

## Course Syllabus

1	<b>Course title</b>	Field Training in Animal Production
2	<b>Course number</b>	652499
3	<b>Credit hours</b>	2 hrs.
	<b>Contact hours (theory, practical)</b>	0 , 2
4	<b>Prerequisites/corequisites</b>	Principles of Animal Production (602101) + Passing 99 hrs.
5	<b>Program title</b>	B.Sc. in Animal Production
6	<b>Program code</b>	
7	<b>Awarding institution</b>	University of Jordan
8	<b>School</b>	Agriculture
9	<b>Department</b>	Animal Production
10	<b>Course level</b>	4 <sup>th</sup> year
11	<b>Year of study and semester (s)</b>	First semester 2021/2022
١٢	<b>Other department (s) involved in teaching the course</b>	None
١٣	<b>Main teaching language</b>	Arabic + English
١٤	<b>Delivery method</b>	<input checked="" type="checkbox"/> Face to face learning <input type="checkbox"/> Blended <input type="checkbox"/> Fully online
١٥	<b>Online platforms(s)</b>	<input type="checkbox"/> Moodle <input checked="" type="checkbox"/> Microsoft Teams <input type="checkbox"/> Skype <input type="checkbox"/> Zoom <input type="checkbox"/> Others.....
١٦	<b>Issuing/Revision Date</b>	10/10/2021

### ١٧ Course Coordinator:

Name: **Prof Hosam Titi**

Contact hours: 9.30–10.30 (Sun, Tue, Thu) and during training on Wednesday

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#### ١٨ Other instructors:

**Name: Mohammad Jalal**

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#### ١٩ Course Description:

This is a practical course consists of 3 sections, Poultry, Sheep and Dairy cattle. Three instructors are responsible for teaching this course. Each instructor follows the main headlines in his field to train the students.

For poultry section, students can have an idea about rearing broiler flock from one-day old until marketing. They are divided into groups where 150 chicks are handled to them and they have to take care of these chicks for 7 weeks. They will learn how to measure their weight each week, how much feed is consumed and what is the feed conversion ratio. At the end of the rearing period samples will be slaughtered so they will learn the technique. An economical evaluation will be delivered at the end of the training.

For small ruminant section, students will have an idea about rearing sheep & goat herds throughout their production cycle. Students will learn how to carry day to day practices. Such practices include lambing and kidding, feeding suckling animals, feeding the herd at different stages, milking, estrus synchronization, identification, castration and docking, hoof trimming, horn disbudding, vaccination and medication, and wool shearing.

For Cattle section, students will have an idea about rearing dairy cow throughout their production cycle. Students will learn how to carry day to day practices. Such practices include calving, feeding suckling animals, feeding the herd at different stages, milking, estrus synchronization, identification, Selection Pathways in Dairy Farms and Selection of Breeding Bull, Bull Nose Ring, Calves Castration, Bloat "Tympany" in Cows, Semen Collection from Bulls and its Evaluation, vaccination and medication.

## ٢٠ Course aims and outcomes:

### A- Aims:

#### *For Broiler chicken:*

- 1) Cleaning of the poultry house, how and what products are used.
- 2) Disinfection of the house, how and what products are used.
- 3) Preparation for brooding and reception of chicks: brooders, wood shaving, feeders, and drinkers.
- 4) Feed milling and mixing, to prepare the needed diets for the chicks.
- 5) Arrival of chicks, spreading them into different groups where.
- 6) Giving the vaccinations for chicks and the importance of it.
- 7) Recording the weight of chicks and determining the feed conversion ratio (FCR).
- 8) Slaughtering samples from each group on the end of rearing (5 weeks) and recording yields of slaughtering.

#### *For Sheep:*

- 1) Identifying sheep and goat breed locally and worldwide.
- 2) Get known to the feeding practices, nutritional requirements and ration formulation.
- 3) Preparations for lambing & kidding.
- 4) Suckling and milking.
- 5) Estrus synchronization.
- 6) Daily caring and feeding practices.
- 7) Identification, castration and docking.
- 8) Hoof and horn trimming.
- 9) Vaccination and medication.

#### *For dairy cattle:*

- 1) Identifying dairy cattle breed locally.
- 2) Handling and control of dairy cattle
- 3) Get known to the feeding practices, nutritional requirements and ration formulation.
- 4) Daily caring of newborns.
- 5) Machine milking and Quality monitoring of milk.
- 6) Estrus synchronization, artificial insemination and pregnancy diagnosis.
- 7) Daily caring and feeding practices.
- 8) Bull Nose Ring, Calves Castration, Bloat "Tympany" in Cows.
- 9) Vaccination and medication.



### Students Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

Program ILOs*	SLO (1)	SLO (2)	SLO (3)	SLO (4)	SLO (5)	SLO (6)	SLO (7)	SLO (8)
<b>Course SLOs</b>								
(1) Acquire a comprehensive knowledge of production systems and breeds of farm animals in Jordan.	X					X	X	
(2) Manage and make decisions pertaining to commercial production enterprises.		X	X	X		X		
(3) Aware of various methods and tools in prevention and treatment of animal diseases.	X				X	X		X
(4) Know the different housing systems and facilities used for various animals.	X		X				X	X
(5) Efficiently apply daily management practices for optimum farm animal production.		X	X				X	X

#### \*Program SLOs:

ILO (1): Demonstrate a deep understanding of the basic principles in the various areas of livestock production; including nutrition, physiology, genetics, health and management.

ILO (2): Apply the acquired knowledge in various areas of livestock production.

ILO (3): Utilize critical thinking and logical reasoning in addressing issues related to livestock production.

ILO (4): Communicate effectively with a wide range of related stakeholders and provide appropriate extension services.

ILO (5): Apply the principles of public safety and environmental protection.

ILO (6): Acquire and apply practical skills along with keeping up with recent advances in livestock production.

ILO (7): Identify basic principles of research methodology and evidence-based decision making.

ILO (8): Abide by professional, ethical and legal considerations relevant to the livestock production.

## ٢١. Topic Outline and Schedule:

Week	Lecture	Topic	Intended Learning Outcome	Learning Methods (Face to Face/Blended/ Fully	Platform	Synchronous / Asynchronous Lecturing	Evaluation Methods	Resources
1	<b>Not Applicable (Trainings in the Field)</b>	<ul style="list-style-type: none"> <li>- Tour of the Poultry Farm and different types of houses</li> <li>- Cleaning and Disinfection of Poultry Houses</li> <li>- Housing and Equipment</li> <li>- Sheep/ goat breeds in Jordan</li> <li>- Catching, handling and age determination.</li> <li>- Dairy cow sector in Jordan</li> <li>- Dairy Cow Life Cycle</li> <li>- Cattle Handling, Control and Casting</li> </ul>	<b>See the students learning outcomes (SLOs) table</b>	<b>Face to face in the field</b>	<b>Not Applicable (Trainings in the Field)</b>	<b>Not Applicable (Trainings in the Field)</b>	<b>Home works, Quizzes and exams</b>	<b>See References</b>
2		<ul style="list-style-type: none"> <li>- Preparation of Brooding and feed milling</li> <li>- Feeding program.</li> <li>- Flushing.</li> <li>- Fattening lambs/ kids.</li> <li>- Dairy cow housing design and requirements.</li> <li>- Pens cleaning, sanitation and preparation</li> <li>- Major Trait Descriptions in Dairy Cows</li> </ul>						
3		<ul style="list-style-type: none"> <li>- Reception of Chicks</li> <li>- Reproductive management and efficiency in sheep.</li> <li>- Caring and nursing of the new born calves</li> <li>- Selection Pathways in Dairy Farms and Selection of Breeding Bull</li> </ul>						
4		<ul style="list-style-type: none"> <li>- Giving vaccines for chicks.</li> <li>- Control of lambing/ kidding.</li> <li>- Utilizing progesterone sponges and CIDRs.</li> <li>- Records keeping</li> <li>- Bull Nose Ring</li> <li>- Calves Castration</li> </ul>						
5		<ul style="list-style-type: none"> <li>- Formula calculations for feed conversion ratio.</li> <li>- Preparation for lambing/ kidding.</li> <li>- Feeding and ration formulation</li> <li>- Cow Stomach Magnet</li> <li>- Bloat "Tympany" in Cows.</li> </ul>						
6		<ul style="list-style-type: none"> <li>- Quiz on calculations for feed conversion ratio</li> <li>- Caring for the suckling lambs/ kids.</li> <li>- Feeding and ration formulation for cows.</li> </ul>						

7	<ul style="list-style-type: none"> <li>- Broiler Processing</li> <li>- Identification and ear tagging.</li> <li>- Grooming and Suckling Preventer for cows</li> </ul>						
8	<ul style="list-style-type: none"> <li>- Midterm Exam</li> <li>- Castration and docking.</li> <li>- Extra teat removal.</li> <li>- Feeding and ration formulation</li> <li>- Drug Administration in Cows</li> </ul>						
9	<ul style="list-style-type: none"> <li>- Lectures about layers and what are the different house systems used, feed, and vaccination.</li> <li>- Milk synthesis and milking flocks.</li> <li>- Weaning of lambs/ kids.</li> <li>- Fattening</li> <li>- Milking Dairy Cows</li> </ul>						
10	<ul style="list-style-type: none"> <li>- Record Keeping and Data Computation with final report</li> <li>- Housing design and requirements.</li> <li>- Calving</li> <li>- Mastitis and California Mastitis Test</li> </ul>						
11	<ul style="list-style-type: none"> <li>- Hoof trimming and horn disbudding.</li> <li>- Dries off in dairy cows</li> </ul>						
12	<ul style="list-style-type: none"> <li>- Record Keeping.</li> <li>- Manure consistency</li> <li>- Reproductive tract and estrous cycle in Dairy Cows</li> </ul>						
13	<ul style="list-style-type: none"> <li>- Vaccination and medication delivery.</li> <li>- Diseases control.</li> <li>- Semen Collection From Bulls and its Evaluation</li> </ul>						
14	<ul style="list-style-type: none"> <li>- Neonatal disease.</li> <li>- Regular Diseases.</li> <li>- Estrus detection and control in Dairy Cows</li> <li>- Artificial Insemination (AI) and pregnancy diagnosis in Dairy Cows.</li> </ul>						
15	<ul style="list-style-type: none"> <li>- Final Exam</li> </ul>						

## ٢٢ Evaluation Methods:

Opportunities to demonstrate achievement of the SLOs are provided through the following assessment methods and requirements:

Evaluation Activity	Mark	Topic(s)	SLOs	Period (Week)	Platform
Mid Exam ( <b>Broiler chicken, sheep and dairy cattle</b> )	<b>15%</b> (5% each)	class materials until week 7	See the students learning outcomes (SLOs) table	<b>Week 7</b>	Face to face
Practical Evaluation ( <b>broiler chicken</b> )	<b>5%</b>	<b>Production Parameter Calculations</b>		<b>Week 6</b>	Face to face
Final Report ( <b>broiler chicken</b> )	<b>5%</b>	Weekly readings of consumed feed, FCR, mortality rates, costs etc...		<b>Within two weeks after finishing the broiler flock raising</b>	Face to face
Practical exam ( <b>broiler chicken</b> )	<b>5%</b>	Assessment of student regarding all the field practices the applied during semester pertaining to broiler rearing		<b>With the final exam</b>	Face to face
Practical exam ( <b>Dairy cattle</b> )	<b>10%</b>	All dairy cattle class material (Regarding tools, instruments and their applications in the field, etc...)		<b>Week 15</b>	Face to face
Paper –based practical exam ( <b>Dairy cattle</b> )	<b>5%</b>	Dairy Cow Life Cycle Drug Administration in Cows Milking Dairy Cows Mastitis & California Mastitis Test Reproductive tract and estrous cycle in Dairy Cows Artificial Insemination (AI) and pregnancy diagnosis in Dairy Cows.		<b>With the final exam</b>	Face to face
Oral Practical exam ( <b>Sheep</b> )	<b>15%</b>	All sheep material (Regarding tools, instruments and their applications in the field, etc...)		<b>Week 15</b>	Face to face

Work Evaluation	10%	<b>Broiler chicken:</b> weekly following and evaluation of student practices. <b>Sheep:</b> weekly following and evaluation of student practices. <b>Dairy cattle:</b> Oral weekly evaluation for a group of students + 2 practical paper-based worksheet (drug calculations for cows and major trait descriptions of cows)		Along the semester	Face to face
Final Exam	30%	Theoretical Content		Week 16	Face to face

### ٢٣ Course Requirements

**Students should have the fitness and abilities to deal with chicken, sheep, goat and dairy cows. They should have the requirements of wearing and protection in the field.**

### ٢٤ Course Policies:

A- Attendance policies: **Students are expected to attend all trainings but if a student is absent from class, it is their responsibility to get the material that was missed and the UJ regulations will followed if absences exceed the upper threshold limit.**

B- Absences from exams and submitting assignments on time: **Each status will be treated according to UJ regulations.**

C- Health and safety procedures: **student should have the requirements of protection when dealing with animals like overalls, safety boots, protective gloves, masks, etc...**

D- Honesty policy regarding cheating, plagiarism, misbehavior: **According to UJ regulations.**

E- Grading policy: **See section 22.**

F- Available university services that support achievement in the course: **According to UJ regulations.**

## ٢٥ References:

### A- Required book(s), assigned reading and audio-visuals:

- Battaglia, R. A. 2007. Handbook of livestock management. 4<sup>th</sup> edition. Pearson Education, Inc., Upper Saddle River, New jersey 07458, USA.
- Scanes, C., George, B., and Ensminger, M. 2004. Poultry Science. 4<sup>th</sup> edition, Pearson Education, Inc., Upper Saddle River, New jersey 07458, USA.

### B- Recommended books, materials and media:

- Beede, D. K. 2017. Large dairy herd management book. 3<sup>rd</sup> edition.
- SID Sheep Production Handbook, American Sheep Industry Association. 2004. 7<sup>th</sup> ed. Colorado State Print. USA.
- Rose, S. P. 1997. Principles of Poultry Science. CAB International, Wallingford, UK
- Internet Publications.
- إنتاج الأغنام. محمد حرب و محمد جهاد الطباع. جامعة القدس المفتوحة. ٢٠٠٠
- إنتاج ابقار الحليب. محمد حرب و محمد جهاد الطباع. جامعة القدس المفتوحة. 2002

## ٢٦ Additional information:

Course Coordinator: Prof. Hosam Titi. Signature: -----Date: 10/7/2022

Head of Curriculum Committee/Department: ----- Signature: Head of  
Department: -----Signature: -----Curriculum

Committee/Faculty: ----- Signature: -----Dean: -----  
----- Signature: -----