



ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ

HELLENIC REPUBLIC

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ΕΘΝΙΚΗ ΑΡΧΗ ΑΝΩΤΑΤΑΤΗΣ ΕΚΠΑΙΔΕΥΣΗΣ

HELLENIC AUTHORITY FOR HIGHER EDUCATION

## **University of West Attica**

**School of Health and Care Sciences**

**Department of Biomedical Sciences**

### **Postgraduate Studies**

## **“Biomedical Methods and Technology in Diagnosis”**

Course Outline

SPECIALISED SEMINARS-TASKS



ATHENS 2023

## COURSE OUTLINE

### (1) GENERAL

<b>SCHOOL</b>	School of Health and Care Sciences		
<b>ACADEMIC UNIT</b>	Biomedical Sciences		
<b>LEVEL OF STUDIES</b>	Postgraduate Studies		
<b>COURSE CODE</b>	IA9	<b>SEMESTER</b>	Third
<b>COURSE TITLE</b>	SPECIALISED SEMINARS-TASKS		
<b>INDEPENDENT TEACHING ACTIVITIES</b> <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>		<b>WEEKLY TEACHING HOURS</b>	<b>CREDITS</b>
Review of existing literature		4	30
Experimental procedure			
<i>Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).</i>			
<b>COURSE TYPE</b> <i>general background, special background, specialised general knowledge, skills development</i>	Skills development Special background-general knowledge specialization		
<b>PREREQUISITE COURSES:</b>	HEMATOLOGY, BLOOD DONATION		
<b>LANGUAGE OF INSTRUCTION and EXAMINATIONS:</b>	Greek		
<b>IS THE COURSE OFFERED TO ERASMUS STUDENTS</b>	NO		
<b>COURSE WEBSITE (URL)</b>	<a href="https://eclass.uniwa.gr/courses/DML114/">https://eclass.uniwa.gr/courses/DML114/</a>		

### (2) LEARNING OUTCOMES

<p><b>Learning outcomes</b></p> <p><i>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.</i></p> <p><i>Consult Appendix A</i></p> <ul style="list-style-type: none"> <li>• <i>Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area</i></li> <li>• <i>Descriptors for Levels 6, 7 &amp; 8 of the European Qualifications Framework for Lifelong Learning and Appendix B</i></li> <li>• <i>Guidelines for writing Learning Outcomes</i></li> </ul>
<p>The seminars are intended to enrich the theoretical knowledge of the postgraduate students of the "Biomedical methods and technology in diagnosis" program of the Department of Biomedical Sciences of the University of Western Attica in subjects that the program cannot approach thoroughly during the theoretical courses and the workshops, however they are important part of their biomedical skills. In addition, in the first courses of the seminars, emphasis is placed on training the students in the management of the moodle platform in which they will post the progress of the Diploma Thesis. The first modules are about learning to find bibliography and writing a scientific text. The following sections deal with research methodology and Biostatistics. The rotation of the subjects follows the trend of the sciences as well as the achievements of biomedical studies and research, so that postgraduate students are at the forefront of scientific developments. Topics that are usually of special interest to coordinators, teachers and participating researchers are presented.</p>

### 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?*

*Search for, analysis and synthesis of data and information, with the use of the necessary technology*  
*Adapting to new situations*  
*Decision-making*  
*Working independently*  
*Team work*  
*Working in an international environment*  
*Working in an interdisciplinary environment*  
*Production of new research ideas*

*Project planning and management*  
*Respect for difference and multiculturalism*  
*Respect for the natural environment*  
*Showing social, professional and ethical responsibility and sensitivity to gender issues*  
*Criticism and self-criticism*  
*Production of free, creative and inductive thinking*  
*.....*  
*Others...*  
*.....*

- Search, analysis and synthesis of data and information, using the necessary technologies
- Adaptation to new situations in the current hematology laboratory
- Autonomous work
- Teamwork
- Work in an interdisciplinary environment

### (3) SYLLABUS

- 1 Literature analysis, Thesis Writing and Presentation
- 2 Research Methodology - Biostatistics in Health Sciences
- 3 Risk Assessment in Clinical Laboratories
- 4 Differentiated thyroid cancer and Hashimoto's thyroiditis
- 5 Adipose tissue, Alzheimer's disease
- 6 Targeted treatment and skin side effects in oncology patients: Dermatocosmetic treatment
- 7 Colorectal Cancer: Latest Data (Immunotherapy)
- 8 Analysis of medical images for cancer markers graded in Grade I, II or III
- 9 Laboratory Investigation of Antimicrobial Phenotypic Resistance - Antibigram
- 10 Monoclonal Antibodies and Autoimmune Diseases
- 11 Molecular Detection of Bacterial Resistance Genes
- 12 Determinants of Health - Aging and Longevity
- 13 Systematic reviews, meta-analyses and evidence-based guidelines
- 14 Lung Cancer: Clinical Laboratory Considerations and Immunohistochemical Study of the P13K Pathway
- 15 Differentiated thyroid cancer and Hashimoto's thyroiditis
- 16 Acid and Chronic Stress: Mechanisms - Cortisol
- 17 Heterogeneity in cancer: Its role in the progression of the disease and study methods

#### (4) TEACHING and LEARNING METHODS - EVALUATION

<b>DELIVERY</b> <i>Face-to-face, Distance learning, etc.</i>	In the classroom and in the Lab face to face.	
<b>USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY</b> <i>Use of ICT in teaching, laboratory education, communication with students</i>	Video recording and/or simulation of Molecular Histopathology - Oncology techniques	
<b>TEACHING METHODS</b> <i>The manner and methods of teaching are described in detail.</i> <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>  <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>	<b>Activity</b>	<b>Semester workload</b>
	Lectures	45
	Laboratory/Tutorial	45
	Exercises	
	Writing Assignment	30
	Specialized seminars	30
	Writing Assignment	50
	<b>Course total</b>	<b>200</b>
<b>STUDENT PERFORMANCE EVALUATION</b> <i>Description of the evaluation procedure</i>  <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>  <i>Specifically-defined evaluation criteria are given, and if and where they are accessible to students.</i>	1. Written final exam (100%) which includes: <ul style="list-style-type: none"> <li>• Multiple choice questions</li> <li>• Short answer questions</li> <li>• Written exam in a selected thematic section</li> <li>• Laboratory work in techniques</li> </ul>	

#### (5) ATTACHED BIBLIOGRAPHY

Suggested bibliography: <b>Greek</b> <ul style="list-style-type: none"> <li>• Τριχόπουλος Δ, Τζώνου Α, Κατσουγιάννη Κ. Βιοστατιστική. Εκδόσεις Παρισιάνος. Αθήνα, 2000.</li> <li>• Τζώνου Α, Κατσουγιάννη Κ. Ασκήσεις Βιοστατιστικής. Εκδόσεις Μ.Αθανασοπούλου-Σ.Αθανασόπουλος Ο.Ε. Αθήνα, 1997.</li> <li>• Petrie Avina, Sabin Caroline. Ιατρική Στατιστική με μια ματιά. Εκδόσεις Παρισιάνος. Αθήνα, 2008.</li> <li>• Pagano Marcello, Gauvreau Kimberlee Αρχές Βιοστατιστικής Γ.ΠΑΡΙΚΟΣ &amp; ΣΙΑ ΕΕ 2002</li> <li>• Κατσουγιαννόπουλος Βασίλειος , Βασική Ιατρική στατιστική ΕΚΔΟΤΙΚΟΣ ΟΙΚΟΣ ΑΔΕΛΦΩΝ ΚΥΡΙΑΚΙΔΗ Α.Ε. 368 2009</li> <li>• Σταυρινός Βασίλης Γ., Παναγιωτάκος Δημοσθένης Β. Βιοστατιστική, Εκδόσεις Γ. Δαρδάνος - Κ. Δαρδάνος Ο.Ε.</li> <li>• Παπαγεωργίου Έφη , Βιοστατιστική και Εφαρμογές, Εκδόσεις Νέων Τεχνολογιών, 2016</li> <li>• Δημητριάδης, Ε. (2010). Στατιστικές Εφαρμογές με τη χρήση του S.P.S.S 17 και του LISREL 8.7, Αθήνα: Κριτική</li> <li>• Bryan A &amp; Bell E. (2003). Business Research Methods, Oxford.</li> </ul>
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## Foreign

- M. Bland (1995): An Introduction to Medical Statistics. Second Edition. Oxford University Press.
- M.H. Katz (1999): Multivariable Analysis. A Practical Guide for Clinicians. Cambridge University Press.
- L.D. Fisher and G. van Belle (1993): Biostatistics - Methodology for the Health Sciences. Wiley, New York.
- S. Holm (1979): A Simple Sequentially Rejective Multiple Test Procedure. Scandinavian Journal of Statistics, 6, 65-70.
- J.C. Hsu (1996): Multiple Comparisons. Theory and methods. Chapman and Hall.
- Zikmund, W. G. (2003). Business Research Methods, Ohio: Thomson Southwestern
- Matthews B & Ross L (2010). Research Methods: A Practical Guide for the Social

- Related academic journals:

- Blood
- Blood transfusion