

## Course Description (Physiology II Theory)

Performance review of higher education institution (assessment of the academic program)

This course description summarizes the key characteristics and anticipated learning objectives for students, assessing their utilization of available learning resources, and must be aligned with the program description.

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| <b>1. Educational Institution</b>                                                                                                                                                                                                                                                                                                                                                                                                 | Al-Zahrawi University                        |
| <b>2. University Department / Center</b>                                                                                                                                                                                                                                                                                                                                                                                          | Pharmacy                                     |
| <b>3. Course Name / Code</b>                                                                                                                                                                                                                                                                                                                                                                                                      | Physiology II (Theory)                       |
| <b>4. Programs in which it is included</b>                                                                                                                                                                                                                                                                                                                                                                                        | Bachelor of Pharmacy                         |
| <b>5. Available Forms of Attendance</b>                                                                                                                                                                                                                                                                                                                                                                                           | Daily Attendance                             |
| <b>6. Semester / Year</b>                                                                                                                                                                                                                                                                                                                                                                                                         | Second Semester, Second Stage<br>(2025-2026) |
| <b>7. Total Number of Study Hours</b>                                                                                                                                                                                                                                                                                                                                                                                             | 3 hours per week                             |
| <b>8. Date of preparing this description</b>                                                                                                                                                                                                                                                                                                                                                                                      | 2025-2026                                    |
| <b>9. Course Objectives:</b><br><br>1- Enable students to understand the basic principles of physiological functions of different tissues and organs of the human being.<br>2- Teach students how to evaluate these functions.<br>3- Correlate these functions with normal and abnormal conditions.<br>4- Emphasize the role of homeostatic and hemodynamic changes.<br>5- Integrate these changes into the physiological status. |                                              |
| <b>1. Learning Outcomes, Teaching and Learning Methods, and Evaluation</b>                                                                                                                                                                                                                                                                                                                                                        |                                              |

## **A. Knowledge and Understanding**

A.1: Knowledge of how different tissues and organs operate within the human body.

A.2: Understanding of the underlying mechanisms that enable these functions.

A.3: Ability to assess and measure the performance of various tissues and organs

A.4: Skills in using diagnostic tools and techniques to evaluate these functions.

A.5: Comprehension of how physiological functions relate to both healthy and pathological states.

A.6: Knowledge of common diseases and disorders that affect these functions.

A.7: Understanding of the body's mechanisms for maintaining internal stability (homeostasis).

A.8: Insight into how blood flow and pressure changes (hemodynamics) affect physiological functions.

A.9: Awareness of the integration and coordination of these changes within the body's overall physiological status.

A.10: Ability to assess and measure the performance of various tissues and organs

## **B. Subject-Specific Skills**

B.1: Teaching skills in the subject of Physiology.

B.2: The student should have the ability to describe models.

B.3: The student should have the ability to link causes with natural effects.

## **Teaching and Learning Methods**

1. Discussion and dialogue method.
2. Troubleshooting and treatment.
3. Seminars.

## **C. Evaluation Methods**

1. Submit weekly reports.
2. Oral assessment and practical performance evaluation.
3. Written tests
4. Group practical project

**D. Thinking Skills**

- D1. Encourage students to find problems related to the subject of study
- D2. Encourage students to find solutions to those problems
- D3. Conduct experiments individually and collectively.
- D4. Compare results and troubleshoot

**E. General and Transferable Skills**

- D1. The student should be able to think logically to solve problems
- D 2. The student should acquire manual work skills.
- D 3. The student should be able to develop and innovate skills

| 11. Course Structure |       |                            |                                                                                                                                                      |                                     |                               |
|----------------------|-------|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------|
| Weeks                | Hours | Required Learning Outcomes | Unit Name / Course or Topic                                                                                                                          | Learning Methods                    | Evaluation Method             |
| 1                    | 3     | Knowledge                  | Introduction to Endocrinology                                                                                                                        | Blackboard and Screen Presentations | Daily exam and oral questions |
| 2                    | 3     | Knowledge                  | Hypothalamus                                                                                                                                         | Blackboard and Screen Presentations | Daily exam and oral questions |
| 3                    | 3     | Knowledge                  | Pituitary gland                                                                                                                                      | Blackboard and Screen Presentations | Daily exam and oral questions |
| 4                    | 3     | Knowledge                  | Thyroid gland                                                                                                                                        | Blackboard and Screen Presentations | Daily exam and oral questions |
| 5                    | 3     | Knowledge                  | Adrenal cortex and Medulla                                                                                                                           | Blackboard and Screen Presentations | Daily exam and oral questions |
| 6                    | 3     | Knowledge                  | Female Reproductive system                                                                                                                           | Blackboard and Screen Presentations | Daily exam and oral questions |
| 7                    | 3     | Knowledge                  | Female Reproductive system                                                                                                                           | Blackboard and Screen Presentations | Daily exam and oral questions |
| 8                    | 3     | Knowledge                  | Male Reproductive system                                                                                                                             | Blackboard and Screen Presentations | Daily exam and oral questions |
| 9                    | 3     | Knowledge                  | Hormonal Control of Calcium metabolism and the physiology of bone                                                                                    | Blackboard and Screen Presentations | Daily exam and oral questions |
| 10                   | 3     | Knowledge                  | Endocrine functions of the pancreas                                                                                                                  | Blackboard and Screen Presentations | Daily exam and oral questions |
| 11                   | 3     | Knowledge                  | Gastrointestinal functions: digestion and absorption of carbohydrates, proteins, lipids, absorption of water and electrolytes, vitamins and Minerals | Blackboard and Screen Presentations | Daily exam and oral questions |

|    |   |           |                                                                                   |                                     |                               |
|----|---|-----------|-----------------------------------------------------------------------------------|-------------------------------------|-------------------------------|
| 12 | 3 | Knowledge | Regulation of Gastrointestinal function ; Introduction; gastrointestinal hormones | Blackboard and Screen Presentations | Daily exam and oral questions |
| 13 | 3 | Knowledge | Liver and biliary system                                                          | Blackboard and Screen Presentations | Daily exam and oral questions |
| 14 | 3 | Knowledge | Blood Physiology                                                                  | Blackboard and Screen Presentations | Daily exam and oral questions |
| 15 | 3 | Knowledge | Blood Physiology                                                                  | Blackboard and Screen Presentations | Daily exam and oral questions |

| 12. Infrastructure                                                             |                                                                                                                                                 |
|--------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Required Readings:                                                             | <b>References:</b><br>1- Review of medical physiology; Ganong W.F (Ed.); 2005<br>2-Textbook of medical physiology by Guyton AC; latest edition. |
| 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:** Aqeel Qays Abd Uljaleel