,552 volumes [\[09.02.03\]](#), [\[09.02.04\]](#).

Table 2.9.2: The number of books from 2016 to 6/2021

Years	2016	2017	2018	2019	2020	6/2021
Titles	122,541	127,212	132,047	136,314	143,201	144,502
Volumes	281,199	288,844	295,792	302,620	311,464	312,016

LRC provides a variety of electronic databases [\[09.02.05\]](#) (Vietnam Law Library, Spiner Link, IEEE, Scopus,...) and open access databases (Science Online Vietnam Journal, DSpace @ Cambridge, Elsevier Journal,...), national and international open documents (MIT Opencourseware, Coursera, edX, Udemy and FutureLearn). The students can use these materials by logging in their personal account provided at the beginning of the program [\[09.02.06\]](#). The LRC materials are accessed both on and off campus; and available to all areas in teaching, learning and research.

In order to help students make good use of the resources, LRC regularly offers tours, training courses, instructions on how to use the resources: operation plans at the beginning of the year and guidelines of using the resources [\[09.02.07\]](#). The number of readers entering the LRC (from July 2020 to June 2021) was 152,013 times/year. According to the statistics from August 2019

to July 2020, the number of readers to LRC to study on their own, borrow documents and access documents was about 1,150 times a day [09.02.08]. In particular, from September 2020 until now, CTU has increased digital materials to help students' online learning. During the period from May to August 2021, due to the Covid pandemic, the number of students studying online increased significantly, from 13,829 times to 27,434 times/month. For better service, LRC has continuously conducted surveys on students' satisfaction with both resources and services [09.02.09]. The percentage of students' responses 'very satisfied' and 'satisfied' was 89.6% [09.02.10].

The library of the CoA is directly affiliated to the LRC to provide the main resources for learning, teaching and research for both students and lecturers. By the end of 2020, the library had 16,475 books, 1,465 journals, and 4,910 bachelor's and graduate's theses. Particularly BEFT has specialised books: 862 titles/ 3,329 volumes in English, French and Vietnamese; Dissertations in FT: 2,373 undergraduate theses and 284 master's; 78 journals/1,465 items. Every year, books and materials are updated from 8 departments of CoA [09.02.11]. The BEFT students from the Cohort 42 to 46 satisfied (mean score of 3.06/4) with the quality of the services and resources at LRC and the college library (Table 2.9.3.) [09.02.12].

Table 2.9.3: BEFT students' satisfaction with the quality of the services and resources at LRC and the College library

Year	2016	2017	2018	2019	2020
Satisfaction level	3.02	2.95	2.91	3.17	3.23

2.9.3 The laboratories and equipment are adequate and updated to support education and research

CTU has the total number of 139 laboratories, computer labs, experimental farms, pilot plants and veterinary clinics and 15 multimedia and translation labs [09.03.01]. The laboratories for BEFT are presented in Table S.9.1. The laboratories serve both majored and non-majored students, depending on the course they have taken. CoA laboratories also serve students from other colleges in CTU in their study and research (course projects, graduation theses) when necessary [09.03.02]. CoA has 41 laboratories, most of which act with a combination of learning - teaching and scientific research [09.03.03]. Each lab with an area from 96 to 224 m² is managed in accordance with the regulations of CoA [09.03.04], which are hung at the entrance [09.03.05]. All the laboratories have log books to record lecturers' feedback for timely repair and replacement [09.03.06].

The FTD is divided into 4 sessions including 8 labs, 02 pilot plants and 02 cold-storage houses for teaching and scientific research. In addition, the room E003 is fully equipped for group meetings and seminars [09.03.07].

BEFT students satisfied (3.07/4) with the facilities of the laboratories as shown in Table 2.9.4.

Table 2.9.4: BEFT students' satisfaction with the facilities of the labs

Years	2016	2017	2018	2019	2020
Satisfaction level	3.05	2.95	2.95	3.18	3.22

According to "CTU Improvement Project" implemented from July 2015 to December 2022 [09.03.08], after completing a "Research Laboratory Complex", the FTD will move to a new building with 7 laboratories and 4 pilot plants with modern equipment funded by ODA [09.03.09]. Such equipment and facilities have been used for training and research activities to satisfy the students and lecturers on the services/supporting of FTD.

CoA has the annual plans to upgrade, maintain and repair the facilities and equipment to ensure teaching and scientific research activities [09.03.10]. Table 2.9.5 shows CTU's allocated budget for the CoA's equipment maintenance and operation in the last 5 years [09.03.11].

Table 2.9.5: Budgets allocated for CoA's equipment maintenance and operation in 2017-2021

Years	2017	2018	2019	2020	2021
Cost (in Million VND)	300	300	300	332	350

2.9.4 The IT facilities including e-learning infrastructure are adequate and updated to support education and research

The high-speed Wi-Fi network covers all over the campus and is free of charge [\[09.04.01\]](#). The Information and Network Management Center manages 3 multimedia labs with 97 computers for exams and online teaching and learning [\[09.04.02\]](#). All users have to follow the regulations [\[09.04.03\]](#).

The integrated information system has been used for all the activities of CTU [\[09.04.04\]](#). To use the IT resources, all users have their personal accounts. In fact, they can log in to the LMS to make their study plans, register for courses, view grades, tuition fees and other activities via the Internet; the staff and lecturers use the system to manage course scores, scientific research activities, teaching hours, personal incomes, etc. It also allows users to send comments to improve the service quality. In addition, CTU online management system allows all its staff to access all official documents quickly and easily [\[09.04.05\]](#).

CTU has invested in and upgraded modern facilities for online learning [\[09.04.06\]](#). CTU's E-learning system on the Moodle platform can be effectively used for distance learning programs of CTU [\[09.04.07\]](#). In particular, T&L of CTU could use online platform such as E-learning system, Zoom, Google Meet and Microsoft Teams to deal with the impact of the Covid-19 pandemic [\[09.04.08\]](#). The guidelines for online teaching and learning activities were published for students and staff's easy access [\[09.04.09\]](#). Moreover, at the same time, CTU upgraded multimedia labs with good computers, webcams, whiteboards and online-teaching softwares to support teaching and learning activities [\[09.04.10\]](#).

According to the survey about learners' online learning in the academic year 2020-2021 among 2,684 students, 83% of learning materials was up-to-date and 73% of students satisfied with the learning resources of the LRC and the college libraries. Regarding online learning tools and learner support, 68% agreed that the students and the lecturers could effectively use the features of online learning software; 70% satisfied with the help of using the softwares for online learning [\[09.04.11\]](#). This is necessary information for CTU to provide appropriate solutions to improve the effectiveness of online learning.

2.9.5 The standards for environment, health and safety; and access for people with special needs are defined and implemented

The standards for environment, health and safety in CTU comply with the regulations of the State and Can Tho City [\[09.05.01\]](#). The campuses, the lecture halls and classrooms are always clean thanks to the Youth Union's environmental activities. CTU also signs a contract with an environmental company to do the cleaning and the garbage collection [\[09.05.02\]](#). Every year, CTU organises health check-ups for the new students and all staff members [\[09.05.03\]](#). CTU has a medical clinic to take care of student's and staff's health providing primary medical care, health advice, first aid and free medication in accordance with the regulations of the Ministry of Health [\[09.05.04\]](#). During the period of the COVID-19 pandemic, CTU promptly issued documents, notices, instructions on health care and epidemic prevention [\[09.05.05\]](#). The students can improve their health using CTU facilities such as gym, a center for students consultancy, assistancy and start-up and physical education department [\[09.05.06\]](#).

The CoA has 03 buildings and 1 conference hall. The 2-floor main building is the administration office, Dean's office and the library. This main building has two directions: (1) the staff rooms and Departments of the college and (2) the classrooms. To enhance security, the College is installed with cameras and has 24/7 security guard services. It has a large parking lot for both the staff and students [\[09.05.07\]](#).

To ensure campus security, CTU's security team regularly patrol the campus. In addition, on special occasions, CTU has established special security teams [\[09.05.08\]](#). CTU also pays attention to fire prevention. In fact, the fire prevention system is installed in working areas, lecture halls, laboratories, libraries [\[09.05.09\]](#). Moreover, CTU often collaborates with Cantho fire fighting and prevention police department to train fire safety and rescue technique [\[09.05.10\]](#).

BEFT students' feedback on the environment, health and safety inside the CTU campuses showed that their satisfaction was 3.24/4 (Table 2.9.6) [\[09.05.11\]](#).

Table 2.9.6: BEFT students' satisfaction on Campus environment, health and safety

Years	2016	2017	2018	2019	2020
Satisfaction level	3.16	3.29	3.17	3.30	3.29

2.10 Criteria 10. Quality enhancement

2.10.1 Stakeholders' needs and feedback serve as input to curriculum design and development

Quality enhancement is the basis to design and develop the study programme. The quality enhancement procedure is carried out every semester and academic year [\[10.01.01\]](#). CTU has promulgated regulations on using the need and feedback of stakeholders as input information for the design and development of study programmes [\[10.01.02\]](#); the questionnaires for feedback collection are established in accordance with the regulations of QMC of CTU [\[10.01.03\]](#), [\[01.02.06\]](#). Feedbacks from stakeholders is the basis of the design and development of BEFT programme [\[01.02.10\]](#),[\[10.01.04\]](#). On the basis of feedback from related stakeholders, references to the study programme framework and regulations of the MOET and CTU, the development of BEFT programme is carried out. Recently, the feedback was used in the redesign and development of BEFT programme in 2019. The objectives and learning outcomes of the study programmes reflect the requirements of stakeholders, as mentioned in Sub-criterion 2.1.3, as well as in the mission and vision of CTU (mentioned in Sub-criterion 2.1.1). In accordance with Plan No. 2222/KH-DHCT issued on October 19th, 2018 [\[10.01.05\]](#), BEFT programme is updated periodically. The latest update was in 2019. There are 150 credits in the updated BEFT programme. The study programme is designed and developed from the basis of the criteria of IFT, ideas and feedback from employers and alumni (Figure S.11.1, S.11.2, S.11.3), [\[10.01.06\]](#) as well as those who participate in the design and development of the study programme [\[10.01.07\]](#), and the VQF as a reference. Modifications in the study programme such as the objectives, learning outcomes, references to the study programme framework, the total number of credits, knowledge allocation of the 03 blocks are carried out to meet the needs of stakeholders as mentioned in Sub-criterion 2.3.3. These changes at university level occur every 05 years. At the end of each semester, the contents for teaching are modified and updated. In order to propose measures to improve the study programme, feedback from lecturers is collected during meetings held at the end of each semester between FTD and related units of CTU. Students' feedback on their satisfaction levels and suggestions for the improvement of each course are collected via CTU website [\[10.01.08\]](#).

Especially, the total credits for food engineering courses, internship and graduation thesis as well as the number of elective credits have been increased to ensure that students are well equipped with practical experience [\[10.01.12\]](#). Also, the foreign language competence and communication skills of BEFT graduates are not satisfied at high level from stakeholders. Therefore, criteria on students' English proficiency outcome [\[10.01.13\]](#) and participation in extra-curricular activities [\[10.01.14\]](#),[\[10.01.15\]](#) are included in the programme.

2.10.2 The curriculum design and development process is established and subjected to evaluation and enhancement

The design and development of the curriculum are in accordance with the regulations of the MOET [\[10.02.01\]](#) and CTU [\[10.02.02\]](#). BEFT programme is designed and developed based on the regulations mentioned above (Figure 2.10.1).

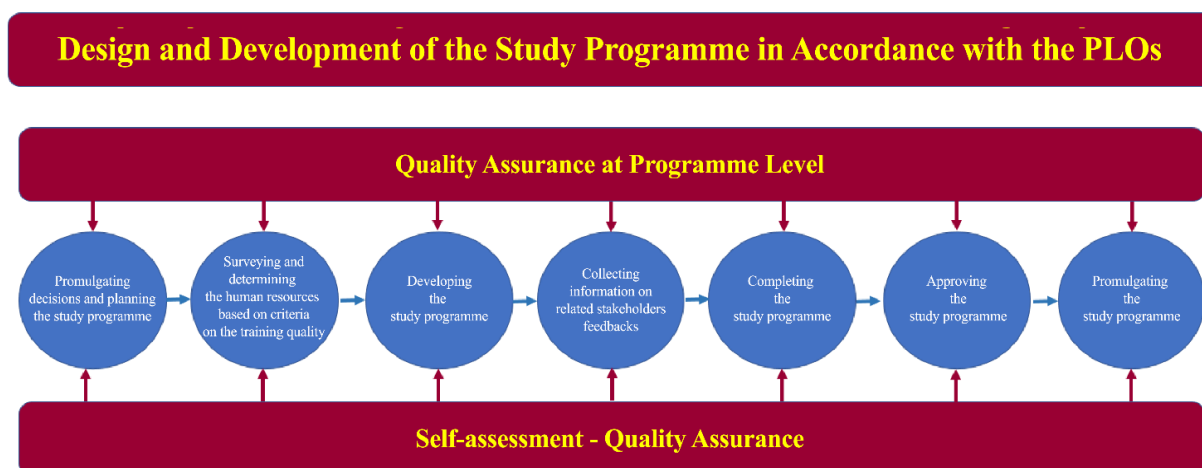


Figure 2.10.1: The design and development procedure of BEFT programme

To improve lecturers' capacity in designing and developing the curriculum, CTU has cooperated with BUILD-IT programme, and the AUN-QA network to organise training workshops for lecturers on constructing, developing study programmes [10.02.03].

Before 2020, the adjustment and improvement of training programs would be implemented every 4 or 5 years according to the general plan of CTU. From 2020, the timeline for periodical adjustment and improvement of the training programme is 2 years and the evaluation for major adjustment is every 5 years. In accordance with the master plan of CTU, the teaching contents of BEFT programme are assessed and updated after every academic year. The latest update in 2019 followed the procedure as described above. After being updated, it is made public on the websites of CTU and CoA [02.03.04].

The contents of each course are regularly evaluated and improved after every semester and academic year. Feedbacks from students [10.01.08] are considered in the update of the course content. These feedbacks are also the basis for quality enhancement of the programme when necessary. Students 'feedback reported that the course of unit operation in food is not reliable enough, particularly lack of applied exercise and assignment. Therefore, lecturers take the initiatives in assigning homework and group assignments with high applicability [10.02.04]. The curriculum and the course syllabus are also adjusted accordingly [04.01.03]. In addition, feedback from employers and alumni stated that the duration of internships was short, and contacts with enterprises were limited. The curriculum updated in 2019 added a course named Practicing on Food Technology in Food Factory. The duration of the internship has been extended from 02 credits to 03 credits. The course of 'academic seminar' has been added to help students approach enterprises and help lecturers associated –with enterprises in teaching in specific courses [02.01.02]. As a result, these adjustments have led to an increase in the satisfaction levels of stakeholders on the curriculum (Figure S.11.1, S.11.3, S.11.4).

2.10.3 The teaching and learning processes and student assessment are continuously reviewed and evaluated to ensure their relevance and alignment

The teaching and learning processes as well as student assessment procedures must be regularly reviewed and evaluated to make sure that they are aligned with the learning outcomes. The regulations are clearly stated in the "Academic affairs for full-time undergraduate students" and are regularly updated. The most recent update is in accordance with Decision No. 1813/QD-DHCT issued on June 18th, 2021 in replacement of Decision No. 3962/QD-DHCT issued on November 16th, 2020, which is made public on the website of CTU [10.03.01]. On this basis, lecturers take the initiatives to adjust teaching and learning activities so these activities are aligned with the learning outcomes (Table 2.4.1), meeting the PLOs (Table 2.3.1 and 2.4.1).

Every year, CTU and CoA summarise teaching and learning activities and set up the orientation for the next academic year to ensure the quality of educational activities [10.03.02]. In addition, QMC cooperates with the training units to periodically collect feedbacks from stakeholders such as classroom surveys to continuously review and evaluate the teaching process (in accordance

with Decision No. 1640/QD-DHCT issued on August 20th, 2015) [10.03.03]. In accordance with regulations on the teaching and learning process as well as assessment of students' performance, the study programme is adjusted to satisfy the demands of students and lecturers (Table S.10.1). Lecturers continuously improve their teaching and assessment methods based on feedback from related stakeholders. Specifically, the formatting of mid-term exams are gradually shifting from pure theoretical to various forms with specific levels of improvement over time, such as group seminar reports (PowerPoint presentations); group assignments in which the outcomes are specific products; group presentations illustrated in mind maps [10.02.04],[10.03.04]. On the other hand, during each course, lecturers integrate practical activities of enterprises into teaching contents through images and video clips in order to enhance students' adaptation to reality [10.03.05]. In particular, in some courses, lecturers take the initiative to invite enterprises to face-to-face or online sharing sessions to exchange information with students [10.03.06]. Therefore, continuous improvements in the teaching and learning process as well as the summative assessment have received positive feedback from students after each semester and academic year [10.03.07].

2.10.4 Research output is used to enhance teaching and learning

Scientific research plays an important role in the enhancement of teaching and learning activities of lecturers and students. It receives special attention from leaders at all levels of CTU. Every year, CTU spends a large amount of budget on science and technology activities [04.01.06] to improve the quality of teaching and learning activities. The research outputs are important for the improvement of teaching and learning activities. This is reflected in the regulations on the number of hours for scientific research in the workload of CTU lecturers. In particular, scientific research activities of BEFT lecturers are always associated with the needs of students and society. These activities are highly applicable and often attract students' participation through graduation theses or students' scientific research topics (Table 2.10.2). The rate of research-orientated theses in students is over 70%.

Related projects and publications published in various prestigious journals (Table 2.6.4; Table 2.10.4) are the basis for lecturers to update their textbooks and lectures, assignments, dissertations or scientific research projects [10.04.01]. The outcomes of students' scientific research not only help them enhance their knowledge, professional experience, skills in using laboratory equipment and research skills, but also have high applicability. Through their participation on scientific research, students are able to approach to in-depth knowledge. A number of scientific research projects were selected to participate in the national and university-level contests of students' scientific research and achieved high rankings [10.04.02]. Scientific research activities of BEFT programme have contributed to the improvement of teaching and learning activities as described in Table 2.10.1 [10.04.03].

Table 2.10.1: Scientific research activities in the improvement of the teaching and learning process in 2016 - June 2021

Academic year	2016-2017	2017-2018	2018-2019	2019-2020	2020 - June 2021	Total
Projects at Institutional, provincial, ministerial and state level	12	9	7	4	11	43
BEFT students participating in scientific research*	38	15	62	67	57	239
Domestic and international scientific conferences	6	9	10	13	19	57
Scientific publications/lecturers	2.05	1.91	2.36	3.32	7.73	3.47**
Textbooks	6	2	1	3	6	18
Patent/Technology transfer	-	3	4	5	6	18

(*) The number of students participating in scientific research projects at the university, provincial/city, ministerial and state levels; (**) Average number of scientific publications per lecturer in five years.

The research outputs of BEFT programme are applied in teaching and learning activities in order to diversify the learning contents as well as improve the professional capacity and working experience of BEFT students. This is reflected in the increasing employability of BEFT students (Table 2.11.4).

2.10.5 Quality of support services and facilities (at the library, laboratory, IT facilities and student services) is subjected to evaluation and enhancement

Equipment and facilities for teaching and learning; especially the equipment of LRC, CoA library and all computer rooms and laboratories are modern, meeting the needs of training, scientific research and graduation thesis conducting of students. Detailed information is presented in Sub-criteria 2.9.1, 2.9.2 and 2.9.3. Facilities, services and IT equipment for students are regularly assessed and upgraded to ensure the quality of teaching and research activities. At the same time, CTU and CoA regularly conduct surveys on students' satisfaction levels on the facilities and support services.

Table 2.10.2 shows the satisfaction levels of BEFT students on the services and utilities [10.05.01]. Based on stakeholders' feedback, CoA reviews and recommends upgrading or purchasing new equipment to improve the service quality of classrooms and laboratories, ensuring best service to students' learning. On the basis of these proposals, CTU provides funding to CoA for the maintenance and update of learning facilities (Table 2.9.5).

Table 2.10.2: Survey outcomes on the satisfaction levels of students on support services for BEFT students in the 2016 - 2021 period

Academic year	2016-2017	2017-2018	2018-2019	2019-2020	2020 - June 2021
The facility and equipment of conference rooms	3.08	3.21	3.14	3.28	3.28
Service quality and the human resources of LRC and CoA library	3.02	2.95	2.91	3.17	3.23
Laboratory facilities	3.05	2.95	2.95	3.18	3.22
IT support services by CTU	2.91	3.05	3.11	3.13	3.15

Note: Corresponding score: 1-Very unsatisfied; 2-Unsatisfied; 3-Satisfied; 4-Very satisfied

Leaders of CTU and CoA always encourage lecturers and students to exploit information technology in teaching and learning activities. Each student is provided with a personal account to establish their study plan, participate in surveys on the training quality as well as review their academic performance during their study. CTU and CoA are also step-by-step developing the online learning system to facilitate teaching and learning activities, student assessment, seminar reports, visiting trips to food factories, provide downloadable learning materials by lecturers, etc. [09.04.06],[09.04.09],[09.04.10]. In a recent survey, a majority of students (70-80%) were satisfied with the IT facilities of CTU and CoA [10.05.01]. The satisfaction levels of students varied in each specific survey criterion (Sub-criterion 2.9.5). Such survey outcomes are necessary for CTU to come up with appropriate solutions to adjust and enhance the effectiveness of online teaching and learning. In recent years, training soft skills activities for students are organized frequently making them more successful in the workplace [04.03.04]. In cases of difficulties, students are also supported to follow the courses better [10.05.02].

2.10.6 The stakeholder's feedback mechanisms are systematic and subjected to evaluation and enhancement

The content and process of collecting feedback from stakeholders are systematically established and implemented. The content of stakeholder surveys are presented in Table S.10.2. CTU has developed an online survey system for collecting opinions of class participants or surveying students who have completed the training programme [10.06.01] and lecturers can review

feedback on their study programmes [\[10.03.07\]](#). Leaders can also view feedback statistics at department/college/university level depending on their management level [\[10.06.02\]](#).

Before 2014, only paper-based surveys were conducted, including only 04 questionnaire samples at university level on the study programme. Since 2014, the online survey system has been established via <https://oss.ctu.edu.vn/>. Before 2020, there were 02 procedures for surveys. Since 2021, there has been a survey on the employability of newly-graduated students. In addition, staffs in charge of quality management of FTD also conduct paper surveys and the 8-item questionnaires to stakeholders via email or Google Form. Feedback from lecturers and support staffs are regularly collected through meetings of FTD and CoA (once every 2 weeks). Feedback collections with employers and alumni are also regularly conducted through BEFT alumni meetings (once every 2 years); annual meetings with new students; signing MOU for training, scientific research and technology transfer [\[10.01.06\]](#),[\[08.05.07\]](#),[\[10.06.03\]](#),[\[10.06.04\]](#).

Besides, FTD conducts surveys and proposes improvements in accordance with the actual needs in teaching and learning. Based on the information gathered, leaders of CTU and the departments come up with measures to improve the quality of teaching and learning activities (E.g.: teaching contents, teaching and assessment methods for each course) [\[10.06.02\]](#).

Besides, BEFT programme conducts annual surveys with stakeholders to facilitate teaching and learning activities. Based on the collected data, the Dean Board and FTD come up with solutions to improve the quality of teaching and learning activities including improvements in the teaching contents, teaching and assessment methods for each course. The surveys demonstrate that the satisfaction levels of employers, alumni and newly-graduated students have been improved in recent years (Table 2.10.3).

Table 2.10.3: Survey outcomes on the satisfaction levels of related stakeholders on BEFT programme in the 2016 - 2020 period

Year	2016	2017	2018	2019	2020
Employers	3.20	-	-	-	3.40
Alumni	3.12	-	3.34	-	3.36
Newly-graduated students	3.20	3.15	3.14	3.39	3.38

Note: Corresponding score: 1-Very unsatisfied; 2-Unsatisfied; 3-Satisfied; 4-Very satisfied.

2.11 Criterion 11. Output

The assessment of output quality plays an important role in the quality assurance system of the University. Every year, CoA monitors the achievement of the PLOs and collects the statistics of pass rates, graduation time, dropout rates and employment rates which is updated thanks to its close connection with alumni. Research activities by students are logically sequenced, aligned with the PLOs, focused on CTU's prioritised fields of research, annually planned and encouraged to organise. The University has developed a system to survey and analyse stakeholders' satisfaction, which serves as an important foundation for the programme improvement and smooth operation of the quality assurance system.

2.11.1 The pass rates and dropout rates are established, monitored and benchmarked for improvement

Every year, pass rates and dropout rates are calculated via the online management system of the Department of Academic Affairs and the Department of Student Assistance in CTU. The statistics in Table 2.11.1 shows that the rates of BEFT students graduating ahead of schedule and on schedule are high. The pass rates in 2012-2016, 2013-2017 is from 92-95% in comparison with that in 2014-2018 and later from 88-90% because the study programme is revised from 120 to 140 credits. The rates of students graduating behind schedule (after 04 years) were below 10% from 2012 to 2015 while that increased up to 21% in 2016. Therefore, the College periodically organises meetings to investigate the causes through academic advisors and find solutions for these issues [\[11.01.01\]](#). In addition, the Department attempts to attract students' participation in extra-curricular activities, field trips, internships to develop different skills. This

helps them have a clear career orientation and promptly adjust their study plan, thereby reducing the rates of students graduating behind schedule. The results show that the dropout rates range from 4.8% to 12.3% (Table 2.11.1) due to personal matters or entrance exam retakes. Details of causes and number of students are presented in Table 2.11.3; however, the average dropout rates of BEFT are lower than that of BEFT of DUT.

Table 2.11.1: The pass rates and dropout rates of the latest 05 cohorts (benchmarked with DUT)

Cohort	Quantity	Pass rates				Dropout rates					
		Ahead of schedule	On schedule	Behind schedule	Total	1 st year	2 nd year	3 rd year	4 th year	Beyond the 4 th year	Total
2012	83	30.1	59.0	6.0	95.1	3.6	1.2				4.8
2013	135	29.6	54.8	8.1	92.2	3.7	1.5	0.7	1.5	3.0	7.4
2014	139	21.6	64.0	5.0	90.6	2.2	2.2	0.7		4.3	9.4
2015	179	10.6	71.5	5.0	87.2	1.9	2.5	3.1	0.6	5.6	12.3
2016	166	18.7	47.6	21.7	88.0	1.2	3.6	0.6	1.8	1.2	8.4
2012*	83	0	73.5	10.8	84.3	1.2	3.6	1.2	4.8	3.6	14.4
2013*	74	0	83.8	6.8	90.6	1.4	0	0	1.4	5.4	8.2
2014*	112	0	83.9	2.7	86.6	4.5	1.7	2.7	0	0.9	9.8
2015*	123	0	79.7	0	79.7	0.8	4.9	0	0	0	5.7

[11.01.02],[11.01.03],[11.01.04]; *The statistics of DUT

Table 2.11.2: The percentage of graduation classifications of the latest 05 cohorts

Cohort	Number of graduates	Percentage (%) of graduation classifications			
		Excellent	Good	Fair	Average
2012	74.0	4.1	55.4	40.5	0.0
2013	114	7.3	26.0	65.8	0.9
2014	132	2.3	32.6	59.1	6.1
2015	156	4.5	35.3	57.1	3.2
2016	145	1.4	28.3	69.0	1.4

Table 2.11.3: Dropout students

Cohort	Dropout in 1 st year				Dropout in 2 nd year				Dropout in 3 rd year				Dropout in 4 th year				Dropout in 5 th year and beyond			
	SC	WP	TF	PI	SC	WP	TF	PI	SC	WP	TF	PI	SC	WP	TF	PI	SC	WP	TF	PI
2012	3				1															
2013	4							2				1				1				2
2014	1			2	2			1				1								6
2015				3	1			1	2			5				1				2
2016				2				6				1			1	2				2

Note: SC = school change, WP = weak performance, TF = tuition fee, PI = personal issues

Most BEFT graduates have Fair and Good graduation classification. Almost all cohorts have students with Excellent graduation classification (with CGPA equal to and above 3.6 on a 4-grade scale and training scores ranked Excellent or higher). The results show that the proportion of Good classification in the latest 05 cohorts was high (26-55%). The proportion of Average classification in 2012 and 2013 was very low, under 1%; however, it increased to 6.1% in 2014 and gradually reduced in 2015 and 2016. This is because the programme was revised from 120 credits in 2013 to 140 credits from 2014-2018 which was the first cohort applied with the revised study programme (Table 2.11.2).

2.11.2 The average time to graduate is established, monitored and benchmarked for improvement

The average time to graduate is 04 years (08 semesters) for BEFT. Students graduate after completing all required credits in the study programme. They can graduate sooner or later than 04 years depending on their studying competence. In addition, according to CTU's academic regulations, the maximum time to complete the programme is 08 years [\[11.02.01\]](#).

Students have support from their academic advisor in developing their individual study plan and in registering courses. In addition, regulation on academic work for students guided clearly the number of credits and the procedure of course register to help students balance the workload and the average time to graduate so that they can achieve the best learning outcomes [\[06.02.06\]](#), [\[11.02.01\]](#). Learning progress is monitored by academic advisors and FTD via the LMS. This system is easy access to monitor students' learning performance, then the stakeholders are informed and promptly deal with it. The class meetings with academic advisors are scheduled 04 times/semester and entered into the LMS for students and academic advisors [\[11.02.02\]](#). In these meetings, academic advisors devise appropriate learning strategies for students, remind and consult those with difficulties in learning or bad learning outcomes on time [\[08.03.03\]](#).

2.11.3 Employability of graduates is established, monitored and benchmarked for improvement

Table 2.11.4: The employment rates of BEFT students from 2016 to 2020

BEFT	2016	2017	2018	2019	2020
Employment rates (%)	50.0	90.5	88.4	92.2	97.6
Employment rates (%)*	98.6	96.6	88.7	98.9	

Note: The rates of students having jobs/total number of students giving feedback [\[03.04.01\]](#)

**The statistics of BEFT of DUT*

The employment rates are important data for the quality assessment of a study programme. Therefore, QMC and CoA collect the statistics by conducting annual surveys with graduates. Based on these surveys, the employment rates gradually increased over the year from 50% (in 2012) to 97.6% (in 2016) as presented in Table 2.11.4. The results demonstrate that BEFT is always improved to meet the requirements of society. From this results, the number of enrolment students have increased significantly for recent 5 years as mentioned in Table 2.8.1 and 2.8.2.

In addition to CTU, FTD along with CoA organises job fairs to help senior students search for jobs through recruitment announcements from companies and direct interviews [\[01.02.03\]](#) [\[11.03.01\]](#).

2.11.4 The types and quantity of research activities by students are established, monitored and benchmarked for improvement

In general, types of research activities by students include promoting or participating in institutional scientific research projects for students funded by CTU, conducting a thesis based on projects managed by staff or taking part in the staff's projects to gain experience and enhance their research competence. This indicates that any type of research can help students enhance their research competence and skills to use laboratory equipment, approach in-depth knowledge to support their learning process, accumulate experience to study and research after graduation and facilitate job search.

Every year, CTU allocates a specific fund (02 billion VND/year) for research projects of students and it also has detailed guidelines on the procedure [\[11.04.01\]](#). In addition, students also participate in research projects done by lecturers in the Department; there are a number of research projects at provincial level in the MDR, research integrated with technology transfer for enterprises in the MDR, international projects such as VLIR (Belgium), ODA (Japan), IFS (Sweden), Macbeth (US). To encourage scientific research, CTU annually organises scientific conference at all levels [\[11.04.02\]](#); offers rewards for research projects with high achievements [\[10.04.02\]](#) and adds a bonus of academic performance [\[11.04.03\]](#).

CTU and the CoA pay attention to and encourage students to take part in scientific research. From 2016 to 2020, there were 05 research projects at institutional level by BEFT students and numerous students involved in research projects supervised by BEFT lecturers. The number of students participating in research activities is presented in Table 2.11.5.

Table 2.11.5: Research activities by CoA and BEFT students in the period 2016-2021

Approved projects/students	Year				
	2016	2017	2018	2019	2020
CoA	4	11	4	3	10
BEFT	0	0	1	0	4
BEFT students*	38	15	62	67	57

*Note: *The summary of students participating in university-level, provincial/municipal, ministerial and national projects.*

As a result, BEFT students have published their research results in national and international journals [11.04.04]. The research results in enhance students' experience and skills, gain abundant knowledge, update teaching contents, motivate research activities and orientate in long-life learning and working.

2.11.5 The satisfaction levels of stakeholders are established, monitored and benchmarked for improvement

In order to improve the satisfaction levels of stakeholders (students, lecturers, alumni and employers), CTU always pays attention to their feedback. CTU has established a system to measure satisfaction levels on data collected through surveys [10.01.01],[10.01.02],[10.01.03]. QMC associates with support staffs in charge of the study programme of FTD to conduct surveys with stakeholders to measure their satisfaction levels and improve the learning outcomes [10.03.07],[11.05.01],[11.05.02].

Information on employers' satisfaction levels on the competence and skills of BEFT graduates and BEFT programme is presented in Figure S.11.1 and Figure S.11.2. The employers were highly satisfied with BEFT programme (Figure S.11.1). Professional skills, communication skills, problem-solving skills, sense of responsibility and the progressive spirit of BEFT graduates are positively evaluated. Evaluation outcomes of the quality of BEFT graduate employees have been significantly improved in the past 5 years (Figure S.11.2). However, enterprises could not satisfy at high level of foreign language competence and computer skills of BEFT graduates. This outcome was similar to the feedback of the alumni (Figure S.11.3). In comparison with the survey outcomes with enterprises on BEFT programme of DUT, the improvements in the training quality of BEFT programme of CTU has been recognised by the employers.

FTD also collects feedback from alumni to enhance the quality of the study programme and support services by CTU. The statistics of alumni's satisfaction levels are presented in Figure S.11.3. Most alumni were satisfied with BEFT study programme (>3.0/4.0); the trend of satisfaction level increased gradually and even higher than that of BEFT programme in DUT in recent years. The differences may come from differences in the survey contents between CTU and DUT. To achieve the outcomes as above, activities to improve the training quality are carried out regularly as described in Criterion 10.5. As similar to enterprises feedback, foreign language competence and computer skills of BEFT alumni were limited. Therefore, CTU pays attention to the enhancement of foreign language competence, computer skills and learning outcomes of students. During the teaching and learning process, the lecturers also focus on developing those skills through group assignments; encourage students to attend seminar reports, international seminars held at CTU, to read international articles.

Most newly-graduated students were satisfied with the study programme (3.0/4.0). The satisfaction level has gradually improved through the years. CTU has been paying more attention to job seeking information, thus the satisfaction level and employability of BEFT has increased in recent years (Table 2.11.4), (Figure S.11.4).

Most undergraduate students attending courses always ensure the contact hours required; lecturers had appropriate teaching methods; lecturers provided sufficient information and knowledge for students' self-study and self-research; individual opinions and students' activities in the classroom respected. Students' feedback is collected after each semester and sent directly to the lecturers in charge of the courses. This is an important information channel for lecturers and FTD to improve the training quality (Sub-criteria 10.5.2, 10.5.3, 10.5.4). In addition, students' feedback on services/support are also collected, monitored and reviewed to improve the learning outcomes (Sub-criterion 2.10.5).

Feedback from staffs and lecturers are collected during meetings of FTD and CoA. FTD has also collected these feedbacks on support services for teaching and learning activities (Figure S.11.5). Most lecturers were satisfied with the support services for teaching and learning activities. CTU is improving the quality of facilities to enhance students' practical skills, the procedure of application for research projects (described in Criterion 2.9).

PART 3. STRENGTHS AND WEAKNESSES ANALYSIS AND QUALITY ENHANCEMENT PLAN

3.1 Strengths, Weaknesses and Quality Enhancement Plan

3.1.1 Criterion 1. Expected Learning Outcomes (PLOs)

Strengths

- POs and PLOs are formulated in accordance with the mission and vision of CTU and CoA.
- PLOs are formulated based on the Bloom's taxonomy.
- PLOs take into consideration the VQF, the requirements of stakeholders and refer to AUN-QA guidelines and IFT criteria.
- PLOs include generic and specific outcomes related to knowledge, skills and attitudes.

Weaknesses

- Surveys to get feedbacks from employers are not carried out regularly.
- The feedbacks from stakeholders have not been fully used to improve the programme.
- Because some students do not pay much attention to PLOs, it affects the overall POs of training.

Quality Enhancement Plan

- The Heads of Department or the BEFT Administration Division need to actively communicate and get feedback from employers more often.
- The BEFT Administration Division needs to analyse thoroughly the feedback in order to improve the programme.
- Teaching staff in charge of courses and academic advisors are responsible for communicating PLOs to students and reminding them of these objectives.

3.1.2 Criterion 2. Programme Specification

Strengths

- The information in the programme specification and course syllabus is fully provided, reviewed, updated and improved on a regular basis.
- Through different channels, the Department and College have communicated with stakeholders in order to provide them useful information of the programme specification.

Weaknesses

- Because of the subjectivity in T&L, teaching staff and students have not been much interested in the programme specification.
- The number of printed copies is limited, and the distribution is not widely available. This affects the "Mass Media".

Quality Enhancement Plan

- Dean Board and Heads of the Department need to remind lecturers and academic advisors to inform and guide students how to access the website or printed version available in the library, Department and College.
- CTU, CoA, and the Department need to strengthen the production of printed versions to provide for stakeholders (i.e. employers, parents, and students).

3.1.3 Criterion 3. Programme Structure and Content

Strengths

- The study programme is formulated with the logical alignment among courses of the programme in order to ensure the general, fundamental, and specialised knowledge blocks.
- The courses in the programme are designed in alignment with CTU's vision and mission, and ensuring the requirements of stakeholders. Thus, the programme is ensured facilitating students to acquire necessary knowledge to achieve the PLOs.
- The programme is updated and modified with the participation of stakeholders to reflect the satisfaction of stakeholders' needs.

Weaknesses

- The survey with the participation of stakeholders has not been regularly organised to identify the needs of society.

Quality Enhancement Plan

- CTU, CoA, and Department need to regularly exchange information with employers and alumni through different modes

3.1.4 Criterion 4. Teaching and learning approaches

Strengths

- Active T&L strategies are applied to the programme to train high-quality students.
- Students are active, creative, dynamic and independent in learning and working.

Weaknesses

- The organisation of theory classes with a fairly large number (80 students/class) makes it difficult to organise active learning method.

Quality Enhancement Plan

- BEFT cooperates with the Department of Academic Affairs and the Department of Facilities Management to improve facilities, reduce class size, arrange the schedule of courses in a term more suitably.

3.1.5 Criterion 5. Student Assessment

Strengths

- Both admitted students and graduated students take the assessment tests (the entrance assessment test for admitted students and the exit assessment test for graduated students). Teaching staff use various assessment methods which can cover contents and objectives of the whole programme and each course. When students do the graduation thesis, supervisors help them complete the thesis and presentation in order to present in front of the council.

Weaknesses

- FTD has used similar assessment methods. Especially in the situation of a prolonged Covid pandemic, online teaching methods have also faced several difficulties. Therefore, it is necessary to be more flexible in the form of theoretical and practical teaching. Besides, it is necessary to be creative in preparing online lectures, using many visual tools to improve the quality of teaching and learning.

Quality Enhancement Plan

- FTD needs to encourage teaching staff to improve the quality of lectures and apply various teaching methods to online teaching.
- FTD needs to develop specific assessment criteria for each online course in order to ensure the requirements of courses in the programme.

3.1.6 Criterion 6. Academic Staff Quality

Strengths

- A plan for replacing and leadership staff is transparent which is effective for succession and sustainable development. Most of the teaching staff have been trained abroad and hold a doctor's degree. In recent years, the FTE ratio of student-to-teaching staff has been reached the quality of the programme.
- CTU has a transparent recruitment plan to improve the training quality in the short, medium and long term to fulfil the requirements of CTU's development. The university also has a transparent recruitment plan, attracting high-quality human resources with doctoral degrees to participate in teaching, meeting the PLOs of the programme.
- The advanced textbooks are compiled to meet students' requirements. The scientific research activities of the teaching staff are very good with several international quality scientific articles in the list of ISI/Scopus. This helps teaching staff improve the quality of lectures.

Weaknesses

- There is a need of teaching staff recruitment in order to decrease the FTE ratio of student-to-teaching staff in the next 1-3 years. As a result, it can improve the programme quality. It is necessary to improve research competence and technology transfer more equally and promote the role of Lab (Lab).- It is essential to create conditions for teaching staff to undertake some fundamental courses. Having an adequate number of lecturers in charge of fundamental courses

is essential to avoid overwhelming workload for lecturers and the imbalance teaching arrangement of the courses.

Quality Enhancement Plan

- Currently, FTD encourages and creates favourable conditions for teaching staff to undertake some fundamental courses in accordance with their competence and strength.
- Within the next 2-3 years, highly qualified academic staff with doctoral and post-doctoral degrees will return to work for FTD. Besides, within the next 1-2 years, FTD plans to recruit 1-2 academic staff with doctoral degrees. The human resources will increase the FTE ratio of students to staffs (<20) to ensure the quality of teaching staff and improve the quality of programme.
- At the end of 2021, FTD will be moved to a new campus with full of research equipment invested from the ODA project. It will help teaching staff improve their scientific research ability. Moreover, the assignment of teaching staff to 7 labs will help scientific research more intensive and equal, contributing to improving their competence and the quality of lectures. This will also improve the quality of programme.

3.1.7 Criterion 7. Support Staff Quality

Strengths

- The quantity, quality, and professional competence of support staff are ensured. CTU, CoA and FTD offer appropriate policies for support staff to improve their professional competence and motivate them at work.
- The lab support staff working as researchers are the advantages of CoA and FTD. The quality of current support staff is ensured for teaching and research activities by CoA and CTU.

Weaknesses

- Because of the barrier from limited English proficiency, support staff slowly access some training courses to improve their professional skills, and use of analytical methods and specialised equipment.
- Some support staff, especially in the student reception division, have limited communication skills.

Quality Enhancement Plan

- CoA and FTD make a regular plan for improving support staff's English proficiency in Food Technology. They search for training courses with translation.
- They continue to create manuals and tutorial video clips with the help of experienced academic staff and support staff.
- CoA and FTD organise, motivate and facilitate support staff to participate in courses on communication skills and psychology, especially online courses.

3.1.8 Criterion 8. Student quality and support

Strengths

- CTU's and CoA's student admission policy and admission criteria are clearly defined. The LMS is used to monitor students' progress, academic achievement and workload. Academic advice, extra-curricular activities, and student competitions are held. In addition, CTU and CoA offer students support services to help them improve their study and professional competence.

Weaknesses

- Academic clubs related to their majors and cultural, sports and art clubs should be established to help students improve themselves. Besides, during the prolonged Covid pandemic, it is necessary to have more volunteering activities, and alumni to help students.

Quality Enhancement Plan

- CoA and FTD should expand types of collective activities, build more badminton and mini football courts and maintain club activities for students when they study at CTU.

3.1.9 Criterion 9. Facilities and Infrastructure

Strengths

- CTU and CoA have full of modern facilities and equipment which are regularly updated. The CTU's system of Information

- Communication Technology significantly contributes to classroom and human resources management, training, and scientific research. The communication network meets the needs of searching and applying IT to the T&L of staff and students, especially to online teaching during the Covid-19 pandemic, ensuring the training process and improving the training quality of BEFT.

- CTU and CoA invest in, manage, use and effectively exploit resources to serve the needs in T&L and research of staff and students.

Weaknesses

- There is a shortage of laboratories for specialised courses.

- Some facilities of CoA do not meet the needs of handicapped students.

Quality Enhancement Plan

- CoA and FTD have planned to build specialised labs from the “Can Tho University Improvement” project in accordance with the admission and development plan of CoA and FTD.

- CoA and FTD strengthen cooperation and call for support from international enterprises and partners to equip up-to-date technological equipment in order to serve the teaching, research needs of the labour market.

3.1.10 Criterion 10. Quality enhancement

Strengths

- Feedback and needs of stakeholders serve as input to study programme design and development. The quality assurance system is established and operated effectively.

- The T&L process and quality assessment are regularly revised and assessed. Scientific research is applied to teaching in various forms.

- CTU has fully provided support services evaluated by stakeholders and constantly improved them.

- The stakeholder’s feedback mechanisms are improved and updated.

Weaknesses

- Networking activities are available but still limited. - Scientific research results have little applicability in T&L improvement.

- The rate of students completing graduation thesis in the lab is still low. Students are not active in registering for conducting scientific research with the funds of CTU or other organisations.

- CTU’s facilities of all classrooms are not synchronously installed.

Quality Enhancement Plan

- Networking activities should be strengthened to continuously collect feedback; moreover, training cooperation, science-technology transfer, etc. should be developed.

- It is necessary to have policies to encourage the application of scientific research to T&L.

- The rate of students completing the thesis will have increased by the end of 2021, when the lab complex of FTD is completed from the ODA project.

- It is necessary to have appropriate policies in assessing the learning outcomes of the courses.

- FTD should continue to repair and equip new learning equipment in the remaining classrooms.

3.1.11 Criterion 11. Output

Strengths

- Students participating in scientific research activities and winning high prizes in contests at all levels receive short-term study exchange scholarships, participate in skills and academic training courses, and have many opportunities for further study in Vietnam and abroad.

- In the last 05 years, the average rate of graduates with excellent and good degrees has accounted for more than 30%.

- The employment rate of graduates has gradually increased in the last 03 years; especially the most recent rate is 97%. It confirms that graduates have high adaptability to the actual requirements in the professional field and receive positive feedback from employers.

Weaknesses

- The employment rate of graduates has not been benchmarked against domestic and international programmes for many quality improvement measures.
- Surveys for stakeholders' feedback on the activities of CTU, CoA and FTD have not been regularly carried out, especially feedback from employers.

Quality Enhancement Plan

- FTD needs to refer to domestic and international programmes.
- Exchange of information with employers and alumni also needs to be done regularly.

3.2 Completed checklist

Criteria		Rating scale						
		1	2	3	4	5	6	7
1	Expected Learning Outcomes							
1.1	The expected learning outcomes (PLOs) have been clearly formulated and aligned with the vision and mission of the university					×		
1.2	The expected learning outcomes cover both subject specific and generic learning outcomes					×		
1.3	The expected learning outcomes clearly reflect the requirements of the stakeholders					×		
	Overall opinion					×		
2	Program Specification							
2.1	The information in the program specification is comprehensive and up-to-date					×		
2.2	The information in the course specification is comprehensive and up-to-date						×	
2.3	The Program and course specifications are communicated and made available to the stakeholders					×		
	Overall opinion					×		
3	Program Structure and Content							
3.1	The curriculum is designed based on constructive alignment with the expected learning outcomes					×		
3.2	The contribution made by each course to achieve the expected learning outcomes is clear					×		
3.3	The curriculum is logically structured, sequenced, integrated and up-to-date					×		
	Overall opinion					×		
4	Teaching and Learning Approach							
4.1	The educational philosophy is well articulated and communicated to all stakeholders						×	
4.2	Teaching and learning activities are constructively aligned to the achievement of the expected learning outcomes					×		
4.3	Teaching and learning activities enhance life-long learning						×	
	Overall opinion						×	
5	Student Assessment							
5.1	The student assessment is constructively aligned to the achievement of the expected learning outcomes					×		
5.2	The student assessments including timelines, methods, regulations, weight distribution, rubrics and grading are explicit and communicated to students						×	
5.3	Methods including assessment rubrics and marking schemes are used to ensure validity, reliability and fairness of student					×		

Criteria		Rating scale						
		1	2	3	4	5	6	7
	assessment							
5.4	Feedback of student assessment is timely and helps to improve learning					×		
5.5	Students have ready access to appeal procedure						×	
	Overall opinion					×		
6	Academic Staff Quality							
6.1	Academic staff planning (considering succession, promotion, redeployment, termination, and retirement) is carried out to fulfill the needs for education, research and service					×		
6.2	Staff-to-student ratio and workload are measured and monitored to improve the quality of education, research and service						×	
6.3	Recruitment and selection criteria including ethics and academic freedom for appointment, deployment and promotion are determined and communicated					×		
6.4	Competences of academic staff are identified and evaluated						×	
6.5	Training and developmental needs of academic staff are identified and activities are implemented to fulfill them						×	
6.6	Performance management including rewards and recognition is implemented to motivate and support education, research and service						×	
6.7	The types and quantity of research activities by academic staff are established, monitored and benchmarked for improvement					×		
	Overall opinion						×	
7	Support Staff Quality							
7.1	Support staff planning (at the library, laboratory, IT facility and student services) is carried out to fulfill the needs for education, research and service				×			
7.2	Recruitment and selection criteria for appointment, deployment and promotion are determined and communicated					×		
7.3	Competences of support staff are identified and evaluated						×	
7.4	Training and developmental needs of support staff are identified and activities are implemented to fulfill them				×			
7.5	Performance management including rewards and recognition is implemented to motivate and support education, research and service					×		
	Overall opinion					×		
8	Student Quality and Support							
8.1	The student intake policy and admission criteria are defined, communicated, published, and up-to-date						×	
8.2	The methods and criteria for the selection of students are determined and evaluated						×	
8.3	There is an adequate monitoring system for student progress, academic performance, and workload						×	
8.4	Academic advice, co-curricular activities, student						×	

Criteria		Rating scale						
		1	2	3	4	5	6	7
	competition, and other student support services are available to improve learning and employability							
8.5	The physical, social and psychological environment is conducive for education and research as well as personal well-being					×		
	Overall opinion						×	
9	Facilities and Infrastructure							
9.1	The teaching and learning facilities and equipment (lecture halls, classrooms, project rooms, etc.) are adequate and updated to support education and research					×		
9.2	The library and its resources are adequate and updated to support education and research						×	
9.3	The laboratories and equipment are adequate and updated to support education and research						×	
9.4	The IT facilities including e-learning infrastructure are adequate and updated to support education and research					×		
9.5	The standards for environment, health and safety; and access for people with special needs are defined and implemented					×		
	Overall opinion					×		
10	Quality Enhancement							
10.1	Stakeholders' needs and feedback serve as input to curriculum design and development					×		
10.2	The curriculum design and development process are established and subjected to evaluation and enhancement						×	
10.3	The T&L processes and student assessment are continuously reviewed and evaluated to ensure their relevance and alignment					×		
10.4	Research output is used to enhance T&L						×	
10.5	Quality of support services and facilities (at the library, laboratory, IT facility and student services) is subjected to evaluation and enhancement					×		
10.6	The stakeholder's feedback mechanisms are systematic and subjected to evaluation and enhancement					×		
	Overall opinion					×		
11	Output							
11.1	The pass rates and dropout rates are established, monitored and benchmarked for improvement					×		
11.2	The average time to graduate is established, monitored and benchmarked for improvement					×		
11.3	Employability of graduates is established, monitored and benchmarked for improvement					×		
11.4	The types and quantity of research activities by students are established, monitored and benchmarked for improvement						×	
11.5	The satisfaction levels of stakeholders are established, monitored and benchmarked for improvement					×		
	Overall opinion					×		
	Overall verdict	5.3						

PART 4. APPENDICES

4.1 Evidences (a-m)

a	Expected Learning Outcomes
b	Brief outline of all courses in the program
c	Program specification
d	Samples of course specification
e	Educational philosophy
f	Sample of examination papers
g	Sample of marking guide
h	Sample of rubrics
i	Sample of academic and support staff appraisal forms
j	Sample of student evaluation
k	One page brief of each survey, tracer study report or minutes of meeting
	k1-Student
	k2-Alumni
	k3-Employer
	k4-Faculty Staff
l	Executive summary of academic and support manpower plan
m	Executive summary of training and development plan for academic and support staff

4.2 Full evidences

I. INTRODUCTION	
00.01	AUN-QA certificates in 2018
00.02	Decision No.1769/QĐ-DHCT dated June 12th, 2021 on the establishment the SA Council, the Secretary Committee, and the SA Team for BEFT
00.03	Document No 1269/CP-KG dated September 6th 2004 regarding further completion of Vietnamese network of universities and colleges
00.04	AUN-QA certificates of some undergraduate programs
00.05	Decision 1086 on quality assurance regulations in CTU
00.06	MOU with enterprises
II. CRITERION OF AUN-QA	
Criterion 1. Expected Learning Outcomes (PLOs)	
01.01.01	Decision No. 3627/QĐ-ĐHCT (27/10/2020)
01.01.02	Decision No. 2196/BGDĐT-GDĐH (22/4/2010); 07/2015-BGDĐT (16/4/2015) 4/2016/TT-BGDĐT (14/03/2016), 22/2017/TT-BGDĐT (6/9/2017)
01.01.03	Vietnamese Qualifications Framework
01.01.04	Law on Higher Education
01.01.05	CTU's vision and mission
01.01.06	Pictures of the mission and vision boards found in university's campus
01.01.07	Decision on the Educational objectives of CTU
01.01.08	CoA's mission and vision
01.01.09	Stakeholders' feedback
01.01.10	The Science and Education Councils of CoA
01.01.11	The Science and Education Councils of CTU
01.01.12	CTU Rector to approve and promulgate
01.02.01	IFT criteria
01.02.02	The academic year, commencement ceremonies at the beginning of the school year
01.02.03	Employer's needs
01.02.04	POs and PLOs of international program specifications
01.02.05	Drafting POs and PLOs on the basis of prior survey results
01.02.06	Organizing meeting on POs and PLOs from stakeholders

01.02.07	Updating the draft of POs and PLOs
01.02.08	Decision No. 4235/QĐ-ĐHCT (26/9/2018), on the establishment of the Steering Committee, Secretariat, and Team for modifying CTU programme which is uniformly applied from Cohort 45 (school year 2019-2024)
01.02.09	PLOs from 20 to 13 (programme 2014 and 2019)
01.02.10	Programme (2009, 2014, 2019)
Criterion 2. Programme Specification	
02.01.01	The common template for all programmes of CTU
02.01.02	Programme specification 2019
02.01.03	CTU's website
02.01.04	The MOET's Circular No. 14/2010/TT-BGDĐT
02.01.05	Programme specification 2015
02.02.01	The common template of course specifications for all programmes of CTU (Dispatch No. 2736/ĐHCT, 16/11/2020)
02.02.02	Updated course specifications in 2010, 2017 and 2019
02.03.01	CTU's annual events such as Admission Consultancy Day, admission consultancy and career orientation in high schools
02.03.02	Student's handbook
02.03.03	Study plan of students
02.03.04	Information of programme to the first year students (CTU's website)
Criterion 3. Program structure and content	
03.03.01	Mapping between POs and PLOs
03.04.01	Report on employment rates of BEFT students from 2016 to 2020
Criterion 4. Teaching and learning approach	
04.01.01	Decision on the educational objectives of CTU (No.3627/QĐ-ĐHCT on 27/10/2020)
04.01.02	Vietnam Education Law
04.01.03	Samples of course specification of fundamental knowledge block
04.01.04	Samples of course specification of specialised knowledge block
04.01.05	Course specification of thesis graduation
04.01.06	Data of scientific research projects of students and lecturers in recent years
04.01.07	List of graduate students BEFT to be continuous study at higher degree
04.01.08	Students joining practical and social activities
04.03.01	European Commission Long Life Learning
04.03.02	Excursion activities
04.03.03	Internship activities
04.03.04	Self skill training
04.03.05	Lecture sample of BEFT programme
Criterion 5. Student Assessment	
05.01.01	CTU admission scheme in 2020
05.01.02	Graduation assessment schedule
05.01.03	Decision on implementation of bachelor's thesis defense council
05.01.04	Multiple-choice and writing examination
05.01.05	Answer template and rubrics for evaluation
05.01.06	a. Decision of CTU on issuing Regulations of final exam b. Decision of Faculty on implementation of final exam council
05.01.07	Notifications of submitting the evidences of final exam (results and topics of examination)
05.01.08	Descriptive statistic for the final exam results
05.01.09	Assessment procedures to obtain the bachelor's degree
05.01.10	Evaluation forms for bachelor thesis and Minutes of bachelor's thesis defense

	council
05.01.11	Bachelor's thesis (presentation and confirmation of supervisor)
05.01.12	Picture of the meeting of bachelor's thesis defense
05.04.01	CTU academic regulations
05.05.01	Activities related with the review of results of final exam
Criterion 6. Academic Staff Quality	
06.01.01	Guidelines on the implementation of regulations on extending working time for lecturers with the titles of Professor, Associate Professor and Doctorate 2019, 2021
06.01.02	Deciding to retire during the last 5 years
06.01.03	The decision to extend the working time
06.01.04	The latest periodic planning of leaders announcement 2021
06.01.05	Guideline for periodic planning of leaders review
06.01.06	Regulations on re-appointment and appointment of new leaders at all levels in the university under the authority of the Rector
06.01.07	Implement the process of appointing and re-appointing the Head and Deputy Head of the Department
06.01.08	Requirements on the progress of teaching staff
06.01.09	Announcements and procedure for recruiting appropriate positions from CTU
06.01.10	Deciding on the recruitment of lecturers and teaching supporting staff
06.01.11	Decision of Head and Deputy Research Laboratory 2021
06.02.01	List of Food Technology students admitted in 5 years (2016-2021)
06.02.02	The decision to grant permission to study for a doctorate
06.02.03	The decision to grant permission to study for a postdoctorate
06.02.04	Teaching assignment table for the school year 2020-2021
06.02.05	Decision No. 871 dated 14/7/2021 Regulations on working regimes of lecturers
06.02.06	Decision No. 2748 dated 12/7/2019 Regulations on academic work for students
06.02.07	Study plan for the student K45
06.03.01	Planning for staff recruitment from CTU
06.03.02	Approving the labor plan paid by the College (CAAB)
06.03.03	Staff Recruitment Regulations from CTU
06.03.04	Approve recruitment results and notify stakeholders
06.04.01	The highest degree of the teaching staffs of food technology department
06.04.02	Study the highest rank of the teaching staffs of food technology department
06.04.03	Standards of Lecturer from the Ministry of Education and Training
06.04.04	High quality of food technology training program
06.04.05	Master program in English (Vlir-network)
06.04.06	Total number of G of lectures in the year 2020-2021 of the staff
06.04.07	Technology transfer contract for the past 5 years
06.04.08	Scientific research proposals at all levels in the past 5 years
06.04.09	Scientific articles published in the last 5 years
06.04.10	Books and textbooks published in the last 5 years
06.04.11	Organize and participate in scientific reports at national and international conferences
06.05.01	Announcement of the need for training and retraining plan of public employees for the period of 2021-2025
06.05.02	Project on capacity building of lecturers and managers of higher education institutions to meet the requirements of comprehensive reform of education and training in the period of 2019-2030 (Project 89)
06.05.03	Approving the additional list of the food technology subject participating in project 89 and guiding its implementation
06.05.04	Certificate of training in Belgium

06.05.05	Certificate of training in Japan
06.05.06	Certificate of training of research laboratory management
06.06.01	Regulations on working regimes for lecturers of CTU
06.06.02	Notice of registration of workload in 2021
06.06.03	Planning and process of considering emulation and commendation for the school year 2020-2021
06.06.04	Internal spending rules of CTU
06.06.05	The decision to emulate and reward of CTU staff
06.06.06	Plan to consider and decide to consider medals for the cause of education
06.06.07	Certificate of Merit for Minister, Prime Minister
06.06.08	Decision on emulation and commendation for ministerial and national level
06.07.01	The plan to check the scientific research activities of the University
Criterion 7. Support Staff quality	
07.01.01	General development plan of CTU
07.01.02	Recruitment plan of CTU, CoA, FTD
07.01.03	Decision No. 2346/QD-DHCT on tasks and functions of support staff working at CTU
07.01.04	Decision No. 2346/QD-DHCT on working procedure at CTU
07.01.05	Toxic allowances to support staff working
07.01.06	Documents relating to researcher supporting practical session and thesis
07.01.07	Academic advising regulation
07.01.08	Documents relating to advisor's mission
07.02.01	Recruitment notifications and documents
07.02.02	Decision on issuing regulations for duty of supportive staffs in centre and unit
07.02.03	Decision on issuing regulations for organizing, managing, and using the laboratories and experimental rooms
07.02.04	Certificates of academic advises
07.02.05	Decision on issuing regulations for promoting examination
07.02.06	Report on Science and Education Boards in 2018 about supportive staffs involving in scientific research projects
07.02.07	Evidence of supporting staffs participating in scientific research projects
07.02.08	Regulations on appointment, rotation, resignation and dismissal of leaders from CTU's subordinate units
07.02.09	Feedbacks from lecturers and students about supportive activities of CTU
07.03.01	Annual meeting among CTU staffs
07.03.02	KPI form for Support Staff
07.03.03	Annual classification regarding their ethical values, specialities and professional qualifications, performance of CTU's staffs
07.03.04	Report on annual classification regarding their ethical values, specialities and professional qualifications, performance of CoA's staffs
07.03.05	Routine meetings about competences of academic advisor sand feedback collection from students
07.04.01	Planning for the training procedure for CTU's staffs
07.04.02	Procedures for training courses: announcement, register
07.04.03	Training skills for supporting staff
07.04.04	Supporting staff participating in conference, workshops, symposium
07.04.05	Enhancement supporting staff's competence (scholarships and certificates)
07.05.01	Documents relating to assessment and classification for staffs (plan, report)
07.05.02	Decision on award at 'well completing missions' level (2019-2020 & 2020-2021)
07.05.03	Emulation Fighter (2019-2020 & 2020-2021)

07.05.04	Decisions on Achievement Award for Education by the MOET
07.05.05	Plan relating to an increase salary
07.05.06	Documents relating to an increase salary
Criterion 8. Student quality and support	
08.01.01	CTU admission project in 2020
08.01.02	Picture of the advising education enrollment programme
08.01.03	Feedbacks from of recruiter and alumni
08.02.01	The standard points table of CTU admission in 2021
08.02.02	The list of students of Food technology admission in 2020
08.03.01	a. Notifications for cancellation of class b. Teaching plan and Notifications for registration of course
08.03.02	Meeting minutes of the consultant and students
08.03.03	CTU's decisions for introducing the staffs to organise the internship program
08.04.01	Students support of the student affairs office
08.04.02	Period report of academic advisor
08.04.03	Announcement of academic warning
08.04.04	Pictures of internship activities in the factories
08.04.05	Email about the online internship in Yakult Company
08.04.06	Pictures of seminar of foreign professor
08.04.07	Pictures of seminar of staffs, PhD students, Master students
08.04.08	Pictures of student exchange program
08.04.09	CTU's decisions for student scientific research
08.04.10	Contest "Students with innovative start-up ideas 2021"
08.04.11	Pictures of sports competitions and cultural performances of students
08.04.12	Student scientific research award
08.04.13	Pictures of the student scholarship awards ceremony of alumni
08.04.14	Pictures of the meeting of alumni
08.04.15	The information about the fair supporting for students in the Covid situation
08.05.01	a. Center for student consultancy and startup b. Application for supporting scholarship
08.05.02	The list of public computers support for students
08.05.03	The quality management center in Can Tho University
08.05.04	a. Department of academic affair b. Notifications for tuition fees
08.05.05	Notifications for <i>online learning due to COVID-19</i>
08.05.06	a. Pictures of students in the library and Food technology campus b. CTU learning resource center
08.05.07	Pictures of new students welcome ceremony
08.05.08	Pictures of the meeting of Ho Chi Minh Communist Youth Union and camping activities
Criterion 9. Facilities and infrastructure	
09.01.01	Facilities for teaching and learning at CTU https://dap.ctu.edu.vn/so-lieu-thon/78-so-lieu-thong-ke-quy-3-2029.html
09.01.02	Overview of CoA and Pictures of activities at B007 hall
09.01.03	Spending plans 2016- 2020
09.01.04	Self-study pictures at FTD & Library, Wifi system
09.01.05	Documents relating to Can Tho University Upgrade Project
09.01.06	Documents relating to students' satisfaction with classroom conditions and teaching facilities
09.02.01	CTU's LRC website; http://www.lrc.ctu.edu.vn
09.02.02	Documents relating to CTU's LRC and CoA's library

09.02.03	Statistics on information resources of LRC up to June 2021
09.02.04	Statistics of information resources updated every year 2016-2021
09.02.05	LRC's Online database
09.02.06	Guidance for finding documents online at LRC https://lrc.ctu.edu.vn/index.php/search/online-search-guide
09.02.07	Guidance for using information resources at LRC https://lrc.ctu.edu.vn/index.php/aboutus/lrc-guide
09.02.08	Summary report for the 2019-2020 academic year, plan of work for the 2020-2021 academic year
09.02.09	Survey activities at the LRC annually
09.02.10	Results of surveying users of LRC
09.02.11	Library of the CoA
09.02.12	BEFT students' satisfaction with the quality of the services and resources at LRC and the College library
09.03.01	Screenshot of the second quarter statistics data page of Department of Administration and Planning's website in 2021
09.03.02	Application form for using equipment
09.03.03	Student doing research images at FTD's Labs
09.03.04	FTD's Labs and Decision on Laboratory regulations
09.03.05	Laboratory regulations
09.03.06	Report of using devices
09.03.07	Meeting and seminar (E003) at the CoA
09.03.08	Screenshot of "CTU's upgrade project" on Research Laboratory Complex
09.03.09	List of equipment at 7 laboratories of FTD from ODA project
09.03.10	Plan and guide of asset inventory, procurement and equipment repair
09.03.11	Funding delivery to CoA from 2016 to 2021 and FTD's new equipment procurement contract
09.04.01	Wifi covered whole CTU campus
09.04.02	Information and Network Management Center [https://inac.ctu.edu.vn/phong-may-tinh]
09.04.03	Help desks for users. Guidance for registering to use public computers
09.04.04	Teaching and learning management system [https://htql.ctu.edu.vn/htql/login.php] https://dkmh3.ctu.edu.vn/login.php
09.04.05	Online management system of CoA's official documents https://qlcv.ctu.edu.vn/ https://dap.ctu.edu.vn/van-ban/van-ban-cap-truong.html https://coa.ctu.edu.vn/bieu-mau-coa.html
09.04.06	Facilities for online learning activities
09.04.07	Online teaching _Distance learning https://elearning.ctu.edu.vn/login/index.php
09.04.08	Instructions for installing and using the software in online teaching and learning https://helpdesk.ctu.edu.vn/day-hoc-truc-tuyen/86-msteams
09.04.09	CTU's instructions for E-learning https://helpdesk.ctu.edu.vn/day-hoc-truc-tuyen
09.04.10	Pictures of online teaching
09.04.11	Documents relating to survey on students' satisfaction level for IT facilities
09.05.01	Decisions of Can Tho city relating to environment, safety and health care
09.05.02	Documents relating to cleaning activities at CTU's campus
09.05.03	CTU's notifications on health checking-up for new students and staffs
09.05.04	Documents relating to CTU's medical clinic

	https://dsa.ctu.edu.vn/y-te.html https://dsa.ctu.edu.vn/images/upload/vbanply/2021/HotroOnline/03_4645KHTH_15-12-2020.pdf
09.05.05	Documents relating to Covid-19 pandemic prevention https://dsa.ctu.edu.vn/thong-bao/tin-hoat-dong/347-cach-phong-tranh-coronavirus.html
09.05.06	Pictures of CTU's Fitness Center and sport activities https://ssc.ctu.edu.vn/hoat/141-bcnam2020.html
09.05.07	Pictures of security cameras system of CoA
09.05.08	Documents relating to safety during Tet holiday
09.05.09	Pictures of fire fighting and prevention facilities
09.05.10	Documents and Images relating to fire drills at CTU
09.05.11	BEFT students' satisfaction on environment, health and safety 2016-2020
Criterion 10. Quality enhancement	
10.01.01	Evidence collection process for quality assurance and stakeholders survey plans
10.01.02	The stakeholders feedback mechanism
10.01.03	Questionnaire for feedbacks from stakeholders
10.01.04	Minutes meeting with stakeholders on BEFT programme
10.01.05	Plan No2222_KH_ĐHCT_update BEFT
10.01.06	BEFT_Minutes of meeting with employer_alumni_2016, 2018
10.01.07	Minutes of the group meeting to adjust the BEFT programme
10.01.08	Feedback from learners on teaching activities
10.01.09	Summary of the modified BEFT programme in 2019
10.02.01	Regulations issued together with Circular 07/2015/TT-BGDĐT
10.02.02	Document No: 2223/ĐHCT (Instruction on revising academic programs, signed on 19-Oct-2018)
10.02.03	Documents and training plans on AUN-QA and BUILT-IT
10.02.04	Evaluation results of balance of material and energy course
10.03.01	Academic regulations 2020, 2021
10.03.02	Summaries and orientations of training and education activities in the academic year 2020-2021
10.03.03	Decision 1640_Regulations on the feedbacks from the stakeholders
10.03.04	Presentation of group assignments
10.03.05	Videos used in teaching
10.03.06	Integration of practical activities of enterprises into teaching contents
10.03.07	Feedback from students on balance of material and energy; food technology courses_(2016-2021)
10.04.02	Proposals for research
10.04.02	Certificate of student's scientific research award
10.04.03	The contribution of scientific research activities to the improvement of T&L activities
10.05.01	Summary Report_ Student survey on facilities and support services
10.05.02	Scholars for poor students
10.06.01	Online opinion gathering system from stakeholders
10.06.02	Summary report on quality assurance activities and its orientations at CTU_(2015-2020)
10.06.03	Signed MOU
10.06.04	Munities meeting between FTD and Vinh Hoan company
Criterion 11. Output	
11.01.01	Periodical meetings of CoA about causes and solutions for students behind

	schedule
11.01.02	Graduation data of CoA students from 2015 to 2020
11.01.03	Dropout data from 2015 to 2020
11.01.04	Announcement of academic warning
11.02.01	Form for increasing class size and joining class https://coa.ctu.edu.vn/tin-tuc-cntp/thong-tin-tuyen-dung/933-cac-bieu-mau-can-thiet.html
11.02.02	Schedule of advisor's meeting
11.04.01	Research handbook
11.04.02	Annual scientific conference/workshop
11.04.03	Sample of bonus score for academic performance
11.04.04	List of publications of BEFT students
11.05.01	Feedbacks of graduated students for BEFT program
11.05.02	Feedbacks of employers

Supplementary	
S.10.01.01	Regulations on compiling and selecting curriculum_ CTU 2015
S.10.01.02	Procedure for inspecting and evaluating teaching process
S.10.01.03	Lecturer's schedule
S.10.02.01	Questionnaire for feedbacks from newly-graduated students on the programme
S.10.02.02	Questionnaire for feedbacks from academic staff on support activities and services by CTU

SUPPLEMENTARY

Table S.7.1: Support staff at university level

Unit	Qualification					Total
	High school	College	Higher Education	Master	PhD	
Department of Political Affairs	16	1	9	1		27
Department of Academic Affairs	1		7	2		10
Department of Student Assistance	2		10	3	1	16
Department of International Relations			7		3	10
Department of Administration and Planning	21		8	2	2	33
Department of Scientific Research			8	2	3	13
Department of Facility Management	9		6	1		16
Department of Financial Affairs	3		7	4		14
Quality Management Center			1	3	1	5
Learning Resources Center	11	1	15	7	1	35
Information and Network Management Center		1	4	4		9
Center for Student Consultancy and Start-up			1	1	1	3
Center for Assessment of Foreign Language Capacity			1	2	1	4
Department of Legality			1	1	1	3
Total	63	3	85	33	14	198

Source: Can Tho University, 2021

Table S.9.1: Lab system for training BEFT

College - Department	Course work	Knowledge
College of Information and Communication Technology, Department of Applied Informatics	Experiment on Basic Informatics in Labs (*)	General Knowledge
College of Natural Sciences, Department of Physics	Fundamental Physics Practice	
College of Natural Sciences, Department of Chemistry	Fundamental Chemistry Laboratory	
College of Natural Sciences, Department of Chemistry	Practice General Analytical Chemistry	
College of Agriculture, Department of Physiology, Biochemistry	Experiment on Biochemistry	
College of Agriculture, Department of Food Technology, Biological technology research and development institute	Microbiology Practical	Fundamental knowledge
College of Technology, Department of Electrical Engineering	Electrical Engineering	
College of Agriculture, Department of Food Technology	Physical Chemical Processes in Food Technology	
	Material and Energy Balances	
	Unit Operation in Food Processing _ in laboratory	
	Thermodynamic Engineering	
	Case Study in Unit Operation in Food Processing	
	Applied Informatics _ Food Technology	
College of Agriculture Department of Food Technology	Physical Properties of Food	
	Food Chemistry	Specialised knowledge
	Food Microbiology	
	Sensory Evaluation and Consumer Research	
	Food and Food technology	
Graduation Project		

Table S.9.2: List of the labs and pilot plants of The FTD (S2)

Labs	Equipment	Costs
Food Biotechnology Lab.	Bioprocess Control Station; UV/VIS Spectrophotometer; Magnetic Stirrer; pH Meter; Ultrasonic Welding Machine; 2-D Electrophoresis System	
Food Technology Lab	Freeze Dryer; Tray Dryer; Recirculating Bath; Rotary Evaporator; Oil Bath; Vacuum Tumbler; Vacuum Chamber; pH Meter; Fume Hood; Colorimeter; Moisture Analyzer; UV/VIS Spectrophotometer; Refractometer; Soxhlet Extractor	
Food Chemistry Lab	Centrifuge; Fume Hood; Parallel Reaction Station; UV/VIS Spectrophotometer; Water Activity Meter; Viscometer	
Food Microbiology Lab	Autoclave; Biosafety Cabinet; Biospectrometer; Incubator; Autoclave; Refrigerated Centrifuge; Multi Vortex; Gas Chromatograph; Microscope; Refrigerated Incubator; Shaking Incubator; Blender; Transilluminator; UV/VIS Spectrophotometer; Rotary Evaporator; Cell Counter	
Food Process Engineering Lab.	Water Activity Meter; Thermal Imager; Differential Scanning Calorimeter; Temperature Sensor and Datalogger; Wireless Temperature and Pressure Recorder; In-line Brix-Monitor; Viscometer; Cool Air Dryer; Multiple processing Machine	
Postharvest Technology Lab	GC-ECD; UV/VIS Spectrophotometer; Colorimeter; Tenderometer; Vacuum Packaging; Micro Refrigerated Centrifuge; Centrifuge; Respiratory Gas Analyzer	
Food and Nutrition Lab	Alcohol Analyzer; Calorimeter; Viscometer; Centrifuge; Kjeldahl Digester; Refractometer; Soxhlet Extractor; Visible Spectrophotometer; Oil Analysis; Body Composition Analyzer; Titrator	
Pilot plants	Fish & Meat Pilot Plant; Cereal Pilot Plant; Beverage Pilot Plant; Postharvest Tech. Pilot Plant); cold-storage houses	
Total cost		\$ 1,590,000

Table S.10.1: Regulations on the teaching and learning activities as student assessment

Regulation	Content	Undertaken by	Time to carry out
Teaching/learning process			
Regulations on the lectures Regulations on the compilation and selection of textbooks [S.10.01.01]	Detailed syllabus	Compiled by lecturers; Approved by FTD	Before the class session
The inspection and testing procedure of the teaching process and the organisation of the end-term exam [S.10.01.02]	Lecturers' teaching schedule [S.10.01.03]	Department of Legality, CoA	Daily and monthly
Feedback collections with students [10.03.07]	Students' feedback on the teaching methods [10.03.07]	Students Quality Management Center	Online surveys after each course
Continuous assessment			
- Regulations on assessment activities - The monitoring and assessing procedure of the teaching process and organisation of the end-term exam; - Regulations on assessment and control of students performance - Regulation on revalidation and re-taking of exams [10.03.01]	Students' performance is assessed through mid-term and end-term exams, as well as essays with different weights and guides on grading, etc.	Department of Academic Affairs Training units	During the semesters
- The monitoring and assessing procedure of the teaching process and organisation of the end-term exam;	Exam questions supervision, exam organisation and academic integrity of exams are ensured every semester.	Training units; Lecturer	
Feedback collections with students [10.03.07]	Students' feedback on the assessment methods	Students; Quality Management Center	Online surveys after each course

Table S.10.2: Contents of related stakeholders survey

Participant	Survey contents	Source
Students	Content, progress and the assessment methods are introduced. Lecturers provided clear instructions and explanations. The teaching and assessment methods were appropriate. Level of satisfaction. Other feedback [10.01.08] .	Online survey system by Information and Network Management Center.
Newly-graduated students	The correlation between the study programme and reality. Opportunities to contribute to the design and development of the study programme. Satisfaction with the study programme, teaching methods, the facilities and other support services [S.10.02.01] .	Support staff in charge of student affairs
Companies/Enterprises	Satisfaction with the contribution of BEFT graduates (professional skills, foreign language competence, team-working skills, creativity, etc.) Were satisfied with the BEFT programme. Levels of employers' contribution to the development of BEFT programme. Quality enhancement project. Connection with CoA [11.05.02] .	Support staff for CoA employees
Staff and employees	Such suggestions were helpful in the improvement of equipment, facilities, teaching activities, extra-curricular activities and the services of CTU [S.10.02.02] .	Leaders of CTU collect feedback during the year-end meetings

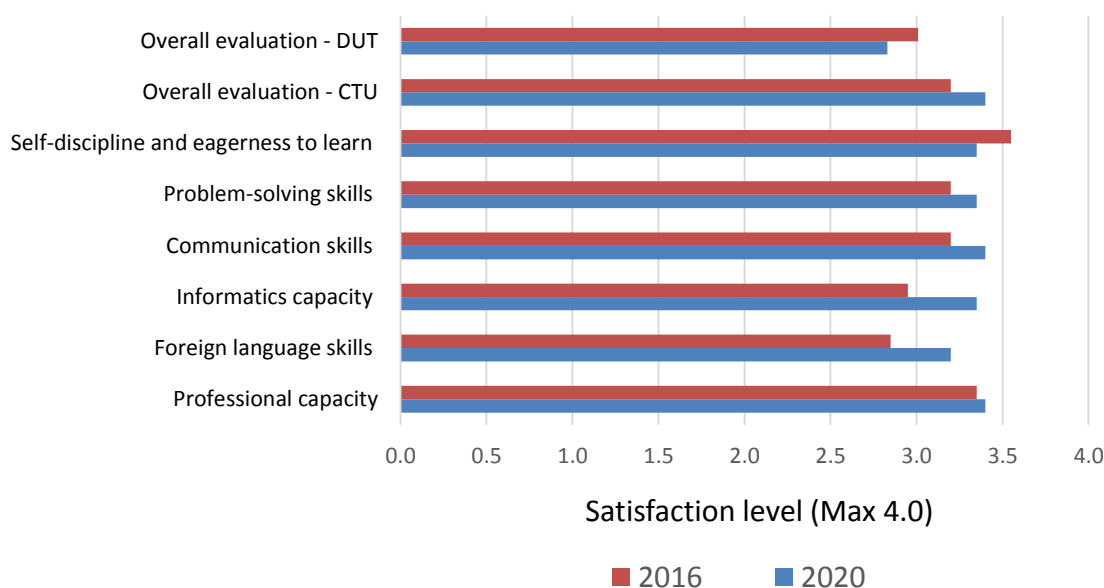


Figure S.11.1: Satisfaction levels of employers on the BEFT programme

Note: Corresponding score: 1-Very unsatisfied; 2-Unsatisfied; 3-Satisfied; 4-Very satisfied. The outcomes are compared to those of The University of Da Nang (survey conducted in the 2015 - 2018 period)

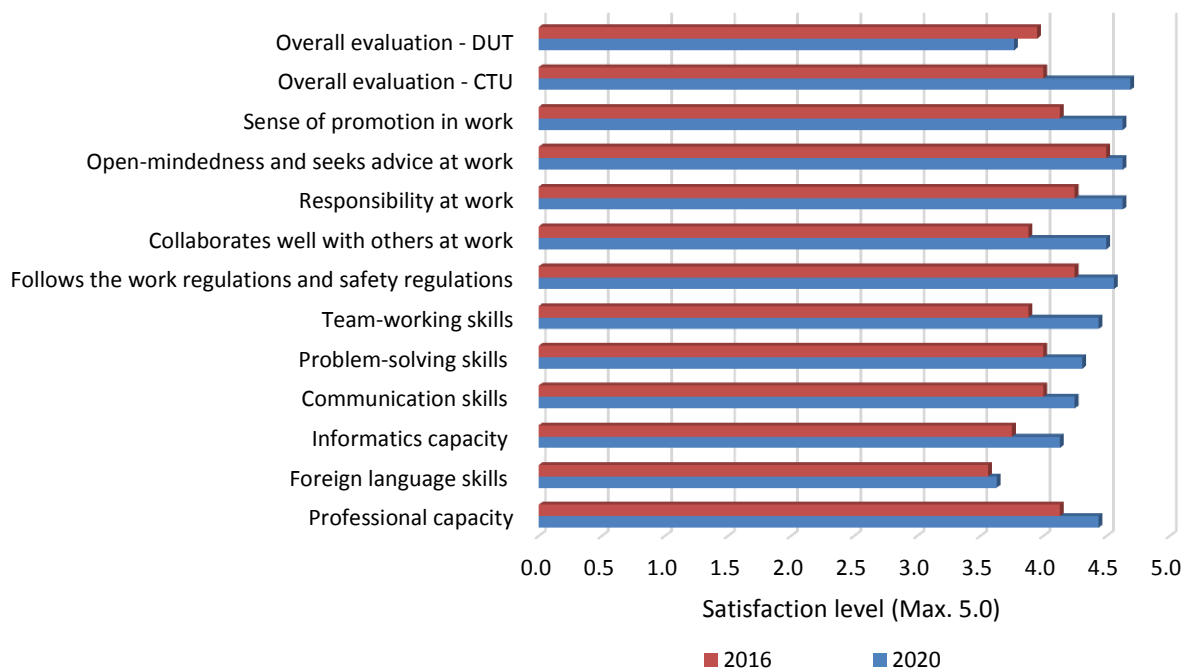


Figure S.11.2: Satisfaction levels of employers on employees who are BEFT graduates

Note: Corresponding score: 1-Very weak 2-Weak 3-Average 4-Good 5-Very good. The outcomes are compared to those of The University of Da Nang (survey conducted in the 2015 - 2018 period)

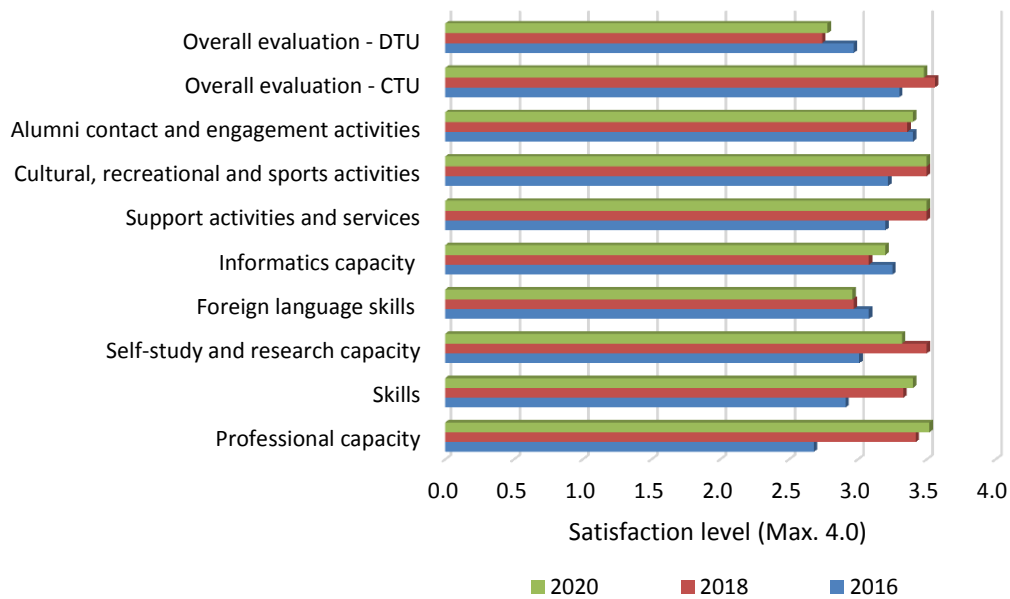


Figure S.11.3: Satisfaction level of the alumni on BEFT programme

Note: Corresponding score: 1-Very unsatisfied; 2-Unsatisfied; 3-Satisfied; 4-Very satisfied. The content of the general assessment was compared between BEFT programme of Can Tho University and that of The University of Da Nang (surveys with the alumni of the last 3 cohorts in 2018-2020)

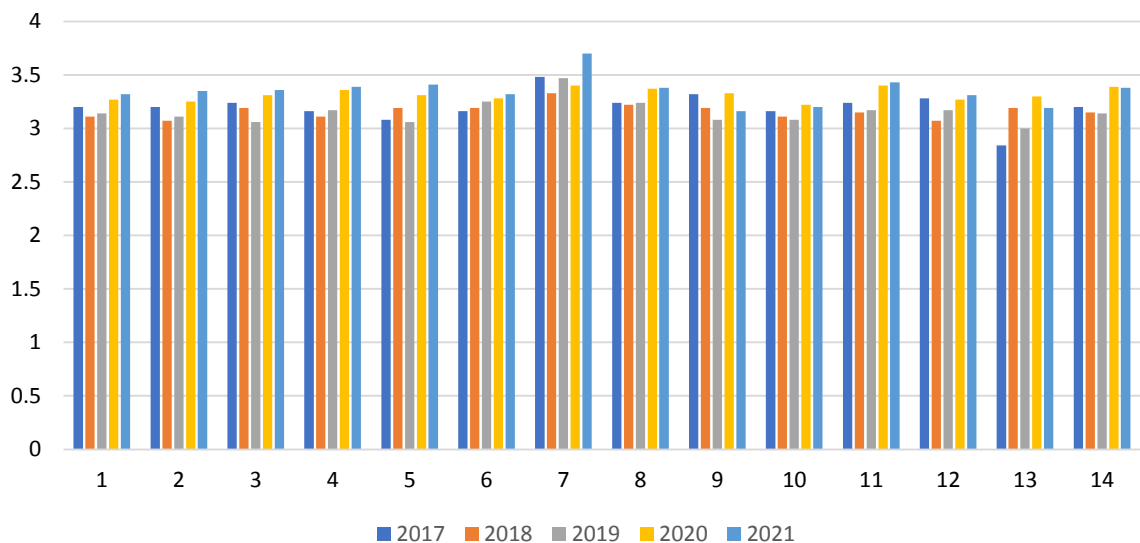


Figure S.11.4: Satisfaction level of the newly-graduated BEFT students on the study programme

Note: Corresponding score: 1-Very unsatisfied; 2-Unsatisfied; 3-Satisfied; 4-Very satisfied. (1) The balance in knowledge; (2) The programme builds up your learning and research capacity; (3) The syllabi show clear expected learning outcomes; (4) Clear and specific evaluation contents and criteria; (5) The harmonious correlation between and among the courses; (6) Teaching methods; (7) Student records update; (8) Consultancy and assistance; (9) Equipment, theory classrooms; (10) Equipment, practice laboratories; (11) Reference materials; (12) Feedback collection on teaching activities; (13) Information and support activities in job seeking; (14) Overall assessment.

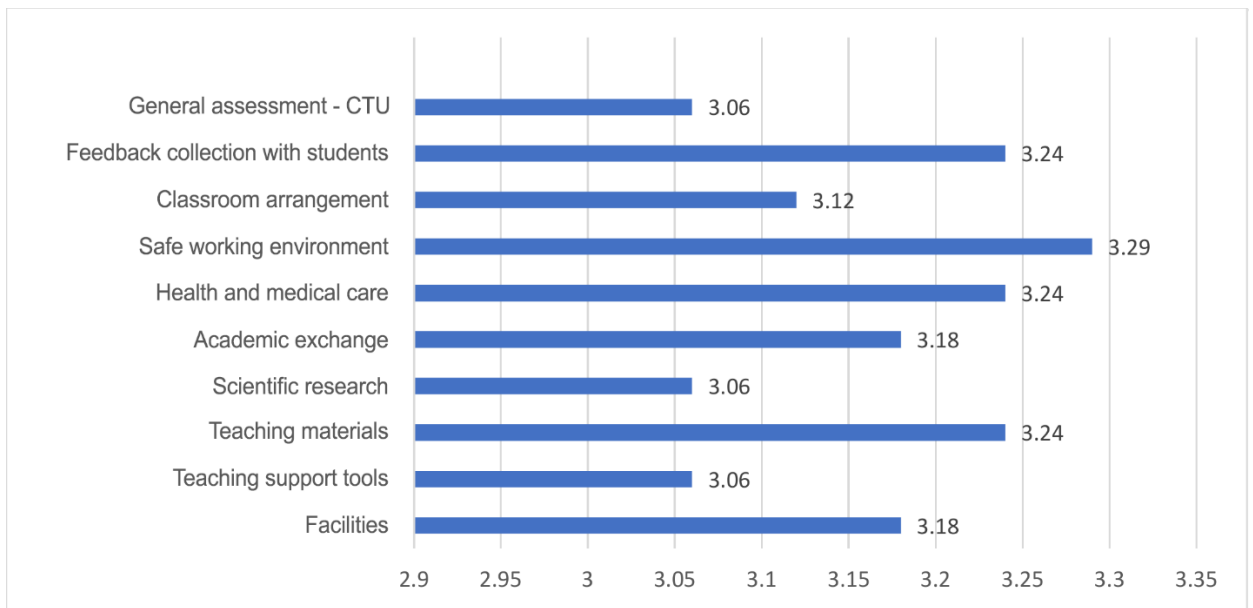


Figure S.11.5: Satisfaction level of the newly-graduated BEFT students on the study programme

Note: Corresponding score: 1-Very unsatisfied; 2-Unsatisfied; 3-Satisfied; 4-Very satisfied



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