

Republic of Iraq

Academic Program specification

This Program Specification provides a concise summary of the main features of the program and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It is supported by a specification for each course that contributes to the program.

١. Teaching Institution	Kirkuk University
٢. University Department/Centre	Kirkuk Veterinary Medical College
٣. Program Title	Embryology
٤. Title of Final Award	M.B.Ch.B/ Bachelor degree in general medicine and veterinary surgery
٥. Modes of Attendance offered	Quarterly
٦. Accreditation	AVMA (American Veterinary Medical Association) and UNESCO - Standards for Accreditation of Specialized Programs
٧. Other external influences	Reciprocal visits with other universities
٨. Date of production/revision of this specification	٢٠١٩/٢٠٢٠
٩. Aims of the Program	
١. To teach students the basic(fundamental) knowledge of embryology	
٢. To teach students the clinical application of the basic knowledge of embryology in the clinical practice.	
٣. Provide students with the necessary skills for the scientific researches	

10. Learning Outcomes, Teaching, Learning and Assessment Methods

12.

A. Cognitive goals

1.

2.

A1. Students will be able to describe details of spermatogenesis and oogenesis.

3.

A2. Students will be able to describe the various developmental stages of human organs and body systems.

A3. Students will be able to describe the various body organs and tissues of neonate animal.

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A4. Students will be able to learn the basic knowledge on scientific research methodology and personal development

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14. Key sources of information about the program

1. Sadler, T. W., & Langman, J. (2010). Langman's medical embryology. Philadelphia, Pa: Lippincott Williams & Wilkins.

B. The skills goals special to the program.

B¹. Understanding the various methods of development of body organs

B². Linking the basic knowledge of clinical embryology with the surgical application in clinical practice

B³. Understanding methods of conducting scientific research and seminars

Teaching and Learning Methods

1. Online electronic lectures/Classroom program

Assessment methods

1. Conducting theoretical and practical exams

2. Performing Quizzes

3. Performing scientific assignment

C. Affective and value goals

C¹ - Understanding scientific ethics in dealing with human cadaver

C² - Understanding teamwork and exchanging knowledge with classmates.

C³ - Understanding basics of the good clinical practice.

1.1. Program Structure

Level/Year	Course or Module Code	Course or Module Title	Credit rating	
			Theory	Practical
Second		Embryology	1 ^o hours	

Teaching and Learning Methods

1. Online electronic theoretical lectures / Classroom program

2. Scientific meeting and workshops

Assessment methods

١. Conducting theoretical and practical exams
٢. Performing Quizzes
٣. Performing scientific assignment

D. General and Transferable Skills (other skills relevant to employability and personal development)

- D١ - Teamwork and leadership
- D٢ – Time management
- D ٣- Academic writing and scientific presentation skills

Teaching and Learning Methods

١. Workshops
٢. Scientific meetings
٣. Online webinars / lectures

Assessment Methods

Observing the student's progress and performance in the lectures, practical sessions, and scientific meetings

COURSE SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

COURSE SPECIFICATION

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the programme specification.

١. Teaching Institution	Kirkuk University
٢. University Department/Centre	Kirkuk Veterinary Medical College
٣. Course title/code	Embryology CVM ٢٢٠٩
٤. Modes of Attendance offered	Integrated teaching
٥. Semester/Year	Second year / ٢ nd semester
٦. Number of hours tuition (total)	١٥ hours
٧. Date of production/revision of this specification	٢/٢/٢٠٢١
٨. Aims of the Course	
1. To teach the various developmental stages of animal organs and different body systems	
2. To teach the phase of fertilization, cleavage and implantation	

3. To teach the Gastrulation and notochord formation

9. Learning Outcomes, Teaching ,Learning and Assessment Method

A. Cognitive goals.

A¹. Students will be able to describe details of spermatogenesis and oogenesis.

A². Students will be able to describe the various developmental stages of animal organs and body systems.

A³. Students will be able to describe the various body organs and tissues of neonate animal.

A⁴. Students will be able to learn the basic knowledge on scientific research methodology and personal development.

B. **The skills goals special to the course.**

B¹. Understanding the various methods of anatomical dissection.

B². Linking the basic knowledge of embryology with the surgical application in clinical practice.

B³. Understanding methods of conducting scientific research and seminars.

Teaching and Learning Methods

1. Online electronic theoretical lectures / Classroom program
2. Running seminars

Assessment methods

1. Explanation and clarification.

2. Semester and final theory exams

3. Performing Quizzes

4. Performing scientific assignments

C. Affective and value goals

C₁ - Understanding scientific ethics in dealing with animal cadaver

C₂ - Understanding teamwork and exchanging knowledge with classmates.

C₃ - Understanding basics of the good clinical practice.

Teaching and Learning Methods

1. Online electronic theoretical lectures / Classroom program

2. Scientific meeting and workshops

Assessment methods

1. Semester and final theory exams by 90%.

2. Evaluation of extra-curricular activities (reports, posters and homework) by 10%.

3. Learning triangle

4. Daily exams

D. General and rehabilitative transferred skills (other skills relevant to employability and personal development)

1 - Methods of diction: a teacher who listens to the learners while they sit in front of him, and they listen to him, and he must have the ability to indoctrinate and absorb information.

2 - Conversational methods: the teacher must possess a high scientific ability and the attendees have information on the topic of the discussion and dialogue.

3 - The discovery method: the teacher observes the activities of the learners conducting the experiments individually or collectively.

4 - Active methods: the learner performs individual or group activities and the teacher takes the learner's hand towards learning in practical life inside and outside the walls of the educational institution and to come into contact with the vocabulary of practical life, which gives meaning to real learning.

o - Giving lectures using modern methods of presentation of power point topics and scientific films.

10. Course Structure

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	1	Introduction to embryology, phases of ontogenetic development, phase of gametogenesis	Embryology	Theoretical lectures and online electronic lectures	Theory exams
2	1	Phase of Fertilization	Embryology	Theoretical lectures and online electronic lectures	Theory exams
3	1	Phase of cleavage, Implantation process	Embryology	Theoretical lectures and online electronic lectures	Theory exams
4	1	Formation of fetal membranes	Embryology	Theoretical lectures and online electronic lectures	Theory exams
5	1	Phase of Gastrulation and notochord formation	Embryology	Theoretical lectures and online electronic lectures	Theory exams
6	1	Mesoderm differentiation and neurulation process	Embryology	Theoretical lectures and online electronic lectures	Theory exams
7	1	Development of cardiovascular system 1	Embryology	Theoretical lectures and online electronic lectures	Theory exams
8	1	Development of nervous system	Embryology	Theoretical lectures and online electronic lectures	Theory exams
9	1	Development of brachial arches and pharyngeal pouches	Embryology	Theoretical lectures and online electronic lectures	Theory exams
10	1	Development of digestive system	Embryology	Theoretical lectures and online electronic lectures	Theory exams
11	1	Development of urinary system	Embryology	Theoretical lectures and online electronic lectures	Theory exams
12	1	Development of genital system	Embryology	Theoretical lectures and online electronic lectures	Theory exams
13	1	Development of respiratory system	Embryology	Theoretical lectures and online electronic lectures	Theory exams
14	1	Development of skeletal system	Embryology	Theoretical lectures and online electronic lectures	Theory exams
15	1	Development of lymphatic system	Embryology	Theoretical lectures and online electronic lectures	Theory exams

11. Infrastructure	
1. Books Required reading:	1- Veterinary embryology T.A.McGeady ,P.J.Quinn,E.S.Fitzpatrick and M.T.Ryan
	1.
	2.
2. Main references (sources)	3. Veterinary embryology. A.McGeady ,P.J.Quinn,E.S.Fitzpatrick and M.T.Ryan.
A- Recommended books and references (scientific journals, reports...).	1. Sadler, T. W., & Langman, J. (2010). Langman's medical embryology. Philadelphia, Pa: Lippincott Williams & Wilkins 2. Vishram Singh. . (2012). Textbook of Clinical Embryology. 3 rd edition. Elsevire
B-Electronic references, Internet sites...	Wikipedia https://www.midlibros.com www.mebooksfree.com
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	