

Study Plan
Faculty of Agriculture
MASTER in Human Nutrition and Dietetics
(Thesis Track)

First: GENERAL RULES & CONDITIONS:

Plan Number			2013
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1. This plan confirms to the valid regulations of programs of graduate studies.
2. Specialties of Admission:
 - The First priority: Bachelor's of Human Nutrition and Dietetics or Clinical Nutrition
 - The Second priority: Bachelor's of Nutrition and Food Technology
 - The Third priority: Bachelor's of Food Science and Technology
 - The Fourth priority: Bachelor's of Biology, Biochemistry, Health and Medical Sciences, Veterinary Medicine, Home Economics (Nutrition Track) and Animal Production.
3. Admission policies: The First Policy

Second: SPECIAL CONDITIONS: None.

Third: STUDY PLAN: Studying (33) Credit hours as follows:

1. Obligatory Courses : Studying (18) credit hours successfully:

Course No.	Course Title	Credit Hours	Theory	Prac.	Prerequisite
0601701	Experimental Design and Analysis	3	3	-	
0603751	Advanced Nutritional Biochemistry	3	3	-	
0603753	Vitamins in Nutrition	3	3	-	
0603761	Advanced Diet Therapy	3	3	-	
0603762	Assessment of Nutritional Status	2	1	1	
0603781	Advanced Laboratory Techniques in Food and Nutrition	2	2	-	
0603791	Seminar in Human Nutrition	1	1	-	
0603793	Scientific Research Methodology	1	1	-	

2. Elective Courses: Studying (6) Credit hours successfully from the following:

Course No.	Course Title	Credit Hours	Theory	Prac.	Prerequisite
0603752	Minerals in Nutrition	3	3	-	
0603763	Drug-Nutrient Interactions	3	3	-	
0603764	Nutrition and Exercise	3	3	-	
0603765	Maternal and Infant Nutrition	3	3	-	
0603766	Geriatric Nutrition	3	3	-	
0603773	Nutrition Surveillance and Intervention	3	3	-	
0603782	Laboratory Animals in Nutrition Research	2	1	1	

3. Thesis: (9) Credit hours # (0603799).

Course Description
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(0601701) Experimental Design and Analysis (3 Credit Hours)

This course covers linear and multiple regression and correlation, analysis of variance and basic experimental design analysis. Mean separation procedures, Duncan's Multiple Range Test (DMRT), Turkey's W. procedure, Least Significant Difference (LSD), and Orthogonal contrasts. Students will be exposed to the uses of PC in experimental design and analysis.

(0603751) Advanced Nutritional Biochemistry (3 Credit Hours)

A study of the biochemical aspects of carbohydrate, lipid and protein utilization by man, with emphasis on their interrelations and uniqueness of individual organs and tissues in metabolism, as well as their homeostatic regulation.

(0603752) Minerals in Nutrition (3 Credit Hours)

An advanced level study of mineral elements including their physiological functions and nutritional and pharmaceutical interactions, and associated impacts on their requirements; as well as the study of their deficiency and toxicity signs at local and international level, emphasizing heavy metal toxicity, and their nutritional status assessment methodologies.

(0603753) Vitamins in Nutrition (3 Credit Hours)

An advanced level study of the physiological and biochemical aspects of vitamins, emphasizing their nutritional & pharmaceutical interactions and associated effects on their functions, requirements, deficiency signs and toxicity; study of the nutritional status assessment methodologies of the vitamins; prevalence of vitamin deficiencies locally and internationally; therapeutic uses of the vitamins.

(0603761) Advanced Diet Therapy (3 Credit Hours)

An advanced level study of the defects of normal biochemical and physiological regulatory processes in nutrient-based disease states, emphasizing the pathophysiological changes in disease-affected organs. These states include obesity, diabetes, metabolic syndrome, selected GIT diseases, cardiovascular diseases, liver and pancreas diseases, with focus on most recent practices of nutritional status assessment and dietary planning, especially in chronic diseases and organ transplant.

(0603762) Assessment of Nutritional status (2 Credit Hours)

Study of indicators and criteria used in the evaluation of the nutritional status at the individual and community levels, including measurements of anthropometry, biochemical data, dietary intakes, health statistics and socioeconomic data; the interpretation of results and proposing solutions for improving the nutritional status.

(0603763) Drug- Nutrient Interactions (3 Credit Hours)
Study of the physiological and biochemical aspects of drug-nutrient interactions with emphasis on nutrient-related chronic diseases, and the effect of such interaction on nutritional and drug therapy.

(0603764) Nutrition and Exercise (3 Credit Hours)
Study of physiological and biochemical aspects of exercise in man, human performance, and the nature of cardio-respiratory fitness and muscular efficiency; the methods of measuring human energy expenditure during physical activity and energy capacity as well; the role of nutritional factors in various responses to exercise; diets and ergogenic aids for athletes; the impact of nutrition and exercise on the reduction of risk factors in diseases of lifestyle.

(0603765) Maternal and Infant Nutrition (3 Credit Hours)
Advanced physiological and biochemical aspects related to nutrition of the pregnant, infants and child with emphasis on high risk mothers and children and maternal and child nutrition intervention programs.

(0603766) Geriatric Nutrition (3 Credit Hours)
Study of theories of aging, physiological and biochemical changes as well as psycho-social developments during aging and their influence on the nutritional status and requirements, with emphasis on diseases related to nutrition and nutrient drug interaction. It also deals with the study of nutritional care principles and nutrition programs and services for the aged.

(0603773) Nutrition Surveillance and Intervention (3 Credit Hours)
Study of nutritional assessment and surveillance: methods, fields, factors, indicators for nutritional early warning surveillance and control of nutritional status; nutrition interventions: types, fields, techniques analyses in solving nutritional problems and national nutritional policy.

(0603781) Advanced Laboratory Techniques in Food and Nutrition (2 Credit Hours)
Study of advanced chemical and biochemical laboratory techniques used in research as applied in nutrition and food science. The emphasis will be on different chromatographic techniques, use of isotopes, spectrophotometry and electrophoresis.

(0603782) Laboratory Animals in Nutrition Research (2 Credit Hours)
Study of main animals used in human nutrition research; their use and sample collection, their nutrient requirements, breeding and management; study of selected animal experiments used for evaluation of nutritional status, nutrient requirements and bioavailabilities in man. The ethics of using these animals will be considered.

(0603791) Seminar in Human Nutrition (1 Credit Hour)
Oral reports and discussions of current research and developments in nutrition, designed to broaden understanding of problems and stimulate research.

(0603793) Scientific Research Methodology

(1 Credit Hour)

Study of the basics of scientific research; identification of research problem; formulation of its hypothesis, data collection and statistical analysis; ethics in scientific research; training in writing a research proposal.