

Course Unit	Epidemiology		Field of study	Health	
Bachelor in	Gerontology		School	School of Health	
Academic Year	2022/2023	Year of study	3	Level	1-3
Type	Semestral	Semester	1	ECTS credits	5.0
		Code		9833-346-3102-00-22	
Workload (hours)	135	Contact hours	T 50	TP -	PL 20
		TC -		S -	E -
		OT 3		O -	

T - Lectures; TP - Lectures and problem-solving; PL - Problem-solving, project or laboratory; TC - Fieldwork; S - Seminar; E - Placement; OT - Tutorial; O - Other

Name(s) of lecturer(s) Teresa Isaltina Gomes Correia

### Learning outcomes and competences

At the end of the course unit the learner is expected to be able to:

1. Describe basic concepts that base the epidemiologic practice.
2. Identify the measures of disease frequency and understand their applications.
3. Understand the measures of association and impact and their application in the Epidemiology.
4. Characterize the epidemiologic profile.
5. Acquire knowledge on methodology of the epidemiologic research, aiming the development of abilities for the critical scientific article analysis and the conception of epidemiologic studies.
6. Describe the process of infectious and non-infectious diseases, as well as, understanding the research and measures of control towards to foodborn diseases.
7. Analyze the problems related with demographic, population and social questions of the aging. Understand epidemiologic issues underlying some of the more prevalent diseases.
8. Acquire skills for critical reflection on the main aspects of the epidemiologic surveillance and its application in planning, assessing and engaging in decision-making process in health.

### Prerequisites

Before the course unit the learner is expected to be able to:  
Not applicable.

### Course contents

Concepts/aims Evolution of the epidemiologic thinking The transitions Health indicators and Sources of information in health Standardization of rates Epidemiologic Profile Measures of frequency /association Inference/causality Random and systematic errors Validity Confounding/interaction Analytical descriptive epidemiology Epidemiologic studies. Epidemiology of infectious and noninfectious diseases Epidemiology of the aging Epidemiologic surveillance Epidemiology and health policies Access data

### Course contents (extended version)

1. Epidemiology: concepts, subject and aims.
2. Evolution of the epidemiologic thinking.
3. The transitions: Epidemiological, Demographic and Nutritional.
4. Health indicators.
5. Standardization of rates.
6. Sources of information in health.
7. Epidemiologic Profile. Epidemiologic Variables: Person, Time and Place.
8. Measures of frequency of disease. Measures of association and impact: RR, OR and Atributable risk.
9. Inference and causality. Random and systematic errors. External and internal Validity.
10. Confounding and interaction.
11. Epidemiologic Studies: cross-sectional, case-control, cohort, ecological studies and clinical trial.
12. Epidemiology of infectious and non-infectious diseases.
13. Epidemiology of aging.
14. Epidemiologic Surveillance.
15. Planning and assessing health care services. Decision-making process in health.
16. Access to the databases.

### Recommended reading

1. Hernández-Aguado, I. , Miguel, A. G. , Rodriguez, M. D. , Monrull, F. B. , Benavides, F. G. , Serra, M. P. et al. (2013). Manual de Epidemiología y Salud Pública (2ª. ed. ). Madrid: panamericana.
2. Campos, G. W. S. , Bonfin, J. R. A. , Minayo, M. C. S. , Akerman, M. , Júnior, M. D. & Carvalho, Y. M. Tratado de Saúde Coletiva. (2013). (2ª. ed. ). São Paulo: Hucitec.
3. Oliveira, A. G. (2009). Bioestatística, Epidemiologia e Investigação: Teoria e Aplicações. Lisboa: LIDEL.

### Teaching and learning methods

The oretical lessons (50 hours): Exposition of the concepts selecting images and texts. Laboratorials practical lessons (20 hours): Resolution followed by of application exercises. Study guided through cases analysis to answer. Method used in the lessons of tutorials orientation (3) and as individual work of the pupil (without presence -58 hours).

### Assessment methods

1. Written test theoretical and practical 70% 30% - (Regular, Student Worker) (Final)
2. Final Written Exam - 100% - (Regular, Student Worker) (Supplementary, Special)

### Language of instruction

Portuguese, with additional English support for foreign students.

## Electronic validation

Teresa Isaltina Gomes Correia	Hélder Jaime Fernandes	Maria Cristina Martins Teixeira	Adília Maria Pires da Silva Fernandes
03-11-2022	14-11-2022	19-11-2022	02-12-2022