

SEA-ABT: SOUTH EAST ASIA ACADEMY FOR BEVERAGE TECHNOLOGY

Project number: 561515-EPP-1-2015-1-AT-EPPKA2-CBHE-JP

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Deliverable D2.2**Report on implemented HE concepts****Prepared by:** Chaleeda Borompichaichartkul (CU)**Contributors:** Sasitorn Tongchitpakdee (KU), Paola Pittia (UNITE)**Delivery date:** M40 – February 2019

Dissemination Level		
PU	Public	X
PP	Restricted to other programme participants (including Commission services and projects reviewers)	
CO	Confidential, only for members of the consortium (including EACEA and Commission services and projects reviewers)	

Summary:

The Development and implementation of overall HE concepts for example joint master, double degree (DD) or tuning of existing curricula are explored to develop an appropriate HE program together between Thai Universities or European Universities. The consideration to explore the possible HE concept is based on the following:

- a) The *"EQAS Food Award Procedures, Criteria and Standards"*, developed by IFA which give the minimum requirements for the accreditation of food study programmes according to the learning outcomes related to Food Safety and Microbiology, Food Chemistry and Analysis. Food Processing and Engineering, Quality Management and Food Law and Generic Competences like communication abilities, ethics etc.
- b) The complexity of the HE program should be at minimum and both sides (Thai and Europe) can work together without conflict and difficulties for the students

The HE concept that is selected for implementing is a Double Degree (DD) of MSc in Food Science and Technology between CU and UNITE as well as KU and UNITE. Content and study plan of the program have been discussed in detail between CU, UNITE and KU. In order to create the DD program, MoU and MoA are developed and be signed by involved university. A roadmap of the DD program working group is made to direct the task to a successful developed DD program. Exchange visits between Thai University and UNITE have been conducted. In the same time UNITE staff is invited to lecture in CU to see the environment, classroom, facility and nature of Thai students that may be need to consider to develop DD program. Since, students need to stay at host university at least 9 months. CU, KU also visited UNITE as well. The HE concept also includes:

- recommendations for the integration of modules, courses and educational products in running and new study programmes
- a plan for exchanges of teachers and students between Thailand and Europe
- a plan for Industrial placement of teachers and students
- a plan for involvement of guest lecturers from the industry

The DD program is send to home university to be approved and the DD program will be started in August 2020.

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1 Introduction

The SEA-ABT consortium was planned and the project focused on Beverage Technology was designed and developed involving three EU and three Thai universities with Departments/Faculties and study programmes in the wider food science and technology sector. Within the ERASMUS+ Capacity Building framework and the SEA-ABT project the implementation of joint study programmes between EU and Thai universities complementing the post-graduate study programme on Beverage technology was also included thanks to the early interest of the University of Teramo (IT), Chulalongkorn University and Kasetsart University. This was aimed also to set a more tight and long-lasting interaction and collaboration in both Higher Education and Research developed within the SEA-ABT project.

University of Teramo (UNITE) hosts a Bachelor and a Master Degree in Food Science and Technology, and the second from the Academic Year 2016-2017 is, according to the Italian law, international, being taught fully in English and having already students from non-Italian countries.

Chulalongkorn University (CU) hosts Food Science and Technology, M.Sc. program which is one of the international programs offered in the Faculty of Science, CU. The program is operated by the Department of Food Technology. For more than 18 years, M.Sc. graduates from the program have become successful working in both private and government sector in Thailand and ASEAN. With many international academic and research collaborations, including the DDM in this Agreement, Food Science and Technology, M.Sc. Program will grow together with its partner universities and continue to thrive and succeed in the scientific world.

Kasetsart University (KU) hosts a Master Degree in Food Science and Technology, which is also offer international program to be collaborated with UNITE.

After a preliminary evaluation of the possible strategies and tools to strengthen collaborations in study programmes and selection of the preferred route. Then UNITE, CU and KU finalised, in agreement with the respective Rectors and Deans to deepen and explore the route for a Double degree programme in Food Science and Technology.

The activities planned to implement joint study programmes were the following:

- Development of the Roadmap of the double degree programme, including
 - o Signature of Memorandum of Understanding between UNITE and CU and UNITE and KU
 - o Study and design of the joint (Double) degree programme between UNITE and CU and UNITE and KU
 - o Draft and signature of the Memorandum of Agreement between UNITE and CU and UNITE and KU
- Approval by the universities and implementation of the curricula.

BOKU and King Mongkut Universities did not express interest to explore further possibilities to joint study programmes while having among them existing teachers and students exchange within the study programmes in Food Science and Technology/Food Engineering. Geisenheim University didn't express interest in being involved in this activity since the beginning of the project.

2 Preliminary evaluation of the strategies for double degree/joint degree program between EU and Thai Universities

CU reviewed the possibility to develop double degree/joint degree program and discuss with UNITE and KU via online meeting. Investigation of possibility to develop double degree/joint degree program have been investigated and drafted as in Table 1.

Table 1 The possible practices

<p>✓(1) Exchange program between Thai University and SEA-ABT, exchange staff from SEA-ABT to teach in beverage technology in related subjects of Thai University, students from Thai University can participate the CPD course, guest lecturers from partner industry from SEA-ABT can teach in Thai Partner University or vice versa.</p>					
Program	Subjects from SEA-ABT	THAI University	Subject from Thai University that matched	Advantages	Disadvantages
SEA-ABT	Special problems – garage concept	CU KMUTL KU	-Individual study, -Selective Topics, -Special problems in Food Science	-can be used as test run -can do it straight away	Limited to some subjects
<p>✓(2) Exchange program between Thai University and Europe – in terms of credit transfer but the students has degree from the mother university, MOU is required as well as annex on accepted subjects regarding for credits that students can earn</p>					
Europe University	Subjects from EU	Thai University	Subject from Thai University	Advantages	Disadvantages
UNITE, BOKU, Geisenheim	(need to address)	CU KMITL KU	-Any subjects in international course, -For undergraduate is internship for 250 h -Thesis collaboration	-Only need the MOU - flexible - both students and staff can exchanged	-Need to check the MKO2 for Thai University for accepting credit transfer to complete the degree

✓ (3) Double degree (Cotutelle) –joint enrollment for both universities and subjects that to be accepted, MOU can be signed,

Europe University	Course from EU	Thai University	Course from Thai University	Advantages	Disadvantages
UNITE BOKU Geisenheim	(need to be addressed)	CU, KMITL, KU	MSc PhD	- Open more opportunities - 2 Degree	-Take time -Need to revise the existing curriculum to suit the time frame -Two different topics -Separate examination

X (4) Joint degree – Joint enrollment at both universities, MOU required, need to discuss more and design the curriculum together.

Europe University	Subjects from EU	Thai University	Subject from Thai University	Advantages	Disadvantages
UNITE BOKU Geisenheim	(need to address)	CU, KMITL, KU	MSc PhD	-Single thesis submitted to lead university -One university is designated to lead Joint examination	-Require academic senate approval

Summary

- Start option 1-3, option 3 –KU has guideline to do.
- CU will draft the MOU document and flowchart of steps then will be send to UNITE.

3 Development roadmap of double degree program

CU, KU and UNITE conducted many meetings via skype, online or visit at each university to make a road map of double degree together, the road map is as following

Table 2 Roadmap of the double degree program

Time	Activity
August – December 2017	MoU to be drafted UNITE visits CU and KU for discussion on study plan
January – June 2018	MoU to be checked by legal office in each University
August 2018	MoU to be signed CU and KU visit UNITE for 2 nd revision of study plan
September – December 2018	UNITE visit KU and CU for working on MoA of DD
January – February 2019	MoA to be finalised
March– April 2019	Annex to be finalised
May 2019	MoA to be signed
June – December 2019	Ask for University Council permission
January – May 2020	Application for DD open
June – July 2020	Selection process
August 2020	Start DD course



Figure 1 Prof Dr Paola Pittia and Prof Dr Dario Campagnone from UNITE visit CU to discuss on Road map of DD program

เรียนเชิญ คณาจารย์และนิสิต ฟังบรรยายพิเศษจาก
UNIVERSITY OF TERAMO (UNITE), ITALY
 วันที่ 7 กันยายน 2561 เวลา 9.00 – 12.00 น ณ ห้องประชุม
 ชั้น 8 ภาควิชาเทคโนโลยีทางอาหาร อาคารมหาวชิรุณหิศ



9.00 -9.30 am - **Introduction of Food Technology Research Unit at UNITE/** opportunity for collaboration in academic and research by Prof Paola Pittia, Vice Rector on International Affairs

9.30 -10.30 am - **Innovation in processing and formulation to enhance health quality of beverages** by Prof Paola Pittia

10.45 – 11.45 am - **Novel approaches for sensing quality and safety in foods** by Prof Dario Campagnone



Prof Paola Pittia



Prof Dario Campagnone

Free Seminar
 No need to register...just walk in!!

All is welcomed
 7 Sep 2018, 9-12.00 at Meeting Room Level 8
 Mahavajirunnahit Building, Department of Food Technology

Figure 2 Prof Dr Paola Pittia and Prof Dr Dario Campagnone from UNITE give lecture at CU



Figure 3 Prof Dr Paola Pittia and Dr Marco Faieta from UNITE visit KU to discuss on Road map of DD program

4 MoU between Chulalongkorn University (CU) and University of Teramo (UNITE), Kasetsart University (KU) and University of Teramo

The MoU between CU and UNITE as well as KU and UNITE are drafted and approved by Legal office of each university and Rector or the President signed the MOU on July 9, 2018 at University of Teramo.



Figure 4 MoU signing ceremony at UNITE on July 9, 2018, CU and UNITE



Figure 5 MoU signing ceremony at UNITE on July 9, 2018, KU and UNITE

The MoU detail is presented in the Annex 1.

The MoU includes program structure (credits and duration in each university), number of students exchanged (in, out or both), selection procedures, recognition of credits, financial arrangements (include tuition and fee discount), faculty development, supervision arrangements, thesis and examination, degree requirements and intellectual property right.

5 MoA of double degree program and study plan between CU and UNITE, KU and UNITE

The Memorandum of Agreement of the Double Degree programs and necessary documents have been implemented from July 2018 till April 2019. This involved virtual meetings between UNITE and CU and UNITE and KU along with meetings held in Bangkok in September 2018 and February 2019 during which all the practical aspects of the Double Degree programmes have been deeply discussed taking into account all the details.



Figure 4 The discussion of study plan between CU, KU and UNITE at UNITE on July 9, 2018

The draft MoA and study plan of the Double Degree study programme between UNITE and CU is shown in the Annex 2 while MoU between KU and UNITE are reported in Annex 3.

UNITE, CU and KU are finalizing all the official documents to start the DD study programme in the Academic Year 2019-2020 with the start of the students exchange in July or August 2020.

6 Implementation plan for double degree program and sustainability

The action plan of double degree program between CU and UNITE is planned to start on August 2020 therefore, the following action plan is constructed.

Time	Activity
February to April 2020	Application open
May 2020	Selection process
June 2020	Announcement
August 2020 – May 2021	Start DD program at home university
August 2021 – May 2022	Start DD program at host university
June 2021	Evaluation 1
June 2022	Evaluation 2

7 Additional actions

In order to support the under definition and implementation Double degree programmes between UNITE and CU and UNITE and KU, UNITE has made an application in January 2019 for an ERASMUS+ Credit Mobility grant (KA 107) for supporting students and teachers exchange and mobility. Results will be available in summer 2019.

Annex

1. MoU CU and UNITE



AGREEMENT OF CULTURAL AND SCIENTIFIC COOPERATION

BETWEEN

The University of Teramo, represented by the Rector Prof. Luciano D' Amico
residing in Via Renato Balzarini – Loc Colleparco, 64100 Teramo

AND

Chulalongkorn University, represented by the President, Prof. Dr. Bundhit
Eua-arporn residing in Chulalongkorn University, 254 Phayathai road, Wangmai,
Pathumwan, Bangkok, Thailand, 10330

General Provisions

- Given that cultural and scientific exchange is indispensable to academic institutions to develop their educational and research activities;
- given that, for the above-stated purpose, it is necessary to promote and encourage direct cultural agreements between institutions of higher learning in different countries;
- having verified the mutual interest that the University of Teramo (Italy) and Faculty of Science, Chulalongkorn University (Thailand) share in establishing an appropriate form of exchange program in the field of Food Technology;
- in agreement with the laws of the two countries and, as far as the Italian law is concerned, with Ministerial Decree of October, 22 2004 n. 270 concerning forms of educational autonomy of individual universities and for the Chulalongkorn University, under the Chulalongkorn University Act B.E. 2551.

THE FOLLOWING TERMS OF AGREEMENT ARE STIPULATED

ART. 1

The form of cooperation, based on strictly-observed criteria of equality and mutual interests, includes the following activities:

- 1) Exchange visits of members of teaching and research staff of both Universities. Visits are intended to promote seminars, courses, conferences, lectures, to carry out joint research projects, to discuss experiences in fields of common interest, and so forth.
- 2) Student exchange for the purpose of attending courses, participating in professional training and specialization programs or other educational activities.
- 3) Exchange visits of post-graduate students for periods of study and research.
- 4) Exchange visits of members of technical or administrative staff when considered a profitable experience.
- 5) Circulation of publications and information on the specific fields of study and research included in this agreement and on any other subject of relevant interest.
- 6) Planning and development of joint research projects
- 7) Planning and development of joint dissemination events, conferences and other scientific and cultural events.
- 8) Design and development of joint training and educational activities in the field of both the Higher Education framework and the Lifelong Learning for Curriculum Professional Development.

The partners to this agreement intend to encourage student mobility according to a criteria of reciprocity. The host institution will make available to host students their didactical facilities and tutorial services.

Upon the approval of the appropriate administrative bodies, exchange students will be given academic credits for the work done at the foreign institution.

Universities participating in the exchange activities agree that no tuition fee will be imposed, except those fees required by the law of the country and the not oppose to the regulation of each University.

ART. 2

Administrative bodies of the partners to this agreement will exchange all relevant information – by supplying catalogues and other materials – to promote greater and mutual knowledge on their institutional structure and organization.

ART. 3

In conformity with laws and regulations of their respective countries, the partners to this agreement will provide to exchange visitors from the partner institution all possible assistance and access to facilities to enable them to carry out the activities agreed upon.

ART. 4

Visitors sent by one University to the other must have both medical and accident insurance. This may be provided either by their home institution, according to its own regulations, or it may be directly set up by the interested person, through the stipulation of a policy with an insurance agency guaranteeing the above mentioned risks. The host university will be free from any responsibility to provide schemes of medical and accident insurance to its foreign guests.

ART. 5

Each of the parties commits itself, through its participating units, to search funds to carry out the activities foreseen by this agreement depending on availability. Each party will bear the cost of its participation in activities unless otherwise agreed. If institutional funds are not available for these purposes, student and staff mobility will be possible; in this case exchange visitors will be directly responsible to fully cover their own expense for travel, room and board, without any charge for the two universities.

ART. 6

Each of the parties allows the non-commercial use of their logo in dissemination of the activities, program or curriculum that developed under this agreement.

In case any invention is made in connection with or through the activities planned within this agreement, each party shall promptly report the invention(s) thereof to

In case any invention is made in connection with or through the activities planned within this agreement, each party shall promptly report the invention(s) thereof to the other party. All issues regarding publication and/or patent of the invention shall be determined through bilateral consultation. No party shall disclose the invention to a third party without the prior written consent of the other party.

The proprietary upon Intellectual Property and rights of whatsoever nature in such property including but not limited to, research projects, seminars, courses, planning and development of joint research projects, results, inventions, manuals, documents, computer programs, data or any other materials generated from the activities conducted under this agreement shall be considered on case by case basis by the parties.

Notwithstanding the aforementioned, Intellectual Property and rights shall exclude information that:

- (1) lawfully in the possession of either University prior to the commencing of the project under this agreement, yet is applicable to be used for the purpose of research, institutional structure and organization.
- (2) has been used or developed in other projects, and already in possession of either University before this project, regardless of simultaneous use and development with the related activities under this agreement.

ART. 7

The implementation of the activities foreseen by the agreement will be promoted, initially, by the following Coordinators, appointed by each University:

University of Teramo

Prof. Paola Pittia

Faculty of Bioscience and Technology
for Food Agriculture and Env.

Chulalongkorn University

Prof. Dr. Polkit Sangvanich

Faculty of Science

This agreement is to be drawn up in English and in Italian.

English will be used as common language to communicate in this agreement.

The present agreement will become effective from the date the contract is signed and will be valid for one year; it will then be tacitly renewed from year to year, for 5 years from the signing of the agreement, unless notice of termination of the agreement is given by one of the two parties at least six months before expiration.

The Rector
University of Teramo
Prof. Luciano D'Amico
Teramo, Date



The President,
Chulalongkorn University
Prof. Dr. Bundhit Eua-arporn
Bangkok, Date



2. (Draft) MoA CU and UNITE

ACADEMIC COOPERATION AGREEMENT

for

Dual M.Sc. Degree Program in Food Science and Technology

University of Teramo

(Your detail of program here)

Chulalongkom University

(M.Sc. Food Science and Technology (International Program),

Department of Food Technology, Faculty of Science)

Agreement between

University of Teramo, Italy

and

Chulalongkom University, Thailand

Academic Cooperation Agreement for Dual M.Sc. Degree Program in Food Science and
Technology

University of Teramo

(Your detail of program here)

Chulalongkorn University

(M.Sc. Food Science and Technology (International Program),

Department of Food Technology, Faculty of Science)

This Agreement is made and entered into this xxth day of February, 2019 by and between Chulalongkorn University, represented by Prof. Dr. Bundhit Eua-arporn as President, located at 254 Phayathai Rd., Patumwan, Bangkok 10330, Thailand, hereinafter referred to as "CU" and University of Teramo, represented by Prof. Dr. xxxx as Rector, located at Via Renato Balzarini - Loc Colleparco, 64100, Teramo, Italy, hereinafter referred to as "UNITE".

CU and UNITE have signed the Agreement of Cultural and Scientific Cooperation for collaboration in academic and research activities on July 9th, 2018 in order to foster the exchanges of students, researchers and faculty members between the two universities. Now CU and UNITE anticipate the creation and continuation of close links between them and agree, in the spirit of inter-university collaboration, to develop their collaboration, in the subject areas of Food Science and Technology by the establishment of an exchange program and particularly a Dual M.Sc. Degree Program between CU and UNITE.

This Agreement hereby describes the academic and administrative conditions concerning the Dual M.Sc. Degree Program (hereinafter referred to as "DDM") established between UNITE and CU. The DDM is to support education of master students under the close cooperation between the two universities and enables master students to earn degrees from both UNITE and CU.

1. Field of study

The field of study of the DDM shall be in the area of Food Science and Technology for the development and reinforcement of scientific collaboration between UNITE and CU.

1.1. Food Science and Technology, M.Sc. Program, UNITE

Food Science and Technology, M.Sc. Program is offered in the department/faculty of, University of Teramo. (Could you put the detail of Food Science and Technology course in Teramo). For more than xx years, M.Sc. graduates from the program have become successful.....(working career). With many international academic and research collaborations, including the DDM in this Agreement, Food Science and Technology, M.Sc. Program will grow together with its partner universities and continue to thrive and succeed in the scientific world.

1.2. Food Science and Technology, M.Sc. Program, CU

Food Science and Technology, M.Sc. program is one of the international programs offered in the Faculty of Science, CU. The program is operated by the Department of Food Technology. For more than 18 years, M.Sc. graduates from the program have become successful working in both private and government sector in Thailand and ASEAN. With many international academic and research collaborations, including the DDM in this Agreement, Food Science and

Technology, M.Sc. Program will grow together with its partner universities and continue to thrive and succeed in the scientific world.

2. Selection of students

Both universities ensure that the quality of students participating in this program will be according to the criteria described by the Graduate School and Department responsible. To enter the DDM, students have to meet all the qualifications set by the home and host universities. The home university will select potential participants according to their academic, personal and linguistic qualifications. The host university will then evaluate the selected students for approval.

3. Studentship

The students participating in the DDM will be registered as a regular student simultaneously in both universities. Each enrollment will be based on the admission policy set by the individual universities. Students in the DDM must complete all the required coursework and pass the proposal defense within the first or second year of M.Sc. program in their home university before applying for the admission to the host university. Period of staying at the host university will be for one year or more, but not exceed 2 years.

The total study period combining those at the home and host university must not exceed 4 years.

4. Academic advisor

Students in the DDM will have two academic advisors, one in the home university and the other in the host university. The advisors will be chosen among the faculty members and approved by each university. To promote the academic and research exchanges, the academic advisor of the host university may be invited as a visiting (Guest) faculty or "collaborative advisor" to the home university.

5. Recognition of credits

Students participating in the DDM should obtain the required credits in accordance with the regulations of each university. The home university should recognize the credits earned by the DDM students at the host university under the credit transfer system.

6. Thesis committee

The members of each dissertation committee will be selected under the regulations of each university. The Chair of the committees will be appointed by the authorized program committee of each university.

7. Thesis and review

The DDM students are required to submit two different theses, one for each university. The two theses, in related fields or under one main research project, must be written in English. The student will also be required to submit the abstract or summary written in the student's mother language. With appropriate responses to the critiques raised by the committees to the thesis, the student will then be allowed to have a thesis defense. The number of publications should

fulfill the graduation requirements of both universities combined. Once a publication is used to fulfill the graduation requirements of either host or home university, it will not be used to fulfill the graduation requirement of the other university again

8. Award of degree

The two universities will independently evaluate and award a Master degree. After successful completion of the academic requirements and dissertation defense in each university, the student will be awarded a Master degree from each university - a Master of Science (xxxxx) from UNITE and a Master of Science (Food Science and Technology) from CU.

9. Study period

The expected study period will be determined in accordance with the regulations of the home university.

10. Financial support

Neither university will charge the application fee on applicants to the DDM at the time of admission. The accepted students will be responsible for the admission/registration and tuition fee to the home university. Such fees will be exempted at the host university.

11. Intellectual property right

Intellectual property rights that arise from any inventions or discoveries developed by the DDM students during their stay in the DDM will be processed by each university according to its regulation. Each party will consult with the other in the event that any conflict may arise in processing intellectual property right.

12. Term of the agreement

This agreement shall become effective on the date of signing by the representatives of the two universities and continue for an indefinite period of time, unless prior written notice of termination is given to the other university at least 12 months before ending any academic year of such university. UNITE and CU anticipate that students will enroll in the DDM at the beginning of academic year 2020. Any amendment and modification, as well as extension or termination, may be made by the mutual agreement of the two universities. In case of termination of this Agreement for any reason, the status of all DDM students will remain valid for the entire duration of their study

IN WITNESSWHEREOF, UNITE and CU hereunto have executed this Academic Cooperation Agreement for Dual M.Sc. Degree Program on the year and date first above written.

For and on behalf of
Chulalongkom University

For and on behalf of
University of Teramo

.....
Prof. Dr. Bundhit EUA-ARPORN
President

.....
Prof. Dr.
Rector

Date: February 2019

Date: February 2019

As witnessed by

As witnessed by

.....
Prof. Dr. Polkit Sangvanich
Dean
Faculty of Science

.....
Prof. Dr.
Position
Affiliation

Date: February 2019

Date: February 2019

Addendum to Academic Cooperation Agreement for Dual M.Sc. Degree Program in Food Science and Technology

University of Teramo

(Your detail of program here)

Chulalongkom University

(M.Sc. Food Science and Technology (International Program),

Department of Food Technology, Faculty of Science)

This Addendum is made and entered into this xxth day of February, 2019 by and between University of Teramo (hereinafter referred to as "UNITE") and Chulalongkom University (hereinafter referred to as "CU") hereby agree to establish an addendum to the Academic Cooperation Agreement for Dual M.Sc. Degree Program (hereinafter referred to as "DDM") with the purpose of mutual understanding between the two universities and contributing to the academic and educational development as well as to facilitate the supervision for student exchange between the two universities.

1. UNITE and CU shall inaugurate the DDM for their master students, especially those with Italian (or European) and Thai (or ASEAN) nationality, respectively. To increase and strengthen the regional co-operations between ASEAN countries and Italy. The possibility of students, with nationality other than Italy and Thai, from those international students enrolling at UNITE and CU to enter the DDM will be discussed and approved by the authorized committees of both UNITE and CU. ·
2. The DDM is an academic program that will enable the students enrolled in the master program at their home university to transfer to the master program at the host university in order to obtain master degrees from both universities upon completion of their master courses.
3. To be eligible for the DDM, the DDM candidates must fulfill the basic requirements for enrollment of both home and host universities and pass the DDM screening examination (written/oral) and proposal defense held by the respective host university.

3.1. Basic requirements for enrollment at CU

CU students must have obtained a bachelor's degree in related field with G.P.A.X. of 3.0 or above from an institution validated by the Ministry of Education and received TOEFL score of at least 530 (or CU-TEP score of at least 71/IELTS score of at least 6.0). Other additional requirements may be issued by the program committee for each semester.

3.2. Basic requirements for enrollment at UNITE

UNITE students should have a bachelor's degree or equivalent ability evaluated by authorized examination committee. Other additional requirements may be issued by the program committee for each semester.

4. The DDM candidates who have passed the DDM screening examination will be notified by the host university. The DDM students shall enroll in the host university as a regular student.
5. The number of DDM student accepted will be limited to 5 students from UNITE and CU per year.
6. The CU DDM students who will attend UNITE will be accepted at the beginning of the first or second semester (either in August or January). The UNITE DDM students who will attend CU will be accepted at the beginning of the first or second semester (either in or).
7. The period of the DDM is five years or longer depending on each circumstance. Period of staying at the host university will be for one year or more, but not exceed two years. The total study period combining those at the home and host universities must not exceed 4 years.
8. The DDM students shall be responsible for their own expenses including travel expenses, living expenses, accommodation and textbooks as well as medical insurance, etc.
9. The home university will recognize the credits earned by the DDM students at the host university under the credit transfer system.
10. The related regulations of each home university shall apply to the financial support for the DDM students. In case of withdrawal from the DDM for any reason, the students are bound to repay any exempts, expenses or scholarship they receive from the DDM

11. The DDM students should be able to conduct their daily lives in English and/or the language of the host university.
12. The host university will make every effort to support the DDM students, such as making arrangement for accommodations.
13. Educational and research plans for each DDM student will be decided upon by prior consultation between the academic advisor at the home university and the prospective academic advisor at the host university. Such plans will require the approval of the authorized committees at both universities. The academic advisor at the host university will be determined by approval of such committee under its regulations.
14. The DDM students shall be mainly supervised by the academic advisor at the host university with the assistance of the academic advisor at the home university. Meetings between the academic advisors from home and host universities should be organized periodically, i.e. every semester, to facilitate the students' research. Any additional document such as research permission, required for the research conduction at the host university will be provided or facilitated by the academic advisor.
15. The DDM will be coursework and non-coursework programs at CU and coursework program at UNITE, and basic requirements for graduation must be fulfilled for both programs.
16. The DDM students to be awarded the master degrees shall be required to earn the credits required by each university, develop two independent proposals (under one main research project), pass proposal defenses, complete the master thesis and successfully pass the master thesis defenses at each university. The DDM students should submit each master thesis to the respective host and home university, and the thesis committee at each university should review the student's thesis. Thesis defense can be performed via internet, social media or satellite. *H* in-person participation for thesis defense is required, each university will be responsible for any traveling and accommodation expenses caused by their own thesis committee member
17. The DDM students should satisfy the requirements for DDM completion within the required period of study by each university (not exceed 4 years in total). The period of study at the home university will be included in the required period of study at the host university. The publication requirement must be satisfied according to the curriculum requirements of each university, and the DDM students must include 2 affiliations of host and home universities in each publication. The right of publication and dissertation for fulfilling the university requirements for graduation will be granted to the corresponding university which awards the degree.
18. The DDM students who successfully pass the dissertation defenses will receive a Master of Science in Program from UNITE and a Master of Science in Food Science and Technology Program (International) from CU.
19. In order to resolve any issues in relation to the DDM and facilitate further developments in this regard, the academic advisors and the faculty in charge of the international exchange will organize the meetings between the respective universities to discuss relevant matters when necessary.
20. In the event that either of the Graduate School or Faculty responsible is reorganized within the term of this agreement as described in this addendum, the newly formed organization that is established in this reorganization will be responsible for the DDM described herein.

21. This Addendum shall become effective upon signature by the representative of both universities. Any amendment and modification, as well as extension or termination, may be made by the mutual agreement of the two universities

IN WITNESS WHEREOF, UNITE and CU hereunto have executed this Addendum on the year and date first above written.

For and on behalf of
Chulalongkom University

For and on behalf of
University of Teramo

.....
Prof. Dr. Bundhit EUA-ARPORN
President

.....
Prof. Dr.
Rector

Date: February 2019

Date: February 2019

As witnessed by

As witnessed by

.....
Prof. Dr. Polkit Sangvanich
Dean
Faculty of Science

.....
Prof. Dr.
Position
Affiliation

Date: February 2019

Date: February 2019

Study Plan CU and UNITE

Study plan		3 ECTS = 1 Credit						
for Thai student to go to Teramo								
Year	Semester	Code	Subjects	Credit	UNITE equivalence	ECTS	Subject	Note
1st Thailand	1	2314672	Instrumentation Techniques in Food Research	3	Paola please put the subject to be equivalence here			
		2314xxx	Elective 1	3	Paola please put the subject to be equivalence here			
		2314698	Individual study 1	1	Paola please put the subject to be equivalence here			Prepare for Thesis/Literature review
			Total	7				
	2	2314665	Statistical Methods for Food Research	3	Paola please put the subject to be equivalence here			
		2314703	Seminar I	1	Paola please put the subject to be equivalence here			
		2314813	Thesis	3	Paola please put the subject to be equivalence here			Proposal Presentation to be agreed between UNITE and CU
			Total	7				
2nd (recommend to go to UNITE)	3	2314813	Thesis	2	Thesis	6		
		xxxxxx	Elective 2	3	Elective subjects from UNITE	28	*See UNITE list	
		xxxxxx	Elective 3	3				
		xxxxxx	Elective 4	3				
			Total	11		34		
	4	2314813	Thesis	8	Thesis	24		
			Total	19		58		
3rd Thailand	5	2314813	Thesis	5	Paola please put the subject to be equivalence here			Thesis Defense at CU
		2314704	Seminar 2	1	Paola please put the subject to be equivalence here			
			Total	6				
			Total	39				
For UNITE Student to come to CU								
Year	Semester	Code	Subjects	Credit	UNITE equivalence	ECTS	Course descriptions	
2nd (recommend to go to CU)	3	2314673	Packaging of Food Product	3	Food Technology II (shelflife)	5		
		2314672	Instrumentation Techniques in Food Research	3	Food Analysis (Advance Course)	6		
		xxxxxx	Elective	2	Optional	4		*see CU list
			Total	8		15		
	4	2314813	Thesis	8	Thesis	24		
		2314573	Applied Food Microbiology	3	Industrial Microbiology (Microbial analysis for food microbiology)	5		
			Total	11		29		
			Total	19		44		
					UNITE students need to go back to Teramo to take			
					Food Technology II (Advance Food Technology)	5		
					Industrial Microbiology	5		
					Food Legislation	6		
			Total			16 ECTS		

3. MOU KU and UNITE



AGREEMENT OF CULTURAL AND SCIENTIFIC COOPERATION BETWEEN

The University of Teramo, represented by the Rector Prof. Luciano D'Amico residing for its role in Via Renato Balzarini 1 – Loc. Colleparco, 64100 Teramo

AND

Kasetsart University, represented by Acting President, Dr. Chongrak Wachrinrat, residing for its role in Chatuchak, Bangkok, Thailand,

General Provisions

- Given that cultural and scientific exchange is indispensable to academic institutions to develop their educational and research activities;
- given that, for the above-stated purpose, it is necessary to promote and encourage direct cultural agreements between institutions of higher learning in different countries;
- having verified the mutual interest that the University of Teramo (Italy) and Kasetsart University (Thailand) share in establishing an appropriate form of exchange program in the field of Food Technology;
- in agreement with the laws of the two countries and, as far as the Italian law is concerned, with Ministerial Decree of October, 22 2004 n. 270 concerning forms of educational autonomy of individual universities;

THE FOLLOWING TERMS OF AGREEMENT ARE STIPULATED

ART. 1

The form of cooperation, based on strictly-observed criteria of equality and mutual interests, includes the following activities:

- 1) Exchange visits of members of teaching and research staff of both Universities. Visits are intended to promote seminars, courses, conferences, lectures, to carry out joint research projects, to discuss experiences in fields of common interest, and so forth.
- 2) Student exchange for the purpose of attending courses, participating in professional training and specialization programs or other educational activities.
- 3) Exchange visits of post-graduate students for periods of study and research.
- 4) Exchange visits of members of technical or administrative staff when considered a profitable experience.
- 5) Circulation of publications and information on the specific fields of study and research included in this agreement and on any other subject of relevant interest.
- 6) Planning and development of joint research projects.
- 7) Planning and development of joint dissemination events, conferences and other scientific and cultural events.
- 8) Design and development of joint training and educational activities in the field of both the Higher Education framework and the Lifelong Learning for Curriculum Professional Development.

The partners to this agreement intend to encourage student mobility according to a criteria of reciprocity. The host institution will make available to host students their didactical facilities and tutorial services.

Upon the approval of the appropriate administrative bodies, exchange students will be given academic credits for the work done at the foreign institution.

Universities participating in the exchange activities agree that no tuition fee will be imposed, except those fees required by the law of the country.

ART. 2

Administrative bodies of the partners to this agreement will exchange all relevant information – by supplying catalogues and other materials – to promote greater and mutual knowledge on their institutional structure and organization.

ART. 3

In conformity with laws and regulations of their respective countries, the partners to this agreement will provide to exchange visitors from the partner institution all possible assistance and access to facilities to enable them to carry out the activities agreed upon.

ART. 4

Visitors sent by one University to the other must have both medical and accident insurance. This may be provided either by their home institution, according to its own regulations, or it may be directly set up by the interested person, through the stipulation of a policy with an insurance agency guaranteeing the above mentioned risks. The host university will be free from any responsibility to provide schemes of medical and accident insurance to its foreign guests.

ART. 5

Each of the parties commits itself, through its participating units, to search funds to carry out the activities foreseen by this agreement depending on availability. Each party will bear the cost of its participation in activities unless otherwise agreed. If institutional funds are not available for these purposes, student and staff mobility will be possible; in this case exchange visitors will be directly responsible to fully cover their own expense for travel, room and board, without any charge for the two universities.

ART. 6

The implementation of the activities foreseen by the agreement will be promoted, initially, by the following Coordinators, appointed by each University:

University of Teramo	Kasetsart University
<i>Prof. Paola Pittia</i>	<i>Asst. Prof. Dr. Sasitorn Tongchitpakdee</i>
Faculty of Bioscience and Technology for Food Agriculture and Environment	Faculty of Agro-Industry

This agreement is to be drawn up in English.

Should any disputes arise, the problem will be entrusted to a board of arbiters made of one member selected by each partner and one chosen by common consent.

The present agreement will become effective from the date the contract is signed and will be valid for one year; it will then be tacitly renewed from year to year, for 5 years from the signing of the agreement, unless written notice of termination of the agreement is given by one of the two parties at least six months before expiration. Any currently activities under this agreement in the host university shall not be adversely affected by the notice of termination.

The Rector
of the University of Teramo
IL PRORETTORE VICE
Prof. Luciano D'Amico



Teramo, 9th July 2018

The Acting President of Kasetsart
University
Chongrak
Dr. Chongrak Wachirarat



Bangkok, 9th July 2018