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**Department of Animal Resource**

**College of Agriculture**

**University of Salahaddin**

**Subject: Animal reproductive physiology**

**Course Book – (Third stage)**

**Lecturer's name:Dr. Edres A. Hamadamen**

**Academic Year: 2022/2023**

**\*Course Book**

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| **1. Course name** | **Spring semester** | |
| **2. Lecturer in charge** | **Edres Abdulla Hamadamen** | |
| **3. Department/ College** | **Animal Resource Department / Agriculture College** | |
| **4. Contact** | **e-mail: saman\_98@yahoo.com**  **Tel: (optional) 07504627152** | |
| **5. Time (in hours) per week** | **For example**  **Practical: 3** | |
| **6. Office hours** | **4 day a week** | |
| **7. Course code** | **--** | |
| **8. Teacher's academic profile** | **e.g Webpage, Blog, Moodle…**  **or few paragraphs about not less than 100 words** | |
| **9. Keywords** |  | |
| **10. Course overview:**  Reproductive physiology and artificial insemination for knowing and learning about the reproductive physiology in farm animals (cattle, sheep, and goat)  In generally the course divided in two main subjects:-  1) Male and female reproductive system  2) Artificial insemination  In addition of that to know the ways to increase the economic income by using a scientific plans for artificial insemination | | |
| **11. Course objective:**  The students will be :-  1) Learn about male reproductive organs and study the functional anatomy since the relationship between the functional anatomy and artificial insemination  2) Knowing the problem of the infertility in male (male is the half of the flock) so its very important to the reproductive efficiency  3) Learn about the other side of reproductive system(female reproductive organs in farm animals)  4) Knowing the factors that cause low fertility in female  5) Take an idea about synchronization of estrous which it’s a new direction for reproduction regulation in farm animals  6) Teaching another subject for increasing the reproductive efficiency by super ovulation  7) Doing the laboratory tests on semen and these tests are very important in evaluating the quality of semen  8) Take an idea about the kinds of dilution for semen ,to obtain a high amount of straw which used in artificial insemination | | |
| **12. Student's obligation**  In this section the lecturer shall write the role of students and their obligations throughout the academic year, for example the attendance and completion of all tests, exams, assignments, reports , essays…etc  The role of students in the class should attend to the class weekly and I will put some points on it, every week I will do quiz for them and students participate in the class is very important. | | |
| **13. Forms of teaching**  لێره‌ مامۆستا ڕێگه‌ی وانه‌‌ ووتنه‌وه‌ ده‌نووسێت، بۆ نموونه‌:‌ داتاشۆ و پاوه‌رپۆینت، ‌سه‌ر ته‌خته‌ڕه‌ش، ته‌خته‌ی سپی، سمارتبۆرد یان‌ مه‌لزه‌مه‌... هتد  I use the projector to display my objectives by power point, sometimes we need to write some information on white board to clarify it. I will give all my objectives on the word paper to my students. | | |
| **14. Assessment scheme**  Breakdown of overall assessment and examination  لێره‌ مامۆستا جۆری هه‌ڵسه‌نگاندن (تاقیکردنه‌وه‌کان یان ئه‌زموونه‌کان) ده‌نووسێت بۆ نموونه‌ تاقیکردنه‌وه‌ی مانگانه‌، کویزه‌کان، بیرکردنه‌وه‌ی ڕه‌خنه‌گرانه (پریزه‌نته‌یشن)، ڕاپۆرت نووسین، ووتار نووسین‌ یان ئاماده‌نه‌بوونی خوێندکار له‌ پۆلدا...هتد. ئامانه‌ چه‌ند نمره‌ی له‌سه‌رده‌بێت و مامۆستا چۆن نمره‌کان دابه‌شده‌کات؟  First Exam after five lectures  Second Exam after ten lectures.  Mark Distribution:  Monthly Exam (Practical 15%)  Final Exam (Practical 20%)  Final Mark 35% | | |
| **15. Student learning outcome:**  پڕکردنه‌وه‌ی ئه‌م خانه‌یه‌ زۆر گرنگه‌، مامۆستا ده‌رئه‌نجامه‌کانی فێربوون ده‌نووسێت. بۆ نموونه‌: ڕوونی ئامانجه‌ سه‌ره‌کیه‌کانی کۆرسه‌که‌ (بابه‌ته‌که‌) بۆ خوێندکار‌  گونجاندنی ناوه‌ڕۆکی کۆرسه‌که‌ به‌ پێویستی ده‌ره‌وه‌ و بازاڕی کار  قوتابی چی نوێ فێرده‌بێت له‌ ڕێگه‌ی پێدانی ئه‌م کۆرسه‌وه‌؟    This should not be less than 100 words  After finish these courses the students will be described different types reproductive system with their different characteristics, which make them suitable for different purposes. The students will be introduced to the basic principles of reproductive physiology and Artificial insemination. Identify and describe breeds of cow and sheep, Demonstrate the ability to select breeding stock by using performance records, visual, and other tools used in selecting livestock. Give a basic outline of principles of Anatomy, breeding, reproduction and management,. Explain the reproductive physiology. Describe anatomy of birds, physiology. Principles of Artificial insemination. Inform student about control of diseases. | | |
| **16. Course Reading List and References‌:**  Main references:  1-Reproduction in farm animals . E.S.E.HAFEZ .2000  2-Anatomy and physiology of farm animals. R.D.Frandson  3-Anatomy and physiology. Rod r.steely and trent d.stephens.1998  4-Applied animal reproduction. H.Joe.Bearden,John.w.Fuquay and scott.T.Willard.2004  5-The artificial insemination of farm animals .Enos.J.perry  Secondary references:  1-Physiology of domestic animals .William O.Reece. 1997  2-Dairy cattle feeding and management.Paule M.Reares.  3-Animal physiology from genes to organisms  internet:  1-Agricultural , http:/images.google.com  2-Agricultural research service , www.ars.gov  3-Agricultural network information center, http:/www.central.ognicorg | | |
| **17. The Topics:** | | **Lecturer's name** |
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| **18. Practical Topics (If there is any)** | |  |
| In this section The lecturer shall write titles of all practical topics he/she is going to give during the term. This also includes a brief description of the objectives of each topic, date and time of the lecture  Each term should include not less than 15 weeks  The titles of the objects will be the following:  Introduction  Male reproductive organs  Female reproductive system  Infertility of the male  Factors affecting reproductive efficiency in female  Endocrine disturbances and the relationship between estrus cycle and these disturbances  Estrus synchronization  Visit to cattle field  Methods of semen collection and study the compounds of semen  Testing the semen  Dilution and freezing of semen  Artificial insemination  Storage of semen  Super ovulation  Visit to sheep and goat field  Visit to A.I. center | | Lecturer's name  Edres Abdulla Hamadamen |
| **19. Examinations:**  Q1: list the parts of male reproductive system and explain the function of accessory glands?  Q2/A: Explain the functions of uterus?  Q2/B: What are the factors that cause infertility in female?  Q3: What meant by (synchronization of estrus ) ,and explain the methods of synchronization ?  Q4: fill in the blanks with the correct answer:  1\_ Microscopic tests for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  2\_carbohydrate compounds found in semen are: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Q5: If the volume of single semen ejaculate was (10 ml), concentration of sperms (800) million sperm, rate of individual movement (90%), rate of normal sperms (95%), Calculate the following :  1\_ the volume of diluted semen?  2\_amount of egg yolk and sodium citrate?  3\_ amount of added antibiotics? | | |
| **20. 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. | | |
| **21. 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).*  ئه‌م کۆرسبووکه‌ ده‌بێت له‌لایه‌ن هاوه‌ڵێکی ئه‌کادیمیه‌وه‌ سه‌یر بکرێت و ناوه‌ڕۆکی بابه‌ته‌کانی کۆرسه‌که‌ په‌سه‌ند بکات و جه‌ند ووشه‌یه‌ک بنووسێت له‌سه‌ر شیاوی ناوه‌ڕۆکی کۆرسه‌که و واژووی له‌سه‌ر بکات.  هاوه‌ڵ ئه‌و که‌سه‌یه‌ که‌ زانیاری هه‌بێت له‌سه‌ر کۆرسه‌که‌ و ده‌بیت پله‌ی زانستی له‌ مامۆستا که‌متر نه‌بێت.‌‌ | | |