

Course Description (Histology Practical)

Review of Higher Education Institution Performance (Academic Program Review)

Course Description

This course description provides a concise summary of the most important characteristics of the course and the learning outcomes expected of the student to achieve, demonstrating whether they have made the most of the available learning opportunities. It is essential to link these outcomes with the program description.

1. Educational Institution	Al-Zahrawi University College - Ministry of Higher Education and Scientific Research
2. University Department / Center	Department of Pharmacy
3. Course Name / Code	Histology (practical)
4. Programs in which it is included	Bachelor of Science in Pharmacy
5. Available Forms of Attendance	Daily Attendance
6. Semester / Year	Second Semester/first stage / 2024 – 2025
7. Total Number of Study Hours	3 hours per week
8. Date of preparing this description	2024 – 2025
9. Course Objectives: • Master Slide Preparation & Microscopy: Develop core practical skills in preparing tissue glass slides and using light microscopy to examine cell and tissue structures. • Identify Microscopic Architecture: Systematically identify and differentiate the histological structures and cellular components of all major human organ systems. • Correlate Structure with Function: Understand how specialized tissue microanatomy enables organ physiology, biological barriers, and mucosal transport mechanisms. • Apply Histology to Pharmacy: Connect microscopic organ characteristics to pharmaceutical concepts, including drug absorption, tissue distribution, and cellular targets.	
1. Learning Outcomes, Teaching and Learning Methods, and Evaluation	

A. Knowledge and Understanding

Slide Preparation & Staining Principles: Understand the fundamental techniques used to prepare tissue sections, including fixation, embedding, sectioning, and routine H&E staining.

Microscopic Architecture of Organs: Identify the histological layers, tissue patterns, and structural organization of major organ systems relevant to drug distribution and action.

Cellular Specialization & Histophysiology: Recognize specialized cell types within tissues and comprehend how their microscopic structures dictate physiological and barrier functions.

Histological Differentiation & Pathology Baselines: Distinguish normal tissue microanatomy across organ variations to recognize baseline structural standards necessary for evaluating drug effects and pathologies.

B. Subject-Specific Skills

Microscopic Slide Preparation & Examination: Master the steps of tissue section preparation (fixation, sectioning, and staining) and use light microscopy for the precise identification of various cells and tissues.

Comparative Histological Differentiation: Demonstrate the ability to morphologically distinguish between similar and distinct tissues (such as types of glands, muscle tissue, and mucosal layers) across different body systems.

Correlating Microstructure with Pharmacological Effect: Analyze the histological features of organs (such as tissue barriers and absorptive surfaces) to evaluate drug absorption, distribution, and action at the cellular level.

Teaching and Learning Methods

- Discussion and thinking style.
- Scientific tests used in laboratories.
- Learning through exploratory lectures

C. Evaluation Methods

- Submission of weekly reports.
- Examination grades.
- Discussion sessions and presentations.

D. Thinking Skills

- 1: Dialogue style between the student and the professor.
- 2: Preparation of weekly reports.
- 3: Conducting discussions of results.
- 4: Exploratory thinking.

Teaching and Learning Methods

Grades.
Discussion and dialogue.
Examinations.

Evaluation Methods

1. Grades, research, and reports
2. Exams

E. General and Transferable Skills

- 1: The ability to apply acquired knowledge.
- 2: The ability to master teaching and learning skills.
- 3: The ability to reflect gained knowledge into professional development.

11. Course Structure					
Weeks	Hours	Required Learning Outcomes	Unit Name / Course or Topic	Learning Methods	Evaluation Method
1	3	Knowledge	Slide preparation techniques and microscopic structures of blood vessels.	Blackboard and Projector Usage	Daily Exam and Oral Questions
2	3	Knowledge	Microscopic structure and architecture of lymphatic capillaries and vessels.	Blackboard and Projector Usage	Daily Exam and Oral Questions
3	3	Knowledge	Histological features of the thymus, spleen, and lymph nodes.	Blackboard and Projector Usage	Daily Exam and Oral Questions
4	3	Knowledge	Microscopic identification of mucosa-associated lymphoid tissue and tonsil structures.	Blackboard and Projector Usage	Daily Exam and Oral Questions
5	3	Knowledge	Histology of central and peripheral nervous system tissue sections.	Blackboard and Projector Usage	Daily Exam and Oral Questions
6	3	Knowledge	Microscopic features of respiratory conducting zones and alveolar lung tissue.	Blackboard and Projector Usage	Daily Exam and Oral Questions
7	3	Knowledge	Histological layers of the esophagus, stomach, and intestinal walls.	Blackboard and Projector Usage	Daily Exam and Oral Questions
8	3	Knowledge	Microscopic architecture of salivary glands, liver, pancreas, and gallbladder.	Blackboard and Projector Usage	Daily Exam and Oral Questions
9	3	Knowledge	Histological structure of adenohypophysis and neurohypophysis regions.	Blackboard and Projector Usage	Daily Exam and Oral Questions
10	3	Knowledge	Microscopic anatomy of adrenal, thyroid, parathyroid, and pineal glands.	Blackboard and Projector Usage	Daily Exam and Oral Questions
11	3	Knowledge	Histology of seminiferous tubules and stages of sperm development.	Blackboard and Projector Usage	Daily Exam and Oral Questions
12	3	Knowledge	Microscopic structure of the epididymis, vas deferens, and prostate.	Blackboard and Projector Usage	Daily Exam and Oral Questions

13	3	Knowledge	Histology of ovarian follicles, uterine tubes, and endometrial tissue.	Blackboard and Projector Usage	Daily Exam and Oral Questions
14	3	Knowledge	Microscopic structure of renal nephrons and urinary tract epithelium.	Blackboard and Projector Usage	Daily Exam and Oral Questions
15	3	Knowledge	Comparative histological layers of thick and thin epidermal tissue.	Blackboard and Projector Usage	Daily Exam and Oral Questions

12. Infrastructure	
Required Readings:	References: Mescher, A. L. (2024). <i>Junqueira's Basic Histology: Text and Atlas</i> (17th ed.). McGraw Hill.
Special Requirements (Workshops, Journals, Software, Websites):	Electronic Websites:
Social Services (Guest Lectures, Professional Training, Field Studies, Others)	Organizing workshops and courses for graduates:

13. Admission:	
Prerequisites	Admission according to the central plan
Minimum Number of Students	/
Maximum Number of Students	Admission exceeds the capacity plan

Name of the Instructor:
Teacher Aumaima Tariq Abed