

1	Course title	Poultry Nutrition
2	Course number	0602486
3	Credit hours	3
	Contact hours (theory, practical)	(3,0)
4	Prerequisites/corequisites	Poultry Production (602212)
5	Program title	B.Sc. Animal Production
6	Program code	602
7	Awarding institution	The University of Jordan
8	School	Agriculture
9	Department	Animal Production
10	Course level	4 th Year
11	Year of study and semester (s)	Second Semester 2021/2022
12	Other department (s) involved in teaching the course	None
13	Main teaching language	English
14	Delivery method	<input checked="" type="checkbox"/> Face to face learning <input type="checkbox"/> Blended <input type="checkbox"/> Fully online
15	Online platforms(s)	<input checked="" type="checkbox"/> Moodle <input checked="" type="checkbox"/> Microsoft Teams <input type="checkbox"/> Skype <input type="checkbox"/> Zoom <input type="checkbox"/> Others.....
16	Issuing/Revision Date	18/3/2022

17. Course Coordinator:

Name: Dr. Mohammd Jalal	Office Hours: 08:30 – 9:30 Sunday, Tuesday, and Thursday
Office number: 154	09:00 – 12:30 Monday;
Email: mohjalal1@ju.edu.jo	11:30 – 14:30 Wednesday
Phone number: 22381	

18. Other instructors:

Name:
Office number:
Phone number:
Email:
Contact hours:

19. Course Description:

The purpose of this course is to establish an understanding of the importance of Poultry Nutrition as a major field in poultry industry. It focuses on the subjects, which enrich information about ingredient evaluation and composition and the different programs used to feed the different types of poultry such as broilers, breeders, growing pullets and layers. The students will be able to formulate least cost diets and prepare nutritional programs for all kinds of poultry species.

20. Course aims and outcomes:

A- Aims:

- 1- Provide a basic and thorough understanding of poultry nutrition.
- 2- Review of nutrient constituents of feedstuffs and their role in poultry nutrition
- 3- Acquaint students with various components of poultry diets, specifically non-feed ingredients.
- 4- Provide an overview of feedstuffs used in by the poultry industry in Jordan and learn how to formulate diets.
- 5- Review some of the contaminants and feed toxins.
- 6- Shed some light on feed processing, manufacturing, and milling technology

B- Students Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

Program ILOs*	Course SLOs							
	ILO (1)	ILO (2)	ILO (3)	ILO (4)	ILO (5)	ILO (6)	ILO (7)	ILO (8)
(1) Understand the basic concepts in poultry nutrition pertaining to various nutrient groups and poultry nutrient requirements	X	X	X					
(2) Know various ingredient used in poultry diets with various programs associated with them for broilers, layers, and breeders.	X	X	X					
(3) Develop the ability to formulate in an applied manner diets for various classes of poultry based on nutrient requirements of each class.	X	X	X			X		
(4) Understand the processes involved in feed processing and manufacturing and how feed ingredients are evaluated.	X	X	X		X	X		X

*** Program ILOs:**

ILO (1): Demonstrate a deep understanding of the basic principles in the various areas of livestock production; including nutrition, physiology, genetics, health and management.

ILO (2): Apply the acquired knowledge in various fields of livestock production.

ILO (3): Utilize critical thinking and logical reasoning in addressing issues related to animal production.

ILO (4): Communicate effectively with a wide range of stakeholders and provide appropriate extension services.

ILO (5): Apply the principles of public safety and preservation of the environment.

ILO (6): Acquire and apply practical skills along with keeping up with recent advances in livestock production.

ILO (7): Demonstrate knowledge of basic concepts of research methodologies and evidence-based decision-making.

ILO (8): Abide by professional and ethical considerations relevant to the livestock production sector.

21. Topic Outline and Schedule:

Week	Lecture	Topic	Intended Learning Outcome	Learning Methods (Face to Face/Blended/ Fully Online)	Platform	Synchronous / Asynchronous Lecturing	Evaluation Methods	Resources
1	1.1	General Introduction to Nutrition	1	Face to Face	MS Teams + Moodle	Synchronous	Assignments & quizzes	Class Lectures
	1.2							
	1.3							
2	2.1	Energy - Concepts - Energy Metabolism - Energy Balance	1	Face to Face	MS Teams + Moodle	Synchronous	Assignments & quizzes	Class Lectures
	2.2							
	2.3							
3	3.1	Energy - Energy Sources - Energy content of feedstuffs - Energy requirements	1	Face to Face	MS Teams + Moodle	Synchronous	Assignments & quizzes	Class Lectures
	3.2							
	3.3							
4	4.1	Fats - Classification of lipids. - Fats and Glycolipids. - Phospholipids and waxes. - Steroids and terpenes.	2, 6	Face to Face	MS Teams + Moodle	Synchronous	Assignments & quizzes	Class Lectures
	4.2							
	4.3							
5	5.1	Proteins - Amino acids. - Peptides. - Structure of proteins. - Properties of protein. - Classification of proteins. - Nucleic acids and other nitrogenous compounds.	2, 6	Face to Face	MS Teams + Moodle	Synchronous	Assignments & quizzes	Class Lectures
	5.2							
	5.3							
6	6.1	Vitamins - Fat-soluble vitamins. - Water-soluble vitamins.	2, 6	Face to Face	MS Teams + Moodle	Synchronous	Assignments & quizzes	- Chapter 5 in McDonald et al. 2011. - Section 1, no.17 in Perry et al. 2004
	6.2							
	6.3							

7	7.1	Minerals - Function of minerals. - Natural and supplementary source of minerals. - Major elements. - Trace elements.	2	Face to Face	MS Teams + Moodle	Synchronous	Assignments & quizzes	- Chapter 5 in McDonald et al. 2011. - Section 1, no.13-16 in Perry
	7.2							
	7.3							
	8.1	Enzymes - Classification of enzymes. - Nature of enzyme. - Mechanism of enzyme action. - Specific nature of enzymes. - Factors affecting enzyme activity.	3	Face to Face	MS Teams + Moodle	Synchronous	Assignments & quizzes	- Chapter 5 in McDonald et al. 2011.
	8.2							
	8.3							
9	9.1	Digestion - Digestion in monogastric mammals. - Microbial digestion in ruminants and other herbivores.	4	Face to Face	MS Teams + Moodle	Synchronous	Assignments & quizzes	- Chapter 8 in McDonald et al. 2011. - Section 1, no.5-6 in Perry et al. 2004
	9.2							
	9.3							
10	10.1	- Nutrient digestion and the environment.						
	10.2							
	10.3							
11	11.1	Metabolism - Energy metabolism - Protein synthesis - Fat synthesis	5	Face to Face	MS Teams + Moodle	Synchronous	Assignments & quizzes	- Chapter 8 in McDonald et al. 2011. - Section 1, no.6 in Perry et al. 2004
	11.2							
	11.3							
12	12.1							
	12.2							
	12.3							
13	13.1	Metabolism - Carbohydrate synthesis - Control of metabolism	5	Face to Face	MS Teams + Moodle	Synchronous	Assignments & quizzes	- Chapter 8 in McDonald et al. 2011. - Section 1, no.6 in Perry et al. 2004
	13.2							
	13.3							
14	14.1							
	14.2							
	14.3							

22. Evaluation Methods:

Opportunities to demonstrate achievement of the SLOs are provided through the following assessment methods and requirements:

Evaluation Activity	Mark	Topic(s)	SLOs	Period (Week)	Platform
Quizzes	10%	Different topics of the course	See the students learning outcomes (SLOs) table	Throughout the semester	Face to Face
Field Trip	10%	Trip to a Field Manufacturing Plant		Determined later in the semester	Face to Face
Midterm Exam	30%	Topics covered until the end of week 8		8	Face to Face
Final Exam	50%	All covered topics		16	Face to Face

23. Course Requirements

Students should have a computer, internet connection, and account on a specific software/platform...etc.):

24. Course Policies:

A- Attendance policies:

Each student is expected to take their own notes (part from the exam) and to attend class. Absence from lectures shall not exceed **15%**. Students are expected to attend all lectures but if a student is absent from class, it is his responsibility to get the material that was missed. You must get any handouts or notes from your classmates.

B- Absences from exams and submitting assignments on time:

Exams will consist of **multiple choice, short answers and Essay questions**. Exams will cover all material presented for each section. Make-up exams will only be provided for students with an excused absence and supporting documentation. The questions and/or format of any make-up exam may differ from that of the original exam. Scheduling of a make-up exam will vary depending upon available dates/times but **MUST** occur before the next-scheduled exam date.

C- Health and safety procedures:

Students should follow the Jordanian government guide

D- Honesty policy regarding cheating, plagiarism, misbehavior:

Academic dishonesty will **NOT** be tolerated. This includes cheating, fabrication or falsification, plagiarism, abuse of academic materials, complicity in academic dishonesty, falsifying grade reports, and misrepresentation to avoid academic work. For this course, evidence of any form of academic dishonesty will result in all involved students receiving zero points for any associated exam, or assignment

E- Grading policy:

Quizzes	10%
Field Trip	10%
Mid-exam	30%
Final Exam	50%
Total Points	100%

F- Available university services that support achievement in the course:

Students account on E-learning, and Microsoft teams

25. References:

A- Required book(s), assigned reading and audio-visuals:

1. Perry, T.W., A.E. Cullison, R.S. Lowrey. 2004. Feeds and Feeding. 6th ed., Prentice Hall, Upper Saddle River, New Jersey.
2. McDonald, P., R.A. Edwards, J.F.D. Greenhalgh, C.A. Morgan, L.A. Sinclair and R.G. Wilkinson. 2011. Animal Nutrition. 7th ed., Pearson, London.
3. Guoyao, W. 2018. Principles of Animal Nutrition. CRC Press, Boca Raton Florida, USA.

B- Recommended books, materials and media:

١. محمد حرب، 2001. مبادئ التغذية. الطبعة الأولى. جامعة القدس المفتوحة، عمان، الأردن.

26. Additional information:

--

Name of Course Coordinator: Mohammad Jalal	Signature: -----	Date: 18/13/2022
Head of Curriculum Committee/Department: -----	Signature: -----	
Head of Department: -----	Signature: -----	
Head of Curriculum Committee/Faculty: -----	Signature: -----	