Review the performance of the higher education institution.

((Review of the academic program))

This course description provides a summary of the most important characteristics of the course and the learning outcomes expected of the student to achieve, proving whether he has made the most of the available learning opportunities and must be linked to the program description.

1. **Educational Institution: Al- Zahrawi University College**
2. **Course Name: Theoretical Human Physiology**
3. **Course Code:**
4. **Semester / Second Semester : 2024/2025**
5. **Description Preparation Date:2024-2025**
6. **Available Attendance Forms: Daily attendance**
7. **Number of Credit Hours (Total) / Number of Units 2 Hours/week (Total) 30**
8. **Course administrator's name (mention all, if more than one name)**

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Course Objective .٩

Course Objectives:

1. To provide students with fundamental knowledge of the vital functions of human body systems and organs, and to develop an understanding of the regulatory mechanisms that maintain internal homeostasis.
2. To promote an integrated understanding of the relationship between anatomical structure and physiological function, thereby enabling the interpretation of both normal and pathological biological phenomena.
3. To equip students with the ability to analyze and comprehend physiological changes associated with various clinical conditions, supporting their capacity to interpret laboratory test results effectively.
4. To develop the scientific and practical skills necessary for applying physiological concepts in a medical laboratory setting, including proficiency in the use of functional assessment tools and techniques.
5. To prepare students for professional practice in the field of pathological analysis through a comprehensive understanding of vital organ functions, thereby enhancing the quality of laboratory evaluation and diagnosis

10. Teaching and Learning Strategies

Strategy

A. Knowledge and Understanding:

By the end of this course, the student will be able to:

- Understand the fundamental principles of human physiology, including the functions of various organs and body systems.
- Demonstrate knowledge of core physiological processes such as neural conduction, muscle contraction, and hormonal regulation.
- Recognize the influence of internal and environmental factors on organ function.
- Identify physiological changes associated with various pathological conditions.
- Understand the interdisciplinary connection between physiology and other medical sciences such as anatomy, biology, and biochemistry.

	B. Subject-Specific Skills **Cognitive Skills** By the end of the course, the student will be able to: • Analyze and interpret physiological data effectively. • Apply physiological knowledge to the interpretation of laboratory test results. • Utilize physiological models to understand interactions between different organs and systems. • Develop scientific research skills within the field of human physiology. **Teaching and Learning Methods** • **Lectures:** To present foundational information and theoretical concepts. • **Discussion-based learning:** To encourage critical thinking and dialogue. • **Workshops:** To enhance practical skills and engage with real-life scenarios. • **Exploratory lectures**: To foster inquiry-based learning and independent exploration.
	Assessment Methods 1. **Theoretical Examinations:** To evaluate students' understanding of core concepts and fundamental knowledge. 2. **Continuous Assessment:** Through assignments, projects, and written reports. 3. **Self-Assessment:** To encourage students to reflect on their performance and identify areas for improvement. 4. **Peer Assessment:** To promote collaboration and enhance group learning. 5. **Weekly Reports:** To monitor ongoing progress and reinforce regular engagement with course material.

	6. **Discussion Seminars and Presentations:** To assess communication skills, critical thinking, and depth of understanding through dialogue and oral delivery.
C. Thinking Skills	1. **Interactive Dialogue**: Encouraging critical thinking through guided discussions between the student and the instructor. 2. **Weekly Report Preparation:** Developing analytical and reflective thinking through regular written reports. 3. **Results Discussion:** Engaging in the interpretation and analysis of outcomes to enhance problem-solving skills. 4. **Exploratory Thinking:** Promoting inquiry-based learning and independent exploration of concepts.
D. General and Transferable Skills	By learning these skills , the students will be able to : • Communicate physiological concepts effectively in written and oral forms. • Collaborate successfully in team-based academic activities. • Apply problem-solving skills to analyze physiological cases. • Manage time efficiently to meet academic requirements. • Use modern learning resources and technologies to enhance understanding. • Engage in self-directed learning for continuous professional growth
11. Course Structure	

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	**2**	The Knowledge	Digestive Physiology: GIT: Part General Function, Food Movement, and Control. Swallowing Reflex	Using the whiteboard and screen	Daily exam and oral questions
2	**4**	The Knowledge	Digestive Physiology: GIT Chemical Digestion, Absorption, and Control. Defecation Reflex ; Accessory Organs: Secretion and Their Role in Digestion. Secretion Control.	Using the whiteboard and screen	Daily exam and oral questions
3			**Monthly exam**		
4	**2**	The Knowledge	Urinary Physiology: General Functions of US. Urine: Definition and Normal Constitute. Physical and Chemical Property of Urine.	Using the whiteboard and screen	Daily exam and oral questions
5	**2**	The Knowledge	Role of Kidney in Urine Formation and Maintenance of Body Fluids and The Role In Acid Base Balance.	Using the whiteboard and screen	Daily exam and oral questions
6	**2**	The Knowledge	Urinary Tract: Parts and Function. Urine Hemodynamic and Control. Normal Urine Daily Volume and Factor Affecting	Using the whiteboard and screen	Daily exam and oral questions
7	**2**	The Knowledge	Endocrine Physiology: Endocrine Glands Types and Secretion. Hormone: Types, Normal Value, Function and Control of Secretion.	Using the whiteboard and screen	Daily exam and oral questions

8	**2**	The Knowledge	Reproductive Physiology: Male Sex Physiology:Function of Genital Organs. Male Sex Hormones: Normal Value, Production, Control, and Their Role in Reproduction.	Using the whiteboard and screen	Daily exam and oral questions
9	**2**	The Knowledge	Female Sex Physiology: Function of Genital Organs. Normal Value of Female Sex Hormone, Production, and Control. Female Cycle, Pregnancy, Parturition, and Lactation: Hormonal Fluctuation and Control.	Using the whiteboard and screen	Daily exam and oral questions
10	**2**	The Knowledge	Muscles Physiology: Types and Functions. Generation of Action Potential, Contraction, and Sliding-Filament theory.	Using the whiteboard and screen	Daily exam and oral questions
11	**2**	The Knowledge	Nervous Physiology: Neuroglia: Definition, Types, and Function. Neurons: Definition, Types, and Function. CSF: Composition, Function, and Clinical Importance	Using the whiteboard and screen	Daily exam and oral questions
12	**2**	The Knowledge	Generation of Action Potential. Neuronal Conduction: Types and Speed. Synapsis: Types, and Function.	Using the whiteboard and screen	Daily exam and oral questions
13	**4**	The Knowledge	CNS: Parts and Functions ; Spinal Cord: Parts, General Functions, and Spinal Reflexes. PNS: Types and Function.	Using the whiteboard and screen	Daily exam and oral questions
14	**2**	The Knowledge	Sensory System: Classification and General Function. Special Sense Organs: Types and General	Using the whiteboard and screen	Daily exam and oral questions

			Function		
15	Mid-term examination				

12. Course Evaluation

- 5 marks are calculated on reports
- 5 points are calculated on daily exams
- 5 degrees are calculated on the daily preparation
- And the rest of the grade is for the monthly exams

13. Learning and Teaching Resources

Required textbooks (curricular books, if any)	• Human Physiology Books
Main references (sources)	• Curriculum scheduled within the sectoral committees
Recommended books and references (scientific journals, reports...)	• Text book of medical physiology (Guyton and Hall) • Review of medical physiology (Ganong's) • Anatomy & Physiology(OpenStax College)
Electronic References, Websites	• ncbi,google scholar,reserachgate

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