Course Description Form

1.Course Name:

Buffalo Production

2.Course Code:

BUPR436

3.Semester / Year:

Second season, 2023-2024.

4.Description Preparation Date:

01/02/2024

5. Available Attendance Forms:

Blended learning (theoretical in-person)

6. Number of Credit Hours (Total),

30 hours (2 hours theoretical per week), No. of units 2.

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

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8. Course Objectives

Course Objectives

1.To identify the historical emergence of the buffalo, its classification within the animal kingdom numbers of

buffalo in neighboring countries and its distributed in the world especially the breeds that exist in the Asia and African buffalo.

2.To describe the appropriate environment for raising buffalo in the world and types of housing for accord to

the region in which they are found. Learn about the productivity of buffalo in terms of milk and meat and most important factors affecting them

3. To identify most important morphological, physiological and nutritional characteristics of buffalo, as v as the most important modern technologies for feeding and breeding buffalo.

9. Teaching and Learning Strategies

Strategy

The main objectives of the strategy in buffalo breeding and production are to develop and improve local buffalo breeds specialized in producing milk and meat with high productivity and adapted to local conditions, in order to achieve increased productivity of milk and meat, improve self-sufficiency, reduce import gaps, and raise the standard of living of small breeders and farmers.

The most important challenges facing the development and breeding of buffalo production in Iraq can be summarized in the following points:

- 1. The lack of a database on the distribution of animals in different governorates.
- 2. The lack of natural pastures with the rise in global prices for feed and its components.
- 3. The growing phenomenon of climate change and rising temperatures, which has led to creation of new areas attractive to families and disease vectors.
- 4. The need to increase awareness among small breeders of care methods that are appropriate for new breeds.

5. Accelerated growth in demand for	animal products,	especially l	buffalo m	ilk, as a result
of the steady increase in population.				

10.Course Structure

Week	Hours	Required Learning	Unit or subject	Learning	Evaluation
		Outcomes	name	method	method
	Theoretical 2	al The student should be to know the basic principles a historical overview of the buffalo origin and and breeding,production of the buffalo.	A historical overview of the buffalo origin and the economic importance of raising and producing of buffalo.	Lectures and reports. Scientific bulletins, PowerPoint	Exams,report s, discussions and quizzes.
2 nd	Theoretical 2	The student will be to know the basic principles of the buffalo's classificatio position within the animal kingdom and its advantages	Location and classification of buffalo buffalo in the Animal Kingdom. Advantages buffalo breeding, obstacle facing buffalo breeding and its methods of improvement.	Lectures and reports. Scientific bulletins, PowerPoint	Exams,report s, discussions and quizzes.
3 rd	Theoretical 2	a3 The student should be to know about the types of buffalo, the distinctive characteristics of the buffalo and its appearance and production characteristics.	Sections of buffalo, phenotypic and genetic differences between Asian and African buffalo.	Lectures and reports. Scientific bulletins, PowerPoint	Exams, reports, discussions quizzes.
4 th	Theoretical 2	The student should be to know the basic principles of buffalo breeds spread in Iraq and the Arab world.	Wild and domesticated of buffalo breeds which spreads in Iraq,Arab homeland world and the world.	Lectures and reports. Scientific bulletins, PowerPoint	Exams,reports, discussions and quizzes
5 th	Theoretical 2	b1 The student should be learns about the nature and types of buffalo barns.	Buffalo barns, their types and specifications.	Lectures and reports. Scientific bulletins, PowerPoint	Exams, reports, discussions and quizzes

6 th	Theoretical 2	Through the scientific visit the student should be learns about the manufacture of feeds which its used in feeding and the buffalo diet .	Nutrition and diet of buffalo, a scientific visit to the Erbil feed factory.	Lectures and reports. Scientific bulletins, PowerPoint	Exams, reports, discussions and quizzes
7 th	Theoretical 2	b3 The students should be to learn about the origin of the Iraqi buffalo and its advantages and disadvantages of raising.	The Iraqi buffalo, introduction, advantages, and obstacles to its rearing.	Lectures and reports. Scientific bulletins, PowerPoint	Exams,reports, discussions and quizzes
8 th	Theoretical 2	The student should be to know the principles of meat production, muscle composition and degree of demand for meat.	The meat production of buffalo.	Lectures and reports. Scientific bulletins, PowerPoint	Exams, reports, discussions and quizzes
9 th	Theoretical 2	b4 The student should be to know about the physical characteristics of milk and its productive performance of buffalo.	Milk production, effect of factors on milk production of buffaloes and milk substitutes.	Lectures and reports. Scientific bulletins, PowerPoint	Exams, reports, discussions and quizzes
10 th	Theoretical 2	c2 The student should be to know the basic principles of reproduction and methods for examining pregnancy in female buffalo.	Reproduction in female buffalo and methods for examining pregnancy in female buffalo.	Lectures and reports. Scientific bulletins, PowerPoint	Exams, reports, discussions and quizzes
11 th	Theoretical 2	c3 The student should be to know basic principles of the parts of the male reproductive system and function of each part for male buffalo.	The male reproductive system, its parts and functions for male buffalo.	Lectures and reports. Scientific bulletins, PowerPoint	Exams, reports, discussions and quizzes
12 th	Theoretical 2	c5 The student should be knows the basic principles of raising and caring for buffalo calves.	Caring for buffalo calves and lactation systems for suckling calves.	Lectures and reports. Scientific bulletins, PowerPoint.	Exams, reports, discussions and quizzes

13 th	Theoretical 2	c5 The student knows the basic principles of weaning and fattening systems for buffalo calves.	The weaning and fattening systems for buffalo calves.	Lectures and reports. Scientific bulletins, PowerPoint.	Exams, reports, discussions and quizzes
14 th	Theoretical 2	b5 Students can learns about internal and external parasites that infect of buffalo determine the causes and its provide treatment.	symptoms and	Lectures and reports. Scientific bulletins, PowerPoint	Exams, reports, discussions and quizzes
15 th	Theoretical 2	b6 The student knows the basic principles of common infectious diseases in buffalo.	Common infectious diseases in buffalo.	Lectures and reports. Scientific bulletins, PowerPoint.	Exams, reports, discussions and quizzes

11. Course Evaluation:

No.	Evaluation methods	Evaluation date (week)	marks	Relative weight (%)
1	The first short test Quiz. Theoritical:	Week 4: Theoritical: Short test (1) Quiz.	Theoretical: 2.5	2.5%
2	Monthly exam (1).	Week 9: Theoretical test (1).	Theoretical: 15	15%
3	Second short test Quiz.	Week 11: Theoritical:Short Test (2) Quiz.	Theoretical: 2. 5	2.5%
4	Monthly exam (2).	Week 13: Theoritical test (2).	Theoretical: 15	15%
5	Reports	Week 15: Submit reports.	Theoretical: 5	5%
6	Quest rate.	Seasonal rates are announced at end of the semester.	Theoretical: 40	40%
7	Final theoretical test.	The week of theoretical exams.	60	60%
8	Total	The final score of the theoretical 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 (curricular books, if any).	1.Buffalo production lectures: Prof. Dr. Mozhir Kadhum Kuaiber / Department of Animal Production ,College of Agricultural and Forestry/University of Mosul, for the year 2023.
	2.Buffalo breeding and improvement/Professor Samim Fakhri

	Al-Dabbagh/Animal Production Department College of Agriculture and Forestry/University of Mosul. for the year 2020.
Main references (sources)	1.Production of meat from buffalo/
,	Dr. Tariq Abdel Wahab Ahmed Daraz.
	Dr. Adolf Abdel Malak Khair Beshai.
	Dr. Hassan Bayoumi Abu El-Ela
	Agricultural Research Center / Animal Production Research Institute / Ministry of Agriculture and Reclamation Territories/Egypt. for the year 2004.
	2.Buffalo Production /Dr. Hassan Khalil Abdullah
	/Anglo-Egyptian Library/2003.
Recommended books and	1.Buffalo Health and Production.
references (scientific journals,	https://www.frontiersin.org/articles/10.3389/fvets.2021.810923/full
reports)	2. Journal of Buffalo Science.
	https://journals.indexcopernicus.com/search/journal/issue?issueId=3 25199&journalId=64237
	3.Buffalo Health and Production.
	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8873098/
	4. Journal of Dairy Science.
	https://www.sciencedirect.com/science/article/pii/S0022030209703984
Electronic References, Websites	Buffalo Breeding Research Department/Animal Production Research Institute/Dokki - Giza/Egypt.
	http://www.arc.sci.eg/InstsLabs/Default.aspx?OrgID=135&TabId=0& NavId=2⟨=ar
	2. Milk production in buffalo./ Written by Prof. Dr. Natiq Hamid Saleh Al-Qudsi./ College of Agricultural Engineering Sciences. University of Baghdad. Iraq. https://almerja.net/reading.php?idm=45840

Prof.Dr. Mozhir Kadhum Kuaiber Almahdawi

Instructor of theoretical subject Date: / /2024

Signature: Prof.Dr.Muthama Ahmed Mohammed Tayeb Chairman of the Scientific Committee

Date: / /2024

Signature: Prof.Dr.Omer Dhiyaa Mohammed Al-Mallah

Head of Department

Date: / /2024.