



Department of Animal Production

Course No. Course Title Weekly Hours

Lec. Lab.

Credit Hours

Pre-requisite

General (0)

0602101 Principles of Animal

Production

3 - 3 0304101

of cattle, sheep, goats and Introduction to farm animals livestock sector in Jordan, breeds

poultry, products of farm animals (meat, milk , eggs, wool), basic concepts in genetic

improvement, reproductive and digestive systems, nutrients and their functions, husbandry of

farm animals.

(1) Production and Management of Ruminants and Poultry

0602212 Poultry Production 2 3 3 0602101

Poultry industry in Jordan, breeds and breeding systems, anatomy and physiology of poultry,

incubation and hatchery management, brooding and rearing of chicks, layers

management, principles of poultry nutrition, practices on various stages of production.

0602214 Sheep Production 3 - 3 0602101

Breeds of sheep in the Arab countries. principles of breeding and selection, facilities

and barns of sheep, mating and management of rams and ewes, nutrition of sheep,

fattening of lambs, wool and its characteristic, management of the health of the flock, important

diseases of sheep.



0602215 Dairy Cattle Production 3 - 3 0602101

Breeds of dairy cattle, anatomy and physiology of digestive, reproductive, and milk production systems, nutrition and methods of feeding, breeding systems, management of dairy farms, production and marketing of milk

0602311 Rabbit Production 3 - 3 0304101

Breeds of rabbits, physiology and reproduction; genetics and breeding; nutrition and feeding; diseases; housing and equipment; management and marketing.

**0602318 Poultry Farms
Management
3 - 3 0602212**

Characteristics of poultry industry in Jordan, pure and commercial breeds of chickens, poultry environment and housing , reproductive physiology and light management, force molting laying hens, digestion, absorption, and metabolism, feed stuffs for poultry, feed additives, basics of feed formulation.

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0602319 Dairy Cattle Management 3 - 3 0602215

Discus the importance of feed storage and feeding methods, use of computer in recording and planning, the use of new techniques in reproduction to improve fertility, the use of new milking machines in controlling diseases, determining bulls selection criteria for herd improvement and the facilities and equipment needs for housing management.



0602417 Animal Meat Production 3 - 3 0602382

Principles growth, Rearing systems and management practices, feeding and caring of new born animals. Control of growth, Nutrition and growth, Growth of lambs and calves, feed ingredients and ration formulation, fattening, feed additives and growth promoters, carcass composition and quality.

**0602488 Animal Production in Hot Regions
3 - 3 0602459**

Factors affecting animal production in hot climate; effect of heat on feed requirements and reproduction; housing and facilities; rearing and management; suitable breeds and adaptation to hot climate; production of sheep, goat, cattle, camels, horses, and poultry in hot climates and product marketing.

**(2) Camel Production
0602320 Camel Production 3 - 3 0602101**

This course introduces students to the different aspects of camel production which include: breeding and genetics, nutrition and feeding, reproduction, and camel products such as meat, milk and fiber. In addition to an overview on world camel industry and camel sector in Jordan.

**(3) Animal health and Poultry diseases
0602231 Animal Health 3 - 3 0602101**

Environmental factors and its relation with animal health, animal handling and health, disinfectants and drugs, diseases of animals and their control, external parasites and their control.



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**0602332 Poultry Diseases and
Parasites**

2 3 3 0602212

Etiology, symptoms, post-mortem, treatment and methods of protection of bacterial, viral and fungal poultry disease, diseases caused by internal and external parasites, nutritional diseases.

(4) –

(5) Animal physiology and reproduction

0602256 Physiology of Farm Animals

3 - 3 0602101

Structure and functions of systems dealing with blood circulation, reproduction, milk production, respiration, bones, muscles, nervous, endocrine, excretion, digestion and thermal regulation in farm animals.

**0602451 Reproduction and Artificial
Insemination 2 3 3 0602215**

reproduction, Anatomy and physiology of reproductive organs, hormones of Production of gametes, fertilization, pregnancy, fertility and infertility, artificial insemination, semen collection, semen, processing and preservation.

**0602459 Environmental Physiology of
Farm Animals 2 3 3 0602101**

Effect of environmental factors on physiological processes in farm animals, heat regulation of the body, heat production and balance, heat loss, insulation, physiology of adaptation, measurements of heat stress.



(6) Animal breeding
0602361 Genetic Improvement of Farm
Animals 2 3 3 0602214

Principles of applied genetics in farm animals, principles of inheritance, phenotypic variation, selection response, breeding value estimation, inbreeding , heterosis, cross breeding systems, genetic decisions in farm animals.

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(7) Management of natural rangelands
0602272 Management of Natural
Rangelands 3 - 3 0304101

Physiographical characteristics of rangelands , rangeland types, ecology of range plants, range monitoring and evaluation, stocking rate, rangelands status in Jordan and management of grazing lands in Jordan.

0602373 Grazing Management 3 - 3 0602272

Range plants, effects of grazing animals on growth and reproduction of plants, manipulation of vegetative cover by grazing animals, discussion of the holistic resource management (HRM) of renewable resources; grazing systems.

0602474 Range Development 3 - 3 0602272

Planning range improvements, manipulating range vegetation by mechanical, biological and burning, range seeding, range fertilization, water harvesting and spreading techniques. The practical part focuses on rangeland rehabilitation and water harvesting techniques.



**(8) Nutrition of Ruminants and Poultry
0602382 Animal Feeds and Feeding 3 - 3 0304101**

Nutrition of livestock and poultry, digestion and functions of nutrients, metabolism of nutrients, classification and processing of feed stuffs, nutrient deficiency symptoms, ration formulation and mixing.

0602483 Feed Analysis 1 3 2 0602382

Proximate analysis of feeds: moisture, crude protein, crude fat, carbohydrates, crude fiber, ash, Van Soest analysis, feed digestibility.

0602485 Ruminant Nutrition 3 - 3 0602382

Anatomy of digestive system, physiology and metabolism of nutrients in ruminant animals, voluntary feed intake, feed requirements of dairy cattle, beef cattle, sheep and goats, ration formulation .

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0602486 Poultry Nutrition 3 - 3 0602212

Ingredients specifications and diets formulation, feeding programs for egg laying stocks, broilers, broiler breeders, turkeys and waterfowls.

0602487 Dairy Cattle Nutrition 3 - 3 0602215

Energy and protein utilization, Voluntary feed intake, General plan of nutrition for dairy cows, Optimum feeding strategy during lactation, Feeding systems and aspects of good nutrition programs, Milk composition and nutrition, Nutrition and reproduction, Feed additives, Metabolic disorders.



(9) Training, Research and Seminars
0602491 Seminar in Animal Production - - 1 (*)

Training of students to collect information through literature on specific topic in the subject matter area, make oral presentation and discussion.

0602494 Practical Work in Animal Production
- - 3 (*)

Practical training on daily and seasonal routine works in chickens, sheep and dairy cattle farms to earn basic applied skills to manage these farms, in the Agricultural Research Station in Jordan Valley .

0602499 Field Training in Animal Production
- - 2 (*)

Practical training on daily and seasonal routine works in chickens, sheep and dairy cattle farms to earn basic applied skills to manage these farms, in the Agricultural Research Station in Jordan Valley .

(*) Minimum successful 95 credit