Course Outline: "1105 - Introduction to Food Science and Nutrition"

1. General information

FACULTY/SCHOOL	Physical Education, Sport Science & Nutrition		
DEPARTMENT	Nutrition & Dietetics		
LEVEL OF STUDY	Undergraduate		
COURSE UNIT CODE	**1105**	**SEMESTER**	**1st**
COURSE TITLE	**Introduction to Food Science and Nutrition**		

INDEPENDENT TEACHING ACTIVITIES in case credits are awarded for separate components/parts of the course, e.g. in lectures, laboratory exercises, etc. If credits are awarded for the entire course, give the weekly teaching hours and the total credits	**WEEKLY TEACHNG HOURS**	**CREDITS**
Lectures	2	
Tutoring	1	
Add rows if necessary. The organization of teaching and the teaching methods used are described in detail under section 4	**3**	**6**

COURSE TYPE *Background knowledge, Scientific expertise, General Knowledge, Skills Development*	Scientific expertise
PREREQUISITE COURSES	non
LANGUAGE OF INSTRUCTION	Greek
LANGUAGE OF EXAMINATION/ASSESSMENT	Greek
THE COURSE IS OFFERED TO ERASMUS STUDENTS	No
COURSE WEBSITE (URL)	

2. LEARNING OUTCOMES

Learning Outcomes

The course learning outcomes, specific knowledge, skills and competences of an appropriate (certain) level, which students will acquire upon successful completion of the course, are described in detail. It is necessary to consult:Συμβουλευτείτε το ***APPENDIX A***

- *Description of the level of learning outcomes for each level of study, in accordance with the European Higher Education Qualifications' Framework.*
- *Descriptive indicators for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and* ***APPENDIX B***
- *Guidelines for writing Learning Outcomes*

This module is designed to help students to learn the basics of food and nutrition and become familiar with the terminology of nutrition. The course aims to introduce students to concepts such as: the composition, nutritional value, chemical properties of foods and the main principles of food technology. It emphasizes the nutritional value of macronutrients (carbohydrates, proteins, lipids), their digestion, absorption and their sources as well as the important role of vitamins, minerals and water in the maintenance of health.

Students will be introduced to topics such as Food labeling, weight control and energy balance, ways to measure energy expenditure, dietary reference values, key elements of a balanced diet, composition tables of foods and Greek dishes and the importance of Mediterranean Diet. Moreover any deviation from the balanced diet that could lead to the occurrence of chronic non-communicable diseases is also discussed.

Finally, it introduces the student to the importance of research in the field of nutrition, in the design of nutritional studies

Upon successful completion of the module, the student will be able to understand:

• The sources, the optimal daily amounts in each stage of the lifecycle, the function and the role that each nutrient plays in a balanced diet.

• Digestion, absorption and metabolism of macronutrients

• The role of vitamins and minerals in ensuring health

• Dietary reference values and the importance of dietary guidelines

• Food labeling for informed consumer's choices, and the notion of "food waste" and its role in sustainable development
- Principles of food technology and their importance in food safety and nutrition evaluation
• Energy balance, ways to determine energy expenditure for weight management
• Sustainable diets
• Malnutrition and obesity
• The importance of nutritional research

General Competences

Taking into consideration the general competences that students/graduates must acquire (as those are described in the Diploma Supplement and are mentioned below), at which of the following does the course attendance aim?

Search for, analysis and synthesis of data and information by the use of appropriate technologies, Adapting to new situations Decision-making Individual/Independent work Group/Team work Working in an international environment Working in an interdisciplinary environment Introduction of innovative research

Project planning and management Respect for diversity and multiculturalism Environmental awareness Social, professional and ethical responsibility and sensitivity to gender issues Critical thinking Development of free, creative and inductive thinking …… (Other…….citizenship, spiritual freedom, social awareness, altruism etc.) …….

- Individual/Independent work Group
- Team work
- Development of free, creative and inductive thinking
- Environmental awareness

3. COURSE CONTENT

Indicative:
i. Structure and function of proteins
ii. Structure and function of fats
iii. Structure and function of carbohydrates
iv. Vitamins and their role in health
v. Minerals and their role in health
vi. Total energy expenditure and its measurement
vii. Dietary Reference Values
viii. Principles of food technology, safety and nutrition evaluation
ix. Mediterranean diet, DASH diet, blue zones, Scandinavian diet
x Food labeling, consumer information, "food waste" and sustainability
xi Malnutrition, obesity
xii The role of water in health

4. TEACHING METHODS - ASSESSMENT

MODES OF DELIVERY *Face-to-face, in-class lecturing, distance teaching and distance learning etc..*	*in-class lecturing, distance guidance*	
USE OF INFORMATION AND COMMUNICATION TECHNOLOGY *Use of ICT in teaching, Laboratory Education, Communication with students*	*Communication with students via MS teams (e-class)*	
COURSE DESIGN *Description of teaching techniques, practices and methods: Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, Internship, Art Workshop, Interactive teaching, Educational visits, projects, Essay writing, Artistic creativity, etc. The study hours for each learning activity as well as the hours of self-directed study are given following the principles of the ECTS.*	***Activity/Method***	***Semester workload***
	Lectures	52
	Individual and team Exercises	24
	Self-directed study	74
	Total	***150***
STUDENT PERFORMANCE EVALUATION/ASSESSMENT METHODS *Detailed description of the evaluation procedures:* *Language of evaluation, assessment methods, formative or summative (conclusive), multiple choice tests, short- answer questions, open-ended questions, problem solving, written work, essay/report, oral exam, presentation, laboratory work, other……etc.* *Specifically defined evaluation criteria are stated, as well as if and where they are accessible by the students.*	*1*. Written examination (90%) which includes : - multiple choice- questions (MCQ) -Quiz -Problem solving -short- answer questions - Power Point presentations in class 2. In class active participation (10%)	

5. SUGGESTED BIBLIOGRAPHY

-Suggested bibliography:

Duyrf R.-L. Handbook of Food and Nutrition of the American Dietetic Association. Adapted in Greek dietary pattern by Koindou E., ed. Sofia
Sflomos K. Human Nutrition, eds Tsotras, 2019