Module designation	Functional Food of Animal Products
Semester(s) in which the module is taught	Odd Semester
Person responsible for the module	Dr. Ir. Jamhari, S.Pt., M.Agr.Sc., IPM. Ir. Edi Suryanto, S.Pt., M.Sc., Ph.D., IPU. Prof. Dr. Ir. Nurliyanti, S.Pt., M.S., IPM. Ir. Yuny Erwanto, S.Pt., M.P., Ph.D., IPM.
Language	Bahasa and English
Relation to curriculum	Specialization's elective
Teaching methods	Classical lecture and discussion

Workload (incl. contact hours, self-study hours)	Total workload: 79 hours
	
	Contact hours:
	   – Lecture: 23 hours
	   – Academic activity: 28 hours
	Private study: 28 hours

Credit points	2/0
Required and recommended prerequisites for joining the module	None
Module objectives/intended learning outcomes	Course Outcomes (CO): 1. Able to comprehend the natural functional component on meat, milk, egg and also by-product and the functional components from processed result on meat, egg, milk, and by-products. 2. Able to understand the functional components roles on meat product, milk product, egg product, and by product on health and processed food. Expected Learning Outcomes: – Mastery in Sciences: 1. Able to master the livestock production science, animal nutrition and fed science, animal products technology, and the livestock social economics in relation to food security and environment. (CO1, CO2) – Special skills: 1. Able to solve problems and anticipate issues in the development of animal science and industry. (CO1, CO2)
Content	Functional food or known as nutraceuticals is the food (or food material) that gives specific non-nutrition physiological benefit that can increase the health. The consumer interest which keeps increasing on functional food alters food industry to re-formulate and re-define the relationship between food, nutrition, food and health. Health food can be produced by natural functional component introduction which comes from plant or animal. The natural functional component that comes from the plant protein and animal protein have been quite isolated and the effect has been tested towards the health i.e. anti-hypertension, antioxidant, anti-bacteria, etc. This course will support other courses i.e. Tropical Animal Food Technology, Animal Food Quality Control and Assurance, Meat processing and Industry and Advanced milk technology, and Advanced egg technology.

Exams and assessment formats	Assessment Components		Course Outcomes (CO)		Percentage (%)
	1. Midterm exam (written test, take home exam, paper assignment)		CO1 & CO 2		30
	2. Final exam (written test, take home exam, paper assignment)		CO1 & CO 2		30
	3. Short quizzes		CO1 & CO 2		10
	4. Presentation		CO1 & CO 2		10
	5. Take-home written assignments (paper)		CO1 & CO 2		20
	Grade and Score				
	Grade	**Score**	**Grade**	**Score**	
	A	≥80	C+	45-49,9	
	A-	75-79,9	C	40-44,9	
	A/B	70-74,9	C-	35-39,9	
	B+	65-69,9	C/D	30-34,9	
	B	60-64,9	D+	25-29,9	
	B-	55-59,9	D	20-24,9	
	B/C	50-54,9	E	0-19,9	
Study and examination requirements	The final grade in the module is composed of 30% performance on Midterm exam, 30% final exam, 10% quiz, 10% presentation, 20% paper. Students must have a final grade of 70% or higher to pass				
Reading list	– Mine, Y., E. Li-Chan, and B. Jiang (Eds). 2010. Bioactive Proteins and Peptides as Functional Foods amd Nutraceuticals. A John Wiley & Sons., Inc., Publ., Iowa, USA. – Martirosyan, D.M., 2014. Introduction to Functional Food Science. 3rd ed. Food Science Publisher, Dallas, Texas. – Maria Saarela, 2011. Functional Foods, 2nd ed. Woodhead Publishing Series in Food Science, Technology and Nutrition, Elsevier. – Aluko and E. Rotimi, 2012. Functional Foods and Nutraceuticals, Springer.				