

Course Title	<b>Diagnostic skills development I</b>				
Course Code	<b>Vet-301</b>				
Course Type	Required				
Level	Undergraduate				
Year / Semester	Year 3/ Semester 1 (Fall)				
Teacher's Name	<b>Course Lead:</b>  <b>Contributor:</b>				
ECTS	6	Small group teaching / week	3	Laboratories / week	2
Course Purpose and Objectives	<p>The main objectives of the course are:</p> <ul style="list-style-type: none"> <li>• This course will introduce students to the basic clinical skills required for veterinary clinical examination. The students will learn to perform a full clinical examination of dog, cat, cow and a horse.</li> <li>• The students will learn the principles and importance of taking a history from the animal's owner</li> <li>• The students will learn the principles of data gathering and data interpretation</li> <li>• The students will learn to perform a full clinical examination of various animal species</li> <li>• The course will also focus on What is a Diagnosis? What is NOT a diagnosis. The Diagnostic Process and establishing the diagnosis.</li> <li>• The students will learn the principles of making a Diagnosis. Clinical Problem-Solving Methods. The students will understand that for the practicing clinician most daily activities revolve around, or are based upon, deciding what is wrong with the animal (diagnosis) and deciding what to do about it (clinical decisions)</li> <li>• Introduction to anesthesia- Students will learn about the equipment and monitoring to equip the student for assisting with anesthesia during their EMS</li> </ul>				

Learning  
Outcomes

The following list provides the learning objectives that will be covered in the lectures, lab practical sessions and tutorials of each week:

**Week 1****LOBs covered during lectures and practicals with live animals and instruments:**

1. History Taking
2. Patient data
3. Present history
4. Past history
5. Management history
6. Environmental history

**Week 2****LOBs covered during lectures and practicals:**

7. Methods of Restraint- physical, chemical, verbal/moral
8. Restraints of the equine
9. Restraint of the cattle
10. Restraint of sheep and goat
11. Restraint of the dog and cat

**Week 3****LOBs covered during lectures and practicals:**

12. Physical examination methods
13. General inspection
14. Palpation
15. Percussion
16. Modified percussion
17. Auscultation

**Week 4****LOBs covered during lectures and practicals:**

18. Clinical Examination of the Patient
19. Temperature taking
20. Pulse taking
21. Respiration taking
22. Capillary Refill Time (CRT)
23. Physical body condition scoring

**Week 5****LOBs covered during lectures and practicals:**

24. Clinical Examinations of the head and neck region
25. Examination of skin and appendages
26. Examinations of the thoracic cavity
27. Physical examination of the thorax
28. Regional anatomy of the heart -locate the heart area

**Week 6****LOBs covered during lectures and practicals:**

29. Clinical examinations of the abdominal and associated digestive organs
30. Rectal examination of the internal abdominal structures
31. Clinical Examinations of the Feces
32. Examination of the urogenital system
33. Examinations of the nervous system
34. Examinations of the musculoskeletal system
35. Examination of superficial lymph nodes

**Week 7****LOBs covered during lectures:**

36. What is a diagnosis
37. What is not a diagnosis
38. Examining clinical record against necropsy reports
39. Examining death certificates against necropsy reports
40. Is There a Problem with the Accuracy of Clinical Diagnoses?

**Week 8****LOBs covered during lectures:**

41. Components of the diagnostic process
42. Data gathering
43. Data interpretation
44. Establishing the diagnosis
45. Discuss various sources of error
46. Discuss does our diagnostic ability change with time?
47. Discuss is there something special about medical diagnostics- or is it all simply problem solving?
48. Discuss are there different diagnostic methods?
49. Discuss what is it that allows experts to succeed at clinical reasoning?

**Week 9****LOBs covered during lectures:**

	<p><b>Anesthesia</b></p> <p>50. Introduction to veterinary anesthesia          51. Anesthetic Machines and Breathing Systems          52. Medical gases          53. Pressure gauges, regulators and flow meters          54. Vaporisers          55. Breathing systems</p> <p><a href="#">Week 10</a></p> <p><b>LOBs covered during lectures</b></p> <p>56. Airway Management and Ventilation          57. Endotracheal intubation          58. Endotracheal tubes          59. Nasotracheal intubation          60. Oxygen cage          61. Ventilators</p> <p><a href="#">Week 11</a></p> <p><b>LOBs covered during lectures and practicals:</b></p> <p>62. Monitoring Anesthetized Patients          63. Physical signs of anesthetic depth          64. Monitoring Perioperative Pain          65. Pain management          66. Monitoring analgesia          67. Euthanaesia</p> <p><a href="#">Week 12</a></p> <p><b>LOBs covered during lectures:</b></p> <p>68. Cardiovascular Monitoring          69. Pulmonary Monitoring Breathing Rate, Rhythm, Nature, and Effort          70. Hemoglobin saturation with oxygen          71. Temperature Monitoring</p>		
Prerequisites	None	Required	None
Course Content	<ul style="list-style-type: none"> <li>• Taking a history</li> <li>• Clinical examination</li> <li>• Creating and maintaining a clinical record, including legal requirements</li> <li>• Problem-oriented approach</li> <li>• Critical thinking</li> <li>• Working with incomplete data</li> <li>• Making a diagnosis</li> <li>• Anesthesia- equipment and monitoring</li> <li>• Pain management</li> <li>• Euthanaesia</li> </ul>		

	<ul style="list-style-type: none"> <li>• Case examples (supervised self-directed learning where students would be given some basic information and would have to work through the case creating a problem list, differential diagnosis for each problem and a diagnostic plan. They receive results for each test requested and work through the case under supervision)</li> <li>• Physics of Radiation therapy and Artificial Intelligence</li> </ul>
Teaching Methodology	Lecture based teaching (minor) small group teaching (major) and practicals
Bibliography	<ol style="list-style-type: none"> <li>1. <u>Small Animal Medical Differential Diagnosis THOMPSON</u></li> <li>2. <u>Clinical Reasoning in Small Animal Practice</u></li> <li>3. <u>Veterinary Clinical Skills Manual</u></li> <li>4. <u>Practical Manual on Veterinary Clinical Diagnostic Approach</u></li> <li>5. <u>Making a Diagnosis: Clinical Problem Solving Methods, Principles and Theory</u></li> <li>6. <u>Differential diagnosis in small animal medicine, Gough</u></li> <li>7. <u>Veterinary Anesthesia and Analgesia, 4th, Lumb and Jones</u></li> </ol>
Assessment	Clinical placements attendance and professional behaviour (30%), Objective Structured Clinical Examination (mini-OSCE) (70%).
Language	English