

URINARY SYSTEM HISTOLOGY

1	Course Title:	URINARY SYSTEM HISTOLOGY	
2	Course Code:	THE6010	
3	Type of Course:	Optional	
4	Level of Course:	Third Cycle	
5	Year of Study:	1	
6	Semester:	2	
7	ECTS Credits Allocated:	2.00	
8	Theoretical (hour/week):	1.00	
9	Practice (hour/week):	0.00	
10	Laboratory (hour/week):	0	
11	Prerequisites:	NONE	
12	Language:	Turkish	
13	Mode of Delivery:	Face to face	
14	Course Coordinator:	Prof. Dr. ZEHRA MİN BAY	
15	Course Lecturers:	Prof. Dr. Zehra MİN BAY	
16	Contact information of the Course Coordinator:	zminbay@uludag.edu.tr (224) 295 40 64 Bursa Uludağ Üniversitesi Tıp Fakültesi Histoloji ve Embriyoloji AD 16059 Nilüfer Bursa	
17	Website:		
18	Objective of the Course:	To educate researchers who know the normal histological structures of the urinary system organs, who recognize them microscopically and who establish the relationship between the these morphological features and their functions.	
19	Contribution of the Course to Professional Development:	This course contributes to the students providing the knowledge necessary for their academic development.	
20	Learning Outcomes:		
		1	Know the function of each of the parts of the urinary system
		2	Distinguish the histological differences between the renal cortex and medulla
		3	Describe the structure of the filtration membrane and outline how blood is filtered in the nephron
		4	Identify the major structures and subdivisions of the renal corpuscles, renal tubules and collector ducts, and renal capillaries
		5	Describe the location of the juxtaglomerular apparatus and the cells in its structure
		6	Learn the flow of blood through the kidney, the function of the peritubular capillaries and vasa recta
		7	Describe the histology of renal calyces, ureter, bladder and urethra
		8	Identify the parts of the male urethra and the histological differences of these sections
		9	Recognize and illustrate the microscopic structures of the kidney and lower urinary tracts
		10	
21	Course Content:		

Course Content:		
Week	Theoretical	Practice
1	General features of the urinary system, general structure of the kidney	
2	Nephron: General structure and types	
3	Kidney's filtration apparatus	
4	Mezangium and juxtaglomerular apparatus	
5	Kidney tubules - proximal tubules	
6	Kidney tubules - distal tubules and Henle's loop	
7	Böbrek tubülleri - toplayıcı duktuslar ve interstisyel hücreler	
8	Aquaporins	
9	Histophysiology of the kidney	
10	Histophysiology of the kidney	
11	Urothelium	
12	Histology of the calyces and the ureter	
13	Histology of the bladder and urethra	
14	Urinary system and clinical correlation	
22	Textbooks, References and/or Other Materials:	1. Kierszenbaum AL, Tres LL. Histology and Cell Biology. 4rd edition. Philadelphia: Saunders; 2016. 2. Ovalle WK, Nahirney PC. Netter's Essential Histology. 2nd edition. Philadelphia: Saunders; 2013. 3. Pawlina W. Histology. A Text and Atlas. 7th edition. Baltimore: Wolters Kluwer Health; 2016. 4. Mescher AL. Junqueira's Basic Histology, 15th edition, New York: Lange; 2018. 5. Young B, ODowd G, Woodford P. Wheaters Functional Histology: A Text and Colour Atlas. 6th edition. Philadelphia: Churchill&Livingstone 2014. 6. Mills SE. Histology for Pathologists. 4th edition. Philadelphia: Lippincott Williams & Wilkins; 2012.
23	Assesment	
TERM LEARNING ACTIVITIES		
	NUMBE R	WEIGHT
Midterm Exam	0	0.00
Quiz	0	0.00
Home work-project	0	0.00
Final Exam	1	100.00
Total	1	100.00
Contribution of Term (Year) Learning Activities to Success Grade		0.00
Contribution of Final Exam to Success Grade		100.00
Total		100.00
Measurement and Evaluation Techniques Used in the Course		Measurement and evaluation are performed according to the Rules & Regulations of Bursa Uludağ University on Undergraduate Education.
24	ECTS / WORK LOAD TABLE	

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	1.00	14.00
Practicals/Labs	0	0.00	0.00
Self study and preperation	14	2.00	28.00
Homeworks	0	0.00	0.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	0	0.00	0.00
Others	0	0.00	0.00
Final Exams	1	12.00	12.00
Total Work Load			54.00
Total work load/ 30 hr			1.80
ECTS Credit of the Course			2.00

25	CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS															
	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ10	PQ11	PQ12	PQ13	PQ14	PQ15	PQ16
ÖK1	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK2	5	4	0	0	2	0	0	0	0	0	0	0	0	0	0	0
ÖK3	5	4	0	0	2	0	0	0	0	0	0	0	0	0	0	0
ÖK4	5	4	0	0	2	0	0	0	0	0	0	0	0	0	0	0
ÖK5	5	4	0	0	2	0	0	0	0	0	0	0	0	0	0	0
ÖK6	5	4	0	0	2	0	0	0	0	0	0	0	0	0	0	0
ÖK7	5	4	0	0	2	0	0	0	0	0	0	0	0	0	0	0
ÖK8	5	4	0	0	2	0	0	0	0	0	0	0	0	0	0	0
ÖK9	5	4	0	0	2	0	0	0	0	0	0	0	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contribution Level:	1 very low			2 low			3 Medium			4 High			5 Very High			