



University of Salahaddin-Erbil

College of Agricultural Sciences Engineering

Department of Animal Resource

Subject: Poultry Production (Course Book)

Grade: 3rd

Lecturers' Names: Mrs. Sheren Dhahir Mohammad

Mrs. Gulstan Radha

Academic Year: 2023-2024

Course Book

1. Course name	Poultry Production
2. Lecturer's Name	Sheren Dhahir Mohammad Gulstan Radha
3. Department/ College	Animal Resource
4. Contact	e-mail:: shireen.mohammad@su.edu.krd Tel: 07504629928 e-mail:: gulstan.radha@su.edu.krd Tel: 07504xxxxxx
5. Time (in hours) per week	Practical: 6
6. Office hours	Available from Sunday to Wednesday.
7. Course code	
8. Teacher's academic profile	<p>Sheren Dhahir { Bsc. in Animal Resource Dept. (2008) Msc. in Poultry Production (2015)</p> <p>Gulstan Radha { Bsc. in Animal Resource Dept. (2009) Msc. in Poultry Production (2017)</p>
9. Keywords	Poultry, meat, egg, production, quality
<p>10. Course overview:</p> <p>The goals of this course is getting learning outcomes through obtaining knowledge and understanding the principles and practices of commercial poultry production. Beside the Intellectual Skills that include thinking for how to deal with field problems. Solving unexpected problems in poultry houses. Practice and applications of modern techniques in poultry industry. Many changes have happened in poultry housing in recent years, such as the introduction of computer monitoring and control of the machines, and many automations from day-to-day in poultry production operations. Additionally, there is increasing awareness of the role of brooding and growing management skills of different poultry categories. Training students to poultry performing survey observations, analyzing results and poultry production quality assessment.</p> <p>Each group of students will get the lecture as an hour lecture and two hours Lab. per week deals with many studies, in laboratory practically displaying and/or through images and videos meat type birds; housing, brooding and raising requirements; poultry performance evaluating methods; slaughtering and slaughter house operations; carcass and poultry meat quality assessment. As well as, showing types of eggs, all shapes and sizes of table eggs that exist in markets and produced by local breeder flocks and hybrids. Egg quality assessing methods for differentiating good and non-good commercial eggs. Furthermore, visiting commercial poultry projects that exist in Erbil Province to get more notes and information of experts.</p>	
<p>11. Course objective:</p> <p>The aim of the course is to provide the understanding poultry industry, past and present, basic concepts of poultry requirements in housing, brooding and rearing managements. As well as, the technologies of producing high quality table eggs and poultry meat, marketing principles of poultry product and by-products, poultry house records and record analysis.</p>	
<p>12. Student's obligation</p> <p>➤ Quizzes will occur each week and will cover the material presented during the previous week</p>	

lecture.

- Students are required to wear lab-coat at each class.
- Students must pay attention in class to record their notes.
- Students that disrupt the class during lecture will be removed from the lesson.
- Cell phones and other electronic devices are PROHIBITED in the classroom.

13. Teaching and Learning Methods:

- Displaying the information through data show via power point slides, images, videos show. In addition to white board and colorful markers.
- Discussions and Class activities
- Poultry farm project models training
- Seminars by student groups and within class discussions

Facilities Required for Teaching and Learning

- Small group of students.
- Up- to- date references in library.
- Well-equipped poultry houses and rearing pens
- Medium size flocks of chicken, quail...etc

14. Assessment scheme

1- **Assessment 1:** Class tests weekly (activities and written quiz) to assess understanding of previous lecture.

2- **Assessment 2 and 3:** Written monthly exams to assess student understanding of the taught topics and practical application in solving problems. Two monthly exams will be done (15 marks/exam); the exams will be done after every 4 lectures (5th lecture is exam)

Weighing of assessments (in each semester):

	<u>Exam</u>	<u>Marks/Exam</u>
Assessment 1	Class tests	5
Assessment 2	Written <u>monthly</u> (1)	15
Assessment 3	Written <u>monthly</u> (2)	15
Total Marks/ semester		35

15. Examination's question bank:

Q1/ By a diagram explain brooder temperature effects on chicks distribution (**Marks**)

Q2/ Mention the following:- (**Marks**)

1. Factors affecting poultry meat consumption.
2. Factors affecting on egg production
3. Classification of poultry according to type of production and give an example
4. Explain the exterior and interior of egg quality in egg grading?

Q3/ What is slaughterhouse? Arrange the following slaughtering processes sequentially:- **a)** live-bird supply and shackling; **b)** chilling; **c)** Whole bird selection by weight and quality; **d)** stunning, killing, bleeding, scalding and plucking; **e)** Whole bird, cuts and deboned product packing; **f)** evisceration and giblet handling; **g)** cut-up, deboning; **h)** freezing and/or chilled storage.

(**Marks**)

Q4/ A broiler flock their average live body weight was 3050 g. After slaughtering carcass weight was 2.2 Kg; breast weight was 910g; thigh weight was 840g; giblets weight was 170 g. **Calculate Dressing percentage without giblets.** (**Marks**)

16. General student learning outcome:

- a) Experience in team work and critical analyses in relation to poultry production.
- b) Handling and management of large number of chickens, turkey, water fowls; quails,..... etc .

Solving problems skills: the student will demonstrate knowledge of poultry production facilities and solving the practical problems that interface owners who raise poultry.

17. List of References:

1. Essential Books:

- A. Alternative Systems for Poultry Health, Welfare and Productivity. 2012.** Victoria Sandi lands and Paul M. Hocking. CAB International publication. ISBN 978-1-84593-824-6 (alk. paper).
- B. Improving the safety and quality of eggs and egg products. 2011. Volume 1: Egg chemistry, production and consumption.** Yves Nys, Maureen Bain and Filip Van Immerseel. Woodhead Publishing Series in Food Science, Technology and Nutrition: No. 213.
- C. Handbook of Poultry Science and Technology. 2010.** Volume 1. Isabel Guerrero-Legarreta. A John Wiley & Sons, Inc., Publication.
- D. Handbook of Poultry Science and Technology. 2010.** Volume 2. Isabel Guerrero-Legarreta. A John Wiley & Sons, Inc., Publication.

18. Lectures' Topics:	Lecturer's Name
<p>1st Lecture: Introduce course book, lessons' keywords and the importance of each lecture.</p>	<p>Shireen Dh. Mohammad (3 hrs) 14/9/2023</p>
<p>2nd Lecture: Poultry breeds classification</p> <ul style="list-style-type: none"> ➤ Definition; Poultry classification, classification of poultry according to origin, classification on the basis of production. ➤ Advantages of Poultry production. 	<p>Shireen Dh. Mohammad (3 hrs) 21/9/2023</p>
<p>3rd Lecture: Poultry Meat Production</p> <ul style="list-style-type: none"> ➤ Meat type poultry: Definition; purpose of rearing and the kind of birds that should be raised. ➤ Steps of preparing broiler poultry house for receiving chicks. 	<p>Shireen Dh. Mohammad (3 hrs) 28/9/2023</p>
<p>4th Lecture: How to calculate the essential requirements that should be provided in broiler chickens poultry house?</p> <ul style="list-style-type: none"> ➤ Air include: temperature; relative humidity; ventilation ➤ Space (area) ➤ Feed and water ➤ Lighting 	<p>Shireen Dh. Mohammad (3 hrs) 5/10/2023</p>
<p>5th Lecture: Broiler farm Production record's</p> <ul style="list-style-type: none"> ➤ Definition; importance; and types ➤ Information that should be recorded in the records involve: <ul style="list-style-type: none"> ✓ Dates of receiving; vaccination... ✓ Performance parameters as: <ul style="list-style-type: none"> - Body weight and Body weight gain - Feed consumption and feed conversion ratio - Percentages of mortality and <u>liveability</u> - Production efficiency (index) 	<p>Shireen Dh. Mohammad (3 hrs) 12/10/2023</p>
<p>6th Lecture: Marketing the live broilers</p> <ul style="list-style-type: none"> ➤ Primary Poultry processing, operations done during slaughtering process. ➤ Judging quality 	<p>Shireen Dh. Mohammad (3 hrs) 19/10/2023</p>
<p>7th Lecture: Poultry Egg Production</p> <ul style="list-style-type: none"> ➤ Egg production cycle: small chicks, growing and layers. ➤ Factors affecting egg production: Breed, mortality rate, age, body weight, laying house, lighting, feed, culling, temperature, management factor, and vaccination and diseases. 	<p>Gulstan Radha (3 hrs) 26/10/2023</p>

<p>➤ The good quality parameters of day old chicks. ➤ Some of layer chicken types.</p> <p>8th Lecture: Layers Farm Parameters</p> <p>a) Important information that should be taken into consideration before measuring these parameters. b) Productive traits: live body weight (kg), egg production (H.D%), egg weight (gr), egg mass, feed consumption, feed conversion ratio (FCR gr feed/ gr egg), mortality. c) Specific qualities of egg: 1. External egg qualities: egg shape index, undesirable eggs, egg shell strength, egg shell thickness, egg shell weight, egg shell percentage. 2. Internal egg qualities: Albumen and yolk height, yolk index, albumen and yolk weights, albumen and yolk percentage, albumen index, Haugh unit.</p> <p>9th Lecture: Egg structure and Compositions:</p> <p>1. Egg structure: Yolk, Albumen, Shell, Air cell, Germinal disk. 2. Egg composition: Moisture, protein, lipid, mineral. 3. Egg grading.</p> <p>10th Lecture: Quail production.</p> <p>11th Lecture: The problems that may encounter the farmers during rearing.</p> <p>12th Lecture: Visiting an integrated poultry project in Kurdistan Region (Erbil governorate) to display the lectures practically.</p> <p>13th Lect. Discussing the reports prepared by students about the recent poultry production in Kurdistan region particularly and throughout the world generally.</p>	<p>Gulstan Radha (3 hrs) 2/11/2023</p> <p>Gulstan Radha (3 hrs) 9/11/2023</p> <p>Gulstan Radha (3 hrs) 16/11/2023</p> <p>Shireen Dh. + Gulstan R. (3 hrs) 23/11/2023</p> <p>Shireen Dh. + Gulstan R. (3 hrs) 30/11/2023</p> <p>Shireen Dh. + Gulstan R. (3 hrs) 7/12/2023</p>
<p>19. Extra notes: Here the lecturer shall write any note or comment that is not covered in this template and he/she wishes to enrich the course book with his/her valuable remarks.</p>	
<p>20. Peer review پیداچوونہوہی ھاوہل This course book has to be reviewed and signed by a peer. The peer approves the contents of your course book by writing few sentences in this section. (A peer is person who has enough knowledge about the subject you are teaching, he/she has to be a professor, assistant professor, a lecturer or an expert in the field of your subject).</p>	

