Specification for Infectious Diseases of ruminants course

2025/2026

1-Basic information

1.	**Course title**	infectious diseases (Infectious Diseases of ruminants)							
2.	**Course code**	**516 (B) II**							
3.	**Department offering the course**	Animal medicine							
4.	**Number of hours**	**Theoretical**	**3**	**Practical**	**3**	**Other**	**0**	**Total**	**6**
5.	**Course Type**	√ **Obligatory** **Elective**							
6.	**Level**	5th year							
7.	**Semester**	Second semester							
8.	**Academic program**	Bachelor Veterinary medicine (BVM)							
9.	**Faculty**	Faculty of Veterinary medicine							
10.	**University**	Benha University							
11.	**Name of course coordinator**	Prof. dr. Abd Elfattah Monged							
12.	**Course Specification Approval Date**	Faculty council/ 27-8-2025							
13.	**Course Specification Approval (Attach the decision/minutes of the department /committee/council ....)**	Department council/							

2-Course overview

- **Course contents written in the program bylaw:**

Bacterial diseases of cattle and buffaloes, viral diseases of cattle and buffaloes, parasitic diseases of cattle and buffaloes, bacterial diseases of sheep and goat , viral diseases of sheep and goat , parasitic diseases of sheep and goat Clinical examination of cattle ,buffaloes, sheep and goat, sampling and laboratory investigation of field allergic diagnosis, chemotherapy and vaccine and vaccination.

3- Intended learning outcomes of the course (ILOs):

	NARS ILOS		**Course ILOS**	
	Code	**Text**	**Code**	**Text**
Knowledge	**2.10.**	Toxicology and forensic	**a1**	Mention the importance of

and Understanding		medicine, animal medicine, theriogenology and veterinary surgery.		environmental aspect as well as management principles and systems in epidemiology of infectious diseases.
			a2	Identify the nature of infectious diseases of small ruminants, equines, pet animals and swine and economic impact and zoonotic importance of diseases
			a3	Define the various infectious etiological determinants & common terms in field of epidemiology and identify predisposing factors & the cause-disease interaction through the pathogenesis
			a4	Identify specific epidemiological pattern of all animals infectious diseases
	2.11.	The most appropriate diagnosis and differential diagnosis of animals, poultry and fish diseases	**a5**	Describe different clinical manifestations of diseases and macroscopic pathological lesions
			a6	Summarize the most appropriate aids in diagnosis
			a7	Comprehend differential diagnosis between the diseases
			a8	Design a treatment schedule for each disease and approach the ideal therapy
			a9	Describe a protocol for prevention and accurate measures for control of infectious diseases
Intellectual skills	**4.3.**	Inculcate a rigorous approach to problem identification and solving.	**b1**	Inspect the animals clinically and collect laboratory samples.
	4.4.	Proficiently secure diagnostic reasoning, develop problem lists and differential diagnosis in order to deductively and critically reach the most appropriate solution (s) and management of the	**b2**	Know good handling with a problem and how to make a problem list and differential diagnosis based on clinical findings
			b3	Collect and analyze epidemiological data and criticize how data collected and handled

		addressed clinical problems	**b4**	. Use the appropriate tools for diagnosis and analyze reading and use acquiring skill in interpretation of the results.
			b5	Develop skills for differential diagnosis
			b6	Criticise appropriate solution to manage infectious disease cases and solving the field problems either by medical or surgical intervention or culling of the infected animals from the herd
			b7	. Analyze the results obtained and construct prevention plan and schedule of control programs for infectious diseases
Practical and professional skills	**3.2.**	Safely, correctly and humanely restrain animals for examination.	**c2**	Carry out clinical examination and do collections of samples for laboratory diagnosis.
	3.3.	Obtain the history of the case whether it is of an individual animal or a group of animals	**c1**	Obtain a history of animal cases (either individual or in herd) in the clinic.
	3.5.	Appropriately select and interpret findings of the common clinical and laboratory diagnostic procedures to reach and adopt the most convenient therapeutic and manage mental approach	**c3**	Apply different diagnostic tools in diagnosis of infectious diseases (Field one) and interpret and evaluate the common clinical and laboratory diagnostic procedures.
			c4	Perform differentiation between infectious diseases.
			c5	Evaluate variable chemotherapeutics and use the drug of choice
	3.9.	Conduct evidence-based problem-solving of field–presented problems tasks.	**c6**	Manage the epidemics and solve the field problem in relation to animals and public health aspect
			c7	Write a report about animals health status and biosecurity of animals premises
			c8	Employ epidemiological information and recent diagnostic aids to solve problems of diseases diagnosis & control

			c9	Design and evaluate emergency plan during epidemics affecting ruminant animals
	3.13.	Minimize the risk of contamination, cross infection and Predisposing factors of diseases.	**c10**	Evaluate the risk of contamination, cross infection and predisposing factors for diseases onset
			c11	Conduct and choose a correct contact with relevant departments and other intended to reach a final correct diagnosis
General and Transferable Skills	**5.1.**	Work under pressure and / or contradictory conditions.	**d1**	Work under pressure during lab sessions.
	5.2.	Function in a multidisciplinary team.	**d2**	Work in a team during the diagnosis process.
	5.3.	Communicate appropriately verbally and nonverbally	**d3**	Cooperate with other veterinary hospitals, clinics and units in the field.
	5.5.	Utilize computer and internet skills	**d4**	Searching skill and Self-learning during lecture related to his research project.

4- Teaching and learning methods					
Lectures	√	**Discussion & seminar (self-learning)**	√	**Practical**	√
Presentation & movies	√	**Problem solving**	√	**Brain storming**	√
Others	**Field training**				

- Course contents:

Number of the Week	**Scientific content of the course (Course Topics)**	**Expected number of the Learning Hours**				
		Total Weekly hours	**Theoretical teaching (lectures/discussion groups/ .....)**	**Training (Practical/ Clinical/ .....)**	**Self-learning (Tasks/ Assignments/ Projects/ ...)**	**Other**
W1	Bacterial diseases of cattle	**6**	**3**	**0**		**0**
	Clinical exam. of cattle & buffaloes		**0**	**3**		**0**
W2	Bacterial diseases of cattle	**6**	**3**	**0**		**0**

	Clinical exam. of cattle & buffaloes		**0**	**3**		**0**
W3	Viral diseases of cattle	**6**	**3**	**0**	**Formative quiz(self-learning)**	**0**
	Clinical exam. of cattle & buffaloes		**0**	**3**		**0**
W4	Parasitic diseases of cattle	**6**	**3**	**0**		**0**
	Sampling & Laboratory investigations		**0**	**3**		**0**
W5	Bacterial diseases of buffaloes	**6**	**3**	**0**		**0**
	Sampling & Laboratory investigations		**0**	**3**		**0**
W6	Viral diseases of buffaloes	**6**	**3**	**0**	**Formative quiz(self-learning)**	**0**
	Sampling & Laboratory investigations		**0**	**3**		**0**
W7	**Semester works and Mid-term exam**					
W8	Parasitic diseases of buffaloes	**6**	**3**	**0**		**0**
	Clinical exam. of calves		**0**	**3**		**0**
W9	Bacterial diseases of calves	**6**	**3**	**0**		**0**
	Clinical exam. of calves		**0**	**3**		**0**
W10	Viral diseases of calves	**6**	**3**	**0**	**Formative quiz(self-learning)**	**0**
	Field diagnosis		**0**	**3**		**0**
W11	Parasitic diseases of calves	**6**	**3**	**0**		**0**
	Clinical exam. of sheep & goats		**0**	**3**		**0**
W12	Bacterial diseases of sheep& goats	**6**	**3**	**0**		**0**
	Chemotherapy		**0**	**3**		**0**
W13	Viral diseases of sheep& goats	**6**	**3**	**0**	**Formative quiz(self-learning)**	**0**
	Field diagnosis		**0**	**3**		**0**
W14	Parasitic diseases of sheep & goat	**6**	**3**	**0**		**0**
	Vaccine & vaccination		**0**	**3**		**0**

W15	**Practical exam**

5- Assessment timing and grading:

a- Assessment methods (summative and formative)

1. **Formative assessment**: including (weekly quizzes, homework assignments and surveys).
2. **Summative assessment** including (quizzes, class activates, Mid-term exam, practical exam, oral exams and final written exams).

b- Assessment schedule and weight

Assessment method	Timing	Grade	Percent
Mid-term exam	7th week	15	15%
Formative assessment	Throughout semester	-	-
Practical exam	15th week	20	20%
oral exam	End of semester	15	15%
Written exam	End of semester	50	50%
Total		100	100

6- Learning resources and supportive facilities:

Learning resources	**Main reference**	**Student handbook**
	Essential books (text books)	• Pierre - Charles Lefevre (2010) Infectious and Parasitic Diseases of Livestock. • Michael Thrusfield (2007) Veterinary Epidemiology • O.M. Radostits (2007) Veterinary Medicine A textbook of the diseases of cattle, sheep, pigs, goats and horses
	Periodicals, Web sites, . . . etc	• Journal of Animal Science. • Research on Veterinary Science • Journal of American Veterinary Medical Association • American Journal of Veterinary Research • Preventive veterinary Medicine • Benha veterinary medical journal • OIE, FAO, WHO. • www.ekb.eg
	Learning platform	Thinqi
supportive facilities	**Devices & instruments**	• Teaching hall (data show, white board). • Equipped laboratory of veterinary medical diagnosis (Medical stethoscope and thermometer-microscope - Ultrasonography-

		Electrocardiograph (ECG)). • Samples of veterinary drug. • Veterinary hospital • Educational farm for conducting the clinical examination of animals. • Central laboratory.

Matrices:

A- Content and ILOs matrix:

Topic	A) Knowledge and understanding	B) Intellectual skills	C) Professional and practical skills	D) General and transferable skills
Bacterial diseases of cattle	**a1,a2,a3,a4,a5,a6,a7**	**b1,b2, b5,b6,b7**	**c1,c2,c3,c4,c6,c7,c9, c11**	**d1,d2,d3,d4**
Viral diseases of cattle	**a1,a2,a3,a4,a5,a6,a 7,a8,a9**	**b1,b2, b5,b6,b7**	**c1,c2,c3,c4,c6,c7,c 9,c11**	**d1,d2,d3,d4**
Parasitic diseases of cattle	**a1,a2,a3,a4,a5,a6**	**b1,b2,b3,b4,b5**	**c1,c2,c3,c4,c6,c7,c 9,c11**	**d1,d2,d3,d4**
Bacterial diseases of buffaloes	**a1,a2,a3,a4,a5,a6**	**b1,b2,b3,b4,b5,b 6,b7**	**c1,c2,c3,c4,c6,c7,c 9,c11**	**d1, d3,d4**
Viral diseases of buffaloes	**a1,a2,a3,a4,a5,a6,a 7,a8,a9**	**b1,b2, b5,b6,b7**	**c1,c2,c3,c4,c6,c7,c 9,c11**	**d1,d2,d3**
Parasitic diseases of buffaloes	**a1,a2,a3,a4,a5,a6**	**b1,b2,b3,b4,b5**	**c1,c2,c3,c4,c6,c7,c 9,c11**	**d1,d2,d3,d4**
Bacterial diseases of calves	**a1,a2,a3,a4,a5,a6**	**b1,b2,b3,b4**	**c1,c2,c3,c4,c6,c7,c 9,c11**	**d1,d2,d3,d4**
Viral diseases of calves	**a1,a2,a3,a4,a5,a6**	**b1,b2,b3,b4**	**c1,c2,c3,c4,c6,c7,c 9,c11**	**d1, d3,d4**
Parasitic diseases of calves	**a1,a2,a3,a4,a5,a6,a 7,a8,a9**	**b1,b2,b3,b4,b5**	**c1,c2,c3,c4,c6,c7,c 9,c11**	**d1,d2,d3**
Bacterial diseases of sheep& goats	**a1,a2,a3,a4,a5,a6,a 7,a8,a9**	**b1,b2,b3,b4,b5,b 6,b7**	**c1,c2,c3,c4,c6,c7,c 9,c11**	**d1,d2,d3,d4**
Viral diseases of sheep& goats	**a1,a2,a3,a4,a5,a6,a 7,a8,a9**	**b1,b2,b3,b4,b5,b 6,b7**	**c1,c2,c3,c4,c6,c7,c 9,c11**	**d1,d2,d3,d4**
Parasitic diseases of sheep & goats	**a1,a2,a3,a4,a5,a6**	**b1,b2,b3,b4,b5,b 6,b7**	**c1,c2,c3,c4,c6,c7,c 9,c11**	**d1, d3,d4**
Clinical exam. of cattle & buffaloes	**a5,a6,a7,a8,a9**	**b5,b6,b7**	**c5,c6,c7,c8,c9,c10,c 11**	**d1,d2,d3**
Clinical exam. of sheep & goats	**a5,a6,a7,a8,a9**	**b5,b6,b7**	**c5,c6,c7,c8,c9,c10, c11**	**d1,d2,d3,d4**
Clinical exam. of calves	**a5,a6,a7,a8,a9**	**b5,b6,b7**	**c5,c6,c7,c8,c9,c10, c11**	**d1,d2,d3,d4**
Sampling & Laboratory investigations	**a5,a6,a7,a8,a9**	**b5,b6,b7**	**c5,c6,c7,c8,c9,c10, c11**	**d1, d3,d4**

Field diagnosis	**a5,a6,a7,a8,a9**	**b5,b6,b7**	**c5,c6,c7,c8,c9,c10, c11**	**d1,d2,d3**
Chemotherapy	**a8**	**b6**	**c5,c6,c7,c8,c9,c10, c11**	**d1,d2,d3,d4**
Vaccine & vaccination	**a9**	**b7**	**c5,c6,c7,c8,c9,c10, c11**	**d1,d2,d3,d4**

B- Teaching and learning methods and ILOs matrix:

Course ILOs		**Teaching and Learning methods**						
		L	**P&M**	**D&s**	**P(TPL)**	**Ps**	**Bs**	**FTP**
Knowledge & understanding	**a1**	√	√	√			√	
	a2	√	√	√			√	
	a3	√	√	√			√	
	a4	√	√	√			√	
	a5	√	√	√			√	
	a5	√	√	√			√	
	a6	√	√	√			√	
	a7	√	√	√			√	
	a8	√	√	√			√	
	a9	√	√	√			√	
Intellectual skills	**b1**	√	√	√		√	√	√
	b2	√	√	√		√	√	√
	b3	√	√	√		√	√	√
	b4	√	√	√		√	√	√
	b5	√	√	√		√	√	√
	b6	√	√	√		√	√	√
	b7	√	√	√		√	√	√
Professional and practical skills	**c1**		√	√	√	√		√
	c2		√	√	√	√		√
	c3		√	√	√	√		√
	c4		√	√	√	√		√
	c5		√	√	√	√		√
	c6		√	√	√	√		√
	c7		√	√	√	√		√
	c8		√	√	√	√		√
	c9		√	√	√	√		√
	c10		√	√	√	√		√
	c11		√	√	√	√		√
General skills	**d1**	√		√		√		√
	d2	√		√	√			√
	d3			√	√			√
	d4		√	√				√

L: Lecture**, P&M:** Presentations & Movies**, D&S:** Discussions & Seminars (self-learning), **P(TPL):** Practical, **Ps:** Problem solving, **Bs:** Brain storming**, FTP:** field trip, Training, Project

C- Assessment methods and ILOs matrix:

Course ILOs		assessment method				
		Formative assessment	Mid-term exam	Oral	Practical	Written
Knowledge & understanding	a1	√	√	√		√
	a2	√	√	√		√
	a3	√	√	√		√
	a4	√	√	√		√
	a5	√	√	√		√
	a6	√	√	√		√
	a7	√	√	√		√
	a8	√	√	√		√
	a9	√	√	√		√
Intellectual skills	b1	√	√	√		√
	b2	√	√	√		√
	b3	√	√	√		√
	b4	√	√	√		√
	b5	√	√	√		√
	b6	√	√	√		√
	b7	√	√	√		√
Professional and practical skills	c1	√			√	
	c2	√			√	
	c3	√			√	
	c4	√			√	
	c5	√			√	
	c6	√			√	
	c7	√			√	
	c8	√			√	
	c9	√			√	
	c10	√			√	
	c11	√			√	
General skills	d1	√				
	d2	√				
	d3	√		√		
	d4	√				

Name and Signature
Course Coordinator

Prof. Dr. Abd Elfattah Monged

Name and Signature
Program Coordinator

Prof. Dr. Mahmoud Abouelroos