

Course Description Form

1. Educational Institution: Northern Technical University / Nimrud Technical Institute
Academic Department: Department of Therapeutic Nutrition Techniques
2. Course Title: Physiology
Course Code: TIMM106
Semester / Academic Year: First Year / 2025-2026
Description Preparation Date: 10/2/2026
Available Attendance Modes: In-person
Number of Credit Hours: 60 Hours (2 Theoretical Hours + 2 Practical Hours per Week).
Course Coordinator: Name: wassem amer hashem Email: wassem_amer@ntu.edu.iq Name: warqaa Mahmood saleh Email: warqaa.m.saleh@ntu.edu.iq
Course Description This course introduces students to the fundamental principles of human physiology, emphasizing the normal functions of cells, tissues, organs, and body systems. The course focuses on physiological mechanisms that maintain homeostasis and explains the functions of the cardiovascular, respiratory, digestive, urinary, endocrine, and nervous systems. Special attention is given to physiological concepts relevant to nutrition and health sciences.
Course Objectives Upon successful completion of this course, students will be able to:
Understand the basic concepts and principles of human physiology.
Explain physiological mechanisms responsible for maintaining homeostasis.
Describe the functions of major body systems.
Relate physiological processes to nutritional and health conditions.
Interpret physiological responses under normal and altered conditions.
Apply physiological knowledge in therapeutic nutrition practices.

Course Learning Outcomes (CLOs)

Upon successful completion of this course, students will be able to:

CLO1: Define and explain the basic concepts and principles of human physiology.

CLO2: Describe the structure and function of cells and explain physiological mechanisms involved in maintaining homeostasis.

CLO3: Identify and explain the normal functions of major body systems, including the cardiovascular, respiratory, digestive, urinary, endocrine, and nervous systems.

CLO4: Analyze physiological processes and regulatory mechanisms that maintain normal body function.

CLO5: Interpret physiological responses under normal and altered health conditions.

CLO6: Apply physiological knowledge to nutrition, health sciences, and therapeutic nutrition practices.

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12.Course Structure:

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	4	CLO1	Introduction to Physiology and Homeostasis	Lecture, Discussion	Daily Assessment
2	4	CLO2	Cell Structure and Function	Lecture, Presentation	Quiz
3	4	CLO2	Membrane Transport Mechanisms	Lecture, Discussion	Daily Assessment
4	4	CLO3	Blood Physiology	Lecture, Q&A	Assignment
5	4	CLO3	Cardiovascular System	Lecture, Discussion	Quiz
6	4	CLO4	Cardiac Cycle and Blood Pressure Regulation	Lecture, Problem Solv	Daily Assessment
7	4	CLO3	Respiratory System Physiology	Lecture, Presentation	Assignment
8	4	CLO4	Respiratory Regulation and Lung Functions	Lecture, Discussion	Midterm Examination

9	4	CLO3	Digestive System Physiology	Lecture, Discussion	Quiz
10	4	CLO6	Physiology of Digestion and Absorption	Lecture, Case Study	Assignment
11	4	CLO3	Renal Physiology and Urine Formation	Lecture, Discussion	Daily Assessment
12	4	CLO4	Fluid and Electrolyte Balance	Lecture, Problem Solv	Quiz
13	4	CLO3	Endocrine System Physiology	Lecture, Presentation	Midterm Examination
14	4	CLO3	Nervous System Physiology	Lecture, Discussion	Assignment
15	4	CLO1–CLO6	Comprehensive Review and Practical Applications	Discussion and Laboratory	Final Assessment

3. Course Evaluation

This course introduces students to the basic principles of human physiology and the normal functions of the body's organ systems. It focuses on the mechanisms that regulate body functions and maintain homeostasis, including the nervous, muscular, cardiovascular, respiratory, digestive, urinary, and endocrine systems. The course enables students to understand how the human body functions under normal conditions and provides a foundation for further studies in medical and health sciences.

4. Learning and Teaching Resources

- Human Physiology textbooks
- Lecture notes and handouts
- Laboratory manuals and practical demonstrations
- Multimedia presentations and educational videos
- Scientific articles and online learning resources

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