# Course Title Master of Science Program in Bioscience for Sustainable Agriculture (International Program)

Master Degree:

Master of Science (Bioscience for Sustainable Agriculture)

Academic Institution:

Faculty of Animal Sciences and Agricultural Technology,

Silpakorn University

**Duration:** 

Two (2) academic years (July 2019 - April 2021)

#### Objective:

The objective of the curriculum is to develop the graduate with the following qualifications:

- 1. The ability to comprehend both philosophy of sustainability and concept of sustainable agriculture.
- 2. The ability to analyze and identify both problems and strength of the mainstream agricultural development and propose measures to solve them.
- 3. The ability to transfer appropriate research outcome to other stakeholders working in sustainable agriculture.
  - 4. The ability to recognize differences and work with others while maintaining leadership.
- 5. The ability to be responsible to oneself and to the society with integrity and professional morals.

#### Couse Synopsis and Methodology:

This program requires the candidate to take courses no less than 24 credits plus the research which is equivalent to 12 credits. The degree shall be awarded when the students fulfill one publication in the international refereed journals.

#### Couse Content/Study Topic:

The First year		
First Semes	ster	
715501	Cell Science and Molecular Biology	3(3-0-6)
715502	Sustainable Agriculture and Marketing	3(2-0-6)
715503	Research Methodology and Statistical Techniques	3(3-0-6)
715504	Seminar	1(1-0-2)
	Total	10 credits
Second Ser	mester	
715505	Seminar 2	1(1-0-2)
715xxx	Elective Course	3(x-x-x)
715xxx	Elective Course	3(x-x-x)
	Total	7 credits
The Second year		
First Semes		
715506	Seminar	3 1(1-0-2)
715xxx	Elective Course	3(x-x-x)
715599	Thesis	6 credits
	Total	10 credits

Second Semester

715xxx

Elective Course

715599

Thesis

Total

3(x-x-x)

6 credits

9 credits

#### Qualification:

The applications must held a bachelor's degree or equivalent in Agriculture, Science or a related field, or another degree by the consent of the Curriculum Administration Committee, Faculty of Animal Sciences and Agricultural Technology Silpakorn University.

#### Document required:

- 1. Certified copy of transcript of record
- 2. Certified copy of degree certified
- 3. Copy of TOEFL, IELTS, TOEIC or equivalent test result
- 4. Two letters of recommendations from the faculty members of the home institutes
- 5. Letter of permission from the Dean/Director/Rector/Vice Chancellor/President of the home institutes in case the candidate has been working as the staff member in the organizations

#### Contract:

Dr. Narin Preyavichyapugdee Faculty of Animal Sciences and Agricultural Technology, Silpakorn University, Thailand

Tel: (+66)84-6488835

E-mail: narin.p@su.ac.th, jnnarin@hotmail.com

Closing date for Nominations: March 31, 2019

Late or incomplete applications/document will not be considered.

# Course Title Master of Science Program in Postharvest Technology and Innovation

Master Degree:

Master of Science (Postharvest Technology and Innovation)

Academic Institution:

School of Agro-Industry, Mae Fah Luang University

**Duration:** 

Two (2) academic years (August 2019 - May 2021)

#### Objective:

The aims of this Program are to educate the student to have knowledge, expertise, and potency in postharvest technology and innovation and to be able to apply this knowledge for prolonging shelf life of agricultural produce, driving economy and development of country, and enhancing the national and international competitiveness.

## Course Synopsis and Methodology:

Postharvest losses refer to measurable quantity and quality loss of food crops at harvest, storage, transportation, processing, marketing and preparation before consumption. It occurs throughout the value chain, as a result of technical and managerial setbacks during harvest, handling, transportation, processing, packaging, marketing, and distribution. On the other hand, investment efforts made to save food after harvest usually cost less and are less harmful to the environment. A minimum postharvest losses reduction can potentially reduce production cost. Postharvest losses impact on environment and climate following unnecessary emissions of greenhouse gases produced during production, processing, and transportation of fruits and vegetable which ultimately end into loss. Postharvest Technology and Innovation program aims to transfer the knowledge and innovation to all students who may use that knowledges for improving income and nutrition status of households, food security, and qualities of agricultural products in the supply chain. Application of postharvest technology and innovation on horticultural crops is an important effort for improving food and nutrition security and raised income in many countries. Course features both theoretical and practical learning which is divided into 3 groups: core courses, elective courses in 3 subgroups (Postharvest Technology and Innovation, Food Science and Technology, and Agricultural Technology), and Thesis.

# Course Content/Study Topic:

Study plan for M.Sc. Postharvest Technology and Innovation

Plan A1 (Research only)

	Semester 1	Ϋ́¢		Semester 2	
1407891	Thesis	6	1407891	Thesis	12
			1407748	Seminar 1	0
Tota	al (credits)	6	Tota	ıl (credits)	12

			car 2		
	Semester 1			Semester 2	
1407891	Thesis	12	1.407001		
1407846	Seminar 2	0	1407891	Thesis	6
Total (credits)		12	Tota	ıl (credits)	6

Plan A2 (Course works and research)

	Semester 1	·	ati 1	Semester 2	
1407700	Agricultural Research Methodology	3	1407753	Postharvest Technology and Innovation	3
1407738	Postharvest Biology of Plant	3	1407749	Seminar 1	1
140xxxx	Elective 1	1	140xxxx	Elective 3	3
1407731	Advanced Instruments for Postharvest Quality Determination	3	140xxxx	Elective 4	3
140xxxx	Elective 2	3	1407892	Thesis	3
	Total (credits)	13		Total (credits)	13

Year 2					
Semester 1 Semester 2					
1407847	Seminar 2	1	1.407000		
1407892	Thesis	6	1407892	Thesis	3
	Total (credits)	10		Total (credits)	3

## Courses

1. Core courses		
1407700	Agricultural Research Methodology	3(3-0-6)
1407738	Postharvest Biology of Plant	3(2-3-5)
1407753	Postharvest Technology and Innovation	3(2-3-5)
1407748	Seminar 1	0(0-3-1)
1407846	Seminar 2	0(0-3-1)
1407749	Seminar 1	1(0-3-1)
1407847	Seminar 2	1(0-3-1)
1407731	Advanced Instruments for Postharvest Quality Determination	3(2-3-5)

Elective courses ca	n be divided into 3 groups of subjects. Student can choose.	
	st Technology and Innovation	
14057xx	Quality and Food Safety Management	3(3-0-6)
1407734	Postharvest Diseases	3(2-3-5)
1408703	Packaging Innovation	3(2-3-5)
1407744	Postharvest Management of Fruits and Vegetables	3(2-3-5)
1407733	Postharvest Management of Cereal Grains, Legumes and Oilseeds	3(2-3-5)
1407746	Postharvest Technology of Ornamental Crops	3(2-3-5)
1407761	Non-destructive Evaluation for Agricultural Crops	3(2-3-5)
1407848	Postharvest Pest Management	3(3-0-6)
1407732	Postharvest Engineering	3(2-3-5)
1407735	Selected Topics in Postharvest Technology and Innovation	
1408704	Packaging for Transport and Distribution	3(2-3-5)
1409701	Agricultural Logistics Management	3(3-0-6)
1407751	Internship	4(0-40-6)
1407752	Farm and Industry Visit	1(0-6-1)

2.2 Food Scie	ence and Technology	
1403746	Food Processing Innovation	3(2-3-5)
1406770	Consumer Trends and Technology	3(3-0-6)
1402814	Functional Foods and Nutraceuticals	3(3-0-6)
2.3 Agricultu	ral Technology	5(5 0 0)
1407701	Principle of Horticulture	3(3-0-6)
1407702	Agricultural and Environmental Science	3(3-0-6)
1407703	Principle of Floriculture	3(3-0-6)
1407704	Crop Technology and Innovation	3(3-0-6)
3. Thesis		2(3 0 0)
1407891	Thesis 36	(0-108-36)
1407892	Thesis 12	(0-36-12)

#### Qualification:

Students with a bachelor's degree in Agriculture, Food Science, Biology, Chemistry, Biochemistry, Biotechnology, and related fields with cumulative undergraduate GPA>2.50 and TOFEL score >450 are encouraged to join the program. The program admissions committee makes all admission consideration on case-by-case basis.

#### Document required:

- 1. Application affixed with photographs;
- 2. A copy of transcript from attended institutions
- 3. Evidence of English proficiency, TOEFL exam or others
- 4. Statement of purpose
- 5. Letters of recommendation from referee
- 6. A copy of passport

#### Contact:

Dr. Wirongrong Tongdeesoontorn Packaging Technology, School of Agro-Industry Mae Fah Luang University Tel: (+66)95-4491890

E-mail: wirongrong.ton@mfu.ac.th

Closing date for Nominations: March 31, 2019

Late or incomplete applications/documents will not be considered.

# Course Title Master of Science Program in Agricultural Science

Master Degree:

Master of Science (Agricultural Science)

Academic Institution:

Faculty of Agriculture, Natural Resources and Environment,

Naresuan University

Duration:

Two (2) years, academic years (June 2019 – March 2021)

#### Objectives:

1. To gain knowledge, competency, skill, and attitude for working in the field of agricultural science in the international level.

2. To be curious and have ability for doing research and developing agricultural science

3. To have various skills and readiness about technological transformation and development in higher level by having an awareness that will effect to environment and humanity.

4. To understand in social changing and condition both in Thailand and the world, to determine for developing the country following the role and responsibility throughout the conservation and promotion resources, religion, and national culture.

5. To have moral discipline, on time, honest, intelligence, professional realization and social responsibility.

#### Course Synopsis & Methodology:

Master of Science Program is the integrated course of study and research that focusing on Agricultural Sciences knowledge with Plant Science, Entomology, Diseases and Pests, Soil Resources Management, Agricultural Development, Animal Production in the tropical, Biotechnology, Post-Harvest, Seminar, and Thesis

#### Course Content and Study Topic:

Naresuan University proudly offers Master of Science Program in Agricultural Science that focuses on Plant Science, Entomology, Soil Resources and Agricultural Environment Management, Agricultural Development, Tropical Animal Production, Energy Crops and Industrial Crops, and Postharvest Technology. The program takes two years and consists of two plans; 1 (Plan A Type A1 requires 36 credits of thesis plus 6 credits of basic required courses, and 2 (Plan A Type A2 requires 12 credits of thesis plus 6 credits of basic required courses, and 24 credits of elective prescribed courses. The students can choose either plan and focus on any field previously mentioned. The students will learn to investigate the specific problems leading to uncover information and also learn to write and present the results through thesis. The basic required courses consist of seminars and research methodology for improving the presentation skills and step-by-step research guidance. The students can choose the elective prescribed courses from various subjects according to academic background, thesis topics and interests. The students pursuing the program will improve knowledge and experiences through lectures, seminars, and researches useful for future careers.

Master of Science Program in Agricultural Science consists of minimum 36 credits that was divided into 2 plans;

		Griterion of Educ		Revised Curriculum 2016	
No.	Program .	Plan A Type A 1	Plan A Type A 2	Plan A Type A L	PlantA TypeA.2
1	Course work	•	12	-	24
2	1.1 minimum credit of prescribed course 1.2 minimum credit of elective course	<b>.</b>	-	<del>.</del> -	- 24
3	Thesis	36	12	36	12
4	Independent Study	-		<b>.</b>	<u>.</u>
5	prescribed course without credit	•	-	7	7
Total minimum credits		36	36	36	36

#### Qualifications:

The student should be graduated in Bachelor degree or equivalent in Agriculture or related field with other qualifications of Naresuan University Graduate regulations

Plant Science, Entomology, Diseases and Pests, Soil Resources Management, Agricultural Development, Animal Production in the tropical, Biotechnology, Post-Harvest, Seminar, and Thesis

#### Document required:

- 1. Three (3) copies of the Application Form, each affixed with photographs.
- 2. Grade point average of 2.75 or higher
- 3. Original undergraduate transcripts
- 4. Two (2) letters of recommendation
- 5. Personal statement include CV
- 6. Medical Health Report
- 7. TOEFL (for student non English speaking institutions)
  - Computer based: 213
  - Paper based: 550
  - iBT: 80 and IELTS: 6.5

#### Contact:

Assoc. Prof. Dr. Det Wattanachaiyingcharoen

Department of Agricultural Science

Faculty of Agriculture, Natural Resources and Environment

Naresuan University, Thailand

Tel: (+66)55-962822 E-mail: detw@nu.ac.th

Closing date for Nominations: March 31, 2019

Late or incomplete applications/documents will not be considered.