1.Course Name:

Principle of Animal Production

2.Course Code:

PRAP114

3.Semester / Year:

first season, 2024-2025.

4. Description Preparation Date:

01/02/2025

5. Available Attendance Forms:

learning in presence (theoretical and practical)

6. Number of Credit Hours

(Total of Units: 75 hours (2 hours theoretical and 3 hours practical).

7. Course administrator's name (mention all, if more than one name)

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8. Course Objectives

Course Objectives

- 1. Introducing the student to the classification of animals in the animal kingdom.
- 2. Introducing the student for phenotypic specifications and productive performance of international and local livestock breeds.
- 3. Introducing the student to productive performance, breeding and fattening sheep, and genetic improvement of local sheep.
- 4. Introducing the student to nutrition and preparing fattening diets for sheep.
- 5. Introducing the student to the field operations that take place daily and weekly for cattle and sheep in the animal field.
- 6. Introducing the student to the nature and types of animal breeding housing.
- 7.Introducing the student to the most important common diseases that affect livestock and sheep, their pathogens and methods of prevention.
- 8. Involving students in practical application of laboratory experiments in groups.

9. Teaching and Learning Strategies

Strategy

theoretical:

Interactive lecture strategy
Discussion strategy
Problem solving strategy by commissioning reports
Brainstorming strategy.

Practical:

Assignment to team work
Assigning tasks and reports for each experiment

10.Course Structure

| Week | Hours | Required Learning | Unit or subject name | Learning | Evaluation |
|-----------------|------------------------------|---|--|--|---|
| | | Outcomes | | method | method |
|] st | Theoretical 2 Practical 3 | Theoretical: a1 The student learns about the economic importance of livestock and its relationship to economic integration. The economic importance of livestock and its relationship to economic integration. Practical: b5 Acquires practical and scientific skills in conducting field operations on farm animals. | Theoretical: The economic importance of livestock and its relationship to economic integration. Factors that led to a decline in level of animal production in develop countries and Iraq. Practical: Field operations that take place on a daily basis, some of which are monthly seasonal in animals farm. Neutering, numbering, spraying and dipping, shearing wool, amputating the tail, clipping the beak. Layering. | Theoretical: Using of whiteboard, audio-visual means, Discussions. Practical: audio aids visual, powerpoint, Bulletins discussions. | Theoretical: Quizzes, Reports, discussions Exams. Practical: Quizzes, reports, posters, discussions, Exams. |
| 2 nd | Theoretical 2 | Theoretical: a2 | Theoretical: | Theoretical: | Theoretical: |
| | Practical 3 | The student acquires the skill in classifying the animal kingdom. Practical: b6 The student prepares cows for milking operations, practices daily milking operations, and manual and mechanical milking methods. | Animal kingdom, classification: Bovine family: cattle genus, Genus Bos, sheep genus, Genus Ovis. Goat genus, Genus Capra. General formal specifications for beef cattle, specifications of carcasses for beef cattle. Practical: Milking, milking methods, and preparing cows for the milking process | use whiteboard, Audio aids and visual, discussions. Practical: audio aids visual, powerpo Bulletins discussions | Quizzes, Reports, discussions Exams. Practical: Quizzes, reports, posters, discussions, Exams |
| 3 rd | Theoretical 2 Practical 3 | Theoretical: a3 The student can learn about the productive and phenotypic characteristics of internationally known livestock. Practical: a10 The student acquires the skill and managemen experience in practicing the suckling process using both natural and artificial methods. | Practical: The suckling, its definition, methods of suckling, small calves suckling, | Audio aids and visual, discussions. Practical: audio aids visual, powerpo Bulletins discussions. | Theoretical: Quizzes, Reports, discussions Exams. Practical: Quizzes, reports, posters, discussions, Exams |

| 4 th | Theoretical 2 | Theoretical: a4 | Theoretical: | Theoretical: | Theoretical: |
|-----------------|---------------|---|---|-------------------------------|---|
| | Practical 3 | The student learns about | Iraqi cows: their | use whiteboard, | Quizzes, |
| | | the phenotypic | appearance and | Audio aids | Reports, |
| | | characteristics and | production specifications | and visual, | discussions |
| | | productive performance | and their breeding areas in | discussions. | Exams. Practical: |
| | | of Iraqi cows. | Iraq. Breeding of calves, | | Quizzes, |
| | | Practical: a11 | milk fever causes and | Practical: | reports, |
| | | The student gains | treatment. | audio aids | posters, |
| | | scientific experience in | Practical: | visual, powerpo | discussions, |
| | | designing and constructing livestock | Animal housing, its | Bulletins discussions | Exams. |
| | | housing and providing | types, specifications, and technical and | uiscussions | |
| | | them with administrative | engineering conditions | | |
| | | services and artistic. | in constructing animal | | |
| | | | housing | | |
| 5 th | Theoretical 2 | Theoretical: b1 | Theoretical: | Theoretical: | Theoretical: |
| | Practical 3 | The student learns about | Buffalo, a historical overview | use whiteboard, | Quizzes, |
| | | the phenotypic and | the origin and origin of the | Audio aids | Reports, |
| | | genetic characteristics and productive | buffalo and the general and physiological characteristics | and visual, | discussions Exams. |
| | | performance of buffalo | of the buffalo. Reproduction | discussions. | Practical: |
| | | animals and their daily | buffalo. Breeds of buffalo in | D | Quizzes, |
| | | milk production? | the world. Production of milk | Practical: | reports, |
| | | Practical: a12 | and meat in buffalo. | audio aids visual, powerpo | posters, |
| | | The student learns about farm records, | Practical: Definition of farm records | Bulletins | discussions, |
| | | their importance and | their types, importance, | discussions. | Exams |
| | | types in the animal field | and benefits. | | |
| | | • | | | |
| 6 th | Theoretical 2 | Theoretical: b2 | Theoretical: | Theoretical: | Theoretical: |
| | Practical 3 | The student learns about the classification and | Classification of the location of sheep in the | use whiteboard, | Quizzes, Reports, |
| | | location of sheep in the | animal kingdom, methods | Audio aids | discussions |
| | | animal kingdom, | of classifying sheep, breeds | and visual, discussions. | Exams. |
| | | methods of classifying | of sheep, meat sheep, sheep | discussions. | Practical: |
| | | sheep, sheep breeds, | milk, sheep wool. | Practical: | Quizzes, |
| | | meat sheep, milk sheep, and wool sheep. | Practical: Coarse and concentrated | audio aids | reports, posters, |
| | | Practical: a13 | feed materials and | visual, powerpo | discussions, |
| | | The student classifies | the differences between | Bulletins | Exams. |
| | | the quality of feed | them. | discussions | |
| | | according to its raw | | | |
| | | fiber content. Introducing students to | | | |
| | | coarse and concentrated | | | |
| | | feed materials and the | | | |
| | | differences between them. | | | |
| 7 th | Theoretical 2 | theoretical a5 | Theoretical: | Theoretical: | Theoretical: |
| | Practical 3 | The student learns about | Iraqi sheep: Awassi sheep, | use whiteboard, | Quizzes, |
| | | the types of Iraqi sheep and their appearance and | Kurdish sheep, Arab sheep, a Hamdaniya sheep. | Audio aids | Reports, discussions |
| | | production characteristics, a | Naemi sheep, Najdi sheep. | and visual, | Exams. |
| | | clarification . Advantages | Appearance and production | discussions. | Practical: |
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| | | raising | specifications. | Practical: | Quizzes, |
|------------------|---------------|---|---|--|--|
| | | sheep. | Practical: | audio aids | reports, |
| | | Practical: a14 | Pastoralism, definition of | visual, powerpo | posters, |
| | | The student monitors | pasture, pasture and grazing | Bulletins | discussions, |
| | | and determines the | systems, | discussions. | Exams |
| | | quality of pastures | Types of pastures: | | |
| | | and grazing systems | natural pastures, | | |
| ath | | | artificial pastures. | Theresticale | Theoretical: |
| 8 th | Theoretical 2 | Theoretical: a6 | Theoretical: | Theoretical: | Quizzes, |
| | Practical 3 | The student can gain | Goats, goat breeds in hot | use whiteboard, | Reports, |
| | | knowledge about the | and semi-hot areas, | Audio aids | discussions |
| | | characteristics and | European goat breeds, | and visual, | Exams. |
| | | advantages of goat | Iraqi goat breeds, | discussions. | Practical: |
| | | breeding and the | Local goats, maraz, | | Quizzes, |
| | | geographical distribution | mountain goats | Practical: | reports, |
| | | goats in the world. | Practical: | audio aids | posters, |
| | | Practical: b7 | Preparing and preparing | visual, powerpo | discussions, |
| | | The breeder can | rations according to | Bulletins | Exams. |
| | | prepare the necessary | nutritional decisions: the | discussions | |
| | | diets for the animals | maintenance ration and | | |
| | | to meet their needs for | production ration. | | |
| | | nutrient compounds. | <u>*</u> | | |
| 9 th | Theoretical 2 | Theoretical: a6 | Theoretical: | Theoretical: | Theoretical: |
| | Practical 3 | The student can gain | Goats, goat breeds in hot | use whiteboard, | Quizzes, |
| | | knowledge about the | and semi-hot areas, | Audio aids | Reports, |
| | | characteristics and | European goat breeds, | and visual, | discussions |
| | | advantages of goat breed | Iraqi goat breeds, | discussions. | Exams. |
| | | and the geographical | Local goats, maraz, mount | | Practical: |
| | | distribution of goats in th | • | Practical: | Quizzes, |
| | | world. | Practical: | audio aids | reports, |
| | | Practical: a15 | Preparing and preparing | visual, powerpo | posters, discussions, |
| | | The breeder can prepare | rations according | Bulletins | Exams |
| | | necessary diets for | to nutritional decisions: | discussions. | Exams |
| | | animals to meet their ne | | discussions. | |
| | | | and the production ration | | |
| | | Tor nutritional compound | and the production ration | | |
| 10 th | Theoretical 2 | Theoretical: b3 | Theoretical: | Theoretical: | Theoretical: |
| 10 | Practical 3 | The student can learn | Horses and camels, | use whiteboard. | Quizzes, |
| | riactical 3 | about the productive, | introduction, location of | Audio aids | Reports, |
| | | | horses and camels in the | and visual, | discussions |
| | | phenotypic, and genetic characteristics of horses | animal kingdom, breeds | discussions. | Exams. |
| | | and camels and determine | | discussions. | Practical: |
| | | | N 100 20 20 20 20 20 20 20 20 20 20 20 20 2 | Practical: | Quizzes, |
| | | the location of horses and | | audio aids | reports, |
| | | camels in the animal | of the digestive system, | | posters, |
| | | kingdom. | reproduction in camels | visual, powerpo Bulletins | |
| | | n | and horses. | La constant and the con | Exams. |
| | | Practical: b8 | D4!1 | discussions | TO TO THE |
| | | The student can | Practical: | | و جامعة المر |
| | | gain experience in | Male reproductive system | الغاباتغ | وكلية الزراعة و |
| | | knowing the parts | female reproductive | | |
| | | function of the male | system in livestock and | | |
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| | | female reproductive system and method of reproduction and reproduction in livestock and poultry. | poultry.A scientific visit to the Artificial Insemination Center/Ministry of Agriculture. | | |
|------------------|------------------------------|---|---|--|---|
| 11 th | Theoretical 2 Practical 3 | Theoretical: b4 The student gains scientific experience in preparing and balancing diets in terms of nutritional components for farm animals. Practical: c3 The student gains theoretical and practical scientific experience about artificial insemination, importance,advantages and disadvantages. | Theoretical: Nutrition and feed: concentrated feed and coarse feed. Preparing, preparing and balancing diets for animals, the basic rules in formulating the diet. Practical: Artificial insemination: its definition, semen collection, types of semen diluents, semen preservation. | Theoretical: use whiteboard, Audio aids and visual, discussions. Practical: audio aids visual, powerpo Bulletins discussions. | Theoretical: Quizzes, Reports, discussions Exams. Practical: Quizzes, reports, posters, discussions, Exams |
| 12 th | Theoretical 2 Practical 3 | Theoretical: c1 The student gains experience in determining the needs of animals for nutritional compounds, qualifying him in management Raising a productive herd on the farm. Practical: b9 The student gains scientific experience in classifying poultry determining its location if the animal kingdom and its economic importance. | Theoretical: Food compounds, their definition, their most important importance, needs for growth, fattening, and production of food compounds. Practical: Poultry: Definition of poultry, determining location of poultry in the animal kingdom, classification of poultry (biological classification, classification by origin, economic classification). | Theoretical: use whiteboard, Audio aids and visual, discussions. Practical: audio aids visual, powerpo Bulletins discussions. | Theoretical: Quizzes, Reports, discussions Exams. Practical: Quizzes, reports, posters, discussions, Exams. |
| 13 th | Theoretical 2 Practical 3 | Theoretical: a8 Introducing the student to the internal component of the egg and the factors that help in the occurrence of diastasis in laying hens. Practical: a16 The student can identify | Theoretical: Poultry, the origin of | Theoretical: use whiteboard, Audio aids and visual, discussions. Practical: audio aids visual, powerpo Bulletins | Theoretical: Quizzes, Reports, discussions Exams. Practical: Quizzes, reports, posters, discussions, Exams. |

| The s | tudent can identify | causes, treatment | | |
|--------|----------------------|-------------------|--|--|
| and d | iagnose pathologica | | | |
| infect | ions, whether their | | | |
| cause | s are bacterial or | | | |
| viral | for infected animals | | | |
| Provi | ding treatment for | | | |
| infect | ed animals. | | | |
| | | | | |
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11. Course Evaluation:

| No. | Evaluation methods | Evaluation date (week) | marks | Relative weight (%) |
|-----|--|---|------------------------------------|---------------------|
| 1 | The first short test Quiz (1). Theoritical: Practical | Week 4: Theoritical: Short test Quiz (1). Week 4: Practical: Short test Quiz (1). | Theoretical: 2.5 Practical: 2.5 | 5% |
| 2 | Monthly exam (1). | Week 9: Theoretical test (1). Week 9: Practical test (1). | Theoretical: 10 Practical: 5 | 15% |
| 3 | Second short test Quiz.(2). | Week 11: Theoritical:Short test Quiz (2). Week 11: Practical:Short test Quiz (2) | Theoretical: 2.5 Practical: 2.5 | 5% |
| 4 | Monthly exam (2). | onthly exam (2). Week 13: Theoritical test (2). Week 13: Practical test (2). | | 15% |
| 5 | Quest rate. | Seasonal rates are announced at the end of the semester. | Theoretical: 25 Practical: 15 | 40% |
| 6 | Final practical test. | Practical exams week. | 20 | 20% |
| 7 | Final theoretical test. The week of theoretical exams. | | 40 | 40% |
| 8 | Total | The final score of the theoretical and practical of final exam at the end of academic year. | 100 | 100% |

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports etc.

12.Learning and Teaching Resources .

| Required textbooks | Principles of Animal Production | | |
|----------------------------|--|--|--|
| (curricular books, if any) | (Authors by Prof.Dr.Najib Tawfiq Ghazal, | | |
| | Prof.Dr.Nahil Mohammad Ali Suleiman | | |
| | and Prof.Dr.Radi Khattab Abdullah,2000. | | |
| | Dar Al–Kutub for Printing and Publishing, University of Mosul/Iraq. | | |
| Main references (sources) | 1.Animal Nutrition translated into Arabic Language by (Dr. Ahmed Al Haj Taha and Dr. Mohamed Ramzi Taqa) | | |
| | for the year 1985. Dar Al-Kutub for Printing and Publishing, Univer | | |
| | of Mosul/Iraq. فكلية الزراعة والغابات | | |
| | 2.Principles of Animal Production (Auhor by Prof. Dr. Mohammad Ali Makki Al-Rubaie), for the year 2020. | | |

| | Al Noor Library. 3 Dairy cattle .(Prof. Dr. Ahmed Al-Haj Taha, Dr. Akram Thanoun Younis, and Dr. Mahmoud Rashid Al-Rashed) for the year 1989. Dar Al-Kutub for Printing and Publishing, Universit of Mosul/Iraq. |
|---------------------------------|---|
| Recommended books and | 1.Egyptian Journal of Animal Production:ISSN=0302-4520, and the impact factor of the journal is (1.84)/,Association of Arab Universities |
| references | Cairo-Egypt. |
| (scientific journals, reports) | https://www.arabimpactfactor.com/pages/tafaseljournal.php?id=846 6&date=2022 |
| | 4.Journal of Animal Sciences and Livestock Production. ISSN:2577-0594,CiteScore:0.79. |
| | https://www.primescholars.com/animal-sciences-and-livestock-production.html |
| | 3.Journal of Animal, Poultry & Fish Production |
| | (JAPFP), Publisher: Scientific Society of Agricultural Sciences, Ismaila , Egy https://japfp.journals.ekb.eg/ |
| Electronic References, Websites | 1.Animal production in hot regions (a series of lectures on animproduction materials). https://lejan6olabia.site123.me/ |
| | 2. Animal and poultry production/Faculty of Agriculture and Natural |
| | Resources/Aswan University/Egypt. |
| | https://agr.aswu.edu.eg/sections/animal-and-poultry-production/ |
| | 3. Department of Animal Production/College of Agricultural Engineeri |
| | Sciences/University of Baghdad. Teaching lectures |
| | https://coagri.uobaghdad.edu.iq/?page_id=15013 |
| | |

Instructor of theoritical part

Dr. Nawaf Gazi Abuud Al Tamee

Raghd Ismaeal Saeed

Instructor of practical part

Chairman of the scientific committee

Head of the department of Food science

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