BACHELOR, 3rd Year - 1st Semester (S5) [JGB5ST0]

UE	Course	ECTS	Language
JGB5U1	**MICROBIOLOGY - GENETICS**	9	
	Microbiology		🇫🇷
	Microbial Genetics		🇫🇷
	General Microbiology Practicals		🇫🇷
JGB5U2	**STRUCTURAL BIOCHEMISTRY AND ENZYMOLOGY**	9	
	Structural Biochemistry		🇫🇷
	Enzymology		🇫🇷
	Practicals		🇫🇷
JGB5U3	**MATHEMATICS – STATISTICS – COMPUTING - PHYSICS**	9	
	Bioinformatics: Data Analysis and Programming		🇫🇷
	Bioinformatics: Sequence Analysis		🇫🇷
	Thermodynamics		🇫🇷
	Mathematics for Engineering		🇫🇷
	Statistics - Probability		🇫🇷
JGB5U4	**GENERAL TRAINING I**	3	
	English		🇬🇧
	Organisation and Operation of the Companies		🇫🇷

BACHELOR, 3rd Year - 2nd Semester (S6) [JGB6ST0]

UE	Course	ECTS	Language
JGB6U1	**IMMUNOLOGY – CELL BIOLOGY - VIROLOGY**	**8**	
	Immunology		🇫🇷
	Cell Biology		🇫🇷
	Virology		🇫🇷
	Practicals		🇫🇷
JGB6U2	**CHEMISTRY - PROCESS ENGINEERING**	**8**	
	Chemistry for Engineering		🇫🇷
	Process Engineering		🇫🇷
	Practicals		🇫🇷
JGB6U3	**GENERAL TRAINING II**	**5**	
	English		🇬🇧
	Corporate Finances		🇫🇷
	System Security and Human Reliability		🇫🇷
	Opening Module		🇫🇷
	Sustainable Development		🇫🇷
JGB6U5	**MICROBIAL PHYSIOLOGY - METABOLISM**	**6**	
	Microbial Physiology		🇫🇷
	Metabolism		🇫🇷
	Practicals		🇫🇷
JGB6U4	**WORK PLACEMENT I (Internship)**	3	🇫🇷 / 🇬🇧

MASTER, 1st Year - 1st Semester (S7) [JGB7ST0]

UE	Course	ECTS	Language
JGB7U1A	**GENETICS**	**7**	
	Prokaryotic Genetics		🇫🇷
	Microbial Eukaryotic Genetics		🇫🇷
	Genetics Practicals		🇫🇷
	Applied Genomics		🇫🇷
JGB7U2A	**PROCESS ENGINEERING – BIOCHEMICAL ENGINEERING**	**10**	
	Process Engineering		🇫🇷
	Biochemical Engineering		🇫🇷
	Protein Purification		🇫🇷
	Biochemical Engineering Practicals		🇫🇷
JGB7U4	**GENERAL TRAINING III**	**8**	
	English		🇬🇧
	Written and Oral Synthesis		🇫🇷
	Sales and Marketing Management		🇫🇷
	Project Management – Insertion I		
	Experimental Research Methodology		🇫🇷
JGB7U5	**ENZYMATIC AND METABOLIC ENGINEERING**	**5**	
	Metabolic Engineering		🇫🇷
	Biocatalysis		🇫🇷
	Industrial Enzymology		🇫🇷

MASTER, 1st Year - 2nd Semester (S8) [JGB8ST0]

UE	Course	ECTS	Language
JGB8U1A	**GENERAL TRAINING IV**	**3**	
	English		🇬🇧
	Scientific poster in English		
	Human Resources Management		🇫🇷
	Innovation & Entrepreneurship I		🇫🇷
JGB8U5A	**PROCESS ENGINEERING – PROJECT** **(1 report to choose)**	**6**	
	Process Calculation Report (to choose)		🇫🇷
	Biotechnology Report (to choose)		🇬🇧
	Applied Bibliography Project		🇬🇧
	Applied Bioinformatics		🇬🇧
JGB8U2	**EXPERIMENTAL MODULES AND CONFERENCES** **(1 practical to choose)**	**2**	
	Conferences		🇫🇷 / 🇬🇧
	Microbiological Quality Control		🇫🇷
	Genomics Practical		🇬🇧
	Signaling Cascade		🇫🇷
JGB8U4A	**TRACK: THEORETICAL MODULES** **(6 modules to choose)**	**9**	
	Applied Genomics II		🇫🇷
	Therapeutic Biomolecules		🇫🇷
	Cellular Therapy		🇫🇷
	Food Design & Process		🇬🇧
	Novel & Functional Foods		🇬🇧
	Molecular Modelling and Drug Design		🇫🇷
	Biomass Conversion & Bioenergy		🇬🇧
	Cellular Imaging		🇫🇷
	Microbiological Expression Systems		🇬🇧
	Protein Engineering		🇬🇧
	Immunotechnology		🇬🇧
	Cellular and Functional Neurobiology		🇫🇷
	Experimental Research Methodology II		🇫🇷
	Bioprocess Industrialisation		🇬🇧
JGB8U3A	**WORK PLACEMENT II (Internship)**	**10**	🇫🇷 / 🇬🇧

MASTER, 2nd Year - 1st Semester (S9) [JGB9U1B]

UE	Course	ECTS	Language
JGB9U1A	**GENERAL TRAINING V & ENGINEERING SCIENCES** **(1 module to choose)**	7	
	English		🇬🇧
	Corporate Law		🇫🇷
	Quality Management		🇫🇷
	Practicals & Seminars		🇫🇷
	Project Management – Insertion II		🇫🇷
	Quality Management		🇫🇷
	Innovation & Strategy [KEDGE] (to choose)		🇫🇷
	Innovation & Entrepreneurship II (to choose)		🇫🇷
JGB9U2A	**TUTORING PROJECTS**	12	
	End of Study Industrial Application Work		🇫🇷
	Project Management		🇫🇷
	Project Management Tools		🇫🇷
JGB9U3A	**TRACK: SPECIALISED EDUCATION** **(2 modules to choose)**	5	
	Applied Biocatalysis		🇫🇷
	Molecular Diagnostics		🇫🇷
	Cellular Therapy II		🇫🇷
	Biotechnology & Innovation		🇫🇷
	Nutrition		🇫🇷
	External Specialisation		🇫🇷
JGB9U4A	**TRACK: APPLICATIONS** **(2 or 3 modules to choose for a total of 60h)**	6	
	Enzyme production		🇫🇷
	Environmental Genomics		🇫🇷
	Eukaryotic Cell Screening		🇫🇷
	High-Speed Protein Production		🇫🇷
	Cancer Biology and Tumour Markers		🇫🇷
	Microalgae Culture and Valorisation		🇫🇷
	Molecular Interactions		🇫🇷
	Molecular Modelling and Drug Design		🇫🇷
	Nanobody Engineering		🇫🇷

MASTER, 2nd Year - 2nd Semester (S10) [JGB10ST0]

UE	Main course	ECTS	Language
JGB10U1	**WORK PLACEMENT III (Internship)**	30	🇫🇷 / 🇬🇧