CAN THO UNIVERSITY
COLLEGE OF AGRICULTURE
DEPARTMENT OF GENETICS AND PLANT BREEDING

PROGRAMME SPECIFICATIONS

PROGRAMME: BACHELOR OF AGRONOMY

Can Tho, November 2020

MINISTRY OF EDUCATION & TRAINING
CAN THO UNIVERSITY

SOCIALIST REPUBLIC OF VIETNAM
Independence – Freedom - Happiness

PROGRAMME SPECIFICATION

PROGRAMME: BACHELOR OF AGRONOMY

I. PROGRAMME SPECIFICATION

Pursuant to the Decision No. 3019/QĐ-ĐHCT dated July 31, 2019 of the Rector of Can Tho University (CTU) on the promulgation of the graduate study programme, the Bachelor of Agronomy is described as follows:

1. General information of the programme

Study programme	Agronomy
Study programme	Agronomy
Programme Code	7620109
Awarding institution	Can Tho University
Degree	Bachelor of Agronomy
Training Level	Undergraduate (Bachelor)
Number of credits accumulated	150 credits
Mode of training	Full-time
Training time	4,5 years
Candidate:	People with high school diploma or equivalent
Grading scale	4-point
Eligibility for graduation	- Accumulate enough courses and credits specified in the programme with the cumulative GPA of the whole programme is 2.0 or higher (on a 4-point scale); - Complete all compulsory courses In addition, the overall GPA of the National Defense Education courses must be 5.0 or higher (on a 10-point scale); Not being prosecuted for criminal responsibility, not being suspended at the last school year due to violating CTU's regulation.

Career prospects	- Technicians/technical staff/managers at state agricultural agencies: Departments (Divisions, Sections) of Agriculture and Rural Development, Agricultural Extension Centers (Stations), Departments of Science and Technology, Centers (Farms) for plant (animal, aquaculture) breeding, Plant Protection Sub-Departments (Veterinary, Aquaculture, Rural Development, Quality Management of Agricultural and Aquatic Products). - Researchers, specialists at research institutes, universities in the field of agriculture, educational institutions training in agriculture, organizations/projects related to agricultural activities. - Teachers and lecturers at universities, colleges, vocational schools, educational institutions, and training centers in the field of agriculture (who meet the requirements for pedagogical skills). - Graduates in Agronomy from Can Tho University can work in domestic and international companies related to plant varieties, livestock, and aquaculture, as well as in agrochemicals and animal and fish feed.
Higher education after graduation	- Ability for self-study, continues to research and engage in in-depth learning, and is creative in their expertise and work. - Capable of conducting in-depth research and pursuing postgraduate studies (master's and doctoral programs) in the fields of Crop Science, Genetics and Plant Breeding, Plant Protection, Soil Science, Biotechnology, etc., at higher education institutions both domestically and internationally.
References when developing the programme	- Self-assessment Report _AUN- 2015. Agronomy Programme, Department of Genetics and Plant breeding, College of Agriculture, Can Tho University. - The undergraduate training program in Agronomy at Ho Chi Minh City University of Agriculture and Forestry, the Agronomy program at Hue University of Agriculture and Forestry, the Agricultural Science program at the University of Queensland (Australia), and the Agricultural Science program at Massey University. (New Zealand).
Information about accreditation at programme level	CTU has been certified to achieve the quality of educational institutions in the period of 2018 - 2023.
Time to updating the programme specification	November 2020

2. The Agronomy programme has the following objectives

2.1. Overall objectives

The overall goal of the training program is to educate engineers with specialized knowledge in three fields: crop production, animal husbandry, and aquaculture; who are capable of working independently, creatively, and solving problems to support sustainable agricultural development; and who can utilize information technology in accordance with current regulations. In addition to specialized knowledge, graduates also possess basic knowledge of political science, social sciences, law, physical education, national defense, and security; they have self-management and responsibility skills, political and ethical qualities, leadership abilities, and adaptability to change; they have research capabilities and health that meet the requirements for personal development to serve the socio-economic development of the country and the demands of international integration.

2.2. Specific objectives

The training programme BoA has several objectives as follows:

PO1. To produce agronomist with ethical values, civic responsibility, fundamental social sciences and humanities knowledge, applied computer skills, and proficiency in English/French to support national development and defense;

PO2. To produce agronomist with specialized knowledge in crops, livestock, and aquaculture, enabling them to research, analyze, plan, and manage sustainable agricultural systems;

PO3. To cultivate agronomist with teamwork, scientific research skills, critical thinking, and problem-solving abilities to address emerging agricultural challenges while developing adaptability, self-learning habits, and professional growth, all while upholding ethics, civic awareness, and social responsibility;

PO4. To produce graduates for careers in agriculture-related fields, including state agencies, agribusinesses, and companies specializing in crop varieties, livestock, aquaculture, agricultural chemicals, and feed production.

3. Expected learning outcomes

Upon completion of the BoA, students demonstrate a mastery of knowledge, skills, autonomy and responsibility as follows:

3.1 Knowledge

3.1.1 General knowledge

PLO1. To demonstrate knowledge in physical education, national defense and security, political science, natural sciences, social sciences, law, digital skills, and English/French communication.

PLO2. To apply fundamental theories of physical education, national defense, security, and core agricultural sciences.

Core Knowledge

PLO3. To analyze fundamental biological concepts in crops, livestock, and aquaculture to support specialized knowledge acquisition and application.

PLO4. To evaluate experimental design methods for conducting research in crops, livestock, and aquaculture to optimize production system management.

3.1.2 Specialised/professional knowledge

PLO5. To apply cultivation techniques, select crop varieties, and manage pests to develop and implement sustainable crop production models.

PLO6. To implement livestock breeding techniques and manage poultry and livestock farms effectively at different scales.

PLO7. To utilize aquaculture techniques to organize, manage, and prevent disease outbreaks in sustainable fish and seafood farming.

PLO8. To develop integrated agricultural production models that combine crop cultivation, livestock, and aquaculture..

3.2 Skills

3.2.1 Hard skills

PLO9. To execute specialized techniques in crop cultivation, animal husbandry, and aquaculture across various agricultural systems.

PLO10. To assess agricultural production systems and propose innovative solutions for improving efficiency and sustainability.

3.2.2 Soft skills

PLO11. To communicate effectively in a foreign language (B1 level CEFR) and apply digital skills to enhance work quality and meet global integration demands.

PLO12. To organize independent and team-based work, conduct research projects, demonstrate leadership, and apply entrepreneurial skills in agriculture

3.3 Attitudes, autonomy and responsibility

PLO13. To uphold civic responsibility, professional ethics, discipline, and respect for diverse perspectives in agricultural decision-making.

PLO14. To solve emerging agricultural issues by synthesizing knowledge and experiences to

develop critical thinking skills.

PLO15. To pursue lifelong learning by continuously updating knowledge, adapting to industry advancements, and planning career development.

4. Admission criteria

Pursuant to MOET's regulations on admission criteria and CTU’s yearly enrolment plan

5. Correlation matrix between POs, PLOs and courses

5.1 Correlation matrix between POs and PLOs

POs	PLOs of BoA														
	Knowledge								Skill				Level of autonomy and personal responsibility		
	General education knowledge		Core knowledge		Specialized knowledge				Hard skill		Soft skill				
	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10	PLO11	PLO12	PLO13	PLO14	PLO15
PO1	x	x									x				
PO2			x	x	x	x	x	x							
PO3									x	x	x	x			
PO4													x	x	x

5.2 Correlation matrix between courses and PLOs

Course			Expected Learning Outcome (2)														
			Knowledge (2.1)								Skills (2.2)				Autonomy and responsibility (2.3)		
			General knowledge block (2.1.1)		Core knowledge (2.1.2)		Specialised/professional knowledge block (2.1.3)				Hard Skills(2.2.1)		Soft skills (2.2.2)				
No	Code	Course name	a	b	a	b	a	b	c	d	d	e	a	b	a	b	a
			PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10	PLO11	PLO12	PLO13	PLO14	PLO15
General knowledge block																	
1	QP006	National Defence and Security Education 1 (*)	1	1											1		
2	QP007	National Defence and Security Education 2 (*)	1	1											1		
3	QP008	National Defence and Security Education 3 (*)	2	2											1		
4	QP009	National Defence and Security Education 4 (*)	3	3											2		
5	TC100	Physical Education 1+2+3 (*)		1											2		
6	XH023	General English 1 (*)	1										1				1
7	XH024	General English 2 (*)	1										1				1
8	XH025	General English 3 (*)	1										1				2
9	XH031	Level B2 English 1 (*)	2										2				1
10	XH032	Level B2 English 2 (*)	2										2				1
11	XH033	Level B2 English 3 (*)	2										2				2
12	FL001	General French 1 (*)	1										1				1

13	FL002	General French 2 (*)	1										1				1
14	FL003	General French 3 (*)	1										1				2
15	FL007	Intensive French 1 (*)	2										2				1
16	FL008	Intensive French 2 (*)	2										2				1
17	FL009	Intensive French 3 (*)	2										2				2
18	TN033	Basic Informatics in Labs (*)	1										1				1
19	TN034	Unit Operation Basic Informatics in Labs (*)	2										2				2
20	ML014	Marxist - Leninist Philosophy	1												1		
21	ML016	Marxist - Leninist Political Economy	1												1		
22	ML018	Scientific Socialism	1												1		
23	ML019	History of the Communist Party of Vietnam	1												1		
24	ML021	Ho Chi Minh Ideology	1												1		
25	KL001	General Law	1												1		
26	KN001	Transferable Skills	1												1		
27	ML007	Basic Logic	1												1		
28	XH011	Vietnamese Culture	1												1		
29	XH012	Vietnamese in use	1												1		
30	XH014	General management documents and archives	1												1		
31	KN001	Transferable Skill		2									1			1	
32	KN002	Entrepreneurship and Innovation		2									1			1	
33	TN009	Advanced Mathematics C	1													1	
34	TN019	General Chemistry	1													1	
35	TN020	Practical General chemistry	2								1					2	
36	TN042	General Biology	1													1	
37	TN043	Experiment on General Biology	2								1					2	
Fundamental knowledge block																	
38	NN111	Sciences research methodology				2					2			2		2	
39	NN126	Fundamental genetics			3						2			3		2	
40	NN127	Practical fundamental genetics			2	2					2			2		3	
41	NN129	Plant physiology B			2	2					2			1		2	
42	NN130	Practical plant physiology			2	2					2			1		3	
43	NN123	Biochemistry B			2	2					2			2		2	
44	NN124	Practical biochemistry			2	2					2			2		3	
45	NS381	Microbiology in agriculture			1	1					2			1		2	
46	NN184	Statistical probability and experimental design-crop science				2					1			1		2	
47	NN376	Plant nutrion			2	1					1			2		2	
48	TS117	Aquatic animal physiology B			2	1					1			2		2	

49	TS118	Aqutic animal nutrion and feed technology B			2	1					2			2		2	
50	NN136	Physiology and anatomy of domestic			2	1					1			2		2	
51	NN353	Animal nutrition			2	1					2			2		2	
52	NN232	Soil fertility			2	1					1			2		2	
53	NN131	Pedology B			2	1					2			2		2	
54	CN004	Hydrometerorology			1	2					1			2		2	
55	NN326	Agricultural extension			2	2					1			3		2	
56	KT007	Agricultural Economics and Rural Development			1	2					1			2		2	
57	MT110	Agro-ecosystem			2	2					2			2		2	
Specialised/professional knowledge block																	
58	NN373	Plant breeding					3			3	3	2		2	1	2	1
59	NN375	Agricultural biotechnology					2			2	3	2		2	1	2	1
60	NN186	Rice crop					3			3	3	2		2	1	2	1
61	NN359	Plant pathology					2			2	2	2		2	1	1	1
62	NN374	Agricultural isect pets					2			2	2	2		2	1	2	1
63	NS225	Eglish for studdent of agronomy					2					2	2		1		1
64	XH019	French for Science and Technology					2					2	2		1		1
65	NN371	Vegetable production					2			3	2			2	1	1	1
66	NN361	Fruit crop					3			3	2			2	1	1	1
67	NN362	Insdustial perennial crop production					2			2	2			2	1	1	1
68	NN370	Upland crop					2			3	2			2	1	1	1
69	NN363	Short industrial crops					2			2	2			2	1	1	1
70	NN356	Pgysiology and biochemistry of seeds					2			3	2			2	1	1	1
71	NN444	Weeds and weed control					2			2	2	2		2	1	1	1
72	NN143	Agro-chemical for plant protection B					2			2	2	2		2	1	1	1
73	NN382	Vegetative propagation					2			2	2	2		2	1	1	1
74	NN380	Clean vegetable production					2			2	2	2		2	1	1	1
75	NN101	Animal breeding						3		2	2	2		2	1	1	1
76	NN312	Infectiuos diseases						3		2	2	2		2	1	1	1
77	NN337	Poultry production B						2		2	2	2		2	1	1	1
78	NN338	Ruminant production B						3		2	2	2		2	1	1	1
79	NN339	Swine production B						2		2	2	2		2	1	1	1
80	NS283	Practical training course in Animal sciences						3		2	3	2		3	2	3	2
81	TS241	Freshwater aquaculture production							2	2	2	2		2	1	1	1
82	TS330	Practice on aquaculture technics							3	3	3	2		2	2	3	2

83	TS409	Seed production and farming of crustacean							3	2	2	2		2	1	1	1
84	TS337	Aquatic epizootic							3	2	2	2		2	1	1	1
85	NN311	Veterinary parasitic diseases						3		2	2	2		2	1	1	1
86	NN320	Animal farm structure and building						2		2	2	2		2	1	1	1
87	NN310	Pet companion						2		2	2	2		2	1	1	1
88	NN301	Veternary obstetric and artificial insemination						2		2	2	2		2	1	1	1
89	NN308	Apiculture						2		2	2	2		2	1	1	1
90	TS335	Seed production and farming of marine fish							3	2	2	2		2	1	1	1
91	TS315	Drugs and chemicals in aquaculture							2	2	2	2		2	1	1	1
92	TS310	Culture techniques for ornamental fish and quatic animal							2	2	2	2		2	1	1	1
93	TS313	Molluscan shellfish farming							2	2	2	2		2	1	1	1
94	TS410	Water quality management for aquaculture sản							2	2	2	2		2	1	1	1
95	NS439	Enterprise pratice crops					3			3	3	2		3	2	3	2
96	NN548	Excursion for students pf agronomy					3			3	3	2		3	2	3	2
97	NS510	Graduated research					3			3	3	2		3	2	3	2
98	NS434	Graduation research - agronomy					3			3	3	2		2	2	3	2
99	NN368	Seed technology					2			2	2	2		2	1	1	1
100	NS306	Plant quarantine and postharvest pets					2				2			2	1	1	1
101	NN377	Farming system					3			2	2	2		2	1	1	1
102	TN340	Plan tissue culture					2			2	2	2		2	1	1	1
103	NN378	IPM in plant protection					2			2	2	2		2	1	1	1

II. PROGRAMME STRUCTURE AND CURRICULUM

Pursuant to the Decision No. 3019/QĐ-ĐHCT dated July 31, 2019 of the Rector of Can Tho University (CTU) on the promulgation of the graduate study programme, the Bachelor of Agronomy is described as follows:

1. Programme Structure

The minimum number of credits accumulated: 150 credits

General knowledge block: 48 credits (Compulsory: 33 credits; elective: 15 credits)

Fundamental knowledge block: 32 credits (Compulsory: 28 credits; elective: 04 credits)

Specialised/professional knowledge block: 70 credits (Compulsory: 38 credits; elective: 32 credits)

2. Curriculum

No	Course code	Course name	Credits	Compulsory	Elective	Theory hours	Practice hours	Coure Pre requisite course	Course requisite	Semester
General knowledge										
1	QP006	National Defence and Security Education 1 (*)	2	2		30		Divided by specialised sub-group		
2	QP007	National Defence and Security Education 2 (*)	2	2		30		Divided by specialised sub-group		
3	QP008	National Defence and Security Education 3 (*)	3	3		20	65	Divided by specialised sub-group		
4	QP009	National Defence and Security Education 4 (*)	1	1		10	10	Divided by specialised sub-group		
5	TC100	Physical Education 1+2+3 (*)	1+1+1		3		90			I,II,III
6	XH023	General English 1 (*)	4	EN	10TC EN or FR	60				I,II,III
7	XH024	General English 2 (*)	3			45		XH023		I,II,III
8	XH025	General English 3 (*)	3			45		XH024		I,II,III
9	XH031	Level B2 English 1 (*)	4			60		XH025		I,II,III
10	XH032	Level B2 English 2 (*)	3			45		XH031		I,II,III
11	XH033	Level B2 English 3 (*)	3			45		XH032		I,II,III
12	FL001	General French 1 (*)	4	FR		60				I,II,III
13	FL002	General French 2 (*)	3			45		FL001		I,II,III
14	FL003	General French 3 (*)	3			45		FL002		I,II,III
15	FL007	Intensive French 1 (*)	4			60		FL003		I,II,III
16	FL008	Intensive French 2 (*)	3			45		FL007		I,II,III
17	FL009	Intensive French 3 (*)	3			45		FL008		I,II,III
18	TN033	Basic Informatics in Labs (*)	1	1		15				I,II,III
19	TN034	Unit Operation Basic Informatics in Labs (*)	2	2			60		TN033	I,II,III
20	ML014	Marxist - Leninist Philosophy	3	3		45				I,II,III
21	ML016	Marxist - Leninist Political Economy	2	2		30		ML014		I,II,III
22	ML018	Scientific Socialism	2	2		30		ML016		I,II,III
23	ML019	History of the Communist Party of Vietnam	2	2		30		ML018		I,II,III
24	ML021	Ho Chi Minh Ideology	2	2		30		ML019		I,II,III
25	KL001	General Law	2	2		30				I,II,III
26	KN001	Transferable Skills	2		2	20	20			I,II,III
27	ML007	Basic Logic	2			30				I,II,III
28	XH011	Vietnamese Culture	2			30				I,II,III

29	XH012	Vietnamese in use	2			30				I,II,III
30	XH014	General management documents and archives	2			30				I,II,III
31	KN001	Transferable Skill	2			30				I,II,III
32	KN002	Entrepreneurship and Innovation	2			20	20			I,II,III
33	TN009	Advanced Mathematics C	2	2		30				I,II,III
34	TN019	General Chemistry	1	1			30			I,II,III
35	TN020	Practical General chemistry	2	2		30			TN019	I,II,III
36	TN042	General Biology	1	1			30			I,II,III
37	TN043	Experiment on General Biology	3	3		45			TN042	I,II,III
Total: 48 credits (Compulsory: 33 credits; Elective: 15 credits)										
Fundamental knowledge block										
38	NN111	Sciences research methodology	2	2		15	30			I,II
39	NN126	Fundamental genetics	2	2		30				I,II
40	NN127	Practical fundamental genetics	1	1			30		NN126	I,II
41	NN129	Plant physiology B	2	2		30				I,II
42	NN130	Practical plant physiology	1	1			30		NN129	I,II
43	NN123	Biochemistry B	2	2		30				I,II
44	NN124	Practical biochemistry	1	1			30		NN123	I,II
45	NS381	Microbiology in agriculture	2	2		20	20			I,II
46	NN184	Statistical probability and experimental design-crop science	3	3		30	30			I,II
47	NN376	Plant nutrion	2	2		20	20			I,II
48	TS117	Aquatic animal physiology B	2	2		20	20			I,II
49	TS118	Aqutic animal nutrion and feed technology B	2	2		20	20			I,II
50	NN136	Physiology and anatomy of domestic	2	2		20	20			I,II
51	NN353	Animal nutrition	2	2		20	20			I,II
52	NN232	Soil fertility	2	2		30				I,II
53	NN131	Pedology B	2		4	20	20			I,II
54	CN004	Hydrometerorology	2			20	20			I,II
55	NN326	Agricultural extension	2			20	20			I,II
56	KT007	Agricultural Economics and Rural Development	2			30				I,II
57	MT110	Agro-ecosystem	2			30				I,II
Total: 32 credits (Compulsory: 28 TC; Elective: 4 TC)										
Specialized/professional knowledge block										
58	NN373	Plant breeding	2	2		20	20			I,II
59	NN375	Agricultural biotechnology	2	2		20	20			I,II
60	NN186	Rice crop	3	3		30	30			I,II
61	NN359	Plant pathology	2	2		20	20			I,II
62	NN374	Agricultural isect pets	2	2		20	20			I,II
63	NS225	Eglish for studdent of agronomy	2		2	30		XH025		I,II
64	XH019	French for Science and Technology	2			30		FL003		I,II
65	NN371	Vegetable production	2		2	20	20			I,II
66	NN361	Fruit crop	2			20	20			I,II
67	NN362	Insdustial perennial crop production	2			20	20			I,II
68	NN370	Upland crop	2		2	20	20			I,II
69	NN363	Short industrial crops	2			20	20			I,II
70	NN356	Pgysiology and biochemistry of seeds	2			30				I,II
71	NN444	Weeds and weed control	2		2	20	20			I,II
72	NN143	Agro-chemical for plant protection B	2			20	20			I,II
73	NN382	Vegetative propagation	2			20	20			I,II

74	NN380	Clean vegetable production	2			20	20			I,II
75	NN101	Animal breeding	2	2		20	20			I,II
76	NN312	Infectiuos diseases	2	2		20	20			I,II
77	NN337	Poultry production B	2	2		20	20			I,II
78	NN338	Ruminant production B	2	2		20	20			I,II
79	NN339	Swine production B	2	2		20	20			I,II
80	NS283	Practical training course in Animal sciences	2	2			60			I,II
81	TS241	Freshwater aquaculture production	2	2		30				I,II
82	TS330	Practice on aquaculture technics	4	4			120			I,II,III
83	TS409	Seed production and farming of crustacean	2	2		30				I,II
84	TS337	Aquatic epizootic	2	2		20	20			I,II
85	NN311	Veterinary parasitic diseases	2		4	20	20			I,II
86	NN320	Animal farm structure and building	2			20	20			I,II
87	NN310	Pet companion	2			20	20			I,II
88	NN301	Veternary obstetric and artificial insemination	2			20	20			I,II
89	NN308	Apiculture	2			20	20			I,II
90	TS335	Seed production and farming of marine fish	2		6	30				I,II
91	TS315	Drugs and chemicals in aquaculture	2			30				I,II
92	TS310	Culture techniques for ornamental fish and quatic animal	2			30				I,II
93	TS313	Molluscan shellfish farming	2			25	10			I,II
94	TS410	Water quality management for aquaculture sản	2			30				I,II
95	NS439	Enterprise pratice crops	3	3			90			III
96	NN548	Excursion for students pf agronomy	2	2			60			I,II
97	NS510	Graduated research	14		14		420	≥120TC		I,II,III
98	NS434	Graduation research - agronomy	6				180	≥120TC		I,II
99	NN368	Seed technology	2			20	20			I,II
100	NS306	Plant quarantine and postharvest pets	2			20	20			I,II
101	NN377	Farming system	2			30				I,II
102	TN340	Plan tissue culture	2			20	20			I,II
103	NN378	IPM in plant protection	2			20	20			I,II
Total: 70 credits (Compulsory: 38 credits; Elective: 32 credits)										
Total: 150 credits (Compulsory: 99 credits; Elective: 51 credits)										

Study Plan

No	Code	Course name	Credits	Compulsory	Elective	Theory hours	Practice hours	code Prerequisite course	Note
Semester 1									
1	ML014	Marxist - Leninist Philosophy	3	3		45			
2	TN019	General Chemistry	3	3		45			
3	TN020	Practical General chemistry	1	1			30		
4	TN042	General Biology	2	2		30			
5	TN043	Experiment on General Biology	1	1			30		
6	TN009	Advanced Mathematics C	2	2		30			
7	KL001	General Law	2	2		30			
		Total:	**14**	**14**	**0**				
Semester 2									

1	QP006	National Defence and Security Education 1 (*)	2	2		30		Divided by specialised sub-group	
2	QP007	National Defence and Security Education 2 (*)	2	2		30		Divided by specialised sub-group	
3	QP008	National Defence and Security Education 3 (*)	3	3		20	65	Divided by specialised sub-group	
4	QP009	National Defence and Security Education 4 (*)	1	1		10	10	Divided by specialised sub-group	
5	ML016	Marxist - Leninist Political Economy	2	2		30		ML014	
6	TN033	Basic Informatics in Labs (*)	1	1		15			
7	TN034	Unit Operation Basic Informatics in Labs (*)	2	2			60		
8	NN123	Biochemistry B	2	2		30			
9	NN124	Practical biochemistry	1	1			30		
10	NN129	Plant physiology B	2	2		30			
11	NN130	Practical plant physiology	1	1			30		
		Total:	**19**	**19**	**0**				
Semester 3									
1	ML018	Scientific Socialism	2	2		30		ML016	
2	TC100	Physical Education 1+2+3 (*)	1		1		30		*Selective course*
3	XH023	General English 1 (*)	4		4	60			*Selective course*
4	FL001	General French 1 (*)	4			60			
5	XH031	Level B2 English 1 (*)	4			60			
6	FL007	Intensive French 1 (*)	4			60			
7	ML007	Basic Logic	2		2	30			*Selective course*
8	XH011	Vietnamese Culture	2			30			
9	XH012	Vietnamese in use	2			30			
10	XH014	General management documents and archives	2			30			
11	KN001	Transferable Skills	2			20	20		
12	KN002	Entrepreneurship and Innovation	2			20	20		
13	NN126	Fundamental genetics	2	2		30			
14	NN127	Practical fundamental genetics	1	1			30		
15	NN376	Plant nutrion	2	2		20	20		
16	TS117	Aquatic animal physiology B	2	2		20	20		
17	NN136	Physiology and anatomy of domestic	2	2		20	20		
		Total:	**18**	**11**	**7**				
Semester 4									
1	ML019	History of the Communist Party of Vietnam	2	2		30		ML018	
2	TC100	Physical Education 1+2+3 (*)	1		1		30		*Selective course*
3	XH024	General English 2 (*)	3		3	45		XH023	*Selective course*
4	FL002	General French 2 (*)	3			45		FL001	
5	XH032	Level B2 English 2 (*)	3			45		XH031	
6	FL008	Intensive French 2 (*)	3			45		FL007	
7	NN131	Pedology B	2		4	20	20		*Selective course*
8	CN00	Hydrometerorology	2			20	20		

	4								
9	NN326	Agricultural extension	2			20	20		
10	KT007	Agricultural Economics and Rural Development	2			20	20		
11	MT110	Agro-ecosystem	2			30			
12	TS118	Aqutic animal nutrion and feed technology B	2	2		20	20		
13	NN353	Animal nutrition	2	2		20	20		
14	NN232	Soil fertility	2	2		30			
15	NS381	Microbiology in agriculture	2	2		20	20		
		Total:	**18**	**10**	**8**				
Semester 5									
1	ML021	Ho Chi Minh Ideology	2	2		30		ML019	
2	NN111	Sciences research methodology	2	2		15	30		
3	TC100	Physical Education 1+2+3 (*)	1		1		30		*Selective course*
4	XH025	General English 3 (*)	3		3	45		XH024	*Selective course*
5	FL003	General French 3 (*)	3			45		FL002	
6	XH033	Level B2 English 3 (*)	3			45		XH032	
7	FL009	Intensive French 3 (*)	3			45		FL008	
8	NN184	Statistical probability and experimental design-crop science	3	3		30	30		
9	NN373	Plant breeding	2	2		20	20		
10	NN186	Rice crop	3	3		30	30		
11	NN371	Vegetable production	2		2	20	20		*Selective course*
12	NN361	Fruit crop	2			20	20		
13	NN362	Insdustial perennial crop production	2			20	20		
		Total:	**18**	**12**	**6**				
Semester 6									
1	NS225	Eglish for studdent of agronomy	2		2	30		XH025	*Selective course*
2	XH019	French for Science and Technology	2			30		FL003	
3	NN359	Plant pathology	2	2		20	20		
4	NN312	Infectiuos diseases	2	2		20	20		
5	NN337	Poultry production B	2	2		20	20		
6	NN339	Swine production B	2	2		20	20		
7	NN101	Animal breeding	2	2		20	20		
8	TS241	Freshwater aquaculture production	2	2		30			
9	TS409	Seed production and farming of crustacean	2	2		30			
10	NN548	Excursion for students pf agronomy	2	2			60		
		Total:	**18**	**16**	**2**				

Semester 7									
1	NN374	Agricultural isect pets	2	2		20	20		
2	NN338	Ruminant production B	2	2		20	20		
3	TS337	Aquatic epizootic	2	2		20	20		
4	TS335	Seed production and farming of marine fish	2		6	30			*Selective course*
5	TS315	Drugs and chemicals in aquaculture	2			30			
6	TS310	Culture techniques for ornamental fish and quatic animal	2			30			
7	TS313	Molluscan shellfish farming	2			25	10		
8	TS410	Water quality management for aquaculture sản	2			30			
9	NN370	Upland crop	2		2	20	20		*Selective course*
10	NN363	Short industrial crops	2			20	20		
11	NN356	Pgysiology and biochemistry of seeds	2			30			
12	NS283	Practical training course in Animal sciences	2	2			60		
		Total:	**16**	**8**	**8**				
Semester 8									
1	TS330	Practice on aquaculture technics	4	4			120		
2	NN311	Veterinary parasitic diseases	2		4	20	20		*Selective course*
3	NN320	Animal farm structure and building	2			20	20		
4	NN310	Pet companion	2			20	20		
5	NN301	Veternary obstetric and artificial insemination	2			20	20		
6	NN308	Apiculture	2			20	20		
7	NN375	Agricultural biotechnology	2	2		20	20		
8	NN444	Weeds and weed control	2		2	20	20		*Selective course*
9	NN143	Agro-chemical for plant protection B	2			20	20		
10	NN382	Vegetative propagation	2			20	20		
11	NN380	Clean vegetable production	2			20	20		
12	NS439	Enterprise pratice crops	3	3			90		
		Total:	**15**	**9**	**6**				
Semester 9									
1	NS510	Graduated research	14		14		420	≥ 120 TC	*Selective course*
2	NS434	Graduation research - agronomy	6				180	≥ 120 TC	
3	NN368	Seed technology	2			20	20		

4	NS306	Plant quarantine and postharvest pets	2			20	20		
5	NN377	Farming system	2			30			
6	TN340	Plan tissue culture	2			20	20		
7	NN378	IPM in plant protection	2			20	20		
		Total:	**14**	**0**	**14**				
		Total:	**150**	**99**	**51**				

3. Brief outline of all courses in the programme

No	Code	Course name	Number of credits	Brief description of the course	Administration unit name
1	QP006	National Defence and Security Education 1 (*)	2	This course presents the Party's basic theory of the military policy, including: the basic issues Marxist-Leninist Theory, Ho Chi Minh's thought on war, the army and the defense of the country; Party's views on the people war, building the armed forces, the all-people defense, the people's security; the Party's views on combining socio-economic development with strengthening national defense and security. In addition, the course introduces some basic contents about the history of Vietnamese military art through the periods	Center for National Defence Education
2	QP007	National Defence and Security Education 2 (*)	2	This course presents the basic contents of the defence and security tasks of the Party and State in the new situation, including building the militia, self-defence, mobilization reserve force; increasing the potentials of national defence and technical and material foundations; defeating the strategy of "peaceful evolution", and riot to overthrow hostile forces toward the Vietnamese revolution. The course addresses a number of issues of ethnicity, religion and the fight against the enemies who take advantage of issues of ethnicity and religion to fight the Vietnamese revolution, building and protecting border sovereignty, sovereignty over islands, national security, fighting crime prevention and maintaining social order and safety, combating non-traditional security threats in Vietnam.	Center for National Defence Education
3	QP008	National Defence and Security Education 3 (*)	3	The course provides theory combined with practice to provide students with some basic skills to practice shooting with pistols, basic knowledge of maps, military terrain, and combat against the enemies with a weapon. high-tech gas, forging bravery and health through military content, training for class and block formation. The contents of the course include the followings: unit team (platoon	Center for National Defence Education

				level); training combat skills; commanding combat units; combat synergies in attack and defence	
4	QP009	National Defence and Security Education 4 (*)	1	This course introduces the theoretical contents combined with practice in order to equip students with some basic skills to practice the use of AK submachine and grenades in combat.	Center for National Defence Education
5	TC100	Physical Education 1+2+3 (*)	3	Physical Education 1+2+3 (*) is a general course that represents the Physical Education courses. All students who are not majoring in Physical Education must study these courses to complete the curriculum of their majors. To complete the Physical Education courses, the students do not register for course TC100, instead, students must register for each specific course depending on their ability and desire to learn. For example, if a student wants to learn Taekwondo, they register for the following 3 modules: Taekwondo 1 (TC003), Taekwondo 2 (TC004) and Taekwondo 3 (TC019). The other Physical Education courses are the same	Physical Educatio n
6	XH023	General English 1 (*)	4	This course provides students with common English vocabulary for basic communication, focusing on topics such as introduction to personal information, family, residence, and daily life items, sports, free time activities, basic shopping, eating habits, food, festivals, culture and facilities. In addition to developing the ability to communicate some basic communication situations in English on these topics. The course also aims to develop foreign language skills at level 2 for students according to the 6-level Foreign Language Proficiency Framework applied for Vietnam.	School of Foreign Languages
7	XH024	General English 2 (*)	3	This course provides students with common English vocabulary for basic communication, focusing on topics such as introduction to travel, fashion, art and the environment. In addition to developing the ability to communicate some basic communication situations in English on these topics. The course also aims to develop foreign language skills at level 2 for students according to the 6-level Foreign Language Proficiency Framework applied for Vietnam.	School of Foreign Languages
8	XH025	General English 3 (*)	3	This course provides students with common English vocabulary for basic communication, focusing on topics such as introduction to travel, fashion, art and the environment A lot. In addition to developing the ability to communicate some basic communication situations in English on these topics. The course also aims to develop foreign language skills at level 2 for students according to the 6-level Foreign Language Proficiency Framework applied for Vietnam.	School of Foreign Languages

9	XH031	Level B2 English 1 (*)	4	This course (in the English Intensive Programme 1-3) provides students with English knowledge and the opportunity to practice the skills needed to suit the requirements of international communication competency in common situations. The course presents the following principles and characteristics: (1) competency-based learning; (2) (integrated and blended learning; (3) promoting learner independence in learning; (4) learning by interaction and by doing; (5) purposeful learning; and (6) flexibility. In addition to developing their ability to communicate and use English, it aims to support students to achieve B1 level (level 3) in the foreign language competency system according to the competency framework for Vietnamese students (via VSTEP exam).	Foreign language
10	XH032	Level B2 English 2 (*)	3	This course (in the English Intensive Programme 1 1-3) provides students with English knowledge and the opportunity to practice the skills needed to suit the requirements of international communication competency in common situations. The course presents the following principles and characteristics: (1) competency-based learning; (2) (integrated and blended learning; (3) promoting learner independence in learning; (4) learning by interaction and by doing; (5) purposeful learning; and (6) flexibility. In addition to developing their ability to communicate and use English, it aims to support students to achieve B1 level (level 3) in the foreign language competency system according to the competency framework for Vietnamese students (via VSTEP exam).	School of Foreign Languages
11	XH033	Level B2 English 3 (*)	3	This course (in the English Intensive Programme 1 1-3) provides students with English knowledge and the opportunity to practice the skills needed to suit the requirements of international communication competency in common situations. The course presents the following principles and characteristics: (1) competency-based learning; (2) (integrated and blended learning; (3) promoting learner independence in learning; (4) learning by interaction and by doing; (5)purposeful learning; and (6) flexibility. In addition to developing their ability to communicate and use English, it aims to support students to achieve B1 level (level 3) in the foreign language competency system according to the competency framework for Vietnamese students (via VSTEP exam).	School of Foreign Languages
12	FL001	General French 1 (*)	4	The course aims to help students to communicate in daily life, such as introducing themselves, family, talking about habits, interests, getting to know and referring someone, talking and writing about hours in the usual and administrative ways, etc. In addition, knowledge of the language and French culture is also incorporated into the course content. Through this course, the students will be familiar with the	School of Foreign Languages

				pronunciation, intonation, alphabet of French, know how to conjugate verbs of group I, group II and some verbs of group III at present, write a simple sentence numbers, etc. In addition to developing their ability to communicate and use English, it aims to support students to achieve B1 level (level 3) in the foreign language competency system according to the competency framework for Vietnamese students (via VSTEP exam).	
13	FL002	General French 2 (*)	3	This course provides students with basic knowledge of grammar, phonetics, vocabulary ... of French. It aims at developing students' communication in daily life such as asking for information, explaining, accepting invitations or refusing, talking about their working day, talking about future plans... Students get acquainted with how to ask questions with more complex pronouns of French, how to conjugate group I, group II and some group III verbs in imperative form, how to give directions and locations, ... Knowledge of the French language and culture is also integrated into the course content. In addition to developing their ability to communicate and use English, it aims to support students to achieve B1 level (level 3) in the foreign language competency system according to the competency framework for Vietnamese students (via VSTEP exam).	School of Foreign Languages
14	FL003	General French 3 (*)	3	The course aims to help students communicate in daily life such as discussing holidays, New Year, food, describing people, objects, clothes, expressing their choices, and quantity, introducing family members, retelling a story of the past, etc. In learning outcomes, the students are introduced to texts of 100 words or more, long dialogues, writing paragraphs of about 100 words and writing letters. The students can apply their knowledge of grammar in their writing such as noun matching, adjective conjugation, past tense conjugation, past tense combination, etc. In addition to developing their ability to communicate and use English, it aims to support students to achieve B1 level (level 3) in the foreign language competency system according to the competency framework for Vietnamese students (via VSTEP exam).	School of Foreign Languages
15	FL007	Intensive French 1 (*)	4	The course aims to help students communicate in daily life such as introducing family members, getting to know someone, narrating daily activities, describing people and places, and expressing personal hobbies and interests, personal feelings, etc. In this course, students are acquainted with reading passages of about 200 words, writing short passages of about 80-100 words Especially at the end of each unit, there will be exercises for students to practice skills to take the Delf B1 exam. In addition to developing their ability to communicate and use English, it aims to support students to achieve B1 level (level 3) in the foreign language competency	School of Foreign Languages

				system according to the competency framework for Vietnamese students (via VSTEP exam).	
16	FL008	Intensive French 2 (*)	3	This course provides non-French majors with knowledge about communication situations in daily life such as health, work, free time, etc. Also, students get acquainted with reading passages of 250 words, write paragraphs of about 100-140 words Especially at the end of each unit, there will be exercises for students to practice skills to take the Delf B1 exam. In addition to developing their ability to communicate and use English, it aims to support students to achieve B1 level (level 3) in the foreign language competency system according to the competency framework for Vietnamese students (via VSTEP exam).	School of Foreign Languages
17	FL009	Intensive French 3 (*)	3	This course provides non-French majors with knowledge about communication situations in daily life such as health, work, free time, etc. Also, students get acquainted with reading passages of 300 words, write paragraphs of about 140-180 words Especially at the end of each unit, there will be exercises for students to practice skills to take the Delf B1 exam. In addition to developing their ability to communicate and use English, it aims to support students to achieve B1 level (level 3) in the foreign language competency system according to the competency framework for Vietnamese students (via VSTEP exam).	School of Foreign Languages
18	TN033	Basic Informatics in Labs (*)	1	This course provides students with basic theoretical knowledge of information technology: information concepts, general structure of computers, the Windows operating system, commands and operations to edit documents using Microsoft Word, processing spreadsheets using Microsoft Excel, creating and presenting reports on computers using Microsoft PowerPoint and the Internet; and using emails.	College of Natural Sciences
19	TN034	Unit Operation Basic Informatics in Labs (*)	2	Practicing on computers, students are trained the skills: using Windows operating system, editing Microsoft Word documents, processing Microsoft Excel spreadsheets, presenting Microsoft PowerPoint reports, using the Internet and E-mail. They are also trained with skills of writing scientific reports and skills of creating presentations on multimedia projectors.	College of Natural Sciences
20	ML014	Marxist–Leninist Philosophy	3	This course provides students with basic and intensive knowledge of Marxist– Leninist philosophy including philosophy and the role of philosophy in social life, dialectical materialism, materialism and consciousness, classes, nations, states and social revolutions, social consciousness, philosophy about human beings	College of Political Science
21	ML016	Marxist - Leninist Political Economy	2	In this course, students are provided with basic and in-depth knowledge of Marxist-Leninist political economy, including subjects, research methods and functions of Marxist-Leninist Political Economy;	College of Political Science

				goods, the market and the role of actors when participating in the market; surplus values in the market economy; competition and monopoly in the market economy; the socialist-oriented market economy and economic interest relations in Vietnam.	
22	ML018	Scientific Socialism	2	This course provides students with the knowledge of the general theories of socialism and practice in the construction course of socialism in our country today. The course content mainly focuses on several issues such as: the birth and development of scientific socialism; the historic mission o the birth and development of scientific socialism; the historic mission of the working class, socialism and the transition to socialism; socialist democracy and a socialist state; alliances of class, class; ethnicity, religion issues; the family problem in the transition to socialism.	College of Political Science
23	ML019	History of the Communist Party Vietnam	2	The course equips students with the understanding of objects, purposes, tasks, research methods, learning of the Party History course and the basic, core and systematic knowledge about the Party's birth (1920-1930), the Party leadership process in the struggle for power (1930-1945), leading in two resistance wars against the French colonialists and American imperialists, completing national liberation, unification of the country (1945-1975), transitional leadership to socialism and national renewal (1975-2018). Thereby, the course can help improve their awareness and belief in the Party and the ability to apply their knowledge into working practice, contributing to the construction and defense of the Socialist Vietnamese Fatherland	College of Political Science
24	ML021	Ho Chi Minh Ideology	2	Together with Marxist-Leninist Philosophy, Marxist-Leninist Political Economy, Scientific Socialism, History of the Communist Party of Vietnam, this course creates an understanding of the ideological foundation, the guideline for the Party's actions and our country's revolution. It continues to provide basic knowledge about Marxism-Leninism, contributing to building a new human moral foundation. The course consists of 7 chapters, which present the basic contents of Ho Chi Minh’s Ideology according to the objectives of the course, providing a systematic understanding of Ho Chi Minh's ideology, morality and values.	College of Political Science
25	KL001	General Law	2	This course is designed for students who are not majoring in Law. It introduces fundamental theoretical issues of the Marxist-Leninist doctrine on the state and law, including their origins, nature, forms, functions, as well as various types of states and legal systems that have emerged, existed, and developed throughout different socio-economic formations in human history. Additionally, the course covers the role of the state within the political system, the structure of the state apparatus, and various state institutions. A substantial amount of	Law School

				fundamental knowledge about common branches of Vietnamese law is also introduced, such as the basic rights and obligations of citizens, criminal offenses, administrative violations, and legal regulations on marriage, divorce, and inheritance etc.	
26	ML007	Basic Logic	2	This course provides the knowledge of formal logic; rules and requirements of the basic laws of thought such as the law of identity, the law of excluded middle, the law of non-contradiction, and the law of sufficient reason. The course also introduces basic forms of thinking such as concepts, judge, deductive, hypothesis, proving, refuting and sophistication	College of Political Science
27	XH028	Overview of Sociology	2	This course provides the law, the regularity of formation, movement, changing relationships, interactions between people and society. The course focuses on social relationships, social interactions manifested through human-to-person behaviours in groups, organizations and social systems	School of Social Sciences and Humanities
28	XH011	Vietnames e Culture	2	The course content includes general knowledge of cultural studies and Vietnamese culture, covering the system of components, characteristics, and development patterns of Vietnamese culture, as well as different cultural regions of Vietnam. It also introduces approaches to exploring and researching issues related to Vietnamese culture. Additionally, the course aims to develop skills in applying cultural studies knowledge to the analysis of language and literary works.	School of Social Sciences and Humanities
29	XH012	Vietnames e in use	2	This course is designed into 4 chapters. Each chapter consists of two main parts which are interwoven: theory and practice exercises. Chapter 1 focuses on writing and spelling. Chapter 2 focuses on practicing word skills. Chapter 3 teaches students about sentences. Chapter 4 trains students' skills in creating and using texts.	School of Social Sciences and Humanities
30	XH014	General Managemen t Documents and Archives	2	This course provides students with theoretical and practical knowledge about management documents and archives, ways to realize the role of administrative documents and archival documents for management activities. It also offers solid knowledge about methods of scientific drafting and management of main and archived documents, methods of sorting and classifying documents for archive, knowing how to search and use archives.	School of Social Sciences and Humanities
31	KN001	Transferable skills	2	This course provides students with the basic knowledge and instructions for necessary skills: communication skills, general principles of communication, listening skills, speaking and effective presentation skills, teamwork skills, creative thinking skills, time management skills, emotional management skills communication skills, general principles of communication; effective listening, speaking, and presentation skills; teamwork skills to ensure good cooperation in learning and working;	Center for Student Consultancy and Start - up

				creative thinking skills; time management skills and emotional management skills.	
32	KN002	Entrepreneurship and Innovation	2	This course focuses on the general knowledge of creativity, innovation and conceptualization for entrepreneurship, choosing the type of business ownership, basic understanding of intellectual property rights. basic market skills and experience sharing from successful entrepreneurs such as SWOT, commercializing products from business ideas, business potentials and start-ups.	Center for Student Consultancy and Start - up
33	TN009	Advanced Mathematics C	2	The course introduces basic knowledge of advanced mathematics such as systems of linear, limit, continuous equations, derivatives, and integrals of functions of one and multi-variables.	College of Natural Sciences
34	TN019	General Chemistry	3	General chemistry The inorganic section provides students with the fundamental laws of inorganic chemistry, physical properties, chemical properties, metal and nonmetal preparation and application, noble gases, fundamental concepts of complex chemistry, and applications. The organic section provides students with the basics of organic chemistry as well as the physical and chemical properties of organic compounds (hydrocarbons, alcohols, phenols, carbonyls, carboxylic acids, etc.)	College of Natural Sciences
35	TN020	Practical General chemistry	1	The course provides students with the most basic knowledge about Chemistry through Chemical experiments: reaction rate, equilibrium, solution concentration, pH calculation of solutions, electrochemical batteries, electrolysis, metal corrosion,... This general knowledge help students further learn the basic knowledge of chemistry such as inorganic chemistry, organic chemistry, analytical chemistry, physical chemistry, as well as apply their understanding into chemistry-related disciplines	College of Natural Sciences
36	TN042	General Biology	2	The course provides general knowledge of the structure, function and vital activities of cells, genetic mechanisms.	College of Natural Sciences
37	TN043	Experiment on General Biology	1	The course provides general knowledge of the construction principles and use of microscopes and stereoscopes. Students learn how to perform microscopy of the structure, function and vital activities of cells, chromosomes, and chromosome activity during mitosis and meiosis and an overview of biochemical reactions in animal body	College of Natural Sciences
38	NN111	Sciences research methodology	2	The subject of scientific research methods is a foundational course divided into four main components: (1) Concepts, scientific research methods, and scientific research products (2) Methods for developing and writing a scientific research proposal (3) Data collection techniques in scientific research (4) Presenting scientific reports using slides, and the necessary skills to write scientific papers and undergraduate theses.	College of Agriculture

39	NN126	Fundamental genetics	2	The course provides basic knowledge and update the latest achievements of Genetics as well as the applications of Genetics in research and life. It provides the necessary concepts to access and upgrade professional qualifications in agricultural fields in general and biotechnology in particular. In addition, the course helps students have the ability to analyse and explain common genetic phenomena in nature and life as well as common breeding methods for application in agricultural production.	College of Agriculture
40	NN127	Practical fundamental genetics	1	This course helps students consolidate the basic knowledge in the theory of Genetics, master and practise skills of performing observations under a microscope, genetic experimental models and data analytical methods in laboratory genetic studies. Students can apply genetic knowledge into practical agricultural research and production such as breeding, biotechnology.	College of Agriculture
41	NN129	Plant physiology B	2	This course has 06 chapters Chapter 1 Plant cell physiology; Chapter 2. Water and Plants; Chapter 3. Mineral nutrition; Chapter 4. Photosynthesis; Chapter 5. Respiratory and Chapter 6. Plant development and growth	College of Agricultu e
42	NN130	Practical plant physiology	1	In this course, students: - Reinforce the knowledge of plant physiology learned in the theoretical part. Master the research methods and analysis of basic plant physiology such as understanding the structure and living properties of plant cells; plant water exchange, recognizing the manifestation of certain mineral deficiencies; qualitative and quantitative determination of pigments on leaves, study of the effect of light on photosynthesis; compare the respiration intensity of different plants, assess the vitality of seeds through respiration; study the role of some growth regulators on plant growth. The 01-credit course content has : 06 lessons (30 practice hours)	College of Agricultu e
43	NN123	Biochemistry B	2	This course provides students with : history of biochemistry, the development and application of biochemistry in all areas of life; - understanding of the physical, chemical, biological properties, roles and applications of compounds that make up the organism such as carbohydrates, lipids, amino acids, proteins, vitamins, enzymes, nucleic acids; - understanding of the basic biochemical analysis methods for determining the chemical composition of living things; Understand and apply the fundamental concepts of metabolism, transformation of structural materials in the organism; Determine energy requirements, decomposition and energy generation from nutritional components essential for living organisms.	College of Agricultu e

44	NN124	Practical biochemistry	1	In this course, students: - Reinforce the knowledge of biochemistry learned in the theoretical part. - master basic biochemical analysis methods for analysing the chemical composition of nutrients in living organisms such as qualitative and quantitative carbohydrates, basic indexes in lipids, and qualitative analysis. and quantification of amino acids, proteins and some vitamins, experiments on extraction of phospholipid compounds, enzymes, and research on factors affecting enzyme-catalysed reactions in order to equip foundational knowledge for research advanced in bioengineering.itional components essential for living organisms.	College of Agricultu e
45	NS381	Microbiology in agriculture	2	This course provides students with: Objects, microbiology history, and general classification of microorganisms; Microbiology methods, equipment, and procedures; Nutrition, microorganism growth, and the influence of external conditions on microorganism growth and development; the main characteristics of the microorganism group: causative (bacteria and other causative microorganisms); eukaryotic microorganisms (fungi, algae, protozoa); viruses and some related phenomena in virus-host interactions. Genetics and variation in microorganisms and the application of microbiology in life and agricultural production	College of Agricultue
46	NN184	Statistical probability and experimental design-crop science	3	The course provides students with the fundamentals of probability-statistics theory and experimental design methods. It enables students to have skills to solve basic problems of probability and statistics and apply knowledge into practice. Also, this course helps them systematise important concepts related to research practice and broaden their understanding of the relationship between experiments and statistical inference. Furthermore, students will master research groups and conduct experiments independently under specific conditions. Students are able to apply statistics in processing and presenting data analysis in an appropriate, scientific, accurate, and convincing way. After the theory hours, they do practical exercises on computer using Excel and SPSS software.	College of Agricultue
47	NN376	Plant nutrion	2	This course provides students with basic knowledge and principles of plant mineral nutrition including the supply, absorption, transport and metabolism, and the functional role of mineral nutrients in plants, especially plants in agriculture. Course content has 10 theory chapters: 1. Plant and nutrition 2. Definitions and classification of mineral nutrients. 3. Ion Uptake Mechanisms of Individual Cells and Roots and Proximal transport. 4. Distant transport in wood and libe veins. 5. Nutrient intake by air via leaves and plant parts. 6. Multi-mineral nutrients 7. Trace mineral nutrients 8. Diagnosing symptoms of mineral nutrient deficiency and poisoning 9. Practice:	College of Agricultue

				Plant and observe, collect information, analyze and evaluate the nutritional status of plants.	
48	TS117	Aquatic animal physiology B	2	The course equips students with knowledge about the general physiological characteristics of fish and shrimp, including the following contents: (1) Physiology of fish and shrimp blood, the function of red blood cells, white blood cells, and their relation to respiration and health. (2) Respiratory physiology of fish and shrimp and the impact of the environment and toxins on the respiration of fish and shrimp. (3) Digestive physiology such as the activity of digestive enzymes in the stomach and intestines of fish, the processes of absorption and metabolism of nutrients in the bodies of fish and crustaceans. (4) Knowledge about metabolism and ion exchange in the bodies of shrimp and fish. (5) Knowledge about the endocrine glands, the functions of hormones related to the growth and reproduction processes of fish and crustaceans. (6) Reproductive physiological characteristics related to the reproductive process of fish. The practical sessions are methods for analyzing blood parameters, determining respiration, and assessing the impact of toxic environmental factors on the respiratory activity of shrimp and fish.	College of Aquaculture
u	TS118	Aqutic animal nutrion and feed technology B	2	The course "Aquatic Nutrition and Feed B" provides students with basic knowledge about nutrition and feed in aquaculture; the metabolism and supply sources of nutrient groups; the nutritional composition, limiting factors, and corrective measures of raw material groups; the impact of processing methods on the nutritional composition of feed; methods for designing nutritional experiments; methods for formulating feed for aquaculture species; and methods for rational and effective feeding. At the same time, the practical exercises help students become familiar with methods for analyzing nutritional parameters in the laboratory and simple food preparation techniques. The knowledge from the course will assist students in scientific research and applications in aquaculture technology.	College of Aquaculture
50	NN136	Physiology and anatomy of domestic	2	The course content includes the anatomical characteristics and physiological functions of the organs and parts of livestock and poultry. The section on Animal Anatomy includes the structural characteristics of the skeletons of livestock and poultry; the structural characteristics, positions, and functions of the muscular system, blood vessels, respiratory system, digestive system, urinary-reproductive system, and endocrine system; and the anatomical characteristics of poultry. The Physiology section focuses on the functions and regulatory mechanisms of the physiological activities of muscles and nerves, blood, heart and circulatory system, respiration, digestion, excretion, endocrine, and reproductive physiology in livestock and poultry.	College of Agricultue

51	NN353	Animal nutrition	2	The Nutrition module is a foundational course divided into two main components: (1) The role of nutrients in the digestive system, absorption, and metabolism of animals such as: water, protein, lipids, carbohydrates, macro and micro minerals, vitamins, etc. (2) Methods for determining the chemical components of food. The course is designed in two parts: (1) Theory and (2) Practice. Content The theory provides students with basic knowledge about the forms, content, and transformation of macronutrients, micronutrients, and trace elements in the soil; assessing soil fertility; soil factors affecting the availability of nutrients; how to use fertilizers and the environmental impact of various types of macronutrient, micronutrient, and trace element fertilizers.	College of Agricultue
52	NN232	Soil fertility	2	The Nutrition module is a foundational course divided into two main components: (1) The role of nutrients in the digestive system, absorption, and metabolism of animals such as: water, protein, lipids, carbohydrates, macro and micro minerals, vitamins, etc. (2) Methods for determining the chemical components of food. The course is designed in two parts: (1) Theory and (2) Practice. Content The theory provides students with basic knowledge about the forms, content, and transformation of macronutrients, micronutrients, and trace elements in the soil; assessing soil fertility; soil factors affecting the availability of nutrients; how to use fertilizers and the environmental impact of various types of macronutrient, micronutrient, and trace element fertilizers.	College of Agricultue
53	NN131	Pedology B	2	The content of knowledge conveyed to learners includes the process of soil formation, its composition, chemical properties, and the basic physical properties of the solid, liquid, and gas phases in the soil. Based on this knowledge, learners will understand why soil characteristics are related to the formation process and how the chemical and physical properties of soil affect plants and the environment.	College of Agricultue
54	CN004	Hydrometerorology	2	It is a course that introduces basic knowledge of meteorology, climatology, global climate change and climate restoration capabilities, an overview of rivers and the formation of surface and underground flow. On the other hand, students can analyze meteorological factors affecting the hydrological regime as well as the hydrological characteristics of the tidal influence area (the study area of the Mekong Delta). In addition, it is possible to estimate the physical phenomena occurring on the surface, in the atmosphere, and the formation of flow (surface and underground) as well as the interactions between these phenomena. The course also helps students understand the complex developments of nature in order to prevent, mitigate, and partially avoid natural	College of Environment and Natural Resources

				disasters, reduce risks in production life, and improve living environments.	
55	NN326	Agricultural extension	2	Help students gain knowledge about the history of agricultural extension development worldwide, agricultural extension in Vietnam, and an overview of agricultural extension. Characteristics of farmers, teaching methods, and especially teaching methods for farmers. The methods of agricultural extension, the advantages and disadvantages of each method, and the application cases of each method. Application of "Participatory Technology Development (PTD)" in agricultural extension work. Skills for agricultural extension activities.	College of Economic
56	KT007	Agricultural Economics and Rural Development	2	Agricultural Economics & Rural Development is a subject that studies fundamental issues in agricultural production and markets from the perspective and analytical tools of economics, aiming towards sustainable agricultural and rural development. Specifically, the course includes the following contents: (1) The role of agriculture in the economy; (2) The economics of resources in agricultural production; (3) The transfer of scientific and technological advancements in agriculture; (4) The theory of producer and consumer behavior; (5) Supply and demand and the equilibrium of agricultural markets; (6) Agricultural market analysis; (7) Orientation for sustainable agricultural development.	College of Economic
57	MT110	Agro-ecosystem	2	Equipping students with knowledge about the structure and function of agricultural ecosystems, helping students analyze the properties of agricultural ecosystems for research and application, and identifying sustainable agricultural ecosystems.	College of Environment and Natural Resources
58	NN373	Plant breeding	2	Plant breeding equips students with knowledge about the important role of plant varieties in agricultural production. Understand the genetic characteristics of self-pollinating plants, cross-pollinating plants, and the importance of starting materials in plant breeding. Understand the methods of breeding and creating plant varieties, as well as the storage and preservation of high-quality plant seeds.	College of Agricultue
59	NN375	Agricultural biotechnology	2	The course will help learners grasp the basic principles of biotechnology, some economic and scientific aspects in this field, as well as the future direction of agricultural biotechnology. The course is divided into two main parts, including the application of biotechnology in plants and animals. Students will be equipped with knowledge about recombinant DNA technology, including basic techniques, types of enzymes and vectors used in biotechnology, techniques for creating genetically modified plants, disease-free plants, crop management and protection strategies, and techniques for producing secondary products in herbal medicine processing...In addition, learners are introduced to knowledge about the application of biotechnology in various fields,	College of Agricultue

				including research on marker genes in animals, breeding technology, animal feed technology, and the application of biotechnology techniques in diagnosing plant and animal diseases, which are also covered in this course.	
60	NN186	Rice crop	3	The four main contents of the course include: Prospects for the development of the rice production industry; requirements for ecological conditions; characteristics of plants, growth and development, and rice cultivation techniques. The study contents are carried out through theoretical lessons, practical sessions, internships, and exercises related to each chapter and section.	College of Agricultue
61	NN359	Plant pathology	2	The Plant Disease course will introduce knowledge about the causes of plant diseases (also known as pathogens, disease agents) (fungi, bacteria, viruses, nematodes...), the pathways of invasion, the persistence and spread of plant disease agents, differentiate and describe various symptoms of plant diseases, factors related to the outbreak of plant diseases, and principles in plant disease management. In addition, students will also develop the skill to accurately identify certain types of diseases in some new crops. The course content will help students know how to solve problems related to plant diseases after graduation.	College of Agricultue
62	NN374	Agricultur al isect pets	2	The course on Agricultural Entomology provides students in the fields of Plant Science, Agriculture, Plant Breeding Technology, Agricultural Engineering, and Agriculture with foundational knowledge of entomology, as well as identification characteristics, damage symptoms, living habits, population dynamics, and the emergence and development patterns of insect pests on rice, fruit trees, vegetables, industrial crops, and ornamental plants. The knowledge gained from this course will help learners creatively apply it to effectively manage pest insects affecting crops.	College of Agricultue
63	NS225	Eglish for studdent of agronomy	2	The course is structured into two parts: Part 1 consists of 5 chapters, and Part 2 focuses on enhancing reading comprehension skills and reporting on a scientific paper about agriculture, particularly in the field of Agronomy. The lecture aims to provide basic knowledge in English through listening, speaking, reading, and writing skills on topics within the scope of plant biology in general and the field of Agronomy in particular. Through this course, students are provided with specialized terminology and English structures used in agricultural science, particularly in the field of Agronomy.	College of Agricultue
64	XH019	French for Science and Technology	2	Este curso tiene como objetivo desarrollar habilidades de comunicación en el campo de la ciencia y la tecnología, incluyendo la auto-presentación, la introducción a actividades científicas y técnicas, la presentación de proyectos en	School of Foreign Languages

				el campo de la ciencia y la tecnología, la correspondencia profesional, con un enfoque en el vocabulario técnico. Además, se integra el conocimiento del idioma y la cultura franceses en el plan de estudios.	
65	NN371	Vegetable production	2	General section: Equip students with general knowledge about vegetable plants, the growth and development rules of flowering and fruiting, influencing factors, technical steps in vegetable cultivation, the relationship between vegetable plants and the environment, and technical measures for planting, caring, harvesting, and seed storage. Specialized section: Providing in-depth knowledge about the cultivation methods of some key vegetables in the Mekong Delta; each group of leafy, fruit, and root vegetables has its own unique characteristics, all adhering to the biological rules of short-term crops, and they provide products for both fresh consumption and cooking. Students know how to create optimal conditions for each group of vegetables to achieve the highest yield and quality, taking into account the limiting factors of vegetable production in the off-season and proposing solutions to overcome them.	College of Agricultue
66	NN361	Fruit crop	2	This course provides students with introduction about the Mekong Delta's fruit growing industry and the fruit tree development strategy toward industrialisation, modernisation, and cooperation; Guidelines for the design of gardens in the specific conditions of the ecological region of the Mekong Delta. Creation of a tree nursery. Roles and methods of propagating fruit trees Theoretical and practical basis of fruit cultivation techniques. Guide to reading documents and conducting field surveys so that students can design and build orchards.	College of Agricultue
67	NN362	Insdustial perennial crop production	2	This course provides students with knowledge about production, consumption, origin, classification of varieties, garden design techniques, care, pests and diseases, harvesting techniques and preliminary processing of some industrial perennial crop with economic value in the Mekong Delta such as coconut, cocoa, pepper and cashew; stimulation technique for nymph flower chamber to secrete sap and produce starch from powdered coconut tree.	College of Agricultue
68	NN370	Upland crop	2	The course introduces basic knowledge of crop cultivation techniques for high yield and profit under the Mekong Delta ecological conditions. The course consists of five theoretical lessons: 1. The situation of crop production (economic development and domestic and foreign consumption; classification, origin, distribution area; uses, nutritional and economic values). 2. Biological characteristics of crops (morphological characteristics; growth and development stages) 3. Ecological characteristics of crops (climate, soil, water; nutritional requirements of different growth and development stages). 4.	College of Agricultue

				Cultivation techniques (breeds, planting process, care, harvesting. 5. Assessment of growth and health. Some major pests and diseases. 6. Planting and observing, collecting information, analysing and evaluating in practice.	
69	NN363	Short industrial crops	2	The course introduces basic knowledge of crop cultivation techniques for high yield and profit under the Mekong Delta ecological conditions. The course consists of five theoretical lessons: 1. The situation of crop production (economic development and domestic and foreign consumption; classification, origin, distribution area; uses, nutritional and economic values. 2. Biological characteristics of crops (morphological characteristics; growth and development stages) 3. Requirements on external conditions for short-term industrial crops (climate, soil, water; nutritional needs in the growth and development stages) 4. Cultivation techniques (breeds, planting procedures, care, identification and prevention of some types of pests and diseases, harvesting and storage). 5. Practice of planting and observation, information collection, analysis and evaluation.	College of Agricultue
70	NN356	Physiology and biochemistry of seeds	2	Determine the reserve components and growth regulators in seeds, apply germination assessment methods, process dormant seeds, evaluate seed vigor and diseases, and thereby conclude whether to accept or reject the seed lot.	College of Agricultue
71	NN444	Weeds and weed control	2	When studying the subject of weeds, students need to understand the concepts of weeds, know the origins of weeds, distinguish between the three groups of weeds, understand the advantages and disadvantages of weeds, apply weeds in life such as in livestock farming, ornamental gardening, and medicine, be aware of the current state of weed research in the world as well as in the country, and know some organizations, websites, and research journals both domestically and internationally. Must be able to identify and classify some common weeds in the fields. Know the biological and ecological characteristics of some common weeds in the fields that have a direct or indirect impact on the production process. Distinguish between the phenomenon of allelopathy and competition. Know and understand how weeds exist and spread in nature through various pathways, so that measures can be taken to prevent, eradicate, and control them. Through this course, students will master the four correct principles when using plant protection products in general and herbicides in particular.	College of Agricultue
72	NN143	Agro-chemical for plant protection B	2	- Theory: The role of the subject in agricultural production. The impact of toxins on the rice field ecosystem. The mechanism of action of pesticides on pests, the types of pesticides used in Vietnam, and the safe and effective use of pesticides. Experimental design and evaluation of the effectiveness of plant	College of Agricultue

				protection products (PPP) against pests and beneficial organisms. Classification of pesticide groups. The resistance of organisms when subjected to the pressure of agricultural chemicals. The consequences of pesticides on organisms and how to mitigate them. The degradation of pesticides, limiting the development of resistance. - Practice: Identifying commercial pesticides on the market, the method of preparing Bordeaux mixture, evaluating the effectiveness of insecticides, evaluating the effectiveness of fungicides, evaluating the effectiveness of herbicides, how to mix various plant protection products together.	
73	NN382	Vegetative propagation	2	The course consists of a total of 7 chapters, Chapter 1 Introduction to Asexual Propagation. Chapter 2. Discusses branch cutting. Chapter 3. Discusses grafting. Chapter 4: Talking about cutting branches. Chapter 5. Discusses root cuttings. Chapter 6: Talking about micropropagation	College of Agricultue
74	NN380	Clean vegetable production	2	Providing in-depth knowledge in the fields of high-tech vegetable cultivation: producing sprouts on clean soil substrates in an extremely short period, producing leafy and spice vegetables (mainly for raw consumption) in nutrient solutions, growing fruit vegetables (cucumbers, tomatoes) on clean soil substrates, supplying water and nutrients automatically (with timers) through drip irrigation systems. Using greenhouses, net houses, and applying biotechnology to support high-tech vegetable cultivation, effectively managing pests, nutrition, and the climate environment. Create optimal conditions for the growth of vegetable plants to achieve maximum yield and quality.	College of Agricultue
75	NN101	Animal Breeding	2	This course provides students with knowledge about the history of livestock breeding, the process of breed formation, breeding methods for livestock, the laws of animal development, methods of animal evaluation, selection, mating, and animal reproduction. Additionally, students will learn about the latest advancements in the application of biotechnology in animal breeding.	College of Agricultue
76	NN312	Infectiuos diseases	2	General infectious diseases section: provides students with knowledge about the infectious causes of diseases in animals, the mechanisms of disease transmission, the emergence of epidemics, and the immune characteristics of the animal body against pathogenic microorganisms. Principles and measures for preventing infectious diseases. Specialized disease section: Includes zoonotic diseases, cattle diseases, pig diseases, and poultry diseases, providing students with knowledge about the infectious causes of diseases, the epidemiological situation domestically and internationally, epidemiological characteristics, symptoms, lesions, diagnosis methods, and disease prevention and treatment methods. Students will be provided with	College of Agricultue

				knowledge on how to perform dissections, how to take blood samples, how to diagnose diseases, how to preserve, use, and produce vaccines and antibodies to prevent and treat livestock and poultry diseases, and how to prevent certain infectious diseases.	
77	NN337	Poultry Production B	2	This course provides general knowledge about the importance and characteristics of poultry, the poultry farming situation in Vietnam and the world, the growth characteristics, productivity of different poultry breeds, and poultry breeding work. It covers the nutritional needs and types of feed in poultry farming, techniques for raising different poultry species, egg incubation techniques, biosecurity systems, and organic poultry farming. The course also includes procedures for disease prevention and treatment of common poultry diseases. Students can apply their specialized knowledge to practical research and poultry production within the current diverse farming mechanisms, according to the conditions and scale of poultry farming.	College of Agricultue
78	NN338	Ruminant Production B	2	This course provides knowledge of selecting breeds and types of feed for livestock farming, as well as determining the daily feed requirements. They learn about designing and constructing farm buildings, including the various types of livestock housing currently used in Vietnam. The course covers several techniques for care, nutrition, and management in animal husbandry. Students gain an understanding of the factors influencing productivity and the quality of livestock products, regulations for producing clean livestock products, and the application of clean processes. The goal is to achieve high productivity and economic efficiency for livestock farmers.	College of Agricultue
79	NN339	Swine Production B	2	This course covers important factors that influence productivity and product quality, such as the selection of pig breeds and breeding work as a prerequisite, appropriate feed and diet formulation based on the physiological functions and nutritional needs of each pig breed. The housing and environment should be convenient and hygienic to maximize the productivity and quality of pigs. Organizing and managing pig farming in a reasonable manner aims to reduce production costs and increase market prices, thereby generating profits for farmers. Product quality is an essential aspect that needs to be appropriately addressed to meet the requirements of consumers, wholesalers, processors, and exporters.	College of Agricultue
80	NS283	Practical training course in Animal sciences	2	It is a course that helps students acquire practical knowledge about breeding evaluation techniques, selection, propagation, and disease control in livestock; applying the knowledge learned to the realities of each facility and farm; while also helping students gain practical experience and appropriate handling methods. In addition, the course also helps students develop the ability to independently plan, organize work, and manage breeding stock,	College of Agricultue

				techniques, and disease treatment in livestock farms most effectively.	
81	TS241	Freshwater aquaculture production	2	Freshwater fish breeding and aquaculture technology is a specialized technical course aimed at providing students with fundamental knowledge about the history and development process of freshwater fish breeding and aquaculture, the theoretical foundations, biological characteristics, as well as the forms and technical measures for breeding, and the management measures for cultivating some economically valuable freshwater aquatic species. The course also helps students develop the ability to apply knowledge and identify common situations encountered in the operation and management of freshwater fish breeding and farming systems currently in use.	College of Aquaculture
82	TS330	Practice on aquaculture technics	4	The practical course in Aquaculture Techniques (TS330) consists of 05 modules: (1) Design of hatcheries and nurseries for shrimp and fish. (2) Techniques for breeding natural food for shrimp and fish larvae; (3) Techniques for rearing black tiger shrimp; (4) Techniques for breeding some common freshwater fish species; (5) Field trip to observe the breeding and farming of some brackish and freshwater fish species in the provinces of the Mekong Delta. When interns are divided into several groups, each group consists of 10 to 15 students. Each group carries out the breeding of black tiger shrimp and the production and breeding of some common freshwater fish species. Throughout the internship, students must be present every day to feed, monitor the growth, survival rate, and activity of shrimp and fish. Students also monitor water environmental factors such as temperature, pH, NH4+, NO2-, alkalinity, salinity, turbidity, water color, and record the results. After completing the internship at the farm, students have 4 days to visit and observe practical models of brackish and freshwater aquaculture and breeding. Record the results of the internship at the farm and the field trip to write the report and take the final exam.	College of Aquaculture
83	TS409	Seed production and farming of crustacean	2	The course on crustacean breeding and culture techniques (TS409) is a specialized subject in the aquaculture training program and serves as a foundational course for the fields of fishery management, aquatic pathology, and agronomy. The course consists of 4 chapters: (i) Overview of breeding and crustacean farming, (ii) Biological characteristics of crustacean species; (iii) Breeding techniques for crustacean species; (iv) Farming techniques for crustacean species. The course has 2 theoretical credits. This course is supported by the Professional Curriculum Practicum module. Teaching and learning methods through exchange, discussion, and specialized assignments.	College of Aquaculture
84	TS337	Aquatic epizootic	2	The course provides students with basic knowledge of aquatic pathology, concepts of pathology, causes	College of Aquaculture

				and conditions for the emergence of diseases, methods for diagnosing and treating shrimp and fish diseases in aquaculture, and introduces the safe and effective use of drugs and chemicals in aquaculture. Introduce the characteristics of pathology and epidemiology to control infectious diseases caused by bacteria, viruses, parasites, fungi, and crustaceans that harm aquatic animals and other non-living organisms that affect fish and shrimp.	
85	NN311	Veterinary parasitic diseases	2	The curriculum consists of 2 parts with 6 chapters. The general parasitology section consists of 2 chapters. Specialized parasitology consists of 4 chapters. This curriculum is compiled with the aim of providing students with comprehensive knowledge about parasitology, morphological characteristics, and the harmful effects of diseases...From there, propose prevention and treatment directions.	College of Agricultue
86	NN320	Animal farm structure and building	2	Equip students with knowledge about livestock housing, the close relationship between housing and animals, the impact of environmental factors on animals, and housing solutions to create optimal conditions for animals to achieve high productivity and good product quality. In addition, the course also helps students understand the various types of related construction materials and how to select these materials appropriately for each geographical location, while also guiding students on how to design and build a livestock farm for each type of animal, monitor the construction process, and evaluate the quality of the project.	College of Agricultue
87	NN310	Companion Animals	2	This course helps learners gain a better understanding of caring for and applying techniques in the breeding and care of exotic pets, specifically focusing on dogs and cats. They will learn how to provide proper care and apply specific techniques in the breeding and maintenance of these pets.	College of Agricultue
88	NN301	Veternary obstetric and artificial inseminati on	2	Students participating in the course will be provided with basic and advanced content on obstetrics and artificial insemination as follows: Obstetrics section: reproductive physiology of male and female livestock (anatomy and function of male and female reproductive organs, age of maturity, estrous cycle, fertilization process, gestation, and parturition), techniques for detecting estrus in livestock, techniques for diagnosing pregnancy in livestock, techniques for assisting with and intervening in difficult births in livestock. Artificial insemination section: sperm collection methods, semen quality inspection and evaluation, artificial insemination techniques (fresh and frozen semen), frozen semen production technology, semen preservation technology.	College of Agricultue
89	NN308	Apiculture	2	This course provides knowledge and learn techniques such as queen rearing, colony splitting, honey harvesting, and other bee product processing methods. They also study diseases affecting bees,	College of Agricultue

				including parasitic diseases, bacterial and viral infections, poisoning caused by plant protection chemicals, and toxic substances collected by bees from flowers. This course provides students with a comprehensive understanding of beekeeping practices and enables them to acquire practical skills in managing bee colonies and producing bee products.	
90	TS335	Seed production and farming of marine fish	2	The course imparts to students knowledge about the techniques of breeding and farming marine fish, with contents including: (1) Overview of marine fish breeding and farming, (2) Biological characteristics of some marine fish species (barramundi, grouper, snapper, eel, yellowfin tuna, mullet, brown grouper, cobia, and snakehead); (3) Techniques for breeding marine fish (scientific basis in marine fish breeding; site selection, design, and construction of farms; preparation of live feed for larvae; broodstock conditioning, spawning induction methods, larval rearing, and juvenile fish rearing); and (4) Techniques for farming marine fish for commercial purposes (marine fish farming models and techniques for farming economically valuable species such as barramundi, grouper, snapper, cobia, and snakehead).	College of Aquaculture
91	TS315	Drugs and chemicals in aquacultur e	2	The course provides learners with knowledge about drugs and chemicals in aquaculture with the following main contents: (i) the situation of production, business, and use of drugs and chemicals in aquaculture; (ii) general pharmacology; (iii) principles of using drugs and chemicals to prevent and treat parasites and fungi; (iv) principles of using antibiotics; (v) vaccines and immunomodulators; (vi) probiotics and herbal products; and (vii) chemicals used in aquaculture.	College of Aquaculture
92	TS310	Culture techniques for ornamental fish and quatic animal	2	The course will help learners with content including (1) how to design and decorate freshwater and saltwater aquarium tanks. (2) understanding natural food and color-enhancing food (3) understand the biological characteristics, reproduction, and breeding techniques of some common aquatic species and ornamental fish.	College of Aquaculture
93	TS313	Molluscan shellfish farming	2	The course on Molluscan Aquaculture (TS313) includes content on the current status and significance of molluscan farming, particularly bivalve filter feeders, in the world and Vietnam. The content of the course also includes information on biology, reproduction, breeding production, and farming techniques for economically valuable species commonly found in Vietnam. In addition, there are also topics on the impacts of environmental factors, diseases on farmed species, and food safety issues regarding products from mollusks.	College of Aquaculture
94	TS410	Water quality manageme nt for	2	The course "Management of Environmental Quality in Aquaculture Ponds" provides students with knowledge about the dynamics and ecological significance of physical, chemical, and biological	College of Aquaculture

		aquacultur e sản		factors on the life of aquatic organisms, while also guiding students on measures to manage water quality parameters in aquaculture ponds.	
95	NS439	Enterprise pratice crops	3	Practice: Students will review the knowledge of the course related to cultivation techniques for different types of crops in various ecological regions. Review the basic knowledge of plant propagation techniques. Students come to study at the crop production facility in the Mekong Delta, Southeast region (the facility for producing crop seeds, edible mushrooms, fruit trees, and vegetables); teachers select the production facility, contact the facility, inform students about the internship content, set evaluation criteria for the course, and send groups of students to the facility. Students participate in production with the facility, exchange and discuss production issues with teachers and staff at the facility. 6.2 Report 6.2.1 At the production facility: at the end of the internship period, students are organized by the facility staff to take an oral exam on the content they have studied and to address any questions during the internship. 6.2.3 Study at school: the teacher guides the writing of the summary report. After that, students report on the content they have learned and discuss it with teachers and students from other groups about the internship content.	College of Agricultue
96	NN548	Excursion for students pf agronomy	2	Help students acquire a systematic understanding of crops according to different soil and climatic conditions. General knowledge about crop ecological regions, some typical and potential production models in crop production in the Mekong Delta, Southeast region, Central coastal region, and Highlands. Help students find practical production experience. In addition to the practical knowledge you acquire, students also learn various life skills such as teamwork and communication skills.	College of Agricultue
97	NS510	Graduated research	14	Students are organized and apply the foundational and specialized knowledge to conduct a complete scientific research in the field of Agronomy under the guidance of an instructor. Students can independently choose their study content, find relevant materials related to the research issue, develop a detailed outline, and create an implementation plan. The research is conducted in the laboratory, greenhouse area, or in the field depending on the specific objectives and content. After collecting, processing, and analyzing the data, students will summarize, evaluate the results, and finalize the report according to the general regulations of the Faculty. The supervising officer monitors the process of students conducting research, reviews and contributes feedback on the detailed outline as well as the final report. The academic committee of the management department will evaluate the detailed outline and the final report according to the course grading scale.	College of Agricultue

98	NS434	Graduation research - agronomy	6	The graduation thesis is a course that helps students become familiar with the methods of conducting scientific research on a topic related to their field of study or specialized area after graduation, such as crops, animal husbandry – veterinary science, or aquaculture. Students carry out experimental steps according to scientific methods, write, and submit research result reports. Students conduct research under the guidance of instructors to self-develop skills, apply specialized knowledge, and accumulate experience for career orientation after graduation.	College of Agricultue
99	NN368	Seed technology	2	Part I. - Introduction Chapter: Introduction, concepts, principles, and significance of seed testing - Part II. - Chapter 1: Sampling methods, how to determine density and differentiate seed lots - Chapter 2: Determining the purity of the target seed lot and classification with other species - Chapter 3: Methods for determining germination rate and evaluation - Chapter 4: Seed viability and how to calculate seed vigor and strength - Chapter 5: Seed health; seed moisture content - Part III: Practical - Methods for analyzing seed quality	College of Agricultue
100	NS306	Plant quarantine and postharvest pets	2	Basic characteristics, scientific basis of KDTV, list of KDTV subjects in Vietnam, integrated pest management measures.	College of Agricultue
101	NN377	Farming system	2	The content of the course includes topics related to the fields of crops, livestock, and aquaculture, as well as an assessment of the natural and socio-economic conditions of a region. The course content consists of 6 chapters. Chapter 1: Concept of the farming system. Chapter 2: Requirements of the Cultivation System Chapter 3: Survey of the Study Area Characteristics Chapter 4: Evaluation of Adaptation, Obstacles to Proposed Solutions Chapter 5: Technical Solutions for the Cultivation System Chapter 6: Production Release	College of Agricultue
102	TN340	Plan tissue culture	2	The course consists of 7 chapters: The history of plant tissue and cell culture (Chapter 1), the principles of plant tissue and cell culture (Chapter 2), applications of plant tissue and cell culture in plant propagation (Chapter 3), applications of plant tissue and cell culture in plant breeding (Chapter 4), other applications of tissue and cell culture (Chapter 5), issues encountered in culture and their solutions (Chapter 6), and acclimatization (Chapter 7).	College of Agricultue
103	NN378	IPM in plant protection	2	- Theory: Basic concepts applied in IBM, ecology and its application in integrated pest management, principles, main content, and basic components of IBM, pest control measures, and their application from the IBM perspective. Some IBM models and the necessary knowledge to build an IPM model. Conditions for successful application and methods for transferring IPM into practice. - Practice: Identifying the main harmful agents on some	College of Agricultue

				commonly cultivated crops and measures to control them in IBM. Through practical surveys in the fields, farmer investigations, ecosystem analysis, and the establishment of IPM models.	

Course syllabus attached in appendices.

4. Teaching and Learning Methods

The selection of teaching and learning methods is based on their meeting the learning outcomes of the course (CLOs), the objectives (POs) and outcomes of the study programme (PLOs) in order to develop students' ability of knowledge discovery and construction. Depending on the characteristics of each course, lecturers use different teaching modes and methods. Teaching modes include teaching directly on or off campus (in experimental areas, production and trading establishments, farms...) or teaching online. Teaching and learning methods: Lecturers often use either one or more methods among the following: observation, field trip, project based, case study, problem solving, presentation, research, group discussion, lecturing, elicit, demonstration, game, self-study, ...

5. Student assessment method

- Methods are chosen in align with the course content and the T&L method; and ensures to the achievement levels of PLOs. Two commonly used assessment methods are: consummative and formative, including multiple choice, essay, short test, short answer, discussion, group work report, presentation, drawing, diagram, writing, portfolio, practice test, individual assignment, group assignment, Q&A, reports, graduation thesis, ...
- The course score is marked on a scale of 10 and rounded to one decimal place, then is converted to A-B-C-D grading and score on a scale of 4 as stated by the regulations on academic affairs of the University.

Can Tho, date 27 month 1 year 2021

ON BEHALF OF RECTOR
DEAN OF COLLEGE

HEAD OF DEPARTMENT

APPENDICES

COURSE SYLLABUS