

# Course Specification (2025)

## 1- Basic Information

Course Title (according to the bylaw)	Basic Nutrition				
Course Code (according to the bylaw)	AHTE BS				
Department/s participating in delivery of the course	.....				
Number of credit hours/points of the course (according to the bylaw)	Credit hrs.	Contact			
		Lec	Tut	Lab	Total
	2	2	....	0	2
Course Type	Elective				
Academic level at which the course is taught	Third year (1 <sup>st</sup> semester)				
Academic Program	Technology of Radiology and Medical Imaging				
Institute	High Technology Institute of Applied Health Science				
Academy	Nile delta for Sciences and Technology				
Name of Course Coordinator	Dr. Aya Abd El-Hakeem Saeid Lecturer of biochemistry High Technology Institute of Applied Health Science PH. D Degree of biochemistry, faculty of science, Menofia university				
Course Specification Approval Date	9/25/2025				
Course Specification Approval (Attach the decision/minutes of the department /committee/council ....)	25/9/2025				

## 2- Course Overview

This course aims to give the students enriched information about the major components of food namely carbohydrates, proteins, lipids, vitamins, minerals and water with emphasis on daily requirements for normal subject and healthy food choices and behavior.

## 3- Course Learning Outcomes

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

Program Outcomes (ARS) (according to the matrix in the program specs)			Course Learning Outcomes Upon completion of the course, the student will be able to:	
	Code	Text	Code	Text
1.1.1.	POS.1	Demonstrate an understanding of fundamental knowledge of basic and applied health sciences.	CLOs 1	Describe the biochemical role of micronutrients in maintaining physiological function.
			CLOs 2	Explain the nutritional basis of metabolic disorders and their biochemical markers.
			CLOs 3	Identify the physiological consequences of malnutrition and nutrient deficiencies.
			CLOs 4	Explain how balanced nutrition supports normal metabolic function across life stages.
			CLOs 5	Recognize the role of nutritional biomarkers in assessing health and disease risk.
			CLOs 6	Interpret laboratory-based methods for nutritional status assessment.

<b>1.2.2</b>	<b>POS.2</b>	Apply statistical skills and evidence-based practice in imaging data manipulation and analysis.	<b>CLOs. 1</b>	Interpret current research findings on nutrient functions and dietary recommendations (e.g., DRIs).
<b>2.3.1.</b>	<b>POS.3</b>	Collect, analyze and interpret medical imaging data using scientific methods.	<b>CLOs. 2</b>	Evaluate scientific data linking nutritional deficiencies with health risks.
<b>3.1.1.</b>	<b>POS.4</b>	Perform, maintain and evaluate routine and advanced diagnostic imaging procedures.	<b>CLOs. 3</b>	Classify different types of malnutrition and their clinical impact at the biochemical level
<b>1.2.2.</b>	<b>POS.5</b>	Apply statistical skills and evidence-based practice in imaging data manipulation and analysis.	<b>CLOs .4</b>	Analyze biochemical pathways affected by specific nutrient imbalances (e.g., iron, vitamin D).
<b>3.1.1.</b>	<b>POS.6</b>	Perform, maintain and evaluate routine and advanced diagnostic imaging procedures.	<b>CLOs.5</b>	Classify different types of malnutrition and their clinical impact at the biochemical level.
<b>1.3.2.</b>	<b>POS.7</b>	Apply quality control measures to ensure test accuracy and reliability.	<b>CLOs.1</b>	Follow quality standards in nutrition-related laboratory investigations and food analysis.
<b>2.2.1.</b>	<b>POS.8</b>	Adopt suitable measures for infection control in medical imaging environment.	<b>CLOs.1</b>	Apply hygiene and food safety principles when handling nutritional samples and planning meals.
<b>2.2.2.</b>	<b>POS.9</b>	Adhere to strict biosafety regulations and standards.	<b>CLOs.2</b>	Collect and prepare biological samples for nutritional biomarker analysis.
			<b>CLOs.3</b>	Handle food and blood samples safely for assessment of nutritional status.
<b>1.2.2.</b>	<b>POS.10</b>	Apply statistical skills and evidence-based practice in imaging data manipulation and analysis.	<b>CLOs.4</b>	Record and interpret nutritional status indicators using laboratory software.
<b>3.1.7</b>	<b>POS.11</b>	Manage workflow efficiency by coordinating patient scheduling, optimizing resource allocation, and	<b>CLOs.5</b>	Conduct basic nutritional assessments using anthropometric and biochemical data.

		minimizing delays.					
4.2.1							
Number of the Week	Scientific content of the course (Course Topics)		Total Weekly Hours	Expected number of the Learning Hours			
				Theoretical teaching (lectures/discussion groups/ .....)	Training (Practical/ Clinical/ ..... )	Self-learning (Tasks/ Assignments / Projects/ ...)	Other (to be determined)
4.1.1	Introduction of nutrition	Participate in team work	2	2	0	--	--
2	Macronutrients		2	2	0	--	--
3	Micronutrients (I)		2	2	0	--	--
4	Micronutrients (II)		2	2	0	--	--
5	Dietary Reference intakes (DRIs)		2	2	0	--	--
6	Mid term exam						
7	Meal planning and balanced diet	Apply critical and reflective thinking	2	2	0	---	---
8	Assessment of nutritional status		2	2	0	--	--
9	Risk assessment		2	2	0	--	--
10	Nutritional biomarkers (1)		2	2	0	--	--
11	Nutritional biomarkers (2)		2	2	0	---	---
12	Nutritional deficiencies		2	2	0	--	--
13	Nutritional needs through life		2	2	0	--	--
14	Nutritional needs through life II		2	2	0		
15	Revision		2	2	0	---	---
16	Practical exam						
17	Final exam						

## 4- Learning Methods

1. Interactive Lectures
2. Discussion and brain storming
3. Case study /problem solving
4. Research and presentation , Assignment , reports

## 5- Course schedule

## 6- Student Assessment Methods

No .	Assessment method*	Assessment time (Week No.)	Rating Scores	Percentage of the total course grade
1	Written exam 1 (term work)	7 <sup>th</sup>	30	30%
2	Written exam 2 (term work)	-----	-----	-----
3	Final written exam	17 <sup>th</sup>	70	70%
4	Final Practical exam	-----	-----	-----
5	Final oral exam	-----	-----	-----
6	Activities / Project / Activity Booklet	-----	-----	-----
7	Filed training	-----	-----	-----
8	Other (list)	-----	-----	-----

\* 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>	Main Reference	1. <i>Nutrition: Concepts &amp; Controversies</i> (by FrancesSizer & Ellie Whitney) <a href="https://www.cengage.com/c/nutrition-concepts-controversies-16e-sizer-whitney/9780357727614?utm_source=chatgpt.com">https://www.cengage.com/c/nutrition-concepts-controversies-16e-sizer-whitney/9780357727614?utm_source=chatgpt.com</a>
	Other references	2. <i>Understanding Nutrition</i> (by Ellie Whitney & Sharon Rady Rolfes) <a href="https://www.cengage.com/c/understanding-nutrition-16e-whitney/9780357447512PF/?utm_source=chatgpt.com">https://www.cengage.com/c/understanding-nutrition-16e-whitney/9780357447512PF/?utm_source=chatgpt.com</a>
	Electronic Resources (Add the link)	1- <a href="https://www.ekb.eg/ar/login">https://www.ekb.eg/ar/login</a> 2- <a href="https://pubmed.ncbi.nlm.nih.gov/">https://pubmed.ncbi.nlm.nih.gov/</a>
	Educational Platform (add the link)	<a href="https://bislms.mans.edu.eg/moodle2024/">https://bislms.mans.edu.eg/moodle2024/</a>
	Other (List)	<a href="https://www.ekb.eg/ar">https://www.ekb.eg/ar</a>

<b>Educational support equipment for teaching and learning *</b>	Devices	Projector, Desktop Computer.
	Supplies	Whiteboard Markers
	Software	Model ابن الهيثم
	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.

**Name and Signature  
Course Coordinator**

**Name and Signature  
Program Coordinator**