



MINISTRY OF EDUCATION AND TRAINING
NGUYEN TAT THANH UNIVERSITY
FACULTY OF ENVIRONMENTAL AND FOOD ENGINEERING
PROGRAM: ENGINEERING IN FOOD TECHNOLOGY

COURSE SPECIFICATION

1) Course information

- Course Name: Graduation Thesis
Vietnamese name: Khóa luận tốt nghiệp
English name: Thesis
- Course Code: 000746
- Number of credits: 10
- Level: for 4th year students
- This course belongs to the program of: Food Technology

2) The course belongs to the following course block:

General <input type="checkbox"/>		Supporting <input type="checkbox"/>		Professional <input checked="" type="checkbox"/>			
				Foundational <input type="checkbox"/>		Specialized <input checked="" type="checkbox"/>	
Mandatory <input type="checkbox"/>	Elective <input type="checkbox"/>	Mandatory <input type="checkbox"/>	Elective <input type="checkbox"/>	Mandatory <input type="checkbox"/>	Elective <input type="checkbox"/>	Mandatory <input checked="" type="checkbox"/>	Elective <input type="checkbox"/>

3) Detailed time distribution:

- + Theoretical sessions: 0 periods
- + Practical sessions: 150 periods
- + Other activities: (Discussion/Group presentation): 45 period
- + Self-studying: 300 period

4) Lecturer in charge of the course:

MSc. Nguyen Quoc Duy

5) Study document

❖ **Required materials /textbooks:**

Scientific articles at home and abroad.

❖ **Reference materials/textbooks:**

6) Course Information

- *Brief description of the course content*

Graduation thesis is an important course that allows student to synthesize and summarize the knowledge they learned throughout the training program and apply it into the implementation of a specific scientific research topic. After the implementation period, students must defend the thesis in front of a Thesis Committee in order to receive feedback on the results of the thesis.

- *Requirements:*

- + Prerequisite course(s): None
- + Recommended previous course(s): None

+ Parallel course(s): None

7) Objectives and expected learning outcomes of the course (MDP)

- *The course aims to:*

+ Provide knowledge about the methods and how to apply learned knowledge in the managing, improving and developing food products.

+ Develop skills in designing and implementing experiments to improve and develop food products.

+ Develop a willingness to learn to improve oneself, based on personal limitations in the learning and research.

- *Course expected learning outcomes*

CLOs	Course Expected Learning Outcomes Upon completion of this course, students will be able to	PLOs
Knowledge		
CLO1	Apply knowledge about regulations, methods and standards into managing the production and distribution of food products	PLO2
CLO2	Propose methods and ways to improve the quality of food products.	PLO3
Skills		
CLO3	Develop a research proposal that addresses technological problems in food production and preservation	PLO4
CLO4	Implement the scientific research proposal based on personal knowledge and experimental methods	PLO7
CLO5	Utilize food processing equipment and analytical equipment to conduct scientific research projects aimed at developing and improving food products	PLO8
Attitudes and moral qualities		
CLO6	Recognize one's own limitations in terms of knowledge and competencies required of food technology, thus develop the motivation to learn and improve skills	PLO10

- *The course contributes to the following Program Learning Outcomes (PLOs) of the program at the following levels:*

Course Code	Course Name	The level of contribution of the course to the PLOs									
		PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10
000746	Graduation thesis		M	M	M			M	M		M

8) Summary of course content

Week	Lesson content	Course Expected Learning Outcomes
1-4	Read materials	CLO1 CLO2 CLO3
5-10	Implement the research project	CLO1 CLO2 CLO3 CLO4 CLO5
11-12	Finalize the report	CLO1 CLO2
13	Participate in the Scientific Research Seminar: Presenting posters and video clips	CLO6
14	Review research results	CLO6
15	Defend before the Thesis Committee	CLO6

9) Assessment methods

PPPs	Criteria	Weight (%)	Excellent (100%)	Good (75%)	Average (50%)	Not satisfactory (0%)	Notes
Report + Presentation	1.1 Presenting a general introduction of technological processes	10	Provided a sufficient amount of basic and advanced knowledge about technological processes	Provided a sufficient amount of basic knowledge about technological processes	Provided an insufficient amount of basic knowledge about technological processes	Did not provide any basic knowledge of technological processes	
Report + Presentation	2.1 Analyzing and offering solutions to solve the problems of the research topic	10	Analyzed and assesses the nature of the problem	Analyzed the problem to come up with possible solutions	Analyzed the problem	Unable to analyze the given problem	
Report + Presentation	2.2 Selecting optimal solutions based on other constraints of the system	10	Selected the most optimal solution	Selected a rather optimal solution	Selected an acceptable solution	Failed to come up with a solution	
Report + Presentation	3.1 Selecting influencing factors for the survey	10	Selected >3 suitable influencing factors	Selected >3 influencing factors, but a mismatch occurred	Selected <3 appropriate influencing factors	Unable to select influencing factors	

Report + Presentation	3.2 Choosing an appropriate research objective	10	Selected >5 objectives suitable to the urgency of the topic	Selected >5 objective, but there was some inconsistency with the urgency of the topic	Selected <5 objectives suitable to the urgency of the topic	Unable to select any objective	
Report + Presentation	4.1 Stating the purpose and methods of the research project	10	Provided a sufficient amount of basic and advanced knowledge about experimental planning models	Provided a sufficient amount about basic knowledge about experimental planning models	Provided an insufficient amount knowledge about experimental planning models	Did not provide any basic knowledge of the experimental planning model	
Report + Presentation	5.1 Implementing the methods of analyzing the quality criteria of the product	10	Done in a short time and with high accuracy	Moderately time-consuming, with acceptable accuracy	Execution is time-consuming, and has acceptable accuracy	Execution is time-consuming and has low accuracy	
Report + Presentation	6.1 Writing a summary report	10	The report is clear, coherent, with few errors	The report is quite clear, with few errors	The report is quite clear, but there are many mistakes	The report is not clear; there are many mistakes	
Poster + Video clips	6.2 Making posters and video clips	20	Demonstrated high levels of engagement; the format and content is very creative	Demonstrated high levels of engagement; the format and content is appropriate	Demonstrated some engagement; completed one or two contents	No engagement	

GRADUATION THESIS RUBRIC *(For the defense committee)*

Evaluation Criteria	Excellent (8.5 – 10)	Fair (7.0 – < 8.5)	Moderate (4.0 – < 7.0)	Failed (< 4.0)
Presentation layout (20%)	<input type="checkbox"/> Clear, logical layout, closely linked to the title and meaning of the topic	<input type="checkbox"/> Obviously, the layout is quite reasonable, connecting quite well with the name and meaning of the topic	<input type="checkbox"/> The layout is unreasonable, lacking in connection with the name and meaning of the topic	<input type="checkbox"/> Improper layout
Presentation contents (20%)	<input type="checkbox"/> The content is presented in a logical, coherent, vivid way, closely linked with the title and meaning of the topic.	<input type="checkbox"/> The content is presented in a reasonable way, and links quite well with the title and meaning of the topic.	<input type="checkbox"/> Present the content without logic, lack of clarity, lack of connection with the name and meaning of the topic	<input type="checkbox"/> The content presented does not contain the necessary knowledge about the issues related to the topic title.
Presentation skills (20%)	<input type="checkbox"/> Confident presentation style, good use of non-verbal communication such as eye contact, gestures to convey content and connect with listeners.	<input type="checkbox"/> Present clearly, make good use of non-verbal communication such as eye contact, gestures to convey content and connect with listeners.	<input type="checkbox"/> Presenters lack confidence, timidity, unclear speech, little use of non-verbal communication such as eye contact, gestures to	<input type="checkbox"/> The presentation was completely lost and confused.

			convey content and connect with listeners.	
Ability to convince (20%)	<input type="checkbox"/> Understand the Board's question well, using verbal, non-verbal as well as logical abilities to convince the audience.	<input type="checkbox"/> Understand the Board's question quite well, using linguistic, non-verbal as well as logical abilities to convince the audience.	<input type="checkbox"/> Understood part of the Board's question, answered off-topic.	<input type="checkbox"/> Did not understand the Council's question and could not answer it.
The ability to reason when answering questions (20%)	<input type="checkbox"/> Answers are clear, focused, and well reasoned. Demonstrate mastery of in-depth basic knowledge related to the topic.	<input type="checkbox"/> Pretty clear answer, pretty good argument. Demonstrate mastery of basic and in-depth knowledge related to the subject.	<input type="checkbox"/> The answer was faltering and unclear, but still gave some relevant information. Lack of basic and in-depth knowledge related to the topic	<input type="checkbox"/> Answer faltering, not clear.
General assessment				

GRADUATION THESIS RUBRIC (*For advisor*)

Evaluation Criteria	Excellent (8.5 – 10)	Fair (7.0 – < 8.5)	Moderate (4.0 – < 7.0)	Failed (< 4.0)
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Knowledge (15%)	<input type="checkbox"/> Having basic and in-depth knowledge of the field and research topic, having a good scientific methodological background.	<input type="checkbox"/> Having basic and in-depth knowledge of the field and research topic, having a good scientific methodological background.	<input type="checkbox"/> Have basic and in-depth knowledge of the research field and topic, but lack a background in scientific methodology	<input type="checkbox"/> Lack of basic knowledge. No in-depth knowledge
Problem-solving skills (15%)	<input type="checkbox"/> Have a good ability to apply knowledge to solve problems	<input type="checkbox"/> Have a good ability to apply knowledge to solve problems	<input type="checkbox"/> Applying knowledge to solve problems is not reasonable	<input type="checkbox"/> Does not solve the research problem
Ability to work in groups and work independently (10%)	<input type="checkbox"/> Able to work independently and in a good team; Good communication with people at work	<input type="checkbox"/> Able to work independently and well in a team; Communicate quite well with people at work	<input type="checkbox"/> Able to work independently and in a group is relatively good; Communication is limited with people at work	<input type="checkbox"/> Completely incapable of working independently and in a good team, not communicating well with people at work
Critical thinking (10%)	<input type="checkbox"/> Highly creative, good critical thinking	<input type="checkbox"/> Be creative, have good critical thinking	<input type="checkbox"/> Relatively creative, weak critical thinking	<input type="checkbox"/> Completely devoid of creativity and critical thinking
Experimental planning skills (10%)	<input type="checkbox"/> Have good skills in job planning and problem solving	<input type="checkbox"/> Have quite good skills in job planning and problem solving	<input type="checkbox"/> Lack of skills in job planning and problem solving	<input type="checkbox"/> Can't plan work and can't solve problems

Working spirit (20%)	<input type="checkbox"/> Dynamic, always ready to effectively absorb the opinions of teachers. Have a spirit of cooperation and support	<input type="checkbox"/> Actively, effectively absorbing the opinions of teachers. Have a spirit of cooperation, support you	<input type="checkbox"/> Lack of dynamism, the spirit of absorbing the ideas of teachers is relatively good. The spirit of cooperation and support is not high	<input type="checkbox"/> There is no spirit to accept the opinions of GVHD. Do not cooperate, support you
Working attitude (20%)	<input type="checkbox"/> Diligent, progressive, proactive at work	<input type="checkbox"/> Quite diligent, progressive, quite proactive at work	<input type="checkbox"/> Lack of diligence, progress, lack of initiative in work	<input type="checkbox"/> Lazy, passive at work
General assessment				

GRADUATION THESIS RUBRIC (*For reviewer*)

Evaluation Criteria	Excellent (8.5 – 10)	Fair (7.0 – < 8.5)	Moderate (4.0 – < 7.0)	Failed (< 4.0)
Literature review (20%)	<input type="checkbox"/> Clear, concise. Full demonstration of knowledge closely linked to the research objective	<input type="checkbox"/> Pretty clear, concise. Show quite fully the knowledge associated with the research objective	<input type="checkbox"/> Pretty clear. Lack of knowledge associated with research objectives	<input type="checkbox"/> Messy, does not include the necessary knowledge about the research objective.
Experimental design	<input type="checkbox"/> Reasonable experimental layout	<input type="checkbox"/> The experimental setup is quite reasonable	<input type="checkbox"/> The experimental layout is not reasonable	<input type="checkbox"/> The layout and methods of conducting experiments are

(10%)				unreasonable and inappropriate
Experimental Methods (10%)	<input type="checkbox"/> The method of conducting the experiment is suitable, closely linked to the research objective	<input type="checkbox"/> The method of conducting the experiment is quite suitable, well linked with the research objective	<input type="checkbox"/> The method of conducting the experiment lacks a close connection with the research objective	<input type="checkbox"/> The test method is not suitable
Presenting research results (10%)	<input type="checkbox"/> The data is complete, presented clearly, properly, and easy to understand	<input type="checkbox"/> The data is quite complete, presented properly	<input type="checkbox"/> Incomplete data, presented quite properly	<input type="checkbox"/> Not knowing how to present research results
Reliability of research results (10%)	<input type="checkbox"/> The results are highly reliable and of high value	<input type="checkbox"/> The results are reliable and have a good value	<input type="checkbox"/> The results have relatively good reliability and validity	<input type="checkbox"/> Unreliable results.
Comment on research results (10%)	<input type="checkbox"/> Make appropriate and complete comments on the results	<input type="checkbox"/> Make comments about the results in a quite appropriate, quite complete way	<input type="checkbox"/> Make a comment on the incomplete and unreasonable results	<input type="checkbox"/> Can't comment on obtained data
Discussing research results (15%)	<input type="checkbox"/> Reasonable explanation with clear scientific basis. There is a suitable comparison with other	<input type="checkbox"/> The explanation is quite reasonable and has a scientific basis. There is a fairly consistent comparison with	<input type="checkbox"/> Lack of rigorous reasoning to explain the results. Few comparisons with other studies in the same field or similar topic	<input type="checkbox"/> Can't explain the data obtained

	studies in the same field or similar topic	other studies in the same field or similar topic		
Form of presentation (15%)	<input type="checkbox"/> Present the correct format (font, size, line spacing, alignment, page numbering). Very few typos and typographical errors	<input type="checkbox"/> Present the correct format (font, size, line spacing, alignment, page numbering). Fewer typos and typographical errors	<input type="checkbox"/> Present the correct format (font, size, line spacing, alignment, page numbering). Quite a few typos and typographical errors	<input type="checkbox"/> Presentation does not follow the prescribed format. Many typos and typographical errors
References (5%)	<input type="checkbox"/> Highly reliable references, complete and correct citations	<input type="checkbox"/> Reliable references, complete and correct citations	<input type="checkbox"/> References are unreliable, citations are quite complete and correct	<input type="checkbox"/> References are not reliable or do not cite references at all
General assessment				

10) Assessment scale

Use a 10-point scale for all assessments.

In-class assessment: 0%

Mid-term assessment: 0%

Assessment score at the end of the course: 100%, of which:

+ Video clips: 10%

+ Poster: 10%

+ Assessment of from the lecturer, reviewer, the Thesis Committee: 80%

Minimum score for passing the course: 4/10

+ Students who finished the thesis in English will be given 0.5 bonus points to the final score.

+ Students who are the author/submitter of an article published on an international journal will be given up to 1.0 bonus point to the final score.

+ Students who are co-authors of an article published on an international journal will be given up to 0.5 bonus points to the final score.

+ Students who are the author/submitter of an article published in a domestic journal will be given up to 0.5 bonus points to the final score.

+ Students who are co-authors of articles published in domestic journals will be given up to 0.25 bonus points to the final score.

The maximum score of the thesis is 10 points.

11) Other activities

- *Teaching activities*

+ Practical activities

- *Learning activities*

+ Students read the material by themselves, develop hypotheses and related questions

+ Students must find reading materials by themselves, and summarize the content they found as preparation for presentations and group discussions

+ Students are encouraged to use knowledge from other courses and personal experiences to propose solutions to problems presented in the thesis.

- *Student Duties*

+ Attendance: Students must attend at least 80% of the lessons; go to class on time.

+ Read the material and prepare for each lesson before attending a theoretical lesson

+ Display a willingness to learn, respect for intellectual property, and compliance with laboratory safety guidelines.

12) Lecturers' requirements for the course

- Classroom.
- Teaching aids: Projector, speakers.

Ho Chi Minh city, date of 2020

Dean

Head of department

Compiler

Dr. Tran Thi Nhu Trang

MSc. Nguyen Thi Van Linh

MSc. Nguyen Quoc Duy

**APPENDIX: LIST OF LECTURERS & TEACHING ASSISTANTS AVAILABLE
FOR THE COURSE**

Lecturer in charge of the course

Full name: Nguyen Quoc Duy	Academic Title, Degree: Master's Degree
Office address: 331 National Highway 1A, An Phu Dong, District 12, HCMC	Contact phone: 19002039 (ext. 409)
Email: nqduy@ntt.edu.vn	Website: https://kttgmt.ntt.edu.vn/
How to contact the lecturer: Office of the Faculty of Food and Environmental Engineering	

Course support lecturer/teaching assistant (if any)

First and last name:	Academic title, degree:
Work address:	Contact phone:
Email:	Webpage:
How to contact the lecturer/ teaching assistant: specify methods of communicating between student and the lecturer/assistant)	

Company trainer/instructor (if any)

First and last name:	Academic title, degree:
Work address:	Contact phone:
Email:	Webpage:
How to contact the trainer/instructor: (specify methods of communicating between student and the trainer/instructor)	