

BACHELOR OF ENGINEERING IN ANIMAL SCIENCE PROGRAMME COHORT 45

Programme: Animal Science

Programme Code: 7620105

Training time: 4.5 years

Degree: Bachelor of Engineering in Animal Science (BEAS)

Management Unit: Department of Animal Sciences (DAS), College of Agriculture (CoA)

1. Programme Educational Objectives (PEOs)

1.1. Overall objectives

Training scientific and technical staff to meet the outcome standards of Level 6 (National Qualifications Framework according to Decision 1982/QD-TTg), and be granted engineering degrees in Animal Science.

After completing the study programme, students have ethical qualities, a sense of service, good health; knowledge and skills to work in the livestock industry, professional dedication, the ability to cooperate and manage resources; the ability to adapt to diverse jobs, manage production, enterprises or create production and service jobs in the livestock-veterinary industry; meeting human needs for the sustainable development of agricultural production in the direction of modernity, safety and efficiency.

1.2. Specific objectives

The training programme BEAS has a number of objectives as follows:

PEO1. Providing students with basic knowledge of politics, defence, law, foreign languages and IT in accordance with current regulations; Training students to be healthy, have a serious working attitude and work ethic, and be able to adapt to diverse jobs and international integration.

PEO2. Equipping basic and specialized knowledge, practical skills in the livestock industry, ability to cooperate and manage resources, and manage production in the livestock industry.

PEO3. Equip students with scientific research methods, practical access, formulation and implementation of scientific research and technology transfer in the field of animal husbandry; ability to analytical thinking, express and communicate effectively and creatively; ability to work independently or in effective teams.

PEO4. Ability to grasp needs and adapt to economic and social development; self-creation of production and service jobs in the veterinary industry; the ability to self-train, self-update knowledge and scientific research to continue studying at higher levels.

2. Programme Expected Learning Outcomes (PLOs)

Completing the training programme, students gain the following knowledge, skills, autonomy and responsibility as follows:

2.1 Knowledge

2.1.1 General knowledge

PLO1. Demonstrate ethical and professional responsibility, combined with possessing extensive knowledge to understand the impact of livestock solutions in social, environmental, economic and global contexts.

PLO2. Apply foreign language knowledge, entrepreneurship and creativity and informatics to the practical work of an engineer in animal science.

2.1.2 Fundamental knowledge

PLO3. Develop and implement appropriate animal management procedures, analyze and interpret data, and use technical judgment to draw conclusions.

PLO4. Apply modern techniques, skills and equipment to provide solutions that meet identified needs taking into account public health, safety and welfare as well as taking into account economic, environmental, social, cultural and global factors.

2.1.3 Specialized knowledge

PLO5. Use techniques, skills and technical tools necessary for animal husbandry and veterinary operations.

PLO6. Illustrate the ability to communicate effectively and perform tasks in multidisciplinary teams/groups.

2.2 Skills

2.2.1 Hard skills

PLO7. Design a system, component or process that meet expected needs under realistic technical, economic, social, health, safety and environmental constraints.

PLO8. Formulate outline, conduct scientific research and transfer technology in the field of animal husbandry; analyze data, interpret and communicate performance results, and evaluate work quality and performance.

2.2.2 Transferable skills

PLO9. Demonstrate the development and application of new knowledge as needed, using appropriate learning strategies.

PLO10. Demonstrate the competence to work independently, have the ability to communicate and develop good personal and team relationships, guide and supervise others to perform tasks effectively in a constantly changing context of work.

PLO11. Identify, select solutions to solve and improve problems related to practical work in the BEAS appropriately.

2.3 Attitudes, autonomy and responsibility

PLO12. Recognize properly economic and social issues; self-created production and service jobs in the animal husbandry industry; ability to self-educate, self-update knowledge and conduct scientific research to continue studying at higher levels.

3. Career prospects of BEAS

- Agricultural production and business companies and enterprises, factories for processing animal feed and producing veterinary drugs, and animal insurance companies.

- Agricultural agencies and related industries such as Animal Breeding Centers, Agricultural Extension Centers, Sub-Departments of Animal Husbandry and Veterinary Medicine, Centers for Agricultural Science and Technology.

- Research institutes and universities.
- Consulting companies, technology transfer, agricultural design and construction.
- Self-managing and operating farms, production and business establishments in the field of animal husbandry - veterinary medicine.

4. Higher education after graduation

- Continue studying training programmes at the master's and doctoral levels in domestic and foreign universities in the fields of animal husbandry, veterinary medicine, biotechnology, and other related fields.

- Conduct in-depth research on animal husbandry, veterinary medicine and biotechnology.

5. References when developing the programme

Law on Higher Education; The Vietnamese Qualifications Framework; the 6-level foreign language competency framework for Vietnam; requirements on capacity that learners can achieve after graduating from university (Circular 07/2015/TT-BGDĐT); Standard skills in using basic information technology (Circular 03/2014/TT-BTTTT); Standards for assessing the quality of training programmes at all levels of higher education (Circular 04/2016/TT-BGDĐT); Standards for assessing the quality of training programmes of the ASEAN University Network (AUN-QA).

6. Programme structure and curriculum

No	Course code	Course name	Credit	Compulsory	Elective	Theory hour	Practic hour	Course prerequisite	Corequisite	Semester
General knowledge										
1	QP006	National Defence and Security Education 1 (*)	2	2		30		Divided by specialized sub-group		
2	QP007	National Defence and Security Education 2 (*)	2	2		30		Divided by specialized sub-group		
3	QP008	National Defence and Security Education 3 (*)	3	3		20	65	Divided by specialized sub-group		
4	QP009	National Defence and Security Education 4 (*)	1	2		10	10	Divided by specialized sub-group		
5	TC100	Physical Education 1+2+3 (*)	1+1+1		3		90			I,II,III
6	XH023	General English 1 (*)	4	EN	10	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	10	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 (*)	1			1		15		
19	TN034	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 Viet Nam	2	2		30		ML018		I,II,III
24	ML021	Ho Chi Minh's thought	2	2		30		ML019		I,II,III
25	TN059	Advanced Mathematics B	3	3		45				I,II,III

No	Course code	Course name	Credit	Compulsory	Elective	Theory hour	Practic hour	Course prerequisite	Corequisite	Semester	
26	TN021	General Inorganic and Organic Chemistry	2	2		30				I,II,III	
27	TN022	Experiments in General, Organic and Inorganic Chemistry	1	1			30			I,II,III	
28	TN028E	General Biology A2	2	2		30				I,II,III	
29	TN030	Experiment on General Biology A2	1	1			30			I,II,III	
30	KL001	General Law	2	2		30				I,II,III	
31	ML007	General Logic	2		2	30				I,II,III	
32	XH028	Overview of Sociology	2			30					I,II,III
33	XH011	Basic Vietnamese Culture	2			30					I,II,III
34	XH012	Vietnamese In Use	2			30					I,II,III
35	XH014	General Management Documents and Archives	2			30					I,II,III
36	NN100	Transferable Skills	2			20	20				I,II,III
37	KN002	Entrepreneurship and Innovation	2			20	20				I,II,III
Sub-total: 48 credits (Compulsory: 33 credits; Elective: 15 credits)											
Fundamental knowledge											
38	NN123	Biochemistry B	2	2		30				I,II	
39	NN124	Experimental Biochemistry	1	1			30			I,II	
40	NN101	Animal Breeding	2	2		20	20	NN103		I,II	
41	NN102	Anatomy of Domestic Animals	2	2		20	20			I,II	
42	NN103	Animal Genetics	2	2		20	20			I,II	
43	NN105	Domestic Animal Physiology	3	3		30	30		NN102	I,II	
44	NN547	Animal Nutrition	3	3		30	30			I,II	
45	NN107	Animal Feeds	2	2		20	20		NN547	I,II	
46	NN118	Microbiology in Animal Husbandry	2	2		20	20			I,II	
47	NN173	Veterinary Pharmacology	3	3		30	30			I,II	
48	NN172	Probability Statics and Experimental Design in Animal Sciences and Veterinary Medicine	3	3		30	30	TN059		I,II	
49	NN301	Veterinary Obstetrics and Artificial Insemination	2	2		20	20			I,II	
50	NS349	Veterinary Internal Medicine	3	3		30	30			I,II	
51	NS329	Veterinary Surgery	3	3		30	30			I,II	
52	NN114	Applied Informatics	2	2		20	20			I,II	
53	NN549E	Sciences Research Methodology	2	2		20	20			I,II,III	
54	NS343	English for Animal Sciences	2		2	30		XH025		I,II	
55	XH019	French for Science and Technology	2			30		FL003		I,II	
56	NN112	Immunology	2	2	9	20	20			I,II	
57	NS263	Animal Histology	2			20	20			I,II	
58	NN303	Epidemiology	2			20	20			I,II	
59	NN320	Animal Farm Structure and Building	2	2		20	20			I,II	
60	NN324	Veterinary Hygiene	2			20	20			I,II	
61	NN325	Livestock Production Systems	2			20	20			I,II	
62	NN326	Agricultural Extension	2			20	20			I,II	
63	NN170	Animal Ecology	2			20	20			I,II	
Sub-total: 45 credits (Compulsory: 37 credits; Elective: 8 credits)											
Specialized knowledge											
64	NN305	Poultry Production A	3	3		30	30			I, II	
65	NN306	Ruminant Production A	3	3		30	30		NN101, NN105, NN547	I, II	
66	NN307	Swine Production A	3	3		30	30		NN101, NN102, NN103, NN107	I, II	
67	NS260	Law of Animal Science and Veterinary Medicine	2	2		20	20			I, II	
68	NN309	Management of Animal Production	2	2		20	20	NS344		I, II	
69	NN310	Pet Companion	2	2		20	20			I, II	
70	NS444	Practical Internship 1	3	3			90			III	

No	Course code	Course name	Credit	Compulsory	Elective	Theory hour	Practical hour	Course prerequisite	Corequisite	Semester
71	NS445	Practical Internship 2	4	4			120			III
72	NS446	Practical Internship 3	5	5			150			III
73	NN318	Environmental Hygiene in Animal Production	2	2		20	20			I, II
74	NS361	Infectious Diseases of Domestic Animals	3	3		30	30			I, II
75	NN308	Apiculture	2	2		20	20			I, II
76	NS345	Proposal Writing in Animal Sciences	1	1			30		NN549	I, II
77	NN492	Vietnam Good Animal Husbandry Practices	2	2		20	20	NN305, NN306, NN307		I, II
78	NN115	Animal Feed Technology	2	2		20	20			I, II
79	NS362	Veterinary Parasitology	3			30	30			I, II
80	NN116	Facilities and Equipments for Livestock Production	2			20	20			I, II
81	NN304	Nutritional Diseases	2			20	20	NN547		I, II
82	NN321	Diseases of the Dog and Cat	2			20	20			I, II
83	NS353	Veterinary Subclinical Diagnosis	2			20	20			I, II
84	NN316	Wild Animals Keeping	2			20	20			I, II
85	NN317	Animal Laboratory	2			20	20			I, II
86	NN319	Rabbit Production	2			20	20			I, II
87	NN336	Goat Production	2			20	20			I, II
88	NN495	Animal Biotechnology	2			20	20			I, II
89	NN496	Animal Breeding Management	2			20	20			I, II
90	NN499	Farm Animal Behaviour and Welfare	2			20	20			I, II
91	NS502	Graduation Thesis	14				420	≥120TC, NS345		I, II
92	NS426	Graduation Research in Animal Sciences	6				180	≥ 120 TC		I, II
93	NS346	Animal Farming Techniques	4			15	60	≥ 115 TC		I, II
94	NS347	Biotechnology in Animal Science	3			30	30	≥ 115 TC		I, II
95	NN322	Food of Animals Hygiene	2			20	20			I, II
96	NS348	Tropical Diseases in Animals	3			30	30	≥ 115 TC		I, II
Sub-total: 57 credits (Compulsory: 37 credits; Elective: 20 credits)										
Total: 150 credits (Compulsory: 107 credits; Elective: 43 credits)										

(*): is a conditional course, the cumulative GPA is not calculated. Students can complete the above modules by submitting certificates according to the regulations of Can Tho University or by cumulative study.

Date 31 month 8 year 2020

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