

# PLATE FOR 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.

1. Teaching Institution	University of Kirkuk
2. University Department/Centre	College of Veterinary Medicine
3. Course title/code	Histology CVM2102/CVM2202
4. Modes of Attendance offered	Second class
5. Semester/Year	First and second semester\ 2021-2022
6. Number of hours tuition (total)	75
7. Date of production/revision of this specification	2/9/2021
8. Aims of the Course	
1- Enable student to know the principal of histology course	
2- Enable student to know the types of tissues ( epithelial , connective, muscular and nervous tissues)	
3- Enable student to recognize the microscopic anatomy of different tissues	
4- Enable student to know the function of each type of tissue	
5- Enable student to know the types of different cells in each type tissue	
6- Enable student to identify different type of tissues microscopically	
7- Enable student to recognize the histological structure of each type of organ	
8- Enable student to know the function of each type of animal organ	
9- Enable student to recognize the histological structure of each layer of organ	

9. Learning Outcomes, Teaching ,Learning and Assessment Methods

**A- Cognitive goals .**

- A1. Make student able to know types of tissues ( epithelial , connective, muscular and nervous tissues)
- A2. Make student able to know microscopic anatomy of different tissues
- A3. Make student able to know microscopic anatomy of different tissues
- A4. Make student able to know function of each type of tissue
- A5. Make student able to recognize microscopic structure of each tissue
- A6 . Make student able to know function of each type of tissue and organ

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

- B1. Make student able to light microscope
- B2. Make student able to draw tissue visualized under microscope
- B3. Make student able to prepare the histological section and stain it

**Teaching and Learning Methods**

Lectures ppt, videos, discussion .quizzes, homework  
Make reports

**Assessment methods**

Mid term exam (Theoretical Exam and Practical Exam(58%)  
Final exam (Theoretical Exam and Practical Exam(42%)

**C. Affective and value goals**

- C1.
- C2.
- C3.
- C4.

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

- D1.
- D2.
- D3.
- D4.

### 10. Course Structure

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	5	INTRODUCTION :	Definition ,microscopic measurements, calculation of magnification, basic histological techniques.	(5 hrs: 2hrs theoretical+3hrs practical)	Theoretical Exam (23) Practical Exam ( 17)
2	5	CYTOLOGY	Interphase nucleus, nuclear membrane, chromatin, duplication of chromatin, nucleolus, cell membrane ,cytoplasmic organoids mitochondria.		
3	5		granular and smooth endoplasmic reticulum, ribosomes, Golgi apparatus, lysosomes, centrosomes,		
4	5	Cell division	Mitosis and meosis		
5	5	TYPES OF TISSUES EPITHELIAL TISSUE	Classification of epithelial tissues according to their shape and No. of cellular layers. Linning and covering epith. , special characteristics of epithelia epitheliod tissue.		
6	5		Epithelial surface features . Apical surface features. Cell Junctions. glands , classification of glands, exocrine and endocrine glands, mode of secretions(apocrine, merocrine and holocrine)		
7	5	CONNECTIVE TISSUE	Definition,Classification , proper C.T. , supportive (bone and cartilage) and fluid C.T.(blood and lymph).		
8	5		Blood , plasma, blood cells , erythrocytes and leukocytes and platelets.		
9	5		Mid-term exam.		
10	5		Bone and cartilage and their classification, spongy and compact bones, havercian system. fibrous , elastic and hyaline cartilages.		

11	5	MUSCULAR TISSUE	Classification of muscles, skeletal, smooth and cardiac muscles and their histological features.		
12	5	NERVOUS TISSUE:	classification, organoids of neurons, axons and dendrites,		
13	5		2 <sup>nd</sup> mid term exam		Theoretical Exam (23) Practical Exam ( 17)
14	5	NERVOUS TISSUE:	supporting cells in CNS and PNS, synapses, nerve fibers, cerebrospinal and autonomic ganglia.		
15			<b>General review of articles</b>		
16			<b>Final-term exam.</b>		
17	5	DIGESTIVE SYSTEM:	Oral cavity, lip, tongue, lingual papillae, esophagus,		
18	5		stomach, nonglandular stomach in ruminants: rumen, reticulum, omasum, abomasums, glandular stomach, cardiac portion, fundic portion, pyloric portion,		
19	5		small intestine: duodenum, jejunum, ileum, large intestine, colon, recto anal junction,		
20	5		accessory glands, liver, pancreas.		
21		RESPIRATORY SYSTEM:	Nasal cavity, vestibular region, respiratory region, olfactory region, larynx, trachea, lung, bronchi, bronchioles, alveolar ducts, alveoli, interalveolar septum, pleura.		
22		URINARY SYSTEM:	Unipyramidal kidney, multipyramidal kidney, general microscopic structure, nephron, portions and function, guxtglomerular complex, portions and function,		
23			ureter, urinary bladder, urethra		
24			<b>Mid-term exam.</b>		
26		SKIN	Epidermis and dermis and their constitution. glands ,blood and nerve constitution.		

27		MALE REPRODUCTIVE SYSTEM:	Histological structure of testis, seminiferous tubules, spermatozoa development, adult spermatozoa, interstitial cells,		
28			epididymis, ductus deferens, prostate gland, vesicular gland, bulbourethral gland.		
29		FEMALE REPRODUCTIVE SYSTEM	Histological structure of ovary, ovarian follicle development, ovulation, corpus luteum and function oviduct portions,		
30			histological structure of uterus, cyclic changes in the endometrium, cervix, vagina, mammary gland and functional conditions.		
31		ENDOCRINE SYSTEM:	Pituitary gland, embryonic origin, adenohypophysis and endocrine cell types, neurohypophysis, hypothalamic portion, thyroid gland, structure and function, adrenal gland, structure and function, parathyroid gland, structure and function, endocrine cells in other organs.		
32		CARDIOVASCULAR SYSTEM:	Blood vessels, types of arteries, types of veins, venules, types of capillaries, sinusoids, arteriovenous anastomosis, wall of the heart.		
			<b>Final-term exam.</b>		

<p>1. Books Required reading:</p>	<p>1. Color Atlas of Veterinary Histology, 1999 2nd Ed. William J. BACHA, Linda M.Bacha 2. Basic Histology. A text and Atlas Luis Carlos Junqueira ; Jose Carneiro 3. Histology Atext and Atlas . Michael H. Ross 4. text book of Veterinary histology (Dellmanns)</p>
<p>2. Main references (sources)</p>	
<p>A- Recommended books and references (scientific journals, reports...).</p>	
<p>B-Electronic references, Internet sites...</p>	
<p>12. The development of the curriculum plan</p>	