



Course Syllabus

Course Code	Course Title	ECTS Credits
NUTR-250	Principles of Nutr. Biochemistry and Metabolism I	6
Prerequisites	Department	Semester
BIOL-102	Life and Health Sciences	Fall
Type of Course	Field	Language of Instruction
Required	Nutrition/Dietetics	English/Greek
Level of Course	Lecturer(s)	Year of Study
1 st Cycle	Dr Demetres Iacovides	2 nd
Mode of Delivery	Work Placement	Corequisites
Face-to-face	N/A	None

Course Objectives:

The main objectives of the course are to:

- To provide detailed information on the structure, function, digestion, transport, storage, and metabolism of the nutrients.
- To delineate key metabolic pathways in the utilization of macronutrients as well as the interrelationships among nutrients in metabolism.
- To demonstrate comprehension and interpretation of nutrition-related research as reported in scientific publications.
- Identify nutritional risk factors that may lead to chronic disease: cancer, cardiovascular disease, etc.
- Develop lifelong learning skills on nutrient related subjects
- Demonstration of techniques of body composition measurements
- Interpretation of assessment of data of body composition
- Analysis of macronutrient
- The format of the course will be 3h/w of lectures

Learning Outcomes:

After completion of the course students are expected to be able to:

1. To provide detailed information on the structure, function, digestion, transport, storage, and metabolism of the nutrients.
2. To delineate key metabolic pathways in the utilization of macronutrients as well as the

- interrelationships among nutrients in metabolism.
3. To demonstrate comprehension and interpretation of nutrition-related research as reported in scientific publications.
 4. Identify nutritional risk factors that may lead to chronic disease: cancer, cardiovascular disease, etc.

Course Content:

1. Cell-Biological Energy
2. Digestive system
3. Body Composition and Energy balance
4. Carbohydrate properties-digestion-metabolism
5. Fiber and alcohol
6. Protein properties-digestion-metabolism
7. Lipid properties-digestion-metabolism
8. Integration of nutrients and exercise
9. Nutrition and chronic diseases
10. Body composition techniques
11. Analysis of macronutrients in a computer program
12. Analysis of energy expenditure

Learning Activities and Teaching Methods:

Lectures, discussion, homework

Assessment Methods:

Final exam, midterm exam, final presentation

Required Textbooks / Readings:

Title	Author(s)	Publisher	Year	ISBN
Βιοχημεία	J. M. Berg, J. L. Tymoczko, L. Stryer,	Πανεπιστημιακές Εκδόσεις Κρήτης	2005	960-524-190-0
Advanced Nutriiton & Human Metabolism	Gropper S.,Smith J, Groff J.	Wadsworth, 5 th ed	2009	978-0-495-11657-8

Recommended Textbooks / Readings:

Title	Author(s)	Publisher	Year	ISBN
Nutritional Sciences	McGuire and Beerman		2007	0-534-53717-0