

An-Najah National University

Faculty of Medicine

Department of Physiology

Anatomy and Physiology 1

7102101

* **Instructor:**

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* **Text Book:**

Essentials of human anatomy and physiology / eighth edition/ Eliane N. Marieb

* **Other advised References :**

# Principles of Human Anatomy / eleventh edition / [Gerard J. Tortora](http://www.amazon.com/Gerard-J.-Tortora/e/B001H6KK3I/ref=ntt_athr_dp_pel_1), [Mark Nielsen](http://www.amazon.com/s/ref=ntt_athr_dp_sr_2?_encoding=UTF8&sort=relevancerank&search-alias=books&ie=UTF8&field-author=Mark%20Nielsen)

1. Fundamentals of Physiology: A Human Perspective / third edition / [Lauralee Sherwood](http://www.amazon.com/Lauralee-Sherwood/e/B001H6ETCG/ref=ntt_athr_dp_pel_1)

* **Course Description:**

This Course is designed to provide the students with a basic understanding of the structure and function of the human body and the mechanisms for maintaining homeostasis within it. The human body is discussed as separate systems, but the relation between different body systems is explained. The cells and tissues, nervous, skeletal, muscular, digestive, and urinary systems are discussed in this course. The methodology of course teaching includes lecture component and practical application for some theoretical approaches.

* **Course objectives:**

The primary objective of this course is to make the student understand the construction of the human body and how this construction is related to the function of the human body. This will be achieved by:

1. Providing basic understanding of the meaning of medical words and phrases commonly used in medical environments.
2. Identifying the basic principles of anatomy, physiology, and Pathophysiology.
3. Specifically examining the gross anatomy and histology of the Skeletal, muscular, nervous, digestive, and urinary systems.
4. Developing observational skills and logical thought patterns.

* **Course Intended learning outcomes:**

*A. Knowledge and understanding:*

Upon the completion of this course, the students should be able to:

1. Define anatomy and physiology.
2. Identify the levels of structural organization that makes up the human body, and explain how they are related.
3. List the functions that humans must perform to maintain life.
4. Recognize medical terms and phrases correctly in written and verbal communications.
5. Express the basic biological concepts of structure and function of the cells and tissues.
6. Describe the anatomy and physiology of Skeletal, muscular, nervous, digestive, and urinary systems.
7. Recognize how the anatomy and physiology of the learned systems are related.
8. Identify some homeostatic disorders of the discussed systems, and describes the Pathophysiology that underlies these disorders.

*B. Intellectual Skills:*

Upon the completion of this course, the students should be able to:

1. Organize physiological data and use it for evaluation of function of different body systems.
2. Evaluate important values concerning different body systems using learned physiological formula.
3. Conclude the physiological changes associated with exercise.

*C. Professional and Practical skills:*

Upon the completion of this course, the students should be able to:

1. Interpret the effect of different body injuries on the general health.
2. Use the medical terms in written and verbal communications.
3. Examine several organ models, and recognize their major parts

*D. General and Transferable Skills:*

Upon the completion of this course, the students should be able to:

1. present reports in seminars effectively
2. Assess their knowledge and identify their personal learning needs.
3. Use of different sources for information and knowledge.
4. Work coherently and successfully as a part of a team and team's leadership.

* **Course Outlines and Calendar:**

|  |  |  |
| --- | --- | --- |
| **Week/**  **Hours** | | **Content** |
| 1st + 2nd week | 6 hours | ***Human Body: An orientation***  1. An overview of human anatomy and physiology  2. Levels of structural organization  3. Maintaining life  4. Hemeostasis  5. Language of anatomy |
| 3rd + 4th  week | 6 hours | **Cells and Tissues**  1. An overview of the cellular basis of life  2. Anatomy of the generalized cells  3. Cell physiology  4. Body tissues |
| 5th + 6th week | 9 hours | **Skeletal System**  1. Classification of bones  2. Structure of long bones  3. Bone formation, growth, and remodeling  4. Axial skeleton  5. Appendicular skeleton  6. Joints |
| 7th + 8th + 9th week | 9 hours | **Muscular System**  1. Overview of muscle tissue  2. Microscopic anatomy of the skeletal muscle  3. Skeletal muscle activity  4. Muscle movements, types, and names  3. Gross anatomy of skeletal muscles |
| 10th + 11th + 12th week | 9 hours | **Nervous System**  1. Organization of the nervous system  2. Nervous system: Structure and function  3. Central nervous system  4. Peripheral nervous system |
| 13th + 14th week | 6 hours | **Digestive System**  1. Anatomy of the digestive system  2. Function of the digestive system |
| 15th + 16th week | 6 hours | ***Urinary System***  1. Kidneys  2. Ureters, urinary bladder, and urethra  3. Fluid, electrolytes, and acid imbalance |

* **Teaching and Learning Methods:**

|  |  |  |
| --- | --- | --- |
| Tools | Purposes | ILOs |
| Lectures | To explain the theoretical knowledge for each topic | A1, A2, A3, A4, A5, A6, A7, A8,A9, C1, C2, C3 |
| Discussion Forums | To learn how to interpret physiological data in different cases | B1, B2, B3, C4, D4 |
| Moodle Activities and Assignments | To teach the students how to evaluate their own knowledge and identify their personal learning needs. | D2, D3, D4 |
| Seminars | Evaluate the students knowledge and ability to perform small theoretical researches | D1, D2, D3 |

* **Teaching Recourses:**

White board

Overhead projector

Computer

Moodle Software using An-Najah E-learning website

* **Course Polices:**

Class attendance (Participation)

The students must attend at least 75% of the lectures.

* **Grading:**

First Exam 20%

Second Exam (Designed using Moodle software) 15%

Moodle Activities 15%

Final Exam 50%