



Course Specifications

Faculty: Veterinary Medicine
Department: Animal Husbandry and Wealth Development
Subject: Poultry Breeding and Production

General considerations

- Program type: Bachelor of Veterinary Science (BVS)
- Major or minor element of program: Major
- Faculty offering program: Faculty of veterinary medicine
- Department offering program: Animal Husbandry and Wealth Development
- Program Title: Poultry Breeding and Production
- Academic year/level: 2020 - 2021 / Third year –First and Second semester.
- Last date of program specifications approval:

A. Basic Information

1. Title: Code: 3APPRO – 3BPPRO
2. Lecture tutorial: 2 hours (one lecture/week)
3. Practical session: 2 hours (one lab/week)
4. Total: 60 hours /semester (15 weeks)

B. Professional Information

1. Overall aims of the course:
By the end of this course, the students should gain the basic knowledge, experience and practices required for production and breeding management of chickens, quails, turkeys, ducks, geese, pigeon, ostrich and rabbits.

2. Intended Learning Outcomes (ILOs)

2.1. Knowledge and Understanding:

By completion of this course, the student should be able to

- 2.1.1. Knowing the basics of poultry production.
- 2.1.2. Identify the different species and breeds of poultry in addition to breeds of rabbit.
- 2.1.3. Demonstrate the principles of poultry (and rabbit) biology, morphology, breeds, species, poultry domestication, and poultry classifications.
- 2.1.4. Recognize the free-range production methods and its difference with organic one.
- 2.1.5. Discuss obtaining a good quality fertile egg, incubation and hatching management.

2.1.6. Recognize the methods of housing, brooding, growing and breeding management of poultry.

2.1.7. Manage poultry and rabbit under field conditions.

2.1.8. Write the improvement methods (rabbit breeding programs) for poultry and rabbit.

2.2. Intellectual Skills

By the end of this course, the student should be able to

2.2.1. Choose the most suitable species, breed and age for good egg or meat production.

2.2.2. Expect the interactions between bird and its surrounding environment on production.

2.2.3. Interpret the results of incubation and hatching.

2.2.4. Generate a program for fertile egg production.

2.2.5. Choose the appropriate method of brooding and rearing.

2.2.6. Solve unexpected problems in poultry houses or in the hatching department

2.2.7. Organize for applications of modern techniques industry.

2.2.8. Understanding how to select individuals as future parents from the base populations for different poultry categories.

2.3. Professional and Practical Skills

By the end of this course, the student should be able to

2.3.1. Rank hens according to their laying abilities to cull bad layers and keep good ones.

2.3.2. Examine incubators and hatchers for their efficiency and their incubation environments

2.3.3. Install and adjust automatic drinkers, automatic heaters and light timers in poultry houses.

2.3.4. Operate beak trimming using electrical debeakers

2.3.5. Calculate flock uniformity

2.3.6. Demonstrate feeding and lighting programs for growing birds

2.3.7. Analyze quantitative genetic data.

2.3.8. Select future parents for genetic improvement of quantitative traits

2.4. General and Transferable Skills

By the end of this course, the student should be able to

2.4.1. Good judgment the poultry flock.

2.4.2. Gather and interpret data about a specified poultry farm.

2.4.3. Working in groups to handle and manage of large number of chickens, turkey, water fowls; quails, pigeons as well as rabbits.

2.4.4. Design incubators and hatchers.

2.4.5. Works well under different farms environments and stresses.

2.4.6. Use all farm apparatuses properly.

3. Contents:

3.1. Lecture contents:

1st Semester	
Lecture Topics	hours
1. Poultry Importance.....	2
2. Systems of Poultry Production and organic poultry production	2
3. Housing systems	2
4. Environmental managements.....	2
5. Thermal interaction between the bird and environment.....	2
6. Obtaining a Good Quality Egg for Setting.....	2
7. Artificial Incubation.....	2
8. Brooding Managements.....	2
9. Chick Quality, Placement and Evaluation.....	2
10. Dealing with Heat Stress.....	2
11. Management of Growing Pullets.....	2
12. Lighting as a poultry management tool.....	2
13. Management of Layers.....	2
14. Breeder managements.....	2
15. Evaluating Egg Production Hens.....	2
16. Feeding of layers and breeders.....	2
Total	30 hrs

2nd Semester

Lecture Topics	hours
1. Poultry Breeding	2
1- Qualitative and quantitative traits.....	2
2- Heritability.....	2
3- Repeatability.....	2
4- Correlation.....	2
5- Selection.....	6
17. Poultry Production	2
1- Commercial Rabbit Production	2
2- Duck Production and management	2
3- Geese Production and management	2
4- Turkey Production and management	2
5- Quails Production and management	2
6- Pigeon Production and management	2
7- Ostrich Production and management	2
Total	30 hrs

3.2. Practical contents:

1st Semester	
Practical Topics	hours
1. Poultry Classification.....	2
2. Classification of chickens.....	2
3. Commercial chickens.....	2
4. Egyptian chickens.....	2
5. Chicken biology.....	2
6. Embryology of the chicken.....	2
7. Incubation and hatcheries.....	2
8. Sexing of the day old chicks.....	2
9. Operations during the brooding period.....	2
10. Cannibalism.....	2
11. Visual Assessment of the Bird Condition.....	2
12. Revision by Questions.....	8
Total	30 hrs

2nd Semester	
Practical Topics	hours
I. Poultry Breeding	
1- Definitions of poultry breeding.....	2
2- Discussion and solving problems on heritability.....	4
3- Discussion and solving problems on repeatability.....	2
4- Discussion and solving problems on correlation.....	4
5- Discussion and solving problems on selection.....	4
II. Poultry Production	
1- Commercial Rabbit Production	2
2- Duck Production and management	2
3- Geese Production and management	2
4- Turkey Production and management	2
5- Quails Production and management	2
6- Pigeon Production and management	2
7- Ostrich Production and management	2
Total	30 hrs

4. Teaching and Learning Methods:

- 4.1 Lectures with the help of data show and power point slide show and movies or flash show
- 4.2 Discussions and Class activities
- 4.3 Small poultry farm project models training and hatchers training
- 4.4 Internet data collection and within class discussions
- 4.5 Seminars by student groups
- 4.6 Farm visits and feedback discussions

5. Student Assessment:

5.1 Assessment Methods:

- a. Mid and final term written examination to assess knowledge and understanding
- b. Periodical semester activities to assess general and transferable skills.
- c. Practical examination to assess professional and practical skills.
- d. Oral examination to assess intellectual skills, understanding of topics and ways of thinking in resolving problems.

5.2 Assessment Schedule:

- a. Assessment 1: Midterm examination 8th week
- b. Assessment 1: Final examination (Practical) 15th week
- c. Assessment 1: Final examination (Oral) 15th week
- d. Assessment 1: Final examination (Written) 15th week

5.3 Weighting of Assessments:

- a. Semester formative work:
 - 1. Mid-term examination 10%
 - 2. Home and laboratory periodical assignments 10%
- b. Final-term examination:
 - 1. Written examination 50%
 - 2. Oral examination 15%
 - 3. Practical examination 15%
- Total 100%

6. List of References:

6.1 Courses Notes (Lecture and practical notes): Poultry Breeding and Production Part I
Dr. Mohamed Abd El-Naby El-Edel.

6.2 Essential Text Books:

- **Poultry Science and Production. 1985.** R.E. Moreng and J.S. Avens. Reston Publ. Co., Inc., Reston, VA.
- **Poultry Production.1990.** R.E. Austic and M.C. Nesheim. Lea & Febiger, Philad. P.A.
- **Poultry production in hot climates. (2008).** j. D. Nuhad. Library of Congress Cataloging In Publication Data

6.3 Recommended Books:

- **Commercial Chicken Production Manual.** North, M.O. 1978. Second Edition. AVI Publishing Company, West Port. Connecticut
- **Poultry Breeding and Genetics (1990).** Crawford R.D. El-Sevier Science Pub., B.V.
- **Good practices in planning and management of integrated commercial poultry production in South Asia. (2003).** R.Prabakaran. FAO. Animal Production and Health. Paper 159.
- **Poultry production in hot climates. (Second Edition).** Nuhad j. D. 2008.

6.4 Recommended journals

- Egyptian poultry science
- Poultry science (national)
- British poultry science
- World poultry science

6.4 Web Site

Web sites related to the program contents

- http://en.wikipedia.org/wiki/Main_Page
- www.rabbitnutrition.com
- <http://www.eznc.org/DataRoot/docs/Ratitestandard2>.

7. Facilities required for teaching and learning:

- 7.1. For laboratory sessions: A hall with round chair sitting of the students with a stanchion at middle for securing animals and white board and data show.
- 7.3. Small farm for chicken used for training of students and other poultry species for demonstration of housing equipments and system of managements.
- 7.4. A small farm of rabbit production for training of students on different aspects of management and handling of rabbits.
- 7.5. Digital library, internet and networking connections of easy access of our online course materials and the recommended websites by our staff.

8. Course Coordinators:

Dr. Mohamed Abd El-Naby El-Edel

9. Head of the Department:

Prof. Dr. Shreif Zakaria kamel