

# AHST 104 Basic Histology (2025)

## 1- Basic Information

Course Title	<b>Basic Histology</b>				
Course Code	<b>104 AHST</b>				
Department(s) responsible for course teaching.	Medical Laboratory Technology department				
Course hours	Credit hrs.	Contact			
		Lec	Tut	Lab	Total
	3	1		4	3
Course type	Compulsory				
Course level	First-level, first semester				
Academic program	Foundation year				
Faculty	High Institute of Applied Health Science Badr				
University	Badr Higher Institutes of Science and Technology				
Course coordinator	Rania Karas				
Course approval date	Click or tap to enter a date.				
Decision approving board (attached the decision/minutes of the department council)					



## 2- Course Overview

This course Foster a comprehensive understanding of the microscopic architecture of human cells, tissues, and organs, and elucidate their structural-functional correlations within various organ systems of the body through systematic examination under the light microscope.

## 3- Course Learning Outcomes

**Consistency of course learning outcomes with program outcomes (adopted standards)**

<b>Course Learning Outcome</b> By the end of this course the student will be able to:		<b>Program Outcomes/Adopted Academic Reference Standards</b> (PO Target by the course based on matrix)	
<b>Code</b>	<b>Statement</b>	<b>Code</b>	<b>Statement</b>
	1.1.1- Demonstrate an understanding of fundamental knowledge of basic and applied health sciences.	<b>CLO1</b>	Demonstrate an understanding of fundamental knowledge of basic applied health sciences (anatomy, physiology, physical chemistry, microbiology, general physics, mechanics, mechatronics,.....).  Understand and deal with the interdisciplinary sciences.
	2.1.1- Exhibit appropriate professional behaviors and relationships in all aspects of practice.	<b>CLO2</b>	Demonstrate an understanding of fundamental knowledge of basic applied health sciences (anatomy, physiology, physical chemistry, microbiology, general physics, mechanics, mechatronics,.....).
	4.1.1- Participate in teamwork harmoniously and	<b>CLO3</b>	Demonstrate an understanding of fundamental knowledge of basic applied health sciences (anatomy, physiology, physical chemistry, microbiology,

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<b>Code</b>	<b>Statement</b>	<b>Code</b>	<b>Statement</b>
	exhibit collaborate effectively with colleagues and other health care professionals		general physics, mechanics, mechatronics,.....).
		<b>CLO4</b>	Demonstrate an understanding of fundamental knowledge of basic applied health sciences (anatomy, physiology, physical chemistry, microbiology, general physics, mechanics, mechatronics,.....).
		<b>CLO5</b>	Understand and deal with the interdisciplinary sciences.
		<b>CLO6</b>	. Perform the most common experiments in biological & basic sciences including (Bio-electrodes & Biosensors, Hooke's law, osmosis, diffusion, Wheatstone bridge, Archimedes principles, Magnetometer, Ohm law and Measurements of viscosity by stokes Law, Law of Reflection & lenses, Light microscope & perform microbial staining .....).
		<b>CLO7</b>	. Work safely in the lab environment and possess the basic competencies necessary for a range of practical techniques.  Perform the most common experiments in biological & basic sciences including (Bio-electrodes & Biosensors, Hooke's law, osmosis, diffusion, Wheatstone bridge, Archimedes principles, Magnetometer, Ohm law and Measurements of viscosity by stokes Law, Law of Reflection & lenses, Light microscope & perform microbial staining .....).
		<b>CLO8</b>	Communicate effectively & develop collaborative relationships with all health members.

Course Learning Outcome By the end of this course the student will be able to:		Program Outcomes/Adopted Academic Reference Standards (PO Target by the course based on matrix)	
Code	Statement	Code	Statement
			Participate in teamwork harmoniously and exhibit collaboration with colleagues and other health care professionals.

## 4- Learning Methods

Interactive lectures  
 Role playing  
 Small group discussion / Brainstorming  
 Demonstrations  
 Self-Directed Learning  
 Practical tutorial session

## 5- Course Timetable

Week No.	Course Content/Topics	Total Weekly hours	Expected learning hours (contact hours)		
			نظري	تمارين	عملي
1	<b>Introduction to Histology [microscopy]</b>	3	1		4
2	<b>micro-techniques</b>	3	1		4
3	<b>The cell structure and function</b>	3	1		4
4	<b>Cell cycle and Cell division</b>	3	1		4
5	<b>Epithelial tissue</b>	3	1		4
6	<b>Connective tissue I [general characters- free and fixed CT cells and fibres and matrix]</b>	3	1		4
7	<b>Midterm exam</b>				
8	<b>Connective tissue II [types of C.T]</b>	3	1		4

9	<b>Muscular tissue</b>	3	1		4
10	<b>Nervous tissue</b>	3	1		4
11	<b>Skin</b>	3	1		4
12	<b>Gastrointestinal tract</b>	3	1		4
13	<b>Urinary tract</b>	3	1		4
14	<b>Practical exam</b>				
15	<b>Final exam</b>				
16	<b>Final exam</b>				

## 6- Student Assessment Methods

No .	Assessment method*	Assessment time (Week No.)	Rating Scores	Percentage of the total course grade
1	Midterm exam and activities	7 <sup>th</sup>	20	20%
2	Final written exam	15 <sup>th</sup>	50	50%
3	Final Practical exam	14 <sup>th</sup>	30	30%
8	Other (list)	Weekly formative assessment	---	----

\* The methods mentioned above are indicative examples, and may add and delete

## 7- Learning Sources and Facilities

<b>Learning resources (books, scientific references, etc.) *</b>	<b>Main Reference</b>	Departmental course handbook <a href="https://bislms.mans.edu.eg/moodle2025/pluginfile.php/5854/mod_resource/content/1/Badr%20Book%20Basic%20Histology.pdf">https://bislms.mans.edu.eg/moodle2025/pluginfile.php/5854/mod_resource/content/1/Badr%20Book%20Basic%20Histology.pdf</a>
	<b>Other references</b>	Sangeeta, M., & Singh, N. (2024). Textbook of histology for undergraduates (2nd ed.). Thieme.  Gartner, L. P., & Lee, L. M. J. (2024). BRS cell biology and histology (9th ed.). Wolters Kluwer.  Histology and Cell Biology: Examination and Board Review / Douglas F. Paulsen.

		ISBN: 9781264269921 6th Edition Publication Date: 2022  Junqueira's basic histology: text and atlas by Anthony L. Mescher. ISBN: 9781260026184 16th Edition Publication Date: 2021
	Electronic Resources (Add the link)	Bai, B., Wang, L., & Ozcan, A. (2022). Deep learning-enabled virtual histological staining of biological samples. arXiv.  <a href="https://arxiv.org/abs/2211.06822">https://arxiv.org/abs/2211.06822</a>
	Educational Platform (add the link)	<a href="https://bislms.mans.edu.eg/moodle2025/pluginfile.php/5854/mod_resource/content/1/Badr%20Book%20Basic%20Histology.pdf">https://bislms.mans.edu.eg/moodle2025/pluginfile.php/5854/mod_resource/content/1/Badr%20Book%20Basic%20Histology.pdf</a>
	Other (List)	<a href="https://www.ekb.eg">https://www.ekb.eg</a>
<b>Educational support equipment for teaching and learning *</b>	Devices	Data show, computers, Microscopes
	Supplies	
	Software	
	Skills Labs/Simulators	
	Virtual Labs	
	Other (List)	

\* The mentioned list is indicative examples, and the institution may add and delete depending on the nature of the course.

Course Coordinator  
Name: Dr Rania Karas

Signature: 

Program Coordinator  
Name:  
Signature: