



STUDY GUIDE

Environmental Epidemiology

Organised by the University of Santiago de Compostela



1. IDENTIFYING DATA	
Course/training name*	Environmental Epidemiology
Coordinating University*	University of Santiago de Compostela
Universities involved	
Main Thematic Arena*	Arena 1 Health & Well-Being Arena 3 Environmental changes
Relation with the above selected Thematic Arena	Environmental science
Course/training field(s)*	Environmental science
ISCED Code	
Related SDGs	
Target audience(s)*	Master students
Number of ECTS credits allocated	3
Other modes of certifications	
Mode of delivery*	Online asynchronous Online synchronous (not mandatory)
Language of instruction*	Spanish



Semester*	2° / spring semester
Course/training dates*	Second semester (from February to June)
Precise schedule of the lectures (Mind the time zone) *	Asynchronous sessions (available any time). Tutorials and live sessions (which are not mandatory) take place at 16:30 CET
Key words (max 5) *	Epidemiology, public health, environmental risk factors, radon, environmental tobacco smoke
Catch Phrase*	Assessment of the health impact associated with exposure to environmental risk factors
Prerequisites and co-requisites*	Basic skills in epidemiology
Number of EUniWell students or staff that can attend the course/training*	10
Course/training application procedure(s)*	EUniWell joint application process on EUniWell website

2. CONTACT DETAILS

Department	Preventive Medicine and Public Health
Name of lecturer/trainer*	Mónica Pérez Ríos
E-mail of the trainer*	monica.perez.rios@usc.es
Name and e-mail of the catalogue coordinator*	Mirela Florescu – euniwell@usc.es



Other lecturers/trainers

Alberto.ruano@usc.es; cristina.candal@usc.es

3. COURSE/TRAINING ABSTRACT*

Using real case studies as examples, this course aims to assess the health effects of various environmental exposures through the design of specific studies. It applies epidemiology skills to assess the health effects of common environmental exposures, such as secondhand tobacco smoke or radon, or natural disasters including volcanic eruptions, or other environmental accidents for example oil spills or chemical contamination.

4. DEVELOPED SKILLS AND COMPETENCES*

Be competent to design epidemiological studies in the environmental context and to interpret their results.

5. OBJECTIVES AND LEARNING OUTCOMES*

To recognise the role of environmental epidemiology as a methodological tool for addressing the major public health problems related to the environmental exposures and the impact of these exposures on the health of the population applying epidemiological methods. Moreover, to propose the adoption of appropriate preventive measures, recognising and assessing the relationships between environmental factors and the health of the community.

Specific objectives:

- To know the applications of different epidemiological designs for the study of environmental risks to the human population.
- To understand the different aspects of epidemiological study design in environmental epidemiology and their correct interpretation.
- To review the most recent evidence in the different areas of environmental health, together with the most appropriate preventive and corrective measures.
- To provide the necessary tools to critically analyse environmental situations that pose a risk to health.

6. COURSE/TRAINING ORGANISATION



UNITS	
1.	Exposure to secondhand tobacco smoke
2.	Exposure to radon
3.	Exposure to volcanic ashes and fumes
4.	Exposure to environmental pollution
LEARNING RESOURCES AND TOOLS	
Material developed ad hoc. Scientific articles and different bibliographic material are provided.	
PLANNED LEARNING ACTIVITIES AND TEACHING METHODS	
It is recommended that the student devotes 20 or 25 hours of personal work to reading the materials and to solving and preparing the answers to the periodic tasks and the final evaluation. Online participation through e-mail and the virtual classroom. Solving and submitting the periodic tasks.	

7. ASSESSMENT METHODS AND CRITERIA*
Students are required to complete assignments on a regular basis, which are graded by teachers.
RECOGNITION*
Euniwell certificate. ECTS recognition depends on the host institution where students are registered.
ADDITIONAL INFORMATION



8. BIBLIOGRAPHY AND TEACHING MATERIALS

Basic and complementary bibliography

Ecología y Salud. En: Piedrola Gil- Medicina Preventiva y Salud Pública. Ed. Elsevier, 12ª ed. Barcelona, 2016

Sánchez.Villegas A et al. "Salud ambiental. Medio ambiente físico. Contaminación atmosférica." En: Martínez González MA Ed: Conceptos de Salud Pública y estrategias preventivas. Un manual para ciencias de la salud. Pp277-282. Ed. Elsevier. Barcelona, 2013.

OPS. Epidemiología ambiental y ocupacional. Bonita R et al: Epidemiología básica. 2ª ed. Pub Cient y Técn nº 629.OPS, 2008: pp 185-208.

*Ahlbom A, Norell S. Fundamentos de epidemiología. 6ª ed. Siglo XXI de España Eds. Madrid, 2007.

European Environmental Agency. Environment and Health. EEA, Copenhagen 2005.

Martínez Navarro, F et al. Vigilancia epidemiológica. Mc Graw-Hill Interamericana. Madrid, 2004.

WHO. Environmental health indicators: Framework and methodologies. WHO, Geneve 1999,

Steenland K, Savitz DA. Topics in Environmental Epidemiology. OUP, New York, 1997.

*Argimón JM, Jiménez J. Métodos de investigación aplicados a la atención primaria de salud. Harcourt Brace eds. Madrid, 1996.

Bard D. Principes de l'évaluation des risques pour la santé publique liés aux expositions environnementales. Rev Epidém et Santé Publ 1995;43:423-431.

García García AM, García Benavides F. Causalidad en salud laboral: El caso Ardystil. Gac San.1995; 51(9): 371-79.

Wills JT, Briggs DJ. Developing indicators for environment and health. Wld statist quart 1995;48:155-163.

*Norell S. Diseño de estudios epidemiológicos. 1ª de. Siglo XXI de España Eds. Madrid, 1994.

Elliot P, Cuzick J, English D, Stern R, eds. Geographical and Environmental Epidemiology: Methods for Small-Area Studies. OUP, Great Britain, 1992.

OPS. El desafío de la epidemiología. Problemas y lecturas seleccionadas. Organización Panamericana de la Salud. Publ Cient. Nº 505. Washington-USA, 1988.

9. QUALITY ASSURANCE*



The students will be able to contact the teacher for asking questions by email and organize online discussions if required. At the end of the course there will be a survey to recover the opinion of the students and add improvements in the future versions of the project.