Course (RQ03040): (*Organic Agriculture*)

1. General information

- Term: 7
- Credits: **Total credits 2 (Lecture: 1.5 – Practice: 0.5)**
- **Self-study: 6** credits
- Credit hours for teaching and learning activities: 22 hrs
- Self-study: 90 hrs.
- Department conducting the course:
  - Department: Biostatistics and Experimental Design
  - Faculty: Faculty of Agronomy
- Kind of the course:

Foundation □		Fundamental □		Option 1 ☑		Option 2 ☑	
Compulsory □	Elective □	Compulsory □	Elective □	Compulsory □	Elective ☑	Compulsory □	Elective ☑

- Prerequisite course(s): None

2. Course objectives and expected learning outcomes

**** Course objectives*:**

- **Knowledge:** Course provides for students with knowledge in concepts, principles, standards of organic agricultural production and the scientific basis of techniques applied in organic agricultural and technical management from production to processing, preservation and marketing of organic products.
- **Skills:** Course provides students with skills in the key technical skills in organic agricultural production and apply the knowledge in the design and development of a production plan for an organic farm.
- **Attitude:** Course provides students with attitudes in compliance with organic agricultural production standards combined with environmental protection, readiness for life-long learning.

**** Course expected learning outcomes***

Notation	**Course expected learning outcomes** After successfully completing this course, students are able to	**PLO performance criteria**
Knowledge		
CELO1	Analyze concepts and principles of organic agricultural production to build organic agricultural production procedure	2.1
CELO2	Applying the scientific basis of cultivation techniques in management of soil, water, nutrients, plants, pests, harvesting and marketing organic product to build organic agricultural production procedure	2.2

Skills		
CELO3	Apply the knowledge learned to design, build and operate an organic production plan/procedure for an organic farm	7.3
Attitude		
CELO4	Comply with organic agricultural production standards combined with environmental protection,	9.2
CELO5	Be ready for life-long learning.	10.2

3. Course description

Brief description of the course: This course provides the basics of organic agriculture; History of organic agriculture development; The principles of organic agriculture; Land and water management for organic production; Nutrient management for organic crops; Crop management for organic crops; Pest management in organic production; Management in processing and preservation of organic products; Market management of organic products; The practice of organic production in Vietnam.

4. Teaching and learning & assessment methods

CELOs	CELO1	CELO2	CELO3	CELO4	CELO5
Teaching and learning					
Lecturing	x	x			
Group discussion	x	x		x	x
Group presentation		x	x	x	x
Practice			x	x	x
Assessment					
Rubric 1. Attendance (8%)					x
Rubric 2. Group discussion (2%)	x	x		x	
Rubric 3. Practical (15%)		x	x	x	
Rubric 4. Presentation 15%)			x	x	
Rubric 5. Final exam (60%)	x	x	x	x	

5. Student tasks

- Attendance: All students taking this course must attend at least 70% class.
- Preparation for the lecture: All students taking this course must read the relevant book chapter and handout before the class
- Presentation and Discussion: All students taking this course must give 1 presentation about chosen topics by group.
- Practice: All students taking this course must attend 3 practice class.
- Final exam: All students have to take 1 exam

6. Text books and references

**** Text Books/Lecture Notes:***

1. Nguyen Thi Ai Nghia. (2021). *Lecture of Organic Agriculture*.

2. Pham Tien Dung, Le Van Hung, Nguyen Thi Ai Nghia, Nguyen Thi Ngoc Dinh, Nguyen Hong Hanh và Phi Thi Diem Hong. (2016). *Textbook of Organic Agriculture*. Vietnam National University of Aghriculture Pulisher.

**** Additional references:***

1. Gregory A.Barton (2018). *The global history of organic farming*. Oxford university express.

7. Course outline

Week	Content	Course expected learning outcomes
1,2	***Chapter 1:*** **An Introduction to Organic Agriculture**	
	A/ **Main contents***: (9 hours)* **1. Theories:** *(4 hours*) 1.1. Concepts of organic farming 1.2. History of organic agriculture development 1.3. Situation of organic farming 1.2.1. The situation of organic agricultural production in the world 1.2.2. The situation of organic agricultural production in Vietnam 1.4. Principles of organic farming **Discussion:** *(2 hours)* - Discuss the need for organic farming - Discuss the principles of organic farming -Compare the difference between organic farming and conventional farming **2. Practice:** *(3 hours)* - Design and make production plan of an organic farm	CELO 1, 3, 4, 5
	B/ **Self-study contents**: *(27 hours)* - Principles and standards of organic agriculture	
3, 4	***Chapter 2:*** **Managements of soil - water - nutrients - crops in organic agriculture**	
	A/ **Main contents***: (9 hours)* **1. Theories:** *(6 hours)* 2.1. Soil management for organic farming 2.2. Water management for organic farming 2.3. Organic crop management. 2.4. Nutrient management for organic crop production **Discussion:** (1 hour) - The need and role of management techniques in organic farming **2. Practice:** *(2 hours)* - Preparation of organic fertilizer	CELO 2, 3, 5
	B/ **Self-study contents**: *(27 hours)* Techniques to manage soil - water - nutrients - plants in organic farming	

5	***Chapter 3:*** **Pest management in organic farming**	
	A/ **Main contents***: (6 hours)* **1. Theories:** *(3 hours)* 3.1. Principles of pest management in organic production 3.2. Techniques to manage pests in organic production 3.2.1. Disease management on organic crops 3.2.2. Pest management on organic crops 3.2.3. Natural enemy management 3.2.4. Weed Management **2. Practice:** *(3 hours)* - Field survey for pest management	CELO 2, 3, 5
	B/ **Self-study contents**: *(18 hours)* Principles and methods of pest management in organic agriculture	
6	***Chapter 4:*** **Harvesting and post-harvesting techniques in organic agricultural production**	
	A/ **Main contents***: (1.5 hours)* **1. Theories:** *(1.5 hours)* 4.1. Harvesting and packing organic products 4.2. Storage and transportation of organic products	CELO 2, 5
	B/ **Self-study contents**: *(4.5 hours)* Principles and methods of harvesting and preserving organic agricultural products	
6	***Chapter 5:*** **Marketing for organic products**	
	A/ **Main contents***: (1.5 hours)* **1. Theories:** *(1.5 hours)* 5.1. The concept of the organic agricultural market 5.2. World market 5.3. Domestic market	CELO 2, 5
	B/ **Self-study contents**: *(4.5 hours)* Marketing for organic products	