

2.0 credits	15.0 h	1q
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Teacher(s) :	Vikkula Miikka ;
Language :	Français
Place of the course	Bruxelles Woluwe
Main themes :	The course focuses on the genetic principals in healthy and pathological states. It also covers useful notions for the understanding of the methodology of genetic analysis.
Aims :	<p>This course aims to give the students a global vision of the normal and pathological aspects of human genetics. At the end of the course, the students should have acquired a basic genetic knowledge allowing to: (i) better understand the molecular mechanisms of genetic disorders and the genetic diagnosis taught further in the 2nd cycle (students in medicine), and (ii) continue studies in Biomedical Sciences.</p> <p><i>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".</i></p>
Content :	<p>This course continues the teaching of the General Biochemistry (BCHM1210) and Molecular Biology (SBIM1202) courses and it is complementary to the Biochemistry BCHM1315 and BCHM1316 courses. The course focuses on developing students' knowledge on molecular genetics. The aim is to understand the human genome variability, its different polymorphisms, their frequency and evolution, and also the role of the genetic variation in phenotypic variation. The course covers : (i) the DNA; (ii) normal and abnormal karyotype ; (iii) transmission of hereditary characteristics; (iv) detection methods of genetic markers ; (v) different types of polymorphisms and their use in genetic analyses.</p>
Other infos :	<p>Prerequisites : Basic notions of molecular biology and statistics equivalent to the courses of General Biochemistry BCHM1210 and Molecular Biology SBIM1202.</p> <p>Evaluation : Written examination. The students will be examined on their knowledge, their capacity to integrate the different parts of the course and on their capacity to use their knowledge to solve genetic problems.</p> <p>Support : Course presentation (slides - pdf files available on iCampus) and recommended genetic books : - Génétique moléculaire humaine : une introduction aux mécanismes des maladies héréditaires, Jack Pasternak, De Boek, 2003 ; - Thompson & Thompson, Genetics in Medicine 7th edition, Nussbaum, McInnes and Willard, Saunders, Elsevier, 2007 ; - Biologie moléculaires et médecine, J-C Kaplan et M Delpech, 3è édition. Médecine-Sciences, Flammarion, 2007 ; - New clinical genetics, A. Read and D. Donnai, Scion, 2007.</p> <p>Encadrement : Magistral teaching</p> <p>Other : The course cannot be taken as a minor.</p>
Cycle and year of study :	> Bachelor in Biomedicine > Bachelor in Medecine (Bachelor + Master : 7 years)
Faculty or entity in charge:	MED