Biostatistique



2015-2016

5.0 credits

35.0 h + 20.0 h

2q

| Teacher(s) :                 | Speybroeck Niko ;  |  |  |  |
|------------------------------|--|--|--|--|
| Language :                   | Français   |  |  |  |
| Place of the course          | Bruxelles Woluwe   |  |  |  |
| Main themes :                | The course will be divided into two large sections: statistics and epidemiology.<br>Statistics: Subjects covered: descriptive statistics (variables, statistical measures, distributions), estimation (statistical measures, parameter estimation), statistical test (principles, practical use of statistical tests), introduction to regression models.<br>Epidemiology: Subjects covered: introduction to epidemiology, measures in epidemiology, types of epidemiological studies, measures of effects and population impacts, standardisation of rates, bias evaluation, causality concept, technique performances.<br>Contents.<br>Statistics :<br>* descriptive statistics (variables, statistical measures, distributions),<br>* estimation (statistical measures, parameter estimation),<br>* statistical test (principles, practical use of statistical tests),<br>* introduction to regression models.<br>Epidemiology :<br>* introduction to epidemiology,<br>* measures in epidemiology,<br>* measures in epidemiology,<br>* measures of effects and population impacts,<br>* atandardisation of rates,<br>* standardisation of rates,<br>* bias evaluation,<br>* causality concept,<br>* performance of a technique.<br>Method. The lectures will be illustrated by concrete cases extracted from literature. Sessions of exercises will go along with the<br>lectures |  |  |  |
| Aims :                       | Using a practical approach, this course introduces students to the basics of common statistical methods and initiates them in the principles and basic methods of epidemiology. The goal being, on the one hand, to guide students in making relevant choices of statistical methods for a concrete public health or medical problem and in understanding the results and, on the other hand, to enable students to read and to include/understand epidemiologic and statistical aspects of public health publications in a critical way. The contribution of this Teaching Unit to the development and command of the skills and learning outcomes of the programme(s) can be accessed at the end of this sheet, in the section entitled "Programmes/courses offering this Teaching Unit".  |  |  |  |
| Other infos :                | <ul> <li>Statistique/épidémiologie " T. Ancelle; collection " Sciences fondamentales "; éditions Maloine, Paris (2002).</li> <li>Software : R</li> <li>R is an interactive programming language containing a very large collection of statistical methods and important graphic facilities.</li> <li>It is a free clone of the S-Plus software marketed by MathSoft and developed by Statistical Sciences around the language S. The internet site of the "R core-development TEAM", http://www.r-project.org, is the best source of information on the software R.</li> </ul>   |  |  |  |
| Faculty or entity in charge: | FSP  |  |  |  |

| Programmes / formations proposant cette unité d'enseignement (UE) |         |         |           |                        |  |
|---|---------|---------|-----------|------------------------|--|
| Intitulé du programme   | Sigle   | Credits | Prerequis | Acquis d'apprentissage |  |
| Advanced Master in<br>Occupational Medicine                       | MDTR2MC | 5       | -         | ٩                      |  |
|   | DETR9CE | 4       | -         | ٩                      |  |
|   | DEPE9CE | 4       | -         | ٩                      |  |
|   | DEPR9CE | 4       | -         | ٩                      |  |