

STUDY GUIDE

Environmental Epidemiology

Course/training name	Environmental Epidemiology
Host Institution(s)	University of Santiago de Compostela
Co-organising Institution(s) (if applicable)	Not applicable
Course level (if applicable)	Master students
Name and faculty of the lecturer(s)/trainer(s)	Name of lecturers: Mónica Pérez Ríos, Alberto Ruano Raviña, Cristina Candal Pedreira, Lucía Rodríguez Loureiro, Lucía Martín de Bernardo Gisbert Faculty of Medicine (all lecturers)
Mode of delivery	Online live + self-study
Location (if applicable)	Not applicable
Dates of the <u>online</u> component (if applicable)	From 27 January 2026 to 15 May 2026
Dates of the <u>on-site</u> component (if applicable)	Not applicable
Cost	None



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Target audience(s)	☐ Bachelor's ☒ Master's ☐ PhD ☐ Educators ☐ Researchers ☐ Administrative staff																						
Prerequisites	Basic skills in epidemiology																						
Main Thematic Arena(s)	☒ Arena 1 - Health and Well-Being ☐ Arena 2 - Social Equality and Well-Being ☒ Arena 3 - Environmental change and Well-Being ☐ Arena 4 - Multilingualism and Well-Being ☐ Arena 5 - Teacher Education and Well-Being ☐ Transversal																						
Field(s) of research / study	Epidemiology, Environmental science, Public Health, Respiratory Health																						
Related Sustainable Development Goals (SDG)	 <table border="1"> <tbody> <tr> <td>☐ 1 - No poverty</td><td>☒ 10 - Reduced inequalities</td></tr> <tr> <td>☐ 2 - Zero hunger</td><td>☒ 11 - Sustainable cities and communities</td></tr> <tr> <td>☒ 3 - Good health & well-being</td><td>☐ 12 - Responsible consumption & production</td></tr> <tr> <td>☐ 4 - Quality education</td><td>☒ 13 - Climate action</td></tr> <tr> <td>☐ 5 - Gender equality</td><td>☐ 14 - Life below water</td></tr> <tr> <td>☐ 6 - Clean water & sanitation</td><td>☐ 15 - Life on land</td></tr> <tr> <td>☐ 7 - Affordable & clean energy</td><td>☐ 16 - Peace, justice & strong institutions</td></tr> <tr> <td>☐ 8 - Decent work & economic growth</td><td>☐ 17 - Partnerships for the goals</td></tr> <tr> <td>☐ 9 - Industry, innovation & infrastructure</td><td></td></tr> </tbody> </table>					☐ 1 - No poverty	☒ 10 - Reduced inequalities	☐ 2 - Zero hunger	☒ 11 - Sustainable cities and communities	☒ 3 - Good health & well-being	☐ 12 - Responsible consumption & production	☐ 4 - Quality education	☒ 13 - Climate action	☐ 5 - Gender equality	☐ 14 - Life below water	☐ 6 - Clean water & sanitation	☐ 15 - Life on land	☐ 7 - Affordable & clean energy	☐ 16 - Peace, justice & strong institutions	☐ 8 - Decent work & economic growth	☐ 17 - Partnerships for the goals	☐ 9 - Industry, innovation & infrastructure	
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Number of ECTS and/or workload (in hours)	3																						
Language(s) of instruction	Spanish and English																						
Key words	Epidemiology	Enviromental risk factors	Public health	Radon	Enviromental tobacco smoke																		
Catch Phrase	Assessment of the health impact associated with exposure to environmental risk factors.																						
Total number of places for EUniWell participants	10																						

Application procedure	Application form on the EUniWell Courses and Training Catalogue
Selection criteria	<i>Postgraduate students with basic level of epidemiology. B1 level of English or Spanish, and personal interview if necessary</i>
Abstract	<i>This course introduces the main ideas of environmental epidemiology and how different environmental exposures can affect human health. It covers topics like how to measure risk, how exposure happens, and how to design studies. Using real case studies, students learn how to apply basic epidemiology skills to study the health effects of secondhand smoke, radon gas, air pollution, and pollution from natural disasters like volcanic eruptions or accidents such as oil spills. By the end of the course, students will be able to understand environmental health problems and how to study them in real situations.</i>
Programme / session(s) schedule	<i>Ad hoc tutorials and 5-6 scheduled live sessions, which are voluntary, will take place at 16:30. During the first week of the course, live sessions schedule will be made available.</i>
Developed skills and competences	<i>Students will be capable of identifying environmental problems and providing the most appropriate answers to each situation.</i> <i>Students will be capable of evaluating the impact of such problems through the understanding of its effect using the population attributable fraction or specific effects regarding excess risk.</i> <i>In case-specific studies, the students will be capable of assessing the benefit-risk ratio of specific exposures, such as ionizing radiation.</i> <i>To assess the importance of adequate measurement of exposure and factors that may exert confusion in epidemiologic studies.</i> <i>Specific competences of the course</i> <i>To be able to design epidemiologic studies in an environmental framework and to interpret their results.</i> <i>To understand the different magnitude of environmental risks and the</i>

	<i>importance of analyzing specific subpopulations.</i> <i>To be able to assess the importance of different epidemiologic studies (cross-sectional, longitudinal, and case control) in the analysis of environmental risks effects on health.</i>
Objectives and learning outcomes	<i>Main objective: To know the role of Environmental Epidemiology as a methodological tool to approach the main public health issues related to the environment. To learn to identify community health problems and to assess their diverse dimensions (biomedical, environmental, social) through the application of methodological methods. To propose epidemiological designs adapted to each environmental context and to establish the adoption of ideal preventive measures, recognizing and assessing the relationship between environmental factors and community health.</i> <i>Specific objectives:</i> <i>To know the applications of different epidemiological designs to study environmental risks for the population through actual examples.</i> <i>To know the main aspects of epidemiological analysis of environmental research and their accurate interpretation.</i> <i>To review the most current evidence in the various areas of environmental health and the most appropriate preventive and corrective measures.</i> <i>To provide the students with the necessary tools to critically analyze environmental situations entailing health hazards.</i> <i>To provide the knowledge to solve actual environmental problems and to evaluate its impact on population health.</i>
Assessment methods and criteria (if applicable)	<i>60 % of the assessment will be based on the regular completion of proposed activities, tasks, and questionnaires, as well as active participation in the course forum. These components are regularly graded by the lecturers, and students receive both grades and feedback accordingly. The remaining 40% will be reserved for the final test. Students must take an individual test, consisting of the design of a research work applied to environmental epidemiology, or of the argued critique of a scientific article in the environmental field.</i>
Type of certification issued upon attendance or completion	<i>Euniwell certificate. ECTS recognition depending on the host institution where students are registered.</i>

Contact

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