UCLouvain

wsbim1382

2021

Genetics and applied biotechnology

3.00 credits	30.0 h	Q1

Teacher(s)	Bertrand Luc (coordinator) ;Dumoutier Laure ;Laloux Géraldine ;Limaye Nisha ;
Language :	French
Place of the course	Bruxelles Woluwe
Prerequisites	*The prerequisite(s) for this Teaching Unit (Unité d'enseignement – UE) for the programmes/courses that offer this Teaching Unit are specified at the end of this sheet.*
Main themes	Tools for cloning and expression in prokaryotes and eukaryotes. Genetic engineering for the production of proteins useful for biomedical and pharmaceutical sciences. Study of genetic variants for diagnostic purposes and responsible for genetic diseases. Gene and cell therapies.
Learning outcomes	
Evaluation methods	Written exam including questions on each of the 4 topics. Language : French with specific part in English
Content	Four main topics will be proposed to masters students in biomedical sciences (SBIM Master) : 1) Molecular biology of prokaryotes (plasmid, cloning, bacterial expression of proteins, site-directed mutagenesis); 2) Molecular biology of eukaryotes I (DNA Structure, analysis of variants, sequencing, quantitative PCR, RNAseq); 3) Molecular biology of eukaryotes II (cloning, vectors and protein expression, transfection and viral infection, µRNA, RNA interference, transgenesis); 4) Gene and cellular therapies (CRISPR/cas9, IPS cells, engineered tissues)
Other infos	PDF versions of slides presented in the course, which cover the subject in a comprehensive way, will be made available on MoodleUCL. There is no formal syllabus.
Faculty or entity in charge	SBIM

Programmes containing this learning unit (UE)

Program title	Acronym	Credits	Prerequisite	Learning outcomes
Bachelor in Biomedicine	SBIM1BA	3	WMD1120 AND WMD1106 AND WFARM1221S AND WSBIM1226 AND WSBIM1227 AND WMDS1230 AND WFARM1282	🔍