

## Course Description Form

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| <b>1. Course Name:</b>   |  |
| Clinical pathology   |  |
| <b>2. Course Code:</b>   |  |
| VEC4119  |  |
| <b>3. Semester / Year:</b>   |  |
| 2023-2024  |  |
| <b>4. Description Preparation Date:</b>  |  |
| 11/2/2024  |  |
| <b>5. Available Attendance Forms:</b>  |  |
| 4 <sup>th</sup> rd stage students  |  |
| <b>6. Number of Credit Hours (Total) / Number of Units (Total)</b>                 |  |
| 45 hr. / 2 units   |  |
| <b>7. Course administrator's name (mention all, if more than one name)</b>         |  |
| Name: assistant lec. Reyam sami hameed<br>Name: Assisstant Lec. Almas Mohammed Ali |  |
| <b>8. Course Objectives</b>  |  |
| <b>Course Objectives</b>   | <b>1- Teaching the student the concept of pathological diagnoses and its general principles</b><br><b>2- Knowledge, understanding and comprehension of the scientific subject curriculum</b><br><b>3- To classify the theoretical and practical needs for the development of learning and teaching in the appropriate manner with the scientific material</b><br><b>4- Identifying pathogens that may affect animals to give the correct diagnosis of the disease state.</b> |
| <b>9. Teaching and Learning Strategies</b>   |  |

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| <b>Strategy</b> | <ol style="list-style-type: none"> <li>1) lectures.</li> <li>2) Discussions during and after the lecture.</li> <li>3) Motivation through questions and answers.</li> <li>4) Homework .</li> <li>5) Preparing scientific reports .</li> </ol> |
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### 10. Course Structure

| Week            | Hours | Required Learning Outcomes                          | Unit or subject name   | Learning method                            | Evaluation method |
|-----------------|-------|---|--|--|-------------------|
| 1 <sup>st</sup> | ۳     | Collection of different samples                     | Introduction (terminology and concepts)                            | Theoretical (1 hour) + practical (2 hours) | daily test        |
| 2 <sup>nd</sup> | ۳     | Erythrocytes count                                  | Clinical hematology (leukocytes and erythrocytes)                  | Theoretical (1 hour) + practical (2 hours) | daily test        |
| 3 <sup>rd</sup> | ۳     | Reticulocytes count                                 |  | Theoretical (1 hour) + practical (2 hours) | Homework          |
| 4 <sup>th</sup> | ۳     | Packed cell volume and H <sub>1</sub> determination | Bone marrow examination  | Theoretical (1 hour) + practical (2 hours) | daily test        |
| 5 <sup>th</sup> | ۳     | Leukocytes parameters (TLC)                         | Platelets function abnormalities & diagnosis of bleeding disorders | Theoretical (1 hour) + practical (2 hours) | daily test        |
| 6 <sup>th</sup> | ۳     | Leukocytes parameters (DLC)                         | Clinical biochemistry, Basic principles, total portion,            | Theoretical (1 hour) + practical (2 hours) | Homework          |

|                  |   |   |  |   |   |
|------------------|---|---|--|---|---|
| 7th              | ۳ | ESR determination                                       | review   | Theoretical (1 hour)<br>+ practical (2 hours) | daily test  |
| 8th              |   | <b>Mid-term exam.</b>                                   |  |   | Theoretical (and practical)<br>(10) exams + reports (5) |
| 9th              | ۳ | Platelets function abnormalities                        | Ketones, urea, enzymology, mineral levels.                         | Theoretical (1 hour)<br>+ practical (2 hours) | daily test  |
| 10 <sup>th</sup> | ۳ | Bleeding and clotting time                              | Metabolic profile test and S.1. unit.                              | Theoretical (1 hour)<br>+ practical (2 hours) | daily test  |
| 11 <sup>th</sup> | ۳ | Blood smear examination 2                               | Liver function test  | Theoretical (1 hour)<br>+ practical (2 hours) | Homework  |
| 12th             | ۳ | Lymph smear examination                                 | Kidney function test   | Theoretical (1 hour)<br>+ practical (2 hours) | daily test  |
| 13th             | ۳ | Clinical biochemistry, Total protein, Ketones and urea. | Water electrolytes and acid - base imbalance                       | Theoretical (1 hour)<br>+ practical (2 hours) | daily test  |
| 14th             | 3 | Enzymology and mineral levels.                          | Disturbances of adrenal, pituitary, thyroid and parathyroid glands | Theoretical (1 hour)<br>+ practical (2 hours) | daily test  |
| 15th             | 3 | Urine examination (physical, chemical and microscopic)  | Review   | Theoretical (1 hour)<br>+ practical (2 hours) |   |

## 11. Course Evaluation

1. Semester and final theory exams by 60%
2. Semester and final practical exams at a rate of 40% , from it Daily exams (cues) and Extracurricular activities (reports, making wall posters) 5%

## 12. Learning and Teaching Resources

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| Required textbooks (curricular books, if any)                      | non   |
| Main references (sources)  | <p>1-Fundamentals of veterinary clinical pathology ,Steven L.Stokham and Michael A.Scott ,second edition .</p> <p>2-Veterinary clinical diagnosis by laboratory methods , R.S. Brar ,H.S. Sandhu and Avtar Singh .</p> <p>3-Clinical pathology and laboratory techniques for veterinary technicians, ANNE M.BARGER and AMY L. MACNEILL .</p> <p>4-Pathology and parasitology for veterinary technicians ,Leland S. Shapiro ,second edition .</p> <p>5-Color atlas of veterinary pathology , J.E.van Dijk ,E.Gruys and J.M.V.M.Mouwen , second edition .</p> <p>6-Manual of small animal clinical pathology , Malcolm Davidson ,Roderick Else and John Lumsden .</p> |
| Recommended books and references (scientific journals, reports...) | non   |
| Electronic References, Websites                                    | Wikipedia   |