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**Department of Animal Resources**

**College of Agriculture**

**University of Salahaddin–Erbil**

**Subject: (Principles of Animal Production) Practical**

**Course Book – First Class**

**Lecturers' Names: nawzad muhamad aziz (assist.prof.dr.)**

 **Kanyaw ismail mahmid (dr.)**

**Academic Year: 2023/2024**

**Course Book**

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| **1. Course name** | **Principles of Animal Production** |
| **2. Lecturer in charge** | **Assist,prof.Dr. Nawzad muhamad azizi Dr. Kanyaw ismail mahmud** |
| **3. Department/ College** | **Agriculture College/Animal Resources Department** |
| **4. Contact** | **e-mail: nawzad.aziz@su.edu.krd****kanyaw.mahmud@su.edu.krd****Tel: (07501122482)****(07503085441)** |
| **5. Time (in hours) per week**  |  **Theory:2 Practical: 2**  |
| **6. Office hours** | **Available all days during the week** |
| **7. Course code** |  |
| **8. Teacher's academic profile**  | **Ph.D. in Animal nutrition****BSc. In Animal Resources Department (2007)****MSc. In Animal breeding (2013)****Ph.D. Animal feeding and nutrigenomics** |
| **9. Keywords** | **Animal, poultry.** |
| **10. Course overview:** Develops general skills and knowledge of the principles of efficient production including,Part of the animal body, Iraqi cows, Keeping and using record,structure male and female system, the digestive system, Ruminants feeding, Animal barns, Milking |
| **11. Course objective:*** Students will be introduce to the basic principles in animal production.
* Students to be able to identify problems in livestock production in the tropics.
* Identify and describe breeds of cattle, sheep, and goats Demonstrate the ability to select breeding stock by using performance records, visual , and other tools used in selecting livestock..
* Demonstrate husbandry abilities such as castrating, dehorning, medicating, palpating, ear tattooing, and tagging..
* Demonstrate the ability to calculate performance data List the major diseases of livestock and explain the methods of disease control.
* Discuss the environmental impact of livestock production and ways of controlling all types of livestock pollution. Explain the importance of livestock to our economy.
* Demonstrate an understanding of the basic principles of genetics.
* Compare and contrast the two types of animal cell division. Define and diagram the six fundamental types of mating. Illustrate the effects of genetic changes through selection, Describe the hormonal system as it relates to reproduction. Explain the reproductive cycle

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| **12. Student's obligation**The students should be obligated attendance and completion of all tests, exams, quizzes, assignments, reports , essays…etc  |
| **13. Forms of teaching**1- PowerPoint.2- Whiteboard.3- Pictures. 4- video |
| **14. Assessment scheme*** **Examinations:-**
* 1st exam. After 4 lectures
* 2nd exam. After 10 lectures

**Mark Distribution** **Monthly Exam 40 %( Theoretical 15% + Practical 35%)**  **Final Exam 60% (Theoretical 50% ) = Final** **Mark 100%.**  |
| **15. Student learning outcome:*** Students to be able to know all body parts of animals.
* Students to be able to build barns for cattle and sheeps.
* Students to be able to managing the animal field in best hygienic .
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| **16. Course Reading List and References‌:**1: Paul M. Reaves and H.O. Henderson .Dairy Cattle Feeding and Management.2- R.Kirby Barrick and Hobart L.Harmon .Animal Production and Managment 3- N.S.R.Sastry C.K Thomas.Farm animal management 4- محيي المزيد .1986.فسيولوجيا التناسل والتلقيح الاصطناعي 5-Dwight Schwatz.L,D.V.M.1994 PoultryHealth Handbook  6--Gurdarshan Singh.H.Bhaskar 2003 An Introduction To Birds.  7-Singh.R.A. 1990 Poultry production.8- internet www.google .com /www.youtube.com/www.wikipedia. Org.  |
| **17. The Topics:** |

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| **Weekly Lectures schedule** |
|  | ***subjects*** | ***Weeks*** |  |
|  | **General information about livestock** | **1st week** | **1** |
|  | **Animal Farm and types of farm** | **2nd week** | **2** |
|  | **General information about sheep and goat** | **3rd week** | **3** |
|  | **Farm management (daily Practice)** | **4th week** | **4** |
|  | **Farm management (Seasonal Practice)** | **5th week** | **5** |
|  | **Cow and beef farm** | **6th week** | **6** |
|  | **Maintenance of animal health** | **7th week** | **7** |
|  | Reproductive system Male reproduction system (Testis ,Epididymis,Vas deferens, Accessories glands and penis)-Female reproductive system (Ovaries, Fallopian tube ,Uterus ,Cervix and Vagina) | **8th week** | 8 |
|  | Maintenance of animal health, Signs of ill health, Animal diseases, Kinds of illness, Prevention and control of contagious diseases | **9th week** | 9 |
|  | Knowing about types of poultries (domestic poultry) such as chicken, turkey, duck .etc-Methods of poultry classification | **10th week** | 10 |
|  | Bird homes . Locate selection . Hall design ,Hall build ,Types of halls | **11th week** | 11 |
|  | Equipment and tools used in poultry halls .Water cup. Types of water cup,Manager,Types of manager-Nests, Incubators, Ventilation | **12th week** | 12 |
|  | Cleaning and sterilization poultry halls,Methods of sterilization ,Sterilization process ,Specifications of materials used in the sterilizations. | **13th week** | 13 |
|  | Female reproductive system : this subject Show to student part of reproduce, System ,and ovulation . | **14th week** | 14 |
|  | Artificial sucking for cows and rearing calves to weaning. Importance of colostrums in feeding calves.Period of suckling. Types of artificial suckling. Conditions for artificial suckling. | **15th week** | 15 |

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| **18. Examinations:****Samples of Questions:-****Q1/ List the daily field operations only?****Answer:****1-Circulation of the animal 2-Handling animals3- Grazing and fodder and watering:4-milking****5-cleaning of the barns6-taking care of animals** **Q2/ Enumerate the seasonal field operation, then explain the correct time or seasons for doing them?****Scond: Seasonal field operation****1-immunization2-hooves trimming …… ect****Q3/ what are the field operation which take place once ayear or at the age of animal?** **1-Numbring 2-castration ………….ect.****Q/ Define the following :diping castration.Answer/1-Diping : parasites absorb the blood of animal causing weakness and deterioration of animal health and the lack of animal resistance to other diseases in addition to the case of inconvenience and itnchiness and low productivity1-Castration it Is mean the remove of the testes or defuse them with keeping them within the scrotum and this leads to the low level of male sex hormones in the blood.** **Q/ Answer with (True) or (False) for the followings:1-Rumen contrac 7 times / minute in normal condition.** **Q/ what are the advantage of shearingThe advantage of shearing are:1-get an annual yield 2-elimination of external parasites 3-activating animals****Q/ Q/Answers the following: (25 Marks)****A - Compare between egg hen and meat hen in the following characterizations:** **(Egg production, Body weight, Nervous, Age of sexual maturity, Growth, Leg).** **B-Explain the direction of the open halls in poultry houses in Iraq?** **Q/Answers the following : (25 Marks)****A/1- Write the main three functions for the chicken's beak?****2- Define A breed?****3- B-Write the main characteristics of New Hampshire chicken (American class)?** **B- Mention the condition of the Locate Selection for poultry house? Q/ Explain briefly the following:1-Nutrition additives.Answer/There are some materials to be added to the diets to increase the use of feed materials and increase the resistance of animals and these additions are:a. Antibiotics it is chemical matterals produced by micro organisms in a small quantites and it is function is to inhibit and destroy growth of other micro organisms.b. Hormones are matrials that stmulate the growth of animals or to in crease production.c. Organic elements (minerals) such as salt such as calcium, phosphorus …etcd. Vitamins : Are matrials that help to strengthen the growth structure of the bodies and added in very small amount. Q/ Fill the blanks with appropriate answer.**1. **------------- is the first part of the stomach in ruminants.**

**Answer Rumen it is the first part of the stomach of ruminants.2-………………….. is the machine used for shearing (Zo)3-………………….. is the machine used for castration.(burdizo)****Q/what are the important types ofnumbers for numbering process?****A- Metal numbersB-Plastic numbersC-Tatto methodD-Cut of earE-By ironing numbering** **Q/ explain the methods of milking?****1-Hand milking is performed by massaging and pulling down on the teats of the cow's udder, squirting the milk into a bucket.** **2- Most milking in the developed world is done using milking machines. The teat cups are attached to the cow's teats, then the cups alternate between vacuum and normal air pressure to extract the milk. The milk is filtered and cooled before being added to a large bulk tank of milk for storage.** |
| **19. Peer review پێداچوونه‌وه‌ی هاوه‌ڵ** 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).*  |