

**Syllabus Major B 233 – Impact assessment in environmental health**

<b>N° : 233</b>	<b>Impact assessment in environmental health</b>
<b>Coordinator</b>	Séverine Deguen, PhD Professor of biostatistics, Department of EOHS, EHESP – Sorbonne Paris Cité <a href="mailto:severine.deguen@ehesp.fr">severine.deguen@ehesp.fr</a>
<b>Dates</b>	18th to 22th December 2017
<b>ECTS</b>	3 ECTS
<b>Duration</b>	5 days of 6 hours = 30 hours
<b>Location</b>	Room : 408, EHESP 20 Avenue George Sand 93210 LA PLAINE ST DENIS
<b>Description</b>	<p>This course deals with impact assessment approaches and methods in the domain of environmental health. This course focuses on the application of quantitative techniques for impact evaluation; qualitative appraisal approaches will also be exposed.</p> <p>The main goal of the module is to give an overview of the different approaches and methods aiming to assess the health impact of exposure to environmental stressors; these include epidemiological, toxicological, economical and deliberative territorial methods which provide different metrics to give an appreciation of the health impact of a given environmental situation for use by decision makers and different stakeholders to inform their choices for action. Special emphasis will be placed on learning when, why, and how these methods and approaches are best suited.</p> <p>The module covers both methodological and applied issues.</p>
<b>Prerequisite</b>	Advanced core in EOHS
<b>Course learning objectives</b>	<p><b>Learning objectives:</b> <i>at the end of the module, the students should be able to:</i></p> <ul style="list-style-type: none"> <li>- To be familiar with the most common methods aiming to assess the health impact of exposure to environmental stressors.</li> <li>- To interpret the results obtained from a health impact assessment study</li> <li>- To select and list appropriate information in order to realize a health impact assessment and to answer to the study objective</li> </ul>
<b>Structure</b> (details of sessions title/spaeker/date/duration )	<p><b>Day 1:</b></p> <ul style="list-style-type: none"> <li>- Presentation of the module “Impact assessment in environmental health”: concepts, utility, principles and methods.</li> <li>- Health impact assessment</li> <li>- Concepts and the quantitative methods for Burden of Disease measurement</li> </ul> <p><b>Monday December 18th, 9:00 -12:30 and 1:30 – 4:30 pm</b></p> <p><b>Day 2:</b></p> <ul style="list-style-type: none"> <li>- Epidemiological information and risk estimates for different health consequences of environmental nuisances (example of air pollution)</li> <li>- Methods of risk assessment</li> </ul> <p><b>Tuesday December 19th 9:00 -12:00 and 1:00 – 4:00 pm</b></p> <p><b>Day 3:</b></p> <ul style="list-style-type: none"> <li>- Monetary and non-monetary measures of health benefits from exposure reduction</li> <li>- Working Group – case study</li> </ul> <p><b>Wednesday December 20th 9:00 -12:00 and 1:00 – 4:30 pm</b></p> <p><b>Day 4:</b></p> <ul style="list-style-type: none"> <li>- Assessment of public policies to reduce the health burden of environmental exposures</li> <li>- Working Group – case study</li> </ul>

	<p><b>Thursday December 21th, 9:00 -12:00 and 1:00 – 4:30 pm</b></p> <p><b>Day 5:</b></p> <ul style="list-style-type: none"> <li>- Working Group – case study</li> <li>- Oral presentation</li> </ul> <p><b>Friday November 22th , 9:00 -12:00 and 1:00 – 4:00 pm</b></p>
<b>Resources</b>	All readings and materials will be posted on REAL.
<b>Course requirement</b>	None
<b>Grading and assessment</b>	<p>Project by group (1/2 of the final mark) + Individual exam-2 hours (1/2 of the final mark)</p> <p>Note also that students will complete a questionnaire that assesses their own and their teammates' contributions to group work. All team members will receive the same grade except if it is clear that a student has not participated effectively (attended and contributed to meetings; made timely, helpful contributions; been constructive, etc.). In that case, the student's grade will be lowered accordingly.</p>
<b>Course policy</b>	<p><b>Attendance &amp; punctuality</b></p> <p><b>Regular and punctual class attendance is a prerequisite for receiving credit in a course.</b> Students are expected to attend each class. Attendance will be taken at each class.</p> <p>The obligations of attendance and punctuality cover every aspect of the course: - lectures, conferences, group projects, assessments, examinations, as described in EHESP Academic Regulations <a href="http://mph.ehesp.fr">http://mph.ehesp.fr</a> EHESP Academic Regulation Article. 3).</p> <p>If students are not able to make it to class, they are required to send an email to the instructor and to the MPH program coordinating team explaining their absence prior to the scheduled class date. All supporting documents are provided to the end-of-year panel.</p> <p>Students who miss class are responsible for content. Any student who misses a class has the responsibility for obtaining copies of notes, handouts and assignments. If additional assistance is still necessary, an appointment should be scheduled with the instructor. Class time is not to be used to go over material with students who have missed class.</p> <p><b>Lateness:</b> Students who are more than 10 minutes late may be denied access to a class. Repeated late arrivals may be counted as absences (See <a href="http://mph.ehesp.fr">http://mph.ehesp.fr</a> EHESP Academic Regulation Article. 3 Attendance &amp; Punctuality)</p> <p><b>Maximum absences authorized &amp; penalty otherwise</b></p> <p>Above 20% of absences will be designated a fail for a given class. The students will be entitled to be reassessed in any failed component(s). If they undertake a reassessment or they retake a module this means that they cannot normally obtain more than the minimum pass mark (i.e. 10 out of 20)</p> <p><b>Exceptional circumstances</b></p> <p>Absence from any examination or test, or late submission of assignments due to illness, psychological problems, or exceptional personal reasons must be justified; otherwise, students will be penalized, as above mentioned. Students must directly notify their professor or the MPH academic secretariat before the exam or before the assignment deadline. Before accepting the student's justification, the professor or the MPH academic secretariat has the right to request either a certificate from the attending physician or from a psychologist, or from any other relevant person (See <a href="http://mph.ehesp.fr">http://mph.ehesp.fr</a> EHESP Academic Regulation Article 4 Examinations).</p> <p><b>Courtesy:</b> <u>All cell phones/pages MUST be turned off during class time.</u></p> <p>Students are required to conduct themselves according to professional standards, eating during class time is not permitted during class time, such as course or group work.</p>
<b>Valuing diversity</b>	Diversity enriches learning. It requires an atmosphere of inclusion and tolerance, which oftentimes challenges our own closely-held ideas, as well as our personal comfort zones. The results, however, create a sense of community and promote excellence in the learning environment. This class will follow principles of inclusion, respect, tolerance, and acceptance that support the values of diversity. Diversity includes consideration of: (1)

	life experiences, including type, variety, uniqueness, duration, personal values, political viewpoints, and intensity; and (2) factors related to “diversity of presence,” including, among others, age, economic circumstances, ethnic identification, family educational attainment, disability, gender, geographic origin, maturity, race, religion, sexual orientation and social position.
<b>Course evaluation</b>	EHESP requests that you complete a course evaluation at the end of the school year. Your responses will be anonymous, with feedback provided in the aggregate. Open-ended comments will be shared with instructors, but not identified with individual students. Your participation in course evaluation is an expectation, since providing constructive feedback is a professional obligation. Feedback is critical, moreover, to improving the quality of our courses, as well as for instructor assessment.

Session #1	Health Impact assessment
Speakers	<p>Lecturers:</p> <ul style="list-style-type: none"> <li>- Séverine Deguen, PhD Department of EOHS, EHESP – Sorbonne Paris Cité <a href="mailto:severine.deguen@ehesp.fr">severine.deguen@ehesp.fr</a></li> <li>- Anne Roué Le Gall, PhD Department of EOHS, EHESP – Sorbonne Paris Cité <a href="mailto:Anne.Roue-LeGall@ehesp.fr">Anne.Roue-LeGall@ehesp.fr</a></li> </ul>
Learning Objectives	<p><i>At the end of the session, the students should be able to:</i></p> <ul style="list-style-type: none"> <li>- To provide a general view of the different approaches</li> <li>- To estimate the Global BoD associated with Environmental exposures</li> </ul>
Duration	6 hours
Training methods	<p>Lecture 1: Health Impact assessment, a structured process that aims to identify &amp; assess both positive &amp; negative potential health impacts resulting from any plan, project and policy before its implementation. The process concludes with a set of recommendations allowing decision maker to minimize negative impacts and maximize positive impacts. We focus on the elaboration of a conceptual causal pathway model between the plan/project/policy and health &amp; wellbeing.</p> <p>Lecture 2: Estimation of Global BoD associated with Environmental exposures (Concepts and quantitative methods). We will focus on the construction of aggregate measures such as years of life lost (YLL) years lived with disability (YLD), and disability-adjusted life years (DALYs) in a the context of environmental exposure.</p>
Session #2	Different approaches of environmental health impact assessment
Speakers	<p>Lecturers:</p> <p>Olivier Blanchard, PhD Department of EOHS, EHESP – Sorbonne Paris Cité <a href="mailto:Olivier.blanchard@ehesp.fr">Olivier.blanchard@ehesp.fr</a></p> <p>Wahida Kihal , researcher in spatial epidemiology, CNRS, Strasbourg <a href="mailto:wahida.kihal@live-cnrs.unistra.fr">wahida.kihal@live-cnrs.unistra.fr</a></p> <p>Denis Zmirou-Navier, Pr Department of EOHS, EHESP – Sorbonne Paris Cité <a href="mailto:Denis.zmirou@ehesp.fr">Denis.zmirou@ehesp.fr</a></p> <p>Milan Ščasný Environment Center, Charles University - Prague, Czech Republic</p>

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Learning Objectives	<p><i>At the end of the session, the students should be able to:</i></p> <ul style="list-style-type: none"> <li>- To provide advantages and limitations with regard to a specific question related to environmental health impact assessment approaches.</li> <li>- To identify when, why, and how these methods could be applied</li> </ul>
Duration	12 hours
Training methods	<p>Lecture 1: Health Impact Assessment, which is based on epidemiological information and is used to compute risk estimates for different health consequences of air pollution;</p> <p>Lecture 2: Risk Assessment, that uses the available data on the hazardous potency of a given environmental situation or project to derive quantitative and qualitative estimates on risks;</p> <p>Lecture 3: Economic valuation of the consequences of exposure to environmental contaminants and nuisances;</p> <p>Lecture 4: Assessment of public policies to reduce the health burden of environmental exposures.</p>

Session # 3	Case Study
Speakers	<p>Lecturers:</p> <ul style="list-style-type: none"> <li>- Séverine Deguen, PhD Department of EOHS, EHESP – Sorbonne Paris Cité <a href="mailto:severine.deguen@ehesp.fr">severine.deguen@ehesp.fr</a></li> <li>- Wahida Kihal , researcher in spatial epidemiology, CNRS, Strasbourg <a href="mailto:wahida.kihal@live-cnrs.unistra.fr">wahida.kihal@live-cnrs.unistra.fr</a></li> </ul>
Learning Objectives	<p><i>At the end of the session, the students should be able to:</i></p> <ul style="list-style-type: none"> <li>- To select and list appropriate information in order to realize a health impact assessment and to answer to the study objective</li> </ul>
Duration	9 hours
Training methods	<p>Working Group – case study</p> <p>The students will be exposed to a case study structured in two main parts: first, students will have to choose and argue which approach(es) among those presented could be the most appropriate to answer to a given question (the case study); in the second part they will have to write the protocol of a future impact assessment study.</p>