PHDHS111 - Research Methods – Epidemiology

Course Title	Research Methods - Epidemiology				
Course Code	PHDHS111				
Course Type	Compulsory				
Level	PhD (Level 3)				
Year / Semester	2nd year / 3th semester				
Teacher's Name	Dr ELENI JELASTOPULU				
ECTS	10	Lectures / week	3	Laboratories / week	NA
Course Purpose and Objectives	Epidemiology is the basic science of Public Health. It studies the frequency and distribution of diseases in the human population, as well as the factors that shape this distribution. The purpose of Epidemiology is to control and prevent diseases, by recording and evaluating their distribution and evolution in the community, as well as the factors that shape and influence the diseases. The purpose of the course is to develop the concept of Epidemiology as a science necessary for the integrated assessment of community / population health, in the context of which preventive and therapeutic measures are practiced. The detailed presentation of the methods of epidemiology, the ways of measuring and mapping health, morbidity and mortality of the population aim at acquiring skills in the use and evaluation of bio-statistical data, acquiring the ability to design and perform an epidemiological research, and the possibility of developing health policy proposals.				
Learning Outcomes	After the end of the course students will be able to: • Understand epidemiology as the science that studies the frequency and distribution of diseases in space, time and person • Understand, use and utilize demographic data and epidemiological indicators • Understand the natural history of the disease and its etiology • Understand, design and carry out epidemiological studies • Understand, design and conduct clinical trials • Develop and write research protocols • Design and implement screening programs • Acquire health strategy skills to properly direct Public Health actions				
Prerequisites	MSc	Required	None		

Course Content	Introduction to Epidemiology, Introduction to Medical Demography, Dynamics of Disease Transmission, Basic Principles of Epidemiology - Descriptive Epidemiology, Analytical Epidemiology and Cause-Effect Relationships, Clinical Studies - Clinical Trial Design - Predictive Inquiry – Applications of Epidemiology - Monitoring, Design and Conduct of Epidemiological Research, Special Topics in Epidemiology
Teaching Methodology	Presence lessons, lectures, Power Point presentations
Bibliography	(a) Textbooks: Gordis L. Epidemiology. 5th ed. Philadelphia, PA: Saunders/Elsevier; 2014 Rothman, K.J., Greenland, S. and Lash, T. (2008) Modern epidemiology. Third Edition. Lippincott Williams & Wilkins, Philadelphia, Jørn Olsen, Kaare Christensen, Jeff Murray, Anders Ekbom. An Introduction to Epidemiology for Health Professionals, Springer-Verlag New York 2010 (b) References: Armitage P., Berry G., Mathews JNS (2002). Statistical Methods in Medical Research. 4th Edition. Blackwell Science. C.D.C. (1992) Principles of Epidemiology. An introduction to Applied Epidemiology and Biostatistics, CDC Publications. Giesecke J. (2002) Modern infectious disease Epidemiology, Karolinska Institute, Stockholm, Sweden. Haynes B.R., Sachett D., Guyatt G., Tugwell P. (2006) Clinical Epidemiology. How to Do Clinical Practice Research, Lippincott Williams and Wilkins, A Wolters Kluwer Company, New York. Mausner J., Bahn A. (1985) Epidemiology. An Introductory Text. W.B. Saunders Company 2nd edition. Moreira Paulo (2007) Public Health Policy in Action, Book Surge Publishing Olsen J., Saracci R., Trichopoulos D.(2001) Teaching Epidemiology: a Guide for Teachers in Epidemiology, Public Health and Clinical Medicine. 2nd Edition. New York, Oxford University Press.
Assessment	(a) Methods: Problem solving assignments, design assignments, case studies, presentations and final oral exam (b) Criteria and weights: The maximum marks are 100, assignments and case studies cover 40% and final oral exam 60%
Language	GREEK-ENGLISH