

COURSE OUTLINE

(1) GENERAL

SCHOOL	School of Food and Nutritional Sciences		
ACADEMIC UNIT	Department of Food Science & Human Nutrition		
LEVEL OF STUDIES	Undergraduate		
COURSE CODE	3431	SEMESTER	6th
COURSE TITLE	Nutrition Research Methods		
INDEPENDENT TEACHING ACTIVITIES <i>if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits</i>		WEEKLY TEACHING HOURS	CREDITS
Lectures and Practice Exercises		3	3
<i>Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).</i>			
COURSE TYPE <i>general background, special background, specialised general knowledge, skills development</i>	Scientific special background and general background		
PREREQUISITE COURSES:	Statistics		
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek (English if needed)		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes		
COURSE WEBSITE (URL)	http://teleteaching.aua.gr/		

(2) LEARNING OUTCOMES

Learning outcomes

The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.

Consult Appendix A

- *Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area*
- *Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B*
- *Guidelines for writing Learning Outcomes*

This course is a baseline general course on important notions in Nutrition Research Methods. The primary aim of this course is to introduce the students to important concepts of scientific research, nutritional epidemiology, and to link these concepts on deriving a hypothesis for a research protocol. The students will learn how to assess associations between exposure(s) and outcome(s).

Introductory methodological Systematic Review concepts will also be covered, and critical evaluation of the literature (study design and nutritional assessment methods) will be underlined, in order for the student to be able to find relevant scientific literature using acceptable search engines, but also to understand the studies design, strengths and limitations.

By the end of this course the students will be able to:

- Have a good understanding of the basic critical characteristics of a scientific study, and its contribution to the field on Nutrition & Health.
- Be knowledgeable of the tools and techniques required for assessing the order and strength of the indicators from different study types, accounting for strengths and limitations of the study design.
- To distinguish and acknowledge the main study types and association measures used each time, based on the study type.
- To use methodological assessment tools for acquiring nutritional intake information, and conduct an adequate literature review for planning a research protocol.

General Competences

Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?

<i>Search for, analysis and synthesis of data and information, with the use of the necessary technology</i>	<i>Project planning and management</i>	<i>Respect for difference and multiculturalism</i>
<i>Adapting to new situations</i>	<i>Respect for the natural environment</i>	<i>Showing social, professional and ethical responsibility and sensitivity to gender issues</i>
<i>Decision-making</i>	<i>Criticism and self-criticism</i>	<i>Production of free, creative and inductive thinking</i>
<i>Working independently</i>	<i>.....</i>	<i>Others...</i>
<i>Team work</i>	<i>.....</i>	<i>.....</i>
<i>Working in an international environment</i>		
<i>Working in an interdisciplinary environment</i>		
<i>Production of new research ideas</i>		

- Decision-making
- Working independently
- Teamwork
- Production of free, creative and inductive thinking

(3) SYLLABUS

1. Introduction to Nutrition Research Methods
2. Basic notions of scientific research – emphasizing on nutrition and health
3. Distribution and Descriptive measures
4. Measures of effect
5. Study types in nutrition field – strengths and limitations Part 1
6. Study types in nutrition field – strengths and limitations Part 2
7. Nutritional Assessment Methods
8. Food composition & Biomarkers: assessment methods
9. Confounding & Bias in research
10. Qualitative Research Design
11. Quantitative Research Design – work shop part 1
12. Quantitative Research Design – work shop part 2
13. Recap

(4) TEACHING and LEARNING METHODS - EVALUATION

<p style="text-align: center;">DELIVERY</p> <p><i>Face-to-face, Distance learning, etc.</i></p>	<p>In class lectures using adequate technological means, distance learning if required; and specific exercises at the end of hands on lectures.</p>	
<p style="text-align: center;">USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY</p> <p><i>Use of ICT in teaching, laboratory education, communication with students</i></p>	<p>Use Powerpoint slides. Communication with students via e-mail. Learning process support through access to e-class, online databases, etc.</p>	
<p style="text-align: center;">TEACHING METHODS</p> <p><i>The manner and methods of teaching are described in detail.</i></p> <p><i>Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.</i></p> <p><i>The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS</i></p>	<p style="text-align: center;">Activity</p>	<p style="text-align: center;">Semester workload</p>
	Lectures	36
	Individual assignment	14
	Study hours	25
	Course total	75

<p style="text-align: center;">STUDENT PERFORMANCE EVALUATION</p> <p><i>Description of the evaluation procedure</i></p> <p><i>Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other</i></p> <p><i>Specifically-defined evaluation criteria are given, and if and where they are accessible to students.</i></p>	<p>I. Evaluation of lecture comprehension via a final examination (80% of final grade)</p> <ul style="list-style-type: none"> • Multiple choice questions • Short answer • Problem solving/calculations <p>II. Individual assignment where each student will derive a hypothesis nutrition question and formulate a research study and methodology that will adequately address the aim [20% of final grade].</p>
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(5) ATTACHED BIBLIOGRAPHY

<ol style="list-style-type: none"> 1. Lovegrove JA; Hodson L; Sharma S; Lanham-New SA. (2015). Nutrition Research Methodologies. Willey Online Library; Print ISBN: 9781118554678. John Willey & Sons, Ltd 2. Walter Willett, Nutritional Epidemiology, 3rd Edition, Oxford University Press, 2012. Margetts and Nelson, Design Concepts in Nutritional Epidemiology, 2nd Edition, Oxford University Press, 1997 3. Online class material (PowerPoints).
