

Course: Dairy and Milk Industry

1. **Type** : Specialization's Elective
2. **Code** : PTD 6207
3. **Credit** : 2/1
4. **Semester** : Even
5. **Description** :

Discuss about Dairy Cluster Industry (Stock, Good Dairy Farming Practice, dairy animal other than cow), Global Dairy System (Oceania, America, India/China, Africa), Global Dairy Trade (marketing, distribution, trade distortion and value added strategy)

6. Course Outcomes (CO)

- CO 1 : Students understand global dairy production systems of each continents
 CO 2 : Student understands dairy cluster development
 CO 3 : Student understand gobal of trade, value chain of milk and milk products
 CO 4 : Student understand dairy supply chain region
 CO 5 : Students understand trade distortion

7. The Alignment Between CO and ELO

CO*	ELO**																
	A				B			C				D					
	1	2	3	4	1	2	3	1	2	3	4	1	2	3	4	5	6
CO 1	✓			✓	✓							✓					
CO 2		✓				✓								✓			
CO 3			✓				✓				✓						
CO 4								✓					✓				
CO 5									✓						✓	✓	✓

*CO refers to point 6.

**Expected Learning Outcomes (ELO) are written below,

A. Attitudes and Behaviors	
The graduates are able to behave well, correctly, and culturally as the result of internalization and actualization of values and norms, which is reflected in a spiritual and social life through learning process, experience, research, and/or community development in the animal husbandry.	
1	Piety to God and be able to show religious attitude and maintain the humanity values in carrying the task, which is based on religion, moral, and ethics.
2	Be proud and love the homeland show nationalism, and contribute to the improvement of the life quality in the community, nation and country, and the advancement of civilization according to Pancasila.
3	Showing the social sensitivity and attention to the community and environment by respecting the culture diversity, view, religious, beliefs, and other people's opinion, and also obey the rules.
4	Be accountable in carrying the professional practice that includes ability to accept accountability towards decision and professional action. It shall be according to the scope of the practice under their responsibility and laws.
B. Mastery in Sciences	
Master the theory of the current science in the animal husbandry and its application.	
1	Able to master the current animal science and its application theory.

2	Able to master the livestock production science, animal nutrition and feed science, animal products technology, and the livestock social economics in relation to food security and environment.
3	Able to master the design, management, and development of livestock research.
C. Special Skills	
The graduates are able to develop science, technology, and arts in the animal husbandry through interdisciplinary/multidisciplinary innovative and tested research.	
1	Able to make innovation in the animal husbandry based on the development of science and technology.
2	Able to design interdisciplinary and multidisciplinary research in the animal husbandry.
3	Able to formulate and solve problems in the national development especially in terms of animal husbandry.
4	Able to solve problems and anticipate issues in the development of animal science and industry.
D. General Skills	
The graduates are able to manage resources by utilizing science, technology, and arts to solve problems in the animal husbandry with current science and also conduct research with accountability and full responsibility.	
1	Able to develop logical, critical, systematic, and creative thought through scientific research, creation of design in the science and technology, which pays attention and applies humanity values according to their expertise. The graduates are able to arrange scientific concept and the study result based on the principles, procedures, and scientific ethics.
2	Able to identify the science that becomes their research object and position it to a research map by using information technology in the context of science development and expertise implementation developed through interdisciplinary or multidisciplinary approaches.
3	Able to make a decision in the context of solving problems in the development of science and technology, which pays attention and applies humanity values based on analysis study or experiment towards information and data.
4	Able to communicate the result of reasoning and scientific research in form of thesis and scientific writing responsibly based on academic ethics in the accredited national journal.
5	Able to maintain the academic integrity generally and avoid the plagiarism practice.
6	Able to communicate spoken and written English effectively by using the information technology for the development of animal science and its implementation.

8. Course Content

Week	CO	Topic/Subtopic	Learning Activity	Assessment Tools	Allocated Time	Lecturer
1	1	Introd.: Global Milk Production and consumption	class	discussion	1.5	TWM
2	2	Stock Replacement and system	Class	Discussion	1.5	YS
3	3	Good Dairy Farming Practice	Class	Paper	1.5	ys
4	5	Dairy animal other than cow	Class/ Field	Active discussion	1.5-3	ys
5	2	Dairy Industry in Oceania, China	Class	Discussion	1.5	Twm
6	3	Dairy Industry in India	Class	Discussion	1.5	Twm
7	4	Dairy Industry in America and Europe	Class	Papers	1.5-2	Twm
Midterm Examination						

8	5	Dairy Industry in Indonesia	Field	Paper/Disc	6	BPP
9	1	dairy cluster industry	Class	Discussion	2	BPP
10	2	Trends of milk demands	Class	Discussion	1.5	BPP
11	3	Milk Value chain	Class	Paper	1.5	Twm
12	4	Trade Distortion	Class	Discussion	1.5	Twm
13	4	Exit Strategy of trade distortion	Class	Discussion	1.5	twm
14	5	Special program: School milk	Class	Papers	1.5	twm
Final Examination						

9. Practicum

Week	Activity	Methods	Total Hours
1	Supply chain of goat milk	Field course to meet goat milk processors	6
2	Added value of milk in supply chan	Calculation	6

10. Assessment

Component	CO	Percentage (%) for final grade	Minimum Satisfactory Level
Midterm		25	70
Quiz		5	70
Presentation		10	70
Paper		5	70
UAS		25	70
Practicum		30	70
Total		100	

11. Lecturer

1. Prof. Dr. Ir. Tridjoko Wisnu Murti, DEA.
2. Prof. Dr. Ir. Budi Prasetyo Widyobroto, DESS., DEA., IPU.
3. Ir. Yustina Yuni Suranindyah, M.S., Ph.D., IPM.

12. Reference

1. ILRI, 1999. Small holder dairying in the tropics. Edts Falvey, L. And C.Chantalakhana
2. IFCN, 2014. Status and prospect for smallholder milk production. Eds T.Hemme, and J. Otte. A Global Perspective
3. Murti, T.W.2013. Reorientasi pembangunan persusuan Indonesia menuju Indonesia sehat. Pidato GB

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4. Murti, T.W. 2016. Pasca panen susu. Gajah Mada University Press.