NUTRITIONAL RESEARCH METHODOLOGY

COURSE OUTLINE

Responsible: Theodora Mouratidou

1. GENERAL			
SCHOOL	School of Health Sciences		
ACADEMIC UNIT	Department of Nutrition and Dietetics Sciences		
LEVEL OF STUDIES	Undergraduate		
COURSE CODE	0809.3.006.0	**SEMESTER**	1st
COURSE TITLE	Nutritional Research Methodology		

INDEPENDENT TEACHING ACTIVITIES if credits are awarded for separate components of the course	**WEEKLY TEACHING HOURS**	**CREDITS**
	0	2
Total	**0**	**2**

COURSE TYPE general background, special background, specialised general knowledge, skills development	Special background
PREREQUISITE COURSES	None
LANGUAGE OF INSTRUCTION and EXAMINATIONS	English
OFFERED TO ERASMUS STUDENTS	Yes (in English) — Winter Semester
COURSE WEBSITE (URL)	https://eclass.hmu.gr/courses/NDS188/

2. LEARNING OUTCOMES

Learning outcomes

The aim of the course is to introduce students to the fundamental principles of research methodology, including the design of epidemiological studies and clinical trials, the use of research methods and tools for data collection, ethical considerations in research, and the principles of data analysis and interpretation. Practical laboratory sessions complement the theoretical component of the course by enabling students to apply research concepts and methods in practice.

Upon successful completion of the course, students will be able to:

- demonstrate knowledge of the design, conduct, and interpretation of nutritional epidemiological studies;
- understand the principles of evidence-based nutrition and dietetic practice and apply international and national guidelines to disease prevention and dietary management;
- critically appraise the scientific literature and interpret research findings;
- apply appropriate research methods and ethical principles in nutrition and dietetics research;
- work effectively both independently and as members of multidisciplinary teams; and
- communicate scientific information effectively through oral presentations and scientific writing.

General Competences

The course contributes to the development of the following generic competences:

- Ability to search for, analyse, and synthesise data and information using appropriate technologies;

- Adaptability to new situations;
- Decision-making;
- Ability to work independently and as part of a team;
- Ability to work in an interdisciplinary environment;
- Critical thinking;
- Ability to critically appraise scientific literature; and
- Oral and written communication skills.

3. SYLLABUS

The course focuses on the principles and applications of research methodology in nutrition and dietetics. Specifically, the course covers the following topics:

- Introduction to scientific research
- Principles of research methodology: research questions and hypotheses, study protocols, populations and sampling, sources of bias and error, and pilot studies
- Observational epidemiological studies: cross-sectional, case–control, and cohort studies
- Clinical trials
- Systematic reviews and meta-analyses
- Research ethics and bioethics
- Reliability and validity of research instruments
- Literature searching and retrieval of scientific evidence
- Critical appraisal of nutritional epidemiological studies and assessment of the quality of scientific evidence

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY Face-to-face, Distance learning, etc.	Face-to-face (classroom-based)
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY Use of ICT in teaching, laboratory education, communication with students	• Use of ICT in teaching • Use of ICT for communication with students via the University's e-learning platform
TEACHING METHODS The manner and methods of teaching are described in detail.	**Activity** | **Semester workload** **Course total** |
STUDENT PERFORMANCE EVALUATION Description of the evaluation procedure	• Final oral examination (80%) • Individual or group assignments (20%)

5. ATTACHED BIBLIOGRAPHY

- Willet W. Nutritional Epidemiology. 3rd Edition, Oxford, 2013.
- Gibney, J.M., Margetts, B.M., Kearney, J.M., Arab, L., Guerrero, S.,.Public Health Nutrition. Blackwell Science Ltd., Oxford, 2004.
- Lovegrove, JA, Hodson, L, Sharma, S. Nutrition research methodologies. Hoboken, NJ: Wiley Blackwell, 2015.
- Friis Robert H., & Sellers Thomas A. Epidemiology and Public Health, Broken Hill Publishers LTD, Limasol, 2011.