

Republic of Iraq
The Ministry of Higher
Education
& Scientific Research



University: Diyala
College: Agriculture
Department: Animal Resources
Stage: Third
Name: Farqad Shawqi Ibrahim
Academic: Lecture PhD
Qualification: PhD.
Place of work: Coll. Of
Agriculture

Flow up of implementation celli pass play

Course Instructor	Farqad Shawqi Ibrahim				
E-mail	farqadIbrahim@uodiyala.edu.iq				
Title	Feed and Rations				
Course Coordinator	Autumn				
Course Objective	The student will learn how to mix feed for ruminants and analyze it to determine its nutritional value.				
Course Description	Know the types of feed, their classifications and specifications, and choose the best and most appropriate to form a suitable feed with the best nutritional ratios and the lowest cost.				
Textbook	Animal Nutrition Book / Author - MacDonald, Edwards, Greenhalgh - Translated by Saad Abdul Hussein, Talal Yousef (University of Baghdad).				
References	<ul style="list-style-type: none"> •Fundamentals of Animal and Poultry Nutrition (Theoretical Part) / Dr. Issa Hassan, Dr. Musa Abboud - (2011) Damascus University •Nutrition Science / Dr. Gamal Abdel Rahman Tawfiq and Dr. Shaker Abdel Amir Al-Attar (2014) - University of Baghdad •Animal Nutrition Science / Dr. Khaled Abdel Salam Al-Shazly (2011) - Al-Maaref Establishment, Alexandria – Egypt. •Fundamentals of Animal and Poultry Nutrition / Dr. Saad Abdel Zahra Habib and his colleagues 1983. •Physiology of Digestion and Nutrition of Ruminants, Part Two, Translated by Dr. Farouk Habib Gharib - University of Basra. • Internet. 				
Course Assessments	Term Tests	Laboratory	Quizzes	Project	Final Exam
	20%	15%	5%		60%
General Notes					

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week	Date	Topics Covered	Practical Part
1	1 st week	Feed/Types of feed/Ideal feed specifications	General terms in nutrition
2	2 nd week	Steps for formulating feed	Feed analysis
3	3 rd week	Factors affecting the nutritional value of feed materials	Digestion experiments and digestion coefficients
4	4 th week	Improving the nutritional value of low-quality feed materials	Nutritional requirements for nutrients
5	5 th week	First exam	First exam
6	6 th week	Feed classification/concentrate/rough	Daily requirements for dairy cows
7	7 th week	Nutritional additives	Weighed rations
8	8 th week	Feed manufacturing/silage manufacturing/hay manufacturing	Rough feed
9	9 th week	Feed material evaluation	Preparation of a mixture of concentrated feed
10	10 th week	Second exam	Second exam
11	11 th week	Nutritional requirements /protein requirements	Balancing cow rations
12	12 th week	Energy requirements /mineral and vitamin requirements	Balancing sheep rations
13	13 th week	Dairy cows requirements /meat cows requirements	Balancing goat rations
14	14 th week	Sheep requirements /goats requirements	Discussion of reports
15	15 th week	Work needs/wool production requirements	Discussion of reports
16		Third exam	Third exam

Instructor Signature:
Dr. Farqad S. Ibrahim
15-1-2025

Dean Signature:
Prof. Dr. Raaed I. Khalil
15-1-2025