

# **Course Specifications**

## **Small Ruminant and Camel Medicine**

**Benha University**

**Faculty of Veterinary Medicine**

Program on which the course is given: **Bachelor of Veterinary Medical Science**

Department offering the course: **Department of Animal Medicine**

Academic year / Level : **5<sup>th</sup> Year (1<sup>st</sup> semester)**

Date of specification approval: Ministerial decree No. 921 on 15/ 9/ 1987 (approved in

Date of Department approval: 9-1-2011

### **A- Basic Information**

**Title: Small Ruminant and Camel Medicine    Code: Vet00652a**

**Lecture: 2 hours/week**

**Practical: 3 hours/week**

**Total: 5 hours/week**

### **B- Professional Information**

#### **1 – Overall Aims of Course:**

The aim of this course is to provide up-to-date information of small ruminant and camel diseases that are most commonly affecting sheep, goat and camel in Egypt and their treatment. This will enable students to gain skills for accurate diagnosis, differential diagnosis and treatment of these diseases in small ruminant. Diseases of digestive, skin, wool, urinary and metabolic disorders are of particular concern because of their relation to the milk, meat and wool production.

#### **2 – Intended Learning Outcomes of Course (ILOs)**

##### **a Knowledge and Understanding:**

After successful completion of this course, students should be able to:

- a1- Recognize the function and anatomy of different organs of small ruminant and camel

- a2- Define different diseases affecting sheep goat and camel.
- a3- Know the system affected then the organ within the system.
- a4- Identify the cause-disease interaction through the pathogenesis
- a5- Comprehend differential diagnosis between related diseases
- a6- Understand the general state disorders of sheep, goat and camel
- a7- Understand a treatment schedule for each disease with regard to type of drug, effective dose and time of dosing.
- a8- Describe a protocol for prevention and control of small ruminant and camel diseases.

### **b Intellectual Skills**

After successful completion of this course, students should be able to:

- b1- Develop skills on differential diagnosis based on clinical signs.
- b2- Determine inter-relation between system affections.
- b3- Determine the type of other diagnostic aids in diagnosis.
- b4- Decide on the appropriate treatment for each disease
- b5- Read and comment the diagnostic tools and reports
- b6- Judge on a clinical case by giving a decision for either medical or surgical intervention

### **c Professional and Practical Skills**

After successful completion of this course, the student should be able to:

- c1- Take a case history of sheep, goat and camel.
- c2- Conduct clinical and physical examinations of diseases sheep, goats and donkeys.
- c3- Collect samples for lab. diagnosis.
- c4- Treat diseases by drug injection by various routes of administration.
- c5- Use different diagnostic aids in diagnosis.

### **d-General and Transferable Skills**

After successful completion of this course, students should be able to:

- d1- Solve problems in farm animal (sheep, goat and camel).
- d2- Communicate with other colleagues for reaching diagnosis.

d3- Cooperate with other veterinary hospitals, clinics and units in the field of small ruminant and camel practice.

d4- Use computers, software and CDs for educational purposes

d5- Work in a team during field trips or during group assignments.

### 3- Contents

| Topic   | No. of hours | Lecture   | Practical |
|---|--------------|-----------|-----------|
| General Medicine of small ruminant and camel                    | 2            | 2         | -         |
| Diseases of digestive system in sheep and goat                  | 4            | 4         | -         |
| Diseases of respiratory system in sheep and goat                | 3            | 3         | -         |
| Metabolic diseases in sheep and goat                            | 2            | 2         | -         |
| Diseases of cardiovascular system in sheep and goat             | 2            | 2         | -         |
| Disease of urinary system in sheep and goat                     | 2            | 2         | -         |
| Nutritional deficiency diseases in sheep and goat               | 2            | 2         | -         |
| Diseases of skin in sheep and goat                              | 2            | 2         | -         |
| Diseases affecting digestive and respiratory system in camel    | 3            | 3         |           |
| Diseases affecting urinary system and skin in camel             | 2            | 2         |           |
| Diseases of skin in sheep and goat                              | 2            | 2         | -         |
| General examination of sheep and goat                           | 7            | -         | 7         |
| Clinical examination of digestive system of sheep and goat      | 6            | -         | 6         |
| Clinical examination of respiratory system of sheep and goat    | 3            | -         | 3         |
| Clinical examination of cardiovascular system of sheep and goat | 3            | -         | 3         |
| Clinical examination of respiratory system of sheep and goat    | 6            | -         | 6         |
| Clinical examination of nervous system of sheep and goat        | 4            | -         | 4         |
| Clinical examination of urinary system of sheep and goat        | 3            | -         | 3         |
| Clinical examination of skin of sheep and goat                  | 4            | -         | 4         |
| Laboratory examination of feces and ruminal juice               | 3            | -         | 3         |
| <b>Total</b>  | <b>65</b>    | <b>26</b> | <b>39</b> |

#### 4- content-ILOs matrix

|    | Content  | ILOs                        |                   |                            |                          |
|----|--|-----------------------------|-------------------|----------------------------|--------------------------|
|    |  | Knowledge and understanding | Intellectual      | Professional and practical | General and transferable |
| 1. | General Medicine of small ruminant and camel                 | a4, a6                      | b1, b2,b3, b4     | c1, c2 , c3, c4            | d1, d2,                  |
| 2. | Diseases of digestive system in sheep and goat               | a1, a2, a3, a5, a7, a8      | b1, b2,b3, b4, b5 | c1, c2 , c3, c4, c5        | d1, d2, d3,d4,           |
| 3. | Diseases of respiratory system in sheep and goat             | a1, a2, a3, a5, a7, a8      | b1, b2,b3, b4, b5 | c1, c2 , c3, c4, c5        | d1, d2, d3,d4,           |
| 4. | Metabolic diseases in sheep and goat                         | a1, a2, a3, a5, a7, a8      | b1, b2,b3, b4, b5 | c1, c2 , c3, c4, c5        | d1, d2, d3,d4            |
| 5. | Diseases of cardiovascular system in sheep and goat          | a1, a2, a3, a5, a7, a8      | b1, b2,b3, b4, b5 | c1, c2 , c3, c4, c5        | d1, d2, d3, d4           |
| 6. | Disease of urinary system in sheep and goat                  | a1, a2, a3, a5, a7, a8      | b1, b2,b3, b4, b5 | c1, c2 , c3, c4, c5        | d1, d2, d3, d4           |
| 7. | Nutritional deficiency diseases in sheep and goat            | a1, a2, a3, a5, a7, a8      | b1, b2,b3, b4, b5 | c1, c2 , c3, c4, c5        | d1, d2, d3, d4,          |
| 8. | Diseases of skin in sheep and goat                           | a1, a2, a3, a5, a7, a8      | b1, b2,b3, b4, b5 | c1, c2 , c3, c4            | d1, d2, d3, d4           |
| 9. | Diseases affecting digestive and respiratory system in camel | a1, a2, a3, a5, a7, a8      | b1, b2,b3, b4, b5 | c1, c2 , c3, c4            | d1, d2, d3, d4           |
| 10 | Diseases affecting urinary system and skin in camel          | a1, a2, a3, a5, a7, a8      | b1, b2,b3, b4, b5 | c1, c2 , c3, c4            | d1, d2, d3, d4           |
| 11 | Diseases of skin in sheep and goat                           | a1, a2, a3, a5, a7, a8      | b1, b2,b3, b4, b5 | c1, c2 , c3, c4            | d1, d2, d3, d4           |
| 12 | General examination of sheep and goat                        | a1, a6                      | b1, b2,b3, b4, b5 | c1, c2 , c3, c4            | d1, d2, d3, d4,d5        |
| 13 | Clinical examination of digestive system of sheep            | a1, a2, a3                  | b1, b2,b3, b4, b5 | c1, c2 , c3, c4            | d1, d2, d3, d4,d5        |

|    |   |                       |                          |                        |                          |
|----|---|-----------------------|--------------------------|------------------------|--------------------------|
|    | and goat  |                       |                          |                        |                          |
| 14 | Clinical examination of respiratory system of sheep and goat    | <b>a1, a2, a3</b>     | <b>b1, b2,b3, b4, b5</b> | <b>c1, c2 , c3, c4</b> | <b>d1, d2, d3, d4,d5</b> |
| 15 | Clinical examination of cardiovascular system of sheep and goat | <b>a1, a2, a3, a5</b> | <b>b1, b2,b3, b4, b5</b> | <b>c1, c2 , c3, c4</b> | <b>d1, d2, d3, d4,d5</b> |
| 16 | Clinical examination of respiratory system of sheep and goat    | <b>a1, a2, a3, a5</b> | <b>b1, b2,b3, b4, b5</b> | <b>c1, c2 , c3, c4</b> | <b>d1, d2, d3, d4,d5</b> |
| 17 | Clinical examination of nervous system of sheep and goat        | <b>a1, a2, a3, a5</b> | <b>b1, b2,b3, b4, b5</b> | <b>c1, c2 , c3, c4</b> | <b>d1, d2, d3, d4,d5</b> |
| 18 | Clinical examination of urinary system of sheep and goat        | <b>a1, a2, a3, a5</b> | <b>b1, b2,b3, b4, b5</b> | <b>c1, c2 , c3, c4</b> | <b>d1, d2, d3, d4,d5</b> |
| 19 | Clinical examination of skin of sheep and goat                  | <b>a1, a2, a3, a5</b> | <b>b1, b2,b3, b4, b5</b> | <b>c1, c2 , c3, c4</b> | <b>d1, d2, d3, d4,d5</b> |
| 20 | Laboratory examination of feces and ruminal juice               | <b>a1, a2, a3, a5</b> | <b>b1, b2,b3, b4, b5</b> | <b>c1, c2 , c3, c4</b> | <b>d2, d3</b>            |

### 5- Assessment-ILOS matrix

| Assessment               | ILOs                              |                              |                            |                          |
|--------------------------|-----------------------------------|------------------------------|----------------------------|--------------------------|
|                          | Knowledge and understanding       | Intellectual                 | Professional and practical | General and transferable |
| Mid – Term exam          | <b>a2, a3, a4, a5</b>             | <b>b1, b2</b>                |                            |                          |
| Practical exam           | <b>a1</b>                         | <b>b1, b2,b3, b4, b5, b6</b> | <b>c1, c2 , c3, c4, c5</b> |                          |
| Oral exam                | <b>a1, a2, a3, a4, a5</b>         | <b>b1, b2,b3</b>             |                            |                          |
| Final term exam          | <b>a2, a3, a4, a5, a6, a7, a8</b> | <b>b1, b2,b3, b4, b5, b6</b> | <b>c1, c2 , c3</b>         |                          |
| Assignments and research | <b>a4, a5</b>                     | <b>b1</b>                    |                            | <b>d1, d2, d3,d4, d5</b> |

## **6– Teaching and Learning Methods**

1. Lecture notes and textbooks
2. Lectures prepared on multimedia as PowerPoint presentations
3. Practical lessons for case diagnosis and treatment in the hospital
4. Educational farm for conducting the clinical examination of animal.
5. Field trips to sheep and goat farms
6. Veterinary convoys for diagnosis and treatment of cases in veterinary clinics and centers.

## **7- Student Assessment Methods**

1. Mid-term examination
2. Final-term exam
3. Oral exam
4. Practical exam
5. Assignment and research

## **Assessment Schedule**

|                                       |         |
|---------------------------------------|---------|
| Assessment 1: Mid-term exam           | Week 8  |
| Assessment 1: Final-term exam         | Week 15 |
| Assessment 2: Oral exam.              | Week 15 |
| Assessment 3: Practical exam.         | Week 14 |
| Assessment 4: assignment and research | Monthly |

## **Weighting of Assessments**

|                                |            |
|--------------------------------|------------|
| Mid-term examination           | 5%         |
| Final-term Examination         | 50 %       |
| Oral Examination.              | 20 %       |
| Practical Examination          | 20 %       |
| <u>Assignment and research</u> | <u>5 %</u> |
| Total                          | 100%       |

## **8- List of References**

### 8.1- Course Notes

Small Ruminant and Camel Medicine.

## 8.2- Essential Books (Text Books)

Veterinary Medicine by Radostits, et al., 10 ed. 2007.

## 8.3- Recommended Books

1- Diseases of sheep: by Ian Aitken 2008

2- A field manual of camel diseases by Ilse Köhler-Rollefson, Paul. Mundy and Evelyn Mathias. 2008.

## 8.4- Periodicals, Web Sites, ... etc

### *Periodicals:*

- Journal of Animal Science.
- Research on Veterinary Science
- American Journal of Veterinary Medical Association.
- American Journal of Veterinary Research.
- Veterinary Record.

*Web sites:* <http://www.ivis.org/>

: <http://www.merckvetmanual.com/mvm/index.jsp>

[www.drghanem.co.nr](http://www.drghanem.co.nr)

## **9- Facilities Required for Teaching and Learning**

- A laboratory for veterinary medical diagnosis.
- Medical stethoscope and thermometer.
- Clinical teaching cases of small ruminants.
- Ultrasonography.
- Fiberoptic endoscope.
- Electrocardiograph (ECG).
- Multimedia projector and a computer.
- Slide projector.
- Overhead projector.
- Samples of veterinary drugs.

**Course Coordinators:**

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