

Ingénieur ChemBiotech Curriculum des enseignements 2017- 2018

YEAR 1 — SEMESTER 1													
Blocs	CODE APOGEE	EP	Code EdT	TEACHERS	CM (H)	TD (H)	Nb gr p	TD parta. (H)	TP/TA E (H)	Nb gr p	Total hrs student	Total hrs teacher	Coef.

BIOLOGICAL	Biochimie et Biologie fondamentale I EB021U2 6 ECTS												
	EB011M15	Cellular Biology	cb	J. de Mey	16	6	1	0	4	1	26	26	1,5
	EB011M16	Transcription	ts	B. Chatton, M. Donzeau	16	6	1	0	2	1	24	24	1,5
	EB011M17	Translation	tl	J. de Mey	16	6	1	0			22	22	1,5
	EB011M36	Enzymology	ez	V. Phalip	8	4	1		1	1	13	13	0,75
SCIENCES	EB021M24	Intro biochemistry	bh	F. Deryckere	10			0	0	1	10	10	0,75
	Méthodes structurales et informatiques pour la chimie biologique I EB021U3 6 ECTS												
	EB011M24	Structural Biology	sb	B. Kieffer	8	8	2				16	24	1,5
	CP011M01	Statistique	ECPM	R. Debalme, G. Marcou	5,25	5,25	1				10,5	10,5	1
	EB011M25	Data processing	dp	B. Kieffer	6	12	2		12	1	30	42	1,5
EB011M26	Bioinformatics	bi	O. Lecompte	14	14	2		2	1	30	44	1,5	
AND	Sciences de l'ingénieurs I EB021U4 6 ECTS												
	CP011M07	Thermodynamic	ECPM	R. Muller	7	8,75	1				8,75	8,75	1,5
	CP011M05	Kinetic	ECPM	V. Huscher	7	5,25	1				5,25	5,25	1,5
	CP011M8A	Phenomen of transports	ECPM	R. Muller	8,75	12,25	1				12,25	12,25	1,5
ENGINEERING	Chimie organique, inorganique, analytique fondamentale I EB021U52 6 ECTS												
	EB011M38	Intro orga and inorga chemistry	ch	G. Hanquet	7	3,5	1				10,5	10,5	1,5
	CP011MSN	Substitution and elimination	ECPM	C. Carreno	7	3,5	1				10,5	10,5	1,5
	CP011M12	Molecular stereochemistry	ECPM	P. Compain, M. Chetcuti	7	3,5	1				10,5	10,5	1,5
	CP011M14	Sample preparation /Chromatography	ECPM	L. Sabatier	10,5						10,5	10,5	1,5

INDUSTRIAL	UE ES1 : Humanities, Economy & Social Sciences I EB021U1 3 ECTS												
	CP011MLA	English	ECPM			42	1				42	42	1,5
	CP011MAA	Deutsch / Français	ECPM			42	1				42	42	1,5
	EB011M48	Health & Safety	hs	Y. Nominé		6	1				6	6	/
	ENVIRONMENT	EB011M49	Project Management	gp	J. Vorholt	11				1	1	12	12
EB011M40		Communication	co	Y. Nominé, J de Mey	2	5	2				7	12	0,5
AND	UE PR1 : Practicals I EB021U61 3 ECTS												
	CP011MP1	Analytic chemistry	ECPM	V. Delval/J. Brandel						56	1	56	56
PRACTICES	Totaux ECTS												30

Bloks	CODE APOGEE	EP	Code EdT	TEACHERS	CM (H)	TD (H)	Nb grp	TD parta. (H)	TP/TAE (H)	Nb grp	Total hrs student	Total hrs teacher	Coeff.
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BIOLOGICAL	UE FB2 : Fundamentals of Biology II										EB021U8		3 ECTS
	EB011M63	Molecular Biotechnology	bt	E. Weiss	18	6	1		6	1	30	30	2
	EB011M86	Allostérie	al	J. Haiech	12						12	12	1

SCIENCES	Sciences de l'ingénieur II										EB021U01		3 ECTS
	EB011M74	Spectroscopy & hydrodynamics	sh	B. Kieffer	18	8	2	6	6	1	35	46	2
	EB011M75	Electronics	el	C. Ling	12						12	12	1

AND

ENGINEERING	Chimie organique, inorganique, analytique fondamentale II										EB021U92		6 ECTS
	EB012M00	Bioorganic chemistry	ch	G. Mislain	8	2	1				10	10	1,5
	CP011M15	Spectroscopies NMR	ECPM	F. Colobert	7	3,5	1				10,5	10,5	1,5
	CP011MCO	Carbonyles (key function)	ECPM	F. Colobert, F. Leroux	7	3,5	1				10,5	10,5	1,5
	CP011MCC	Multiples bonds C-C (key function)	ECPM	P. Compain, A. Speicher	5,25	3,5	1				8,75	8,75	1,5
	CP011M13	Life elements	ECPM	M. Chetcuti	8,75	1,75	1				10,5	10,5	1,5

INDUSTRIAL	UE ES2 : Humanities, Economy & Social Sciences II										EB021U71		6 ECTS
	CP011MLB	English	ECPM			28	1				28	28	1,5
	CP011MAB	Deutsch / Français	ECPM			28	1				28	28	1,5
	EB011M98	Economy & Industries	ec		6	0	1		0	1	6	6	/
	EB011M99	Professional project	pp	A. Dejaegere, Y. Nominé		8	1				8	8	/
	CP011MVU	Conference cycle	ECPM										

AND

PRACTICES	UE PR2 : Practicals II										EB021U13		12 ECTS
	EB011MA5	Instrumentation & Biophysics	ibP	B. Kieffer, Y. Nominé et al.	6	6	2		40	5	52	218	2
	EB011MA6	Genetic Engineering	geP	A.P. Sibler					35	1	35	35	1,5
	EB011MA7	Biochemistry	byP	M. Donzeau					35	1	35	35	1,5
	EB011MA8	Enzymology	ezP	V. Phalip					35	1	35	35	1,5
	CP011MP2	Organic chemistry	ECPM	S. Choppin/D. Hazelard					56	1	56	56	3

YEAR 2 — SEMESTER 3

Bloks	CODE APOGEE	EP	Code EdT	TEACHERS	CM (H)	TD (H)	Nb gr p	TD parta. (H)	TP/ TAE (H)	Nb gr p	Total hrs student	Total hrs teacher	Coef.
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BIOLOGICAL	Biologie moléculaire et biochimie appliquée III EB022U2 6 ECTS												
	EB012M16	Immunology & ImmunoTechnology	it	E.Weiss, C. Gavériaux	20						20	20	2
	EB012M10	Génie génétique	ge	B. Chatton	26	14	2		8	1	48	62	3
SCIENCES	Chimie organique, inorganique, analytique appliquées III EB022U3 6 ECTS												
	CP012MAR	(Hetero)aromatic chemistry	ECPM	S. Choppin	7	1,75	1				8,75	8,75	1,5
AND	CP012M1B	Tools for molecular chemistry	ECPM	P. Compain	5,25	1,75	1				7	7	1,5
	CP012MBB	Analytic chemistry	ECPM	F. Colobert, L. Sabatier	17,5	3,5	1				21	21	2
ENGINEERING	Engineering Sciences III EB022U4 6 ECTS												
	EB012M27	Molecular modelisation	se /pe	A. Dejaegere	6	24	1				30	30	2
	CP012W11	ECPM'Innov	ECPM						25	1	25	25	/
INDUSTRIAL	UE ES3 : Humanities, Economy & Social Sciences III EB022U1 6 ECTS												
	CP012MVA	English	ECPM			22	1				22	22	1,5
	CP012MAA	Deutsch / Français	ECPM			22	1				22	22	1,5
	EB012M37	Industrial Finances	fc	N. Gartiser	4	8	1				12	12	1
	EB012M77	Bioethic	be	A. Stephan	6						6	6	/
ENVIRONMENT	EB012M30	Quality	qu	J. Martin	12						12	12	1
AND	UE PR3 : Practicals III EB022U5 3 ECTS												
	CP012MY2	Organic chemistry	ECPM	S. Choppin/D. Hazelard					56	1	56	56	2
PRACTICES	UE IN1 : Internships 1 EB021U12 3 ECTS												
	EB011MB2	1st year Internship		coord.							280		2
Totaux ECTS												30	

YEAR 2 – SEMESTER 4

Bloks	CODE APOGEE	EP	Code EdT	Teachers	CM (H)	TD (H)	Nb grp	TD parta. (H)	TP/T AE (H)	Nb grp	Total hrs student	Total hrs teacher	Coef.
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		Biologie appliquée IV							EB022U7		3 ECTS		
BIOLOGICAL	EB012M55	Metabolism & Biotechnology	mb	G. Orfanoudakis	12		1				12	12	1,5
	EB012M01	Apply microbiology		V. Phalip	12						12	12	1,5

		Chimie organique, inorganique, analytique appliquées IV							EB022U8		6 ECTS		
SCIENCES	CP012M3H	Bio-inorganique chemistry	ECPM	S. Fleutot	10,5						10,5	10,5	1,5
	CP012M30	Oxydo-reduction	ECPM	P. Compain	12,3	3,5	1				15,75	15,75	1,5
AND	CP013M3R	Supported synthesis of biomolecules	ECPM	G. Hanquet, I. Izzo	7	3,5	1				10,5	10,5	1,5
	CP012M3E	carbanions and enolates	ECPM	P. Compain	7	1,75	1				8,75	8,75	1,5
ENGINEERING	CP012M3M	Introduction for asymmetric synthesis	ECPM	F. Colobert	3,5	0	1				3,5	3,5	0,5

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		Engineering Sciences IV							EB022U9		6 ECTS		
ENGINEERING	CP012MBG	Process engineering : applications in chemistry and biotechnologies	ECPM	C. Serra, C. Maihle	12	20	1				32	32	3
	CP012M5I	Chem'Innov	ECPM						25	1	25	25	3

		UE ES4 : Humanities, Economy & Social Sciences IV							EB022U6		6 ECTS		
INDUSTRIAL	CP012MVB	English	ECPM			20	1				20	20	1,5
	CP012MAB	Deutsch / Français	ECPM			20	1				20	20	1,5
ENVIRONMENT	EB012M76	Bioéthique	be	A. Stephan	9						9	9	1,5

		UE PR4 : Practicals IV							EB022U10		9 ECTS		
AND	EB012M44	Purification de protéines		A. Stephan, G. Orfanoudakis	6				64	1	70	70	2,5
	CP012M3P	Génie des procédés	ECPM	B. Ernst					56	1	56	56	2
PRACTICES	EB012M03	Microbiologie		V. Phalip	0	0	1		35	1	35	35	1,5
	CP012MX1	Bioanalytic chemistry	ECPM	V. Delval/J. Brandel					56	1	56	56	2

Totaux ECTS

30

