



Course Module
Department of Animal Science
Faculty of Animal Science
Universitas Brawijaya

Module Name	Dairy Processing Industry
Module Level	Undergraduate Program
Code	PET60016
Subtitle	-
Course	Dairy Processing Industry
Semester (s)	6
Person Responsible for the module	Dr.Ir. Purwadi, MS
Lecturer	<ol style="list-style-type: none"> 1. Dr.Ir. Purwadi, MS 2. Prof. Dr. Ir. Lilik Eka Radiati, MS., IPU., ASEAN Eng 3. Dr. Ir. Imam Thohari, MP., IPM., ASEAN Eng 4. Dr. Manik Eirry Sawitri, Ir.MS. 5. Dr. Abdul Manab, S.Pt., MP 6. Dr. Herly Evanuari, S.Pt., MP 7. Dr. Khotibul Umam A., S.Pt., Msi 8. Dr. Premy Puspitawati Rahayu, S.Pt., MP 9. Ria Dewi Andriani, S.Pt, MSc. MP 10. Mulia Winirsya A.,S.Pt., MP
Language	Indonesian language /English/Combination (Indonesian language and English)
Relation to curriculum	Study Program: Animal Science Specialization: Animal Product Technology Type: Compulsory /Non-Compulsory
Type of teaching, contact hours	<ol style="list-style-type: none"> 1. Lecture: Duration and Number of Students 100 minutes/meeting 2. Practicum of 150 minutes/meeting 3. Structured Assignments: Duration and Number of Students 4. Presentation: Duration and Number of Students
Workload	<ol style="list-style-type: none"> a. Lecture: 14 meetings*100 minutes b. Practicum: 14 meetings*150 minutes c. Independent learning: 16 times*150 minutes Course 90.67 hours/semester, practical 42,50 hours/semester
Credit points	3 credits / 5.10 ects
Requirements according to the examination regulations	-

Recommended prerequisites	Microbiology, Introduction to Animal Product Technology, Animal Product Technology, Quality Control
Module objectives/intended learning outcomes	<p>ILO:</p> <p>ILO 4: Capability to develop knowledge and comprehensive mindset based on Animal science and industry</p> <p>ILO 12: Capability to ethically design and perform experiments, analyze and interpret data as to provide sustainable problem solving in Animal Science</p> <p>ILO 13: Capability to implement technology in Animal Science to increase productivity, efficiency, quality and sustainability based on breeding, nutrition, processing, management as well as to organize an entrepreneurship concept and a sustainable production system</p>
	<p>Objetives: The Dairy Processing Industry Course provides knowledge about the dairy processing industry with various types of processed milk products produced, skills in identifying the internal and external factors that affect the Dairy Processing Industry, making Business Plans based on SWOT analysis and PEST analysis.</p>
	<p>Knowledge: Able to understand the requirements of the dairy processing industry including the industrial establishment, regulations, and design</p>
	<p>Skills</p> <p>Cognitive: Able to understand and analyze the internal factors (Human Resources, Raw Material Capital, Infrastructure and Facilities and Culture of the Milk Processing Industry) and the external factors (Socio-Economic, Political, Environmental and Technological factors).</p> <p>Phsycomotoric: Able to work as a team in making SWOT analysis and PEST analysis and design design a Business Plan in a Dairy Processing Industry.</p>
	<p>Competences: Student able making SWOT analysis and PEST analysis and design design a Business Plan in a Dairy Processing Industry.</p>
Content	<ol style="list-style-type: none"> 1. Introduction (development of the dairy industry in Indonesia, related to inputs, processes, and outputs). 2. Dairy Industry Tree 3. Pasteurized, Sterilized, and UHT Milk Industry 4. Sweetened Condensed Milk and Milk Powder Evaporation Industry 5. Fermented Milk Industry of Liquid and Solid Products

	<ol style="list-style-type: none"> 6. Ice Cream and Butter Industry 7. Industrialization of Traditional Dairy Products 8. Internal factors affecting the milk processing industry 9. External factors affecting the milk processing industry 10. SWOT and PEST Analyses 11. Business Plan, lecture rules, assignments, and assessments
Study and examination requirements and forms of examination	<p>A minimum attendance of 80% to take the Final Exam Multiple Choice/Essay/Group Presentation/etc.</p> <p>Practicum: 20 % Midterm Exam: 35% Final Exam: 35% Structured Assignments: 5% Quiz: 5%</p> <p>A : 80 < Final Score ≤ 100 B+ : 75 < Final Score ≤ 80 B : 69 < Final Score ≤ 75 C+ : 60 < Final Score ≤ 69 C : 55 < Final Score ≤ 60 D : 50 < Final Score ≤ 55 D+ : 44 < Final Score ≤ 50 E : 0 < Final Score ≤ 44</p>
Media employed	E-module, win feed program, video, ub feed software, Powerpoint, reference book, video, laptop, LDD
Reading list	<ol style="list-style-type: none"> 1. Alfalafal. 1980. Dairy Handbook. Lund. Sweden. 2. Bylund, G. 1995. Dairy Processing Handbook. Lund. Sweden. 3. Walstra, P., J.T.M., Wouters., and T.J., Geurts. 2006. Dairy Science and Technology. Second Edition. CRC Press Taylor & Francis. 4. Reddy, S., and A.K., Puniya. 2018. Introductory Dairy Microbiology. http://www.agrimoon.com/introductory-dairy-microbiology-pdf-book/