### TEMPLATE FOR COURSE SPECIFICATION

# HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

#### **COURSE SPECIFICATION**

This course description provides a brief summary of the most important characteristics of the course and the learning outcomes expected of the student to achieve, demonstrating whether he has made maximum use of the available learning opportunities. It must be linked to the description of the program.

| 1. Teaching Institution                              | Kirkuk University/ College of Veterinary<br>Medicine |
|--|--|
| 2. University Department/Centre                      | Department Of Public health                          |
| 3. Course title/code                                 | Research projects /CVM5107//<br>CVM5207              |
| 4. Modes of Attendance offered                       | Fifth year students                                  |
| 5. Semester/Year                                     | Fifth year / first and second semesters 2022-2023    |
| 6. Number of hours tuition (total)                   | First semester 15 hours / Second semester 30 hours   |
| 7. Date of production/revision of this specification | 3\9\2022   |

- 1. Providing students with the basic concepts and experience necessary to prepare them as veterinarians, and teaching veterinary medicine students the basics of scientific research, as well as a graduation research project writing model.
- 2. Studying the different methods of conducting scientific research in the field of veterinary medicine.
- 3. The student should acquire integrated skills in how to collect samples and their types, whether they are body fluid samples for different animals, collecting samples, or collecting digital data to prepare sick cases and injuries from information sources, whether from the veterinary hospital or veterinary clinics.
- 4. Using modern methods and trends in scientific research opinions, obtaining results, discussing and interpreting them according to scientific foundations.
- 5. Learn ways to obtain information from solid scientific sources for use in writing scientific research to review references as well as when discussing results
- 6. Learn scientific methods in writing references
- 7. Spreading the spirit of cooperation among students by conducting scientific research and training students to conduct scientific research by preparing graduation research.

## 9. Learning Outcomes, Teaching ,Learning and Assessment Method

## A- Cognitive goals

- A1- Teaching the student the concept and principles of scientific research.
- A2- Knowledge, understanding and comprehension of the scientific subject curriculum to conduct scientific research.
- A3- To classify the theoretical and practical needs for the development of learning and teaching in an appropriate manner with the scientific subject.
- A4- Knowing how to write a graduation research project and the division of its chapters.
- A5 Identify the types of scientific research, types of samples, and the division of samples.
- A6- Studying how to write references.
- A 7- Studying how to choose the topic of scientific research.
- B- The skills goals special to the course.
- B1 Teaching the student how to take and divide the samples.
- B2 Teaching the student types of the methods of analyzing materials in different ways according to the type of research.
- B3 Teaching the student how to divide the work among the research group.
- B Teaching the student how to write scientific research according to the research chapters.
- B 5 Teaching the student how to write and index the sources.

# C-Teaching and Learning Methods

- C1- Presentation methods: giving lectures to students while they are sitting in front of the teacher, and they listen to him, and he must have the ability to memorize and absorb information.
- C2- Dialogue methods: the teacher uses the method of dialogue with the students in the manner of asking questions to the students and discussing the information with the students.
- C3- The discovery method: the teacher observes the activities of the students conducting the experiments individually or collectively.
- C4- Active methods: the students performs individual or group activities and the teacher takes the students hand towards learning in practical life inside and outside the educational institution and to come into contact with the vocabulary of practical life, which gives meaning to real learning.
- C5- Giving lectures using modern methods for presenting power point topics and scientific films.

#### Assessment methods

- 1. Semester and final theory exams at a rate of 95%
- 2. Evaluation of extra-curricular activities (reports, posters and homework) by 5%
- 3. Learning triangle
- 4. Daily exams
- D General, qualification and transferable skills (other skills related to employability and personal development).
- D1- Team work: working in harmony with the group or team.
- D2 Initiative Motivation to work: the ability to take the initiative, determine the hypothesis, and develop ideas and proposed solutions.
- D3- Planning & organization: An ability to set plans and programs that are feasible for implementation.
- D 4- Flexibility: adapting to situations.
- D 5- Time management: The ability to work on specific dates.

| 10. Cou | rse Stru  | cture   |                                    |                       |   |
|---------|-----------|---|------------------------------------|-----------------------|---|
| Week    | Hour<br>s | ILOs  | Unit/Module or<br>Topic Title      | Teaching<br>Method    | Assessment<br>Method  |
| 1       | 1         | Types of research<br>Purposes of<br>scientific research | Characteristics of research        | Theoretical (1 hour)  | daily exam  |
| 2       | 1         | Components of thesis                                    | Characteristics of research        | Theoretical (1 hour)  | Homework  |
| 3       | 1         | Major Steps in search process                           | Research Methods                   | Theoretical (1 hour)  | daily exam  |
| 4       | 1         | Role of veterinaries in Veterinary research             | Research Methods                   | Theoretical (1 hour)  | Homework  |
| 5       | 1         | References  | Research Methods                   | Theoretical (1 hour)  | daily exam  |
| 6       | 1         | Characteristics of variables                            | Variables                          | Theoretical (1 hour)  | Homework  |
| 7       | 1         | Types of Variables                                      | Variables                          | Theoretical (1 hour)  |   |
| 8       | 2         | Mid-term exam.  |                                    | Theoretical (2 hours) | Theoretical<br>exams(30) +<br>daily exam (5)<br>+ reports (5) |
| 9       | 1         | Sources of<br>Literature                                | Literature Review                  | Theoretical (1 hour)  | daily exam  |
| 10      | 1         | General Guidelines<br>to Writing a<br>Literature Review | Literature Review                  | Theoretical (1 hour)  | Homework  |
| 11      | 1         | IT vnes of sample                                       | Criteria for a good research topic | Theoretical (1 hour)  | daily exam  |
| 12      | 1         | Rules for Collecting  Data                              | Data Collection                    | Theoretical (1 hour)  | Homework  |
| 13      | 1         | Techniques and tools for Data Collection                | Data Collection                    | Theoretical (1 hour)  | daily exam  |
| 14      | 1         | Types of<br>Questionnaire                               | Questionnaire                      | Theoretical (1 hour)  | Homework  |
| 15      | 1         | Quantitative & Qualitative Study                        | Study design                       | Theoretical (1 hour)  |   |
|         | 3         | Final-term exam.  |                                    |                       | Theoretical exams (60)  |

| 10. Course Structure (second semester) |       |  |  |                     |   |
|--|-------|--|--|---------------------|---|
| Week                                   | Hours | ILOs   | Unit/Module or<br>Topic Title  | Teaching<br>Method  | Assessme<br>nt<br>Metho<br>d            |
| 1                                      | 2     | Cooperation and joint work for students within the research team to complete the graduation research | research idea and discussing it with the supervisor                        |                     | by the teacher, the research supervisor |
| 2                                      | 2     | Cooperation and joint work for students within the research team to complete the graduation research | Searching for scientific sources to support the idea of research           | practical (2 hours) | Weekly follow up                        |
| 3                                      | 2     | Cooperation and joint work for students within the research team to complete the graduation research | Distribute the tasks<br>among the students<br>within the research<br>group | practical (2 hours) | Weekly follow up                        |
| 4                                      | 2     | Cooperation and joint work for students within the research team to complete the graduation research | Start collecting samples   | practical (2 hours) | Weekly follow up                        |
| 5                                      | 2     | Cooperation and joint work for students within the research team to complete the graduation research | Follow-up work to complete the research requirements                       | practical (2 hours) | Weekly follow up                        |
| 6                                      | 2     | Cooperation and joint work for students within the research team to complete the graduation research | Follow-up work to complete the research requirements                       | practical (2 hours) | Weekly follow up                        |
| 7                                      | 2     | Cooperation and joint work for students within the research team to complete the graduation research | Follow-up work to complete the research requirements                       | practical (2 hours) | Weekly follow up                        |
| 8                                      | 2     | Cooperation and joint work for students within the research team to complete the graduation research | Follow-up work to complete the research requirements                       | practical (2 hours) | Weekly follow up                        |
| 9                                      | 2     | Cooperation and joint work for students within the research team to complete the graduation research | Follow-up work to complete the research requirements                       | practical (2 hours) | Weekly follow up                        |
| 10                                     | 2     | Cooperation and joint work for students within the research team to complete the graduation research | get results  | practical (2 hours) | Weekly follow up                        |
| 11                                     | 2     | Cooperation and joint work for students within the research team to complete the graduation research | Finding scientific sources to write the research                           | practical (2 hours) | Weekly follow up                        |
| 12                                     | 2     | Cooperation and joint work for students within the research team to complete the graduation research | Writing the search   | practical (2 hours) | Weekly follow up                        |

| 13 | 2 | Cooperation and joint work<br>for students within the<br>research team to complete<br>the graduation research | Writing the search  | practical (2 hours) | Weekly follow up   |
|----|---|---|---------------------|---------------------|--|
| 14 | 2 | Cooperation and joint work<br>for students within the<br>research team to complete<br>the graduation research | proofreading        | practical (2 hours) | Weekly follow up   |
| 15 | 2 | Cooperation and joint work for students within the research team to complete the graduation research          | Printing the search |                     | The degree of pursuit of 40 is granted by the supervisor according to the student's follow-up during the research preparation and writing period |
|    |   | Final-term exam.  |                     |                     | The discussion of graduation research completed by a scientific committee, and the score is calculated from 60                                   |

| 11. Infrastructure  |  |
|---|--|
| 1. Books Required reading:  | Non  |
| 2. Main references (sources)  | 1-SChaum's outlines. General, Organic, and Biochemistry. 2nd ed. 2-Harper's illustrated Biochemistry. 28th ed. 2009. Robert K. Murray, David A. Bender. 3-Biochemistry, Molecular biology & Genetics. 5th ed. 2010. Todd A. Swarson, Sandra I. Kim, Marc J. Glucksman. |
| A- Recommended books and references (scientific journals, reports). |  |
| B-Electronic references, Internet sites                             | Wikipedia  |

# 12. The development of the curriculum plan

1. Searching for modern teaching and learning methods and means away from the old traditional recitation method. 2. Relying on modern educational means to transfer information. 3. The use of modern devices, machines and technologies, especially electronic ones, to deliver information so that the student uses all his auditory, visual and sensory senses in comprehending and storing the information in his mind. 4. Using chemical methods and modern equipment to examine and estimate the concentrations of chemical components.