

2.0 credits	16.0 h	1q
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Teacher(s) :	Lemaigre Frédéric ;
Language :	Français
Place of the course	Bruxelles Woluwe
Main themes :	In eucaryotes and procaryotes: Structure of DNA, organization of the genome, DNA replication, flow of genetic information (from DNA to protein).
Aims :	The students should know the fundamentals of molecular genetics in eucaryotes and procaryotes, and become familiarized with the principles of nucleic acid and protein analysis and of genetic engineering; The content of the course constitutes a prerequisite for other courses like microbiology, biochemistry or immunology. <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>
Content :	For the theoretical part: In eucaryotes and procaryotes: Structure of DNA, genome organisation, DNA replication, organisation of genes, synthesis and control of synthesis of mRNA, tRNA, rRNA, protein synthesis (translation; post-translational modifications; protein sorting). Practical part: Analysis of plasmidic DNA, electrophoretic separation of DNA fragments, screening of recombinant bacteria, restriction enzyme analysis of DNA, polymerase chain reaction.
Other infos :	Assessment: By written exam. The students will be examined on their knowledge of the subject, and on their capacity to use the knowledge to solve problems. Support: Book: Biochimie Génétique. Biologie Moléculaire. J. Etienne et E. Clauser, Editions Masson; Laboratory exercise book provided by lecturers.
Cycle and year of study :	> Bachelor in Medecine > Preparatory year for Master in Biomedicine
Faculty or entity in charge:	MDEN