

Course Title	Cattle medicine				
Course Code	VET-310				
Course Type	Required				
Level	Undergraduate				
Year / Semester	Year 3/ Semester 2 (Spring)				
Teacher's Name					
ECTS	6	Lectures / week	3	Tutorials / week	2
Course Purpose and Objectives	<p>The main objectives of the course are:</p> <ul style="list-style-type: none"> To teach the students the important diseases of cattle encountered by veterinary surgeons in general practice and their diagnosis, treatment, prognosis, and control 				
Learning Outcomes	<p>The following list provides the learning objectives that will be covered in the lectures, lab practical sessions and tutorials of each week:</p> <p>Week 1</p> <p>LOBs covered during lectures:</p> <p>Discuss the following male reproductive tract diseases, definition, etiology, clinical presentation, diagnosis and management:</p> <ol style="list-style-type: none"> Transmissible viral fibropapillomatosis (warts) Persistent penile frenulum Corkscrew/spiral deviation of the penis Ruptured penis (penile haematoma) Penile hair rings Prolapse of the prepuce Preputial laceration Balanoposthitis Epididymitis and orchitis Testicular hypoplasia Testicular degeneration Seminal vesiculitis <p>Discuss the following female reproductive tract diseases, definition, etiology, clinical presentation, diagnosis, and management:</p> <ol style="list-style-type: none"> Hydrallantois (hydrops allantois) Hydramnios Retained fetal membranes Post-partum uterine infection 				

17. Puerperal metritis
18. Clinical endometritis ('whites')
19. Pyometra
20. Anoestrus
21. Cystic ovarian disease
22. The repeat breeder cow
23. Name the infectious causes of bovine abortion

Week 2

LOBs covered during lectures:

Discuss the following **diseases of the digestive tract and abdomen**, definition, etiology, clinical presentation, diagnosis, and management:

24. Atresia coli and atresia ani
25. Bovine papular stomatitis
26. Actinobacillosis (wooden tongue)
27. Actinomycosis (lumpy jaw)
28. Calf diphtheria and necrotic laryngitis
29. Oesophageal obstruction/choke
30. Symphyseal and non-displaced fractures of mandibular ramus
31. Pharyngeal abscess/enlarged retropharyngeal lymph nodes
32. Upper alimentary squamous neoplasia
33. Megaoesophagus
34. Carbohydrate overload (ruminal lactic acidosis, grain overload, barley poisoning)
35. Rumen parakeratosis
36. Ruminal tympany (bloat)
37. Vagal indigestion (vagus indigestion)
38. Traumatic reticulitis
39. Left displaced abomasum
40. Dilation/right-sided displacement of the abomasum
41. Abomasal volvulus, right torsion of the abomasum
42. Abomasal ulceration and perforation – calves and adult cows
43. Abomasal impaction
44. Caecal dilatation and torsion
45. Intestinal torsion (red gut)
46. Intussusception
47. Umbilical hernia
48. Omphalitis/omphalophlebitis
49. Peritonitis
50. Rectal prolapse

Week 3

LOBs covered during lectures:

Discuss the following **infectious diseases of the gastrointestinal tract**, definition, etiology, clinical presentation, diagnosis, and management:

51. Rotavirus

52. Coronavirus infection
53. Enterotoxigenic e. Coli
54. Septicaemic colibacillosis
55. Cryptosporidiosis
56. Coccidiosis
57. Salmonellosis
58. Winter dysentery
59. Paratuberculosis (johne's disease)
60. Bovine viral diarrhoea virus infection
61. Necrotizing/necrotic enteritis
62. Malignant catarrhal fever

Week 4

LOBs covered during lectures:

Discuss the following **respiratory diseases**, definition, etiology, clinical presentation, diagnosis, and management:

63. Pasteurellosis (shipping fever, transit fever)
64. Histophilus somni infection
65. Chronic suppurative pulmonary disease
66. Infectious bovine rhinotracheitis
67. Bovine respiratory syncytial virus
68. Parainfluenza 3 infection
69. Fog fever (atypical interstitial pneumonia of cattle/acute bovine pulmonary emphysema)
70. Farmer's lung/diffuse fibrosing alveolitis
71. Inhalation pneumonia (aspiration pneumonia)
72. Pleural abscesses/pyothorax

Discuss the following **cardiovascular diseases**, definition, etiology, clinical presentation, diagnosis, and management:

73. Vegetative endocarditis
74. Septic pericarditis
75. Dilated (holstein) cardiomyopathy
76. Myocarditis
77. Cor pulmonale/pulmonary hypertension

Week 5

LOBs covered during lectures:

Discuss the following **nervous system diseases**, definition, etiology, clinical presentation, diagnosis, and management:

78. Cerebellar hypoplasia/hydranencephaly
79. Bacterial meningoenzephalitis (meningitis)
80. Brain abscess

81. Unilateral middle ear infections/vestibular syndrome
82. Polioencephalomalacia (syn. Cerebrocortical necrosis)
83. Listerial encephalitis
84. Lead poisoning
85. Thromboembolic meningoencephalitis
86. Aujeszky's disease (pseudorabies)
87. Rabies
88. Basilar empyema (pituitary abscess)
89. Bovine spongiform encephalopathy
90. Spinal cord lesions
91. Peripheral nerve disease

Week 6

LOBs covered during lectures:

Discuss the following **musculoskeletal diseases**, definition, etiology, clinical presentation, diagnosis, and management:

92. Vertical fissure of the hoof wall ('sandcrack')
93. Horizontal fissure of the hoof wall (thimbling)
94. White line abscesses
95. Interdigital skin hyperplasia
96. Chronic necrotic pododermatitis
97. Sole ulcer (rusterholz ulcer, pododermatitis circumscripta)
98. Septic pedal arthritis
99. Digital dermatitis
100. Foul in the foot (interdigital necrobacillosis, phlegmona interdigitalis) definition/over
101. Superfoul
102. Infectious polyarthritis (joint ill)
103. Osteomyelitis
104. Sequestrum formation
105. Limb fractures
106. dislocation/subluxation
107. Fracture of sacral/coccygeal vertebrae (crushed tail head syndrome)
108. Muscle injuries
109. Tendon injuries
110. Osteochondrosis and osteochondritis dissecans (ocd)
111. Hip dysplasia
112. Degenerative osteoarthritis (degenerative joint disease)
113. Spastic paresis
114. Hock bursitis/cellulitis
115. Vitamin d deficiency/nutritional osteomalacia (rickets)

Week 7

LOBs covered during lectures:

Discuss the following **urinary tract diseases**, definition, etiology, clinical presentation, diagnosis, and management:

116. Urolithiasis
117. Pyelonephritis
118. Babesiosis
119. Acute tubular necrosis (tubular nephrosis)
120. Patent urachus

Discuss the following skin diseases, definition, etiology, clinical presentation, diagnosis, and management:

121. Parasitic skin diseases
122. Sarcoptic mange
123. Psoroptic mange
124. Chorioptic mange
125. Warble flies (hypodermatosis)
126. Ticks
127. Ringworm (dermatophytosis)
128. Dermatophilosis (bovine streptothricosis, 'rain scald')
129. Actinobacillosis
130. Papillomatosis (fibropapillomas, 'warts')

Week 8

LOBs covered during lectures:

Discuss the following **eye diseases**, definition, etiology, clinical presentation, diagnosis, and management:

131. Infectious bovine keratoconjunctivitis ('pink eye', new forest disease)
132. Bovine iritis ('silage eye')
133. Ocular squamous cell carcinoma ('cancer eye')
134. Hypovitaminosis a

Discuss the following **mastitis and teat diseases**, definition, etiology, clinical presentation, diagnosis, and management:

135. Mastitis
136. Summer mastitis
137. Papillomatosis (warts)
138. Herpes mammillitis (bovine ulcerative mammillitis)
139. Pseudocowpox
140. Udder impetigo/necrotic dermatitis (udder rot)
141. Udder oedema
142. Milking machine-induced teat lesions
143. Teat cistern obstructions

Week 9

LOBs covered during lectures:

Discuss the following **parasitic diseases** definition, etiology, clinical

	<p>presentation, diagnosis, and management:</p> <p>144. Fasciolosis (liver fluke) 145. Parasitic gastroenteritis 146. Ostertagiosis 147. Lungworm (husk, hoose)</p> <p>Week 10</p> <p>LOBs covered during lectures:</p> <p>Discuss the following clostridial diseases definition, etiology, clinical presentation, diagnosis, and management:</p> <p>148. Necrotic enteritis 149. Overeating disease (enterotoxaemia) 150. Black disease (infectious necrotic hepatitis) 151. Blackleg (blackquarter) 152. Malignant oedema 153. Tetanus 154. Botulism</p> <p>Week 11</p> <p>LOBs covered during lectures:</p> <p>Discuss the following metabolic diseases definition, etiology, clinical presentation, diagnosis, and management:</p> <p>155. Milk fever (hypocalcaemia, parturient paresis, eclampsia) 156. Hypomagnesaemia (grass staggers, grass tetany) 157. Hypophosphataemia 158. Downer cow 159. Sodium deficiency 160. Acetonaemia (ketosis, slow fever) 161. Pregnancy toxaemia 162. Fat cow syndrome 163. Vitamins and minerals deficiencies</p> <p>Week 12</p> <p>Revision</p>		
Prerequisites	None	Required	None
Course Content	<ul style="list-style-type: none"> • Lecture Topics: • Small ruminant medicine • Mastitis and milk quality (contagious mastitis, environmental mastitis and case studies) • Rearing the dairy heifer • Surgical conditions of bovine gastrointestinal system • Lameness in cattle (normal bovine foot and corrective foot trimming, 		

	<p>conditions of the bovine foot, therapeutic foot trimming, epidemiology and control of foot lameness in dairy cattle, and lameness not associated with the foot)</p> <ul style="list-style-type: none"> • Approach to urinary tract conditions in cattle • Plant and chemical poisonings in cattle • Approach to neurological disorders of young cattle • Approach to neurological disorders of older cattle • Clostridial diseases of cattle • Cattle reproduction (herd fertility, the fertility examination, bull breeding soundness examination, pregnancy diagnosis, problems during pregnancy, normal parturition and dystocia, problems postpartum and abortion) • Downer cow • Metabolic disease • Calf diseases (including diagnosis and treatment of calf diarrhoea) • Bovine viral diarrhoea virus • Salmonellosis in cattle • Hypersalivation, acute and chronic abdominal conditions of the bovine • Cattle parasitology (endo and ectoparasites) • Respiratory disease in adult cattle • Enzootic calf pneumonia
Teaching Methodology	Lecture based learning and small group teaching sessions
Bibliography	<ol style="list-style-type: none"> 1. <u>Cattle Medicine, 1st, Scott</u> 2. <u>Large Animal Internal Medicine, 4th, Smith</u>
Assessment	Final Exam
Language	English