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**Department of Animal Resource**

**College of Agriculture**

**University of Salahaddin**

**Subject: Animal and Poultry Hygiene**

**Course Book –Year (9)**

**Lecturer's name:**

**M.Sc. Jinan Najdat Abdulrahman**

**M.Sc. Moufaq Jamal Dawood**

**Academic Year: 2022/2023**

**Course Book**

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| **1. Course name** | **Animal and Poultry Hygiene** | |
| **2. Lecturer in charge** | **M.Sc.Moufaq Jamal Dawood ,M.Sc. Jinan.N.Abdulrahman** | |
| **3. Department/ College** | **Animal Resource/Agriculture College** | |
| **4. Contact** | **e-mail:** [**dr.moufaqjamal@gmail.com**](mailto:dr.moufaqjamal@gmail.com)  **e-mail: jinan.abdulrahman@su.edu.krd** | |
| **5. Time (in hours) per week** | **Practical: 3hours , (3×2=6)hours** | |
| **6. Office hours** | **6 hours** | |
| **7. Course code** |  | |
| **8. Teacher's academic profile :** | Teaching Academics are skilled and passionate teachers and educators and will be the key drivers of the University's teaching and learning strategy. Teaching Academic positions are for academic staff that wish to pursue a career in which teaching is their primary focus, and are committed to leading innovation in their discipline, division and beyond.  Crossing the Horizon, and the Digital Learning Strategy, developing teaching and supervision practice, internal and external grants and awards, Assistance is available in a range of areas in the form of online resources, one-on-one and small group meetings, seminars, workshops and project-based work for matters such as curriculum development, assessment, group work, feedback, supervision of Higher Degree by Research students, technology-enhanced teaching and learning, embedding Graduate Qualities and more. the Academic Development team can offer assistance, including co-authorship, to locate and critically review relevant literature, as well as research design and data analysis. | |
| **9. Keywords** | Teaching Academic Standards of Performance, Minimum Qualifications for Academic Staff, Procedure to transition current academic staff to continuing Teaching Academic positions. | |
| **10. Course overview:**  Objectives and scopes of livestock and poultry hygiene and management. Common abnormal behaviors of Livestock and Poultry. Principles of handling of livestock and poultry. Dentition and ageing of livestock. Rearing and Management of Livestock and Poultry.  Sanitation: Cleaning and disinfections of poultry houses and equipment’s; disinfectants and their application; fumigation and its importance. Hygienic and economic importance of housing and selection of sites for animal and poultry farm. Safety of animal and poultry feed ingredients. Hygienic preparation of livestock and poultry houses before receiving the newly introduced livestock and poultry. | | |
| **11. Course objective:**  Students to be able to identify hygienic environments for rearing of livestock and poultry. Hygienic Management of hatchery, breeder, layer and broiler farms. Hygienic management concerned with breeding, feeding and transport of livestock and poultry. Bio-security and bio-safety of livestock, poultry and laboratory animals. Vaccine and vaccination schedule. Hygienic measures for the prevention and control of infectious and contagious diseases of livestock and poultry. Practical demonstration of ageing of livestock. Livestock and poultry carcass inspection, post-mortem techniques and examination. | | |
| **12. Student's obligation:**  Refers during an academic evaluation to materials or sources, or employs devices, not authorized by the faculty member, Provides assistance during an academic evaluation to another person in a manner not authorized by the faculty member, Receives assistance during an academic evaluation from another person in a manner not authorized by the faculty member, Engages in unauthorized possession, buying, selling, obtaining, or use of any materials intended to be used as an instrument of academic evaluation in advance of its administration, Acts as a substitute for another person in any academic evaluation process, Utilizes a substitute in any academic evaluation proceeding, Practices any form of deceit in an academic evaluation proceeding, Depends on the aid of others in a manner expressly prohibited by the faculty member, in the research, preparation, creation, writing, performing, or publication of work to be submitted for academic credit or evaluation, Provides aid to another person, knowing such aid is expressly prohibited by the instructor, in the research, preparation, creation, writing, performing, or publication of work to be submitted for academic credit or evaluation, Presents as one's own, for academic evaluation, the ideas, representations, or words of another person or persons without customary and proper acknowledgment of sources, Submits the work of another person in a manner which represents the work to be one's own, Knowingly permits one's work to be submitted by another person without the faculty member's authorization, Attempts to influence or change one's academic evaluation or record for reasons other than achievement or merit, Indulges, during a class (or examination) session in which one is a student. | | |
| **13. Forms of teaching:**  The lecture, independent work, power point, data show, seminar, The laboratory training, practical training, Field study, a course paper/project, Verbal or oral method, smart book, note book, Written method. | | |
| **14. Assessment scheme:**  Identification of sources of information, collecting the information (sampling and verifying), evidence (records, interviews), evaluate the evidence against criteria, review findings and conclusions, and report of the findings.  ‌ | | |
| **15. Student learning outcome:**  Along with increased competition for the best students and the most lucrative grants, institutions of higher education are also facing increased scrutiny to improve student learning and demonstrate program effectiveness. ETS's ongoing research offers administrators and school leaders a detailed look at how assessments have progressed over the years, and how an evidence-based assessment system for student learning can benefit today's. | | |
| **16. Course Reading List and References‌:**   1. Livestock Husbandry Techniques, by McNitt, J.I. (1993). Granada Publishing Ltd. London. 2. A text Book of Animal Husbandry, by banerjee, G.C. (1999). Eight Edition, Oxford and IBH publishing Co. New Delhi 11001. India. 3. An Introduction to Animal Husbandry in the Tropics, by Williamsong, G. and Payne, W.J.A. (1978). Third Edition, Longman Group Ltd., England. 4. Fundamentals of Animal Hygiene and Epidemiology, by Thapliyal, D.C. (1996). First Edition, international Book Distributing Co. 5. Haq, A. and T. Ahmad. 2001. Poultry hygiene and Disease Prevention Pak Book Empire, Lahore, Pakistan. 6. Herenda, D. C. and Franco, D.A. 1996. Poultry disease and Meat Hygiene, A Color Atlas. Iowa State University Press, Ames, Iowa, USA. 7. Jordan, F.T.W. (Editor) 1996. Poultry Diseases. English Language Book Society, London.  HACCP in Meat, Poultry and Fish Processing (First Edition-2017) Hardcover – 1 January 2017 by [Rajat Sinha](https://www.amazon.in/s/ref=dp_byline_sr_book_1?ie=UTF8&field-author=Rajat+Sinha&search-alias=stripbooks) (Autho | | |
| **17. The Topics :** | | **Lecturer's name** |

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| **18. Practical Topics (If there is any):** | | | |
| ***Topics*** | | **Lecturer's name** | ***Weeks* (3-6 hrs)** |  |
| **LEARING PRINCEPLE OF Maintaining hygiene practices reduces the spread of illness and risk of medical conditions AND meaning of HACCP management system in which food safety is addressed through the analysis and control of biological, chemical, and physical hazards from raw material production, procurement and handling, to manufacturing, distribution** | | **What we mean about hygiene AND What are HACCP system** | **1st week,26/9/2022** | 1 |
| **important needs of eggs to grow in to chick, hatchery sanitizing, eggs storage and pre incubation fumigation** | | **Hyeigen of incubation and hatcheries** | **2nd week,3/10/2022** | 2 |
| **Receiving eggs in a special storage at correct temperature and humidity, how disinfect the hatcheries to prevent hatchery borne diseases.** | | **How disinfect hatcheries and fumigate eggs in the hatcheries** | **3rd week10/10/2022** | 3 |
| **So that student look directly and practically at the requirements of the incubation and hatching process for different types of poultry and bird eggs** | | **Visit to Jmoka hatchery** | **4th week,17/10/2022** | 4 |
| **Importance of cleaning process, , how we disinfect poultry house and Important of bio security.** | | **Hygiene of poultry house** | **5th week24/10/2022** | 5 |
| **Wearing cloves and overall and plastic shoes, beginning to clean the equipment’s and then disinfect them, cleaning the floor , walls, selling , out door and around the house** | | **How begin clean poultry house in the farm** | **6th week31/10/2022** | 6 |
| **Meaning of vaccination, why all vaccines in poultry against viral diseases, types & methods of vaccines** | | **Vaccine and methods of vaccination** | **7th week7/11/2022** | 7 |
| **Water quality and its safety, different types of sanitizers can be used safely.** | | **Water quality and sanitizers used in poultry farms** | **8th week14/11/2022** | 8 |
| **To identify the most important cases of mastitis and methods of the treatment and prevention.** | | **Mastitis, clinical signs, control and treatment.** | **9th week21/11/2022** | 9 |
| **Practical controlling, restraining and handling of ruminants** | | **Principles of handling** **& Restraining livestock** | **10th week28/11/2022** | 10 |
| **Definition of abattoir, components, function of parts and operation performed on there.** | | **Food animal slaughter places; slaughter slabs & abattoirs – siting, layout, construction, operations & management** | **11th week5/12/2022** | 11 |
| **Treatment and control of external parasites in farm animals** | | **Practically Control and prevention of internal parasitism in Sheep and Goats** | **12th week12/12/2022** | 12 |
| **Treatment and control of internal parasites in farm animals.** | | **Practically Control and prevention of external parasites on Sheep and Goats** | **13th week19/12/2022** | 13 |
| **Process of milk collection, transport and milk adulterant methods.** | | **Clean milk production at farm level, milk transportation, adulterants and residues of public health importance (drugs, pesticides, mycotoxins)** | **14th week26/1/2022** | 14 |
| **Determining undesirable animals in the field.** | | **Determining\_Age\_Animals\_** | **15th week2/1/2023** | 15 |

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| **19. Examinations:**    1st exam. After 4 lectures    2nd exam. After 10 lectures  Each exam (**15**) marks , **5** marks for activity like :quiz and reports .total will be **35** marks    Example of questions:-  Answer the following questions:  1- Mention of signs of internal parasite in sheep and goat.  2- Discuss the treatment and control of external parasites.  3- We have two main types of vaccines numerate them and write the advantages of each one.  4- Incubation process need 4 important points what are these?  5- Why cleaning is important before sanitizing poultry house?  6- How you prepare (25 ppm) Level iodine to sanitize water of poultry house.  7- what are following pictures mean ?  **Answers:**  1-Signs of internal parasite in sheep and goat  1. Weight loss—Animals don’t get all the nutrients they need.  2. Diarrhea—Diarrhea can be caused by round worms, coccidian or liver flukes.  3. Rough hair coat—when nutrients are insufficient, the animals’ hair loses its luster.  4. Depression—Animals keep their head and ears down and are not willing to stand for long periods.  5. Weakness—Animals are easier to catch or unstable when walking.  6. Anemia—Animals’ gums, perineum, and eyes appear white due to blood loss.  7. Fever or, in the late stages of disease, cold extremities (e.g., ears and legs).  8. Fast breathing (lung worms)—Animals try to get oxygen into their damaged lungs.  9. ------------------.  2. Treatment and control of external parasites  1- Dipping is very effective; currently, mobile dipping vats for sheep and goats are available.  2- Due to the biological cycle of the ectoparasites, a single treatment may not be efficient.  3- All animals introduced to a farm must be treated immediately upon arrival.  4- If external parasites are seen on an animal, it should be treated immediately.  5- Once the animals are treated the buildings/ paddocks, barns must be thoroughly cleaned.  6- External parasites can develop resistance to acaricides and this is encouraged by frequent dipping.  7- Regular removal of moist bedding, hay and manure along.  4- incubation process need three important points numerate them .  these are : temperature , humidity , ventilation and orientation or position.  5- why cleaning important before sanitizing?  because :  a-reduce total number of pathogenic organisms.  b-remove material that give refuge to pathogen .  c-expose all surface to air , light, disinfect and fumigant.  Fumigation of out of hall vaccination by sub cut remove of old litter out  C:\Users\NoorErbil\Pictures\selected pictures\fomigation  of out side of poultry house.jpg C:\Users\NoorErbil\Pictures\selected pictures\sub cut vaccintion.jpg C:\Users\NoorErbil\Pictures\selected pictures\remove of old litter in to remote part of the farm.jpg |
| **20. Extra notes:**  Over the last few years, increased importance has been placed on rules for animal welfare, due to the convergence of several factors, Regulations: World organisation for animal health, Increased production, Intensive animal farming with more productive, but less rural animals. The condition of litter is a determining factor in animal health. It is essential to maintain high levels of hygiene in these areas, and to prevent pathogenic germs from entering by any means of contact. This prevents: infection via the umbilical cord, neo-natal, septicaemia, meningitis, arthritis, vaginitis, mastitis, dermatitis, lameness, atmospheres, laden with ammonia and moisture,specially many diseases consider zoonotic can transmet to human being like :AIV,Corona, Anthrax and haemorrhagic fever. |
| **21. Peer review پێداچوونه‌وه‌ی هاوه‌ڵ** |