Faculty of Medecine

ESP3142   Epidemiology

[22.5h+7.5h exercises] 3 credits

Teacher(s):	Yves Coppieters 't Wallant
Language:	French
Level:	Third cycle

Aims

This 30 hours course and 15 hours of practice aim at achieving 4 key competences :
- to undertake epidemiological studies;
- to ensure the monitoring of health problem;
- to use epidemiology as individual and collective decision-making;
- to analyse critically a scientific paper.
These competences tend towards a more global objective or macro competence which is : "To ensure an epidemiological step and decision-makings in public health, coherent with the needs of the populations, communities and individuals".
The four key competences fall under professional situations specific to the practice of each learner which will be taken into account through the teaching devices.
Notice concerning the target publics of learners : the participants to this course constitute a heterogeneous group in relation their personal objectives, their preliminary assets in medicine and public health, their professionnal experiences and contexts. This heterogeneity has a teaching advantage related to the possible debates on professional situations, but makes the program difficult to adapt to the needs of each participant.

Main themes

The course consists in 13 modules formulated in teaching objectives. Each module tackles one or several key competences in professional situations. For each module, the teaching objectives are :
- To sensitise to the concepts of the epidemiological way of thinking (module 1)
- To establish the design of an epidemiological study (module 2)
- To use and interpret measurements of frequency in epidemiology (module 3)
- To use and interpret measurements of association and impact in epidemiology (module 4)
- To analyse the accuracy and the calidity of epidemiological measurements (module 5)
- To seek after causal associations (module 6)
- To do a sampling, a calculation of sample size and to choose a tool for data collection in adequacy with epidemiological studies (module 7)
- To determine the intrisinc and extrinsic validity of a screening test or a diagnosis test and to integrate them in his practice (module 8)
- To know the principle of esperimental studies (module 9)
- To ensure the monitoring of health problems (module 10)
- To seek after epidemiological data (module 11)
- To draw up an epidemiological research protocol (module 12)
- To analyse critically an epidemiological paper (module 13)
Each module has a pedagogical and knowledge objective. The teaching devices are also specific to each module. Each module includes a minimum of theoretical substrate and a series of exercises.
The exercises are application exercises (related to the knowledge acquired in the theorical part), or integrating exercises (related to the teaching objectives) which will allow the mobilization of various knowledges and which will be the object of group works at specific times (the methodology will be explained during the course).

Other information (prerequisite, evaluation (assessment methods), course materials recommended readings, ...)

The evaluation will concentrate mainly on the knowledge to be acquired in each module. Even if an evaluation by competences is difficult to set up for great groups and within the framework of only one course, an attention will be paid to the search of coherence between teaching and the evaluation.

The evaluation will be based partly on the development of group works and on a written examination.

3 supports are proposed to facilitate the training objectives :

1. a theoretical support and exercises;

2. a reading portfolio

3. a web-site of complementary resources available from the virtual University.

1. The theoretical support and exercises is made up of the 13 modules described above.

2. The reading portfolio : the portfolio does not constitute a written collection of what is presented orally but is one of the components of the theroetical contributions of this teaching.

3. The Web site progressively brings complementary resources with the ongoing teaching (articles, exercises, corrected, Web sites etc). It gives also access to the presentations of the theoretical teaching. It will allow the deposit of the group works carried out throughout the course.

Prerequisite course : MED 1200 "Elements of epidemiology"

Other credits in programs

ENVI3DS/5	Diplôme d'études spécialisées en science et gestion de l'environnement (Santé et environnement)		Mandatory
ESP3DS/PP	Diplôme d'études spécialisées en santé publique (santé au travail - pathologie professionnelle)		Mandatory
ESP3DS/TI	Diplôme d'études spécialisées en santé publique (santé au travail - toxicologie industrielle)		
FARM3DS/CL	Diplôme d'études spécialisées en sciences pharmaceutiques (pharmacie hospitalière clinique)		Mandatory
HONU21/G	Première licence en sciences de la santé publique (Gestion des institutions de soins, gestion hospitalière)		
HONU21/N	Première licence en sciences de la santé publique (Gestion des institutions de soins, adm.soins infirmiers)		
HONU22/G	Deuxième licence en sciences de la santé publique (gestion des institutions de soins, gestion hospitalière)		
HONU22/N	Deuxième licence en sciences de la santé publique (gestion des institutions de soins, admini. soins infirmiers)		
MD3DA/MO	Diplôme d'études approfondies en sciences de la santé (sciences de la motricité)	(3 credits)	Mandatory
MDTR21MC	Première année du master complémentaire en médecine du travail	(3 credits)	Mandatory
NUT21	Première licence en sciences biomédicales (nutrition humaine)		Mandatory
SBEX21	Première licence en sciences biomédicales (sciences biomédicales expérimentales)		Mandatory
SBIM13BA	Troisième année de bachelier en sciences biomédicales	(3 credits)	Mandatory
SCOM21	Première licence en sciences de la santé publique (Promotion de la santé, programmes et services de santé communautaire)		Mandatory
STAT21MS/ST	Première année du master en statistique, orientation générale, à finalité spécialisée (sciences et technologie)	(3 credits)	
STAT22MS/ST	Deuxième année du master en statistique, orientation générale, à finalité spécialisée (sciences et technologie)	(3 credits)	
STAT3DA/B	diplôme d'études approfondies en statistique (biostatistique et épidémiologie)	(3 credits)	Mandatory
TOX21	Première licence en sciences biomédicales (toxicologie)		Mandatory