



Animal Nutrition and Nutritional Deficiency

DIPLOMA COURSE SPECIFICATION

A. BASIC INFORMATION

University:	Sadat City
Faculty:	Veterinary Medicine
Program on which the course is given:	Diploma of Farm Animal Diseases
Department offering the Course:	Nutrition and Clinical Nutrition
Course code:	922
Course title:	Animal Nutrition and Nutritional Deficiency
Lecture (hr/week):	1
Practical (hr/week):	1
Course coordinator:	Prof. Dr. Khaled Gaafar

B. PROFESSIONAL INFORMATION

1) Overall aims of course

At the end of the course, the students should gain the basic concepts, principles and the essential practical skills in the nutrition of different animals in addition to the abnormalities that occur due to the disturbance in the nutrients metabolism.

2) Intended learning outcomes of course (ILOs)

a) KNOWLEDGE AND UNDERSTANDING

By the end of this course, the graduate should be able to:

- a.1. Recognize the basics of nutrition (plant and animal body components)
- a.2. Describe the function and metabolism of different nutrients (water, carbohydrate, lipid, protein, and vitamins) and feed analysis
- a.3. Recognize the different malnutrition disorders in animals and poultry
- a.4. List the nutrients requirements of different animals.
- a.5. Categorize the different feeding systems of animals
- a.6. Identify the different evaluation systems for different feeds.

b) INTELLECTUAL SKILLS

By the end of this course, the student should be able to:

- b.1. Identify different required nutrients and feed cases and details
- b.2. Investigate the different metabolic interrelationship between different nutrients.
- b.3. Discriminate the different diseases of malnutrition in animals.
- b.4. Interpret the different disorders associated with imbalanced nutrition.
- b.5. Detect the different nutrients required for different purposes (fattening, reproduction, lactation, and working).
- b.6. Assess the nutrients requirements in feeds.

c) PROFESSIONAL AND PRACTICAL SKILLS

By the end of this course, the student should be able to:

- c.1. Apply the different methods of analysis of different nutrients
- c.2. Use the modern techniques for analysis
- c.3. Examine the feeding stuffs used for feeding different animal species.
- c.4. Discuss different precautions for avoiding malnutrition to the owner.
- c.5. Apply the different systems of animal feeding
- c.6. Practice the ration formulation of animals.

d) GENERAL AND TRANSFERABLE SKILL

By the end of this course, the student should be able to:

- d.1. join with team efficiently.
- d.2. Enhance the use of library services and IT tools.
- d.3. Improve computer / keyboard skills including word
- d.4. Create effective presentation.

3) Topics and contents

Topic	No. of Hours		
	Lecture	Practical	
1- The animal body and its food	2	2	4
2- The role and requirement of water	2	2	4
3- Feed analysis	4	4	8

4- Carbohydrates	8	4	4
6- Lipids	8	4	4
7- Classification of feeds	2	1	1
8- Protein and amino acids	8	4	4
9- Minerals	8	4	4
10- Vitamins	8	4	4
Nutrients requirements for growth and fattening	10	5	5
Nutrients requirements for reproduction	10	5	5
Nutrients requirements for lactation	10	5	5
Total	88	44	44

է) Teaching and learning methods

- 4.1. Lectures.
- 4.2. Practical.
- 4.3. Self-learning activities.

ը) Student assessment

a. ASSESSMENT METHODS:

1- Written examination	For assessment of knowledge, back calling and Intellectual skills
2- Practical examination	For assessment of practical and professional skill.
3- Oral examination	For assessment of knowledge and Intellectual skills
4- Student activities	For assessment of knowledge and general and transferable skills

b. MATRIX ALIGNMENT OF THE MEASURED ILOS/ ASSESSMENTS METHODS:

	K.U (a)	I.S (b)	P.P.S (c)	G.S (d)
Written exam	1-6	1-6		-
Practical exam	2,6	1,6	1-6	-
Oral exam	1,2,4	1,3,4,6		-
Student activities (assay, seminar, etc.)	1,2,3	1,2,4		1-4

c. WEIGHT OF ASSESSMENTS:

Assessment	Allocated Mark	Evidence
Final written exam	50%	Marked and signed written paper

Practical exam	20%	Marked and signed practical exam paper
Oral exam	20%	Signed list of oral exam marks
Student assignments	10%	Representative samples of presented materials

7) List of references

6.1. Department notes

Department theoretical books and practical manual.

6.2. Essential books

- J Grass for Dairy Cattle (1998): J. H. Cherney and D. J. R. Cherney, Cornell University, New York
- J Farm Animal Metabolism and Nutrition (2000): J. P. F. D' Mello, CABI publishing, Biddle Ltd. London, UK.
- J The Nutrition of Rabbit (1998): C. de. Blas and Julian wiseman, London, UK.
- J Horse Feeding and Nutrition (1991): Jony J Cunha, 2nd ed., Accademic press INC, USA.
- J Animal Nutrition (1981): 3rd edition, McDonald, F.; Edwards, R. A. and Greenhalagh.
- J Animal Nutrition (1979): 7th edition, Maynard, L.A.; Lossl., J.K., Hintz, H.F. and warner, R.G.
- J Basic Animal Nutrition and Feeding: 3rd edition. Church, D.C. and Pond, W.C. (1988)
- J Nutrient Requirements for Different Animals: National Research Council (1984)
- J Feeds and Feeding: 3rd edition. Cullison, A. E. (1982)
- J Large Animal Clinical Nutrition (1991): Naylor, J. M. and Ralton, S. L

6.3. Journals & Websites

- J Journal of Nutrition
- J Journal of Dairy science
- J Journal of poultry science
- J Website:
- J Google (NRC, Nutrient requirements)

	Course coordinators	Head of department
Name	Prof. Dr. Khalid M. Gaafar	Prof. Dr. Khalid M. Gaafar
Signature		

Matrix alignment of course topics and ILOs

Topic	No. of hours /week		Total hours	Hours for Lect.	Hours for Pract.	ILOs			
	Lect.	Pract.				K.U (a)	I.S (b)	P.P.S (c)	G.T.S (d)
1- The animal body and its food	1	1	4	2	2	1	1	1-6	1-4
2- The role and requirement of water	1	1	4	2	2	2	1,2,3,4	1-6	1-4
3- Feed analysis	1	1	8	4	4	2	1,2,3,4	1-6	1-4
4- Carbohydrates	1	1	8	4	4	2	1,2,3,4	1-6	1-4
6- Lipids	1	1	8	4	4	2	1,2,3,4	1-6	1-4
7- Classification of feeds	1	1	2	1	1	6	1,2,3,4	1-6	1-4
8- Protein and amino acids	1	1	8	4	4	2	1,2,3,4	1-6	1-4
9- Minerals	1	1	8	4	4	2	1,2,3,4	1-6	1-4
10- Vitamins	1	1	8	4	4	2	1,2,3,4	1-6	1-4
Nutrients requirements for growth and fattening	1	1	10	5	5	3,4,5	5,6	1-6	1-4
Nutrients requirements for reproduction	1	1	10	5	5	3,4,5	5,6	1-6	1-4
Nutrients requirements for lactation	1	1	10	5	5	3,4,5	5,6	1-6	1-4
Total			88	44	44				