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

Module name	Basic Technology of Animal Products
Module level	Undergraduate Program
Code	PET60012
Subtitle	-
Courses	-
Semester(s)	3
Person responsible for the module	
Lecturer	1. Prof. Dr. Ir. Djalal Rosyidi, MS 2. Prof. Dr.Ir. Lilik Eka Radiati MS., IPU 3. Dr. Ir. Imam Thohari, MP 4. Dr. Agus Susilo, S.Pt., MP 5. Dr. Ir. Mustakim, MP 6. Dr. Khotibul Umam Al-Awwaly, S.Pt., M.Si 7. Dr. Ir. Manik Erry Sawitri, MP 8. Dr. Herly Evanuarini, S.Pt., MP 9. Dr. Abdul Manab, S.Pt, MP 10. Dr. Dedes Amertaningtyas, S.Pt, MP 11. Dr. Premy Puspitawati Rahayu, S.Pt, MP 12. Ria Dewi Andriani, S.Pt, M.Sc 13. Mulia Winirsya Apriliyani, S.Pt, MP 14. Dicky Tri Utama, S.Pt., PhD
Language	Indonesian and English
Relation to curriculum	Compulsory/~~Elective~~
Type of teaching, contact hours	Contact hours and class size separately for each teaching method: course, structured assignment, practical etc.
Workload	Course: 90.67 hours/semester Practical: 42.50 hours/semester
Credit points	3 (2-1) SKS / 5.1 (3.40-1.70) ECTS
Requirements according to the examination regulation	-
Recommended prerequisites	Biochemistry

Module objectives/intended learning outcomes	Learning Outcomes: 1. Capability to develop knowledge and comprehensive mindset based on Animal science and industry (LO 4) 2. Actively contributing in the learning process and discussion (LO 10) 3. Demonstrating good capability to be independent and to work in team as to identify and analyse problems (LO 11) Course Learning Outcomes: 1. Able to analyze the components contained in animal products (carbohydrates, protein, lipids, and water) and their changes and the factors affecting the physical and chemical quality of animal products 2. Able to master the basics of processing and preserving animal products using high and low temperatures, decreased water activity, drying, smoking, salting, curing, fermentation principles, acidification techniques, and competitive microflora, irradiation techniques, basic packaging, basic canning, and nanotechnology 3. Able to analyze various types of food additives used in the processing and preservation of animal products
	Objectives: This course provides knowledge about the analysis of components contained in animal products and their changes, analysis of physical, chemical properties of animal products, basic preservation and packaging to be used in processing and preservation of animal products
	Knowledge: able to explain the importance of animal products technology
	Skills: cognitive- Able to analyze the components contained in animal products (carbohydrates, protein, lipids, and water) and their changes and the factors affecting the physical and chemical quality of animal products Phsycomotoric- Able to analyze the components contained in animal products (carbohydrates, protein, lipids, and water) and their changes and the factors affecting the physical and chemical quality of animal products
	Competences: Able to master the basics of processing and preserving animal products using high and low temperatures, decreased water activity, drying, smoking, salting, curing, fermentation principles, acidification techniques, and competitive microflora, irradiation techniques, basic packaging, basic canning, and nanotechnology
Content	Courses 1. Introduction of the Basic Scope of Animal Products 2. Carbohydrates in Animal Products 3. Protein in Animal Products 4. Water in Animal Products 5. Lipids in Animal Products

	6. Heating 7. Drying 8. Cooling and Freezing 9. Basic Fermentation 10. Nanotechnology 11. Irradiation 12. Packaging 13. Canning 14. Food Additives
Study and examination requirements and forms of examination	1. Midterm exam 2. Final term exam 3. Practical 4. Structured assignment 5. Quiz 6. Activeness How to score – Midterm exam 25% – Final term exam 25% – Practical 25% – Structured assignments 15% – Quiz: 5% – Activeness: 5% 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
Media employed	Projector and screen, VLM, Google Classroom
Reading list	1. Susilo, A., Djalal R, Firman J, and Mulia WA. 2019. Buku Ajar Dasar Teknologi Hasil Ternak. UB Press. Malang. 2. Soeparno. 2009. Ilmu dan Teknologi Daging. Universitas Gajah Mada Press, Yogyakarta. 3. P.J. Fellows. 2009. Food Processing Technology. Woodhead Publishing Ltd. 4. Norman W. Desrosier. 2008. Teknologi Pengawetan Pangan. UI-Press. Jakarta. 5. Winarno, FG. 2008. Kimia Pangan dan Gizi. PT. Gramedia Pustaka Utama, Jakarta.