**The University of Jordan**

**Faculty: Agriculture Department: Animal Science**

**Program: BSC. In Animal Science Academic Year/ Semester**

**Rabbit Production (602311)**

**-----------------------------------------------------------------------------------------------------------**

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| --- | --- | --- | --- | --- | --- |
| **Credit hours** | **3 hrs** | **Level** | **3rd and 4th year** | **Pre-requisite** | **Principles of Animal Production** |
| **Coordinator/ Lecturer** | **Dr. Hana Zakaria** | **Office number** | **268** | **Office phone****22514** |  |
| **Course website** |  | **E-mail****zakariah@ju.edu.jo** |  | **Place Faculty of agriculture** |  |

|  |
| --- |
| **Office hours** |
| **Day/Time** | **Sunday** | **Monday** | **Tuesday** | **Wednesday** | **Thursday** |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

**Course Description**

Rabbit production is a 3 credit hour course that aims to introduce students to an overview of breeds and breeding, anatomy and physiology of rabbits, equipments and buildings needed to raise rabbits. All aspects of managing including handling, mating process and weaning. Nutrition, diseases and slaughtering .

**Learning Objectives**

1. General introduction to global rabbit production.

2. Introduce students to the biology of the rabbit (anatomy and physiology) as determined by the ability to identify the major characteristics of the various systems (*e.g. digestive, nervous, reproductive, etc…)* of rabbit.

3. Provide students with an overview of rabbit breeds and an understanding of breeding and genetics and its impact on rabbit production.

4. Acquire knowledge of rabbit housing including housing systems, equipments used, and environment (ventilation, temperature, relative humidity, etc…).

5. Develop an understanding of nutritional aspects of production, marketing and processing of rabbits.

6. To acquaint the students with all aspects of health, diseases. bio-security and waste management of any rabbit farm in order to preserve the environment from pollution.

**Intended Learning Outcomes (ILOs):**

Successful completion of the course should lead to the following outcomes:

**A. Knowledge and Understanding:** Student is expected to

**A1-** Student has a comprehensive overview of rabbit production including housing, breeding, health and slaughtering.

**A2 –** Student understands rabbit biology with special emphasis on digestion and reproduction.

**A3- –** Student learns about marketing and processing of rabbits.

**A5 –** Student will have developed a basic knowledge of rabbit nutrition, requirements and ingredients used in rabbit diets.

**A6 –** Student understands the importance of rabbit raising for family and small farms.

**B. Intellectual Analytical and Cognitive Skills:** Student is expected to

B1- **–** Student is able to establish a connection between biology, management, nutrition and processing of rabbits.

**B2 –** Student fully comprehends all steps involved in producing a meat and skins of rabbits and factors that impact the quality of the product.

**C. Subject- Specific Skills:** Students is expected to

C1- Student is able to understand all the basic concepts learnt in raising a small size rabbit farms.

**C2** – Student can design a rabbit house.

**C3** – Student can recommend which breed to raise based on their genetic specifications.

**C4** – Student fully understands steps involved in operation and management of a small rabbit farm.

**C5** – Student has the ability to recommend when to apply artificial insemination depending on season, prices of meat and supply and demand.

**D. Transferable Key Skills:** Students is expected to

D1- Student can transfer all the knowledge and basic concepts learned into producing and/or managing a small rabbit farm.

**D2** – Have the ability to establish a small enterprise and introduce this knowledge into the country.

# ILOs: Learning and Evaluation Methods

|  |  |  |
| --- | --- | --- |
| **ILO/s** | **Learning Methods** | **Evaluation Methods** |
| **A**. Knowledge and Understanding (**A1-A6**) | Lectures and Discussions | Exam, Homework, Discussion and Participation |
| **B**. Intellectual Analytical and Cognitive Skills (**B1-B2**) | Lectures and Discussions | Exam, Homework, Discussion and Participation |
| **C**. Subject Specific Skills (**C1-C5**) | Lectures and Discussions | Exam, Homework, Discussion and Participation |
| **D**.Transferable Key Skills (**D1-D2**) | Lectures, Discussions, and Homework | Exam, Homework, Discussion and Participation. |

**Course Contents**

|  |  |  |  |
| --- | --- | --- | --- |
| **Content** | **Reference**  | **Week** | **ILO/s** |
| **2**(1st week) 3lectures | **Introduction** * Overview of rabbit production
* Taxonomy
* Laboratory use
* Limitation of rabbit production.
 | - Chapter 1; 2Rabbit production **9th Edition(2013)****James I. McNitt,** **Steven D. Lukefahr****Peter R. Cheeke,**  *(*lectures | **A1**  |
| **6**(2nd, 3rd and 4th week)9lectures | * **Rabbit breeds**
* Selecting a breed
* Purchasing a breed.
 | - Chapter 3; 13PowerPoint lectures | **A1, C3** |
| **4**(5th, and 6th week)6 lectures | * **Housing of rabbits**
* Equipments
* Buildings
* Cages
* Nest boxes
 | - Chapter 4; - PowerPoint lectures | **A1-A6, B1, C2, D1.** |
| (7th week) | **First Hour Exam**  |  |  |
| **5**(7th, 8th, and 9th week9lectures | * **Rabbits management**
* Handling
* Breeding schedule
* Mating, gestation, conception
* Weaning
 | - Chapter 5; 6 and 11PowerPoint lectures | **A2, B1, C4, C5** |
| **4**(10th and 11th week)4 lectures | **Principles of rabbit Nutrition*** Nutrients
* Requirements
* Digestive system
* Ingredients of feed.
* Formulations of diets
 | - Chapters 7,8,9 in Rabbit production**The Nutrition of the rabbit** Chapter, 1,2,6,1Blas, Wisemen(1998)- PowerPoint lectures | **A2, A5, B1, D1.** |
|  | **Second hour exam** |  |  |
| **2**(12th week)2lectures | * **Diseases major health problems**
* General considerations
* Quarantine
* Major diseases
 | - Chapter 10- PowerPoint lecturesPresentations | **A1-A2, B1-, C1, D1-D2** |
|  |  |  |  |
| **5**(13th, 14th and 15th week)2 lectures | * **Slaughtering and preparation of meat and skin**
* Meat
* Skin
 | - Chapter 25; - PowerPoint lectures | **A1, A3, B2,C4, D1,D2.** |
| **2**(15th + 16th week)3 lectures | * **Rabbit for family and small farm development**
* Integrating rabbit farming.
* Rabbit production and family farm.
* Market development.
 | - Chapters 20 - PowerPoint lectures | **A6, D1, D2.** |
|  |  |  |  |

**Learning Methodology**

The course will be structured in lectures, discussions, field trips, weekly assignments, and quizzes and reports.. Students will be evaluated through exams and presentations.

## Projects and Assignments

Assignments related to the different topics discussed and related to the mission of the course.

# Evaluation

|  |  |  |
| --- | --- | --- |
| **Evaluation** | **Point %** | **Date** |
| **Midterm Exam**  | 30 |  |
| **Project** | 10 |  |
| **Assignments** | 10 |  |
| **Homework**  | 10 |  |
| **Final Exam**  | 40 |  |

**Main Reference/s:**

**Rabbit Production**, **9th Edition (2013) by:**

**James I. McNitt,**

**Steven D. Lukefahr and Peter R. Cheeke**

**Typeset by SPi, Pondicherry, India**.

# Printed and bound in the UK by CPI Group (UK) Ltd, Croydon, CR0 4YY.

# References:

1. **RABBIT FEEDING AND NUTRITION**

 **Peter R. Cheeke (1987).**

 **ACADEMIC PRESS, INC.**

 **Harcourt Brace Jovanovich, Publishers**

 Orlando San Diego New York Austin

 Boston London Sydney Tokyo Toronto

1. **The Nutrition of the rabbit**

**C. Blas, J. Wisemen, (1998)**

**CABI Publishings**

**Intended Grading Scale (Optional)**

0-39 **F**

40-49 **D**-

50-54 **D**

55-59 **D+**

60-64 **C**-

65-69 **C**

70-73 **C+**

74-76 **B**-

77-80 **B**

81-84 **B+**

85-89 **A**-

90-100 **A**

**Intended Grading Scale**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **From (%)** | **To (%)** | **Scale** | **Mark** | **Result** |
| 0 | 46 | 0 |  (F) | Fail |
| 47 | 49 | 0.75 | D- | Fail |
| 50 | 54 | 1 | D | Accepted |
| 55 | 57 | 1.5 | D+ | Accepted |
| 58 | 60 | 1.75 | C- | Good |
| 61 | 65 | 2 | C | Good |
| 66 | 68 | 2.5 | C+ | Good |
| 69 | 71 | 2.75 | B- | Very Good |
| 72 | 76 | 3 | B | Very Good |
| 77 | 79 | 3.5 | B+ | Very Good |
| 80 | 82 | 3.75 | A- | Excellent |
| 83 | 100 | 4 | A | Excellent |

**Notes:**

* Concerns or complaints should be expressed in the first instance to the module lecturer; if no resolution is forthcoming, then the issue should be brought to the attention of the module coordinator (for multiple sections) who will take the concerns to the module representative meeting. Thereafter, problems are dealt with by the Department Chair and if still unresolved the Dean and then ultimately the Vice President. For final complaints, there will be a committee to review grading the final exam.
* For more details on University regulations please visit:

 <http://www.ju.edu.jo/rules/index.htm>