



USK
UNIVERSITAS
SYIAH KUALA

FACULTY OF AGRICULTURE

Department of Animal Science

UNDERGRADUATE PROGRAM

Module designation	Ruminology
Semester(s) in which the module is taught	3 rd semester
Person responsible for the module	Dr. Ir. Sitti Wajizah, M. Si
Language	Indonesia/English
Relation to curriculum	Compulsory module
Teaching methods	Lecture, discussion, project learning
Workload	<ul style="list-style-type: none"> • 100 minutes of lectures and discussion per week
Credit Poins	2 SKS3 = 3.2 ECTS
Required and recommended prerequisites for joining the module	1. Genetic (SPTK1013) 2. Fisiology dan Animal Anatomy (SPTK1004)
Module objectives/intended learning outcomes	<ul style="list-style-type: none"> • Able to demonstrate an honest and ethical attitude in accordance with Pancasila values, disciplined, responsible and able to understand the scope of ruminology • Be able to explain the history of development and the role of ruminology in relation to increasing ruminant production • Able to understand and master the anatomy and physiology of the ruminant stomach, able to recognize the types of microorganisms and their role in the rumen, and able to explain the role of microorganism enzymes in the rumen • Able to understand and explain rumen bionomics, biochemical activity, physiology and microbes in the rumen which are related to the use of nutrients according to ruminant needs
Content	This course discusses the anatomy and physiology of the ruminant stomach, the types of microorganisms found in the rumen and their roles, the characteristics of the enzymes of microorganisms in the rumen and the process of nutrient digestion that occurs in the rumen
Exams and assesment formats	Essay, case analysis and oral presentation
Study and exanation requirements	20% participative activity 50% case project 5% quizzes 5% structured assignment 10% midterm examination 10% final examination



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Reading list

1. Jouany, J.P. 2021. Rumen Microbial Metabolism and Ruminant Digestion. Institute National De La Recherche agronomique, Paris.
2. Bachrudin, Z. 2022. Metabolisme Zat Gizi Mikroba. PPs, UGM, Yogyakarta
3. Enary, T.M. 2023. Microbial cellulase. In : Microbial Enzymatic and Biotechnology. W.M Fogarty (ed). Applied Science Publisher, London
4. Barragry, T. B. 2020. Parasitocides. In Animal Drugs and Human.