

DEMOCRITUS UNIVERSITY OF THRACE
DEPARTMENT OF PHYSICAL EDUCATION & SPORT SCIENCE

UNDERGRADUATE PROGRAM OF STUDY

COURSE TITLE:

Nutrition

COURSE CODE:

N336

E.C.T.S. CREDITS

7

RESPONSIBLE FOR THE COURSE:

NAME	Konstantinos Lapidis		
POSITION	Associate Professor		
SECTOR	Exercise and Health		
OFFICE	B3 - 12		
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CO-INSTRUCTORS	Ioannis Fatouros, Assistant Professor		

SEMESTER:

1 st	<input checked="" type="checkbox"/>	2 nd	<input type="checkbox"/>	3 rd	<input type="checkbox"/>	4 th	<input type="checkbox"/>
5 th	<input type="checkbox"/>	6 th	<input type="checkbox"/>	7 th	<input checked="" type="checkbox"/>	8 th	<input type="checkbox"/>

COURSE TYPE:

Obligatory	<input checked="" type="checkbox"/>
Direction	<input type="checkbox"/>
Specialization	<input type="checkbox"/>
Prerequisite for specialization	<input type="checkbox"/>
Elective (<i>open</i>)	<input type="checkbox"/>

HOURS (per week):

2

DIRECTION (only for 3rd & 4th year courses):

Physical Activity of Special Population	
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SPECIALIZATION (only for 3rd & 4th year courses):

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LANGUAGE OF TEACHING:

Greek

English

AIM OF THE COURSE (*content and acquired skills*):

The aim of the course is to teach the students the importance of proper nutrition of human body function and the assurance of good health and well-being. More over, students will understand the specific role that each nutrient plays in the support and improvement of healthy living, from conception, birth, growing to death of humans and the effects of poor nutrition on health. Analytically will be presented all nutrient categories, the poor or bad nutritional practices and their impacts on the appearance of health problems such as obesity and the efforts to control body weight, osteoporosis, diabetes II, metabolic syndrome, hypertension and cardiovascular diseases, eating disorders etc. Emphasis will be given on the interventional capacities that nutrition has, mainly in the prevention but/and the improvement of various health issues related to sound eating practices.

COURSE CONTENTS (*outline – titles of lectures*):

1. Introduction to the nutritional needs of humans, categories of nutrients and the relation of nutrition with health - Nutritional terminology.
2. Carbohydrates (chemical structure, classification, metabolism, blood sugar regulation, health issues, such as diabetes and obesity).
3. Fats (chemical structure, classification, properties, metabolism, health issues, such as cardiovascular disease, energy balance and obesity).
4. Proteins (chemical structure, classification, properties, role in metabolism, important health regulations, such as immune system, structure and tissue repair) - Problems related to over consumption or lack of them.
5. Vitamins (classification, role in metabolism and other important bodily functions, such as immune system, calcium metabolism, hormonal synthesis and function).
6. Minerals (definition, classification [macro & micro], role in metabolism and body structure, hormonal synthesis and function, oxygen transport, etc.).
7. Water / liquids - Importance of proper hydration in human metabolism and the negative effects of dehydration, dehydration in relation to minerals and strategies to avoid dehydration.
8. Body weight and health (weight control, energy balance, obesity and health problems) - Introduction to the meaning of dieting.
9. Special diets for weight control management (ketogenic diets, low caloric diets, carbohydrate diets, vegetarian diets, Mediterranean diet, etc.).
10. Nutrition for special populations (diabetes, osteoporosis, hypertension, etc.)
11. Metabolic syndrome and nutritional approach - Eating disorders.
12. Nutrition and the elderly (changes, adaptations, nutritional supplements).
13. Influence of the environment in the nutritional chain, food safety, new challenges of the climate change on food and health.

TEACHING METHOD(S) (*lectures – labs – practice etc.*):

1. Lectures using multimedia.
2. Laboratory demonstrations.

ASSESSMENT METHOD(S):

1. Paper (20%)
2. Final written exam (80%)

LEARNING OUTCOMES:

Upon the completion of this course the student will be able to: 1) understand the role of nutrients in body's function and support, 2) understand meanings such as balanced diet, fad diet, bad nutrition, etc., 3) recognize, to a minimum level, the possible health problems related to nutrition, and to provide basic nutritional advises according to these problems, 4) apply nutritional advices on the fist stages of bad dieting and 5) guide a person with a serious health related nutritional problem to the proper expert – nutritionist, med doctor – for treatment.

LEARNING OUTCOMES – CONTINUED:

<i>Learning Outcomes</i>	<i>Educational Activities</i>	<i>Assessment</i>	<i>Students Work Load (hours)</i>
Understanding of the role of nutrients in body's function and support.	Lectures, demonstration and comments on digital info, home study.	Intermediate checks using written test of cognitive outcomes.	40
Understanding of meanings such as balanced diet, fad diet, bad nutrition, etc.,	Presentation of foods and their effects on various illnesses, web search.	Intermediate checks using written quizzes.	60
Ability to recognize to a minimum level, of the possible health problems related to nutrition, and to provide basic nutritional advises according to these problems.	Creation of diet's menus, web search.	Presentation of these menus in class, evaluation by classmates.	50
Ability to apply nutritional advices on the fist stages of bad dieting.	Creation of diets with specific goals (i.e., to support an osteoporotic subject), comparison of those presented in class.	Paper presentations, final written exams.	60
		TOTAL	210

OBLIGATORY & SUGGESTED BIBLIOGRAPHY:

1. Williams, M.H. (2003). Nutrition for health, fitness & sport. WCB/McGraw-Hill
2. Gruner, H. & Metz, R. (2002). Basic disciplines of healthy nutrition. Athens: European Technical Publications.
3. Biesalski, H. & Grimm, P. (2008). Manual of nutrition. Athens: Paschalidis.
4. Zampelas, A. (2003). Nutrition in life's continuum. Athens: Paschalidis.