

**A single year**

**List of Phd courses**

**Life Sciences Department**

MDOC0040-1	<i>Flow cytometry : multiparametric analysis and cell sorting</i> - Roland GREIMERS	15	-	-	3
SDOC0041-1	<i>Elements of molecular neurobiology</i> - Lucien BETTENDORFF	15	-	-	3
SDOC0043-1	<i>Mass culture of algae: theory and application</i> - Fabrice FRANCK	15	15	-	3
SDOC0044-1	<i>Industrial microbiology and fermenters</i> - Philippe THONART	12	14	-	3
SDOC0045-1	<i>Oxydative and anti-oxydant phenomena</i> - Jacques PIETTE	6	-	-	3
SDOC0046-1	<i>Genetic physiology of flowering</i> - Claire PÉRILLEUX	15	-	-	3
SDOC0004-1	<i>Production of recombinant proteins in eukaryotic systems</i> - Colette DUEZ	15	-	-	3
SDOC0048-1	<i>Protein purification</i> - Moreno GALLEN, Bernard JORIS, André MATAGNE	15	-	-	3
SDOC0049-1	<i>Cellular responses to DNA damage</i> - Yvette HABRAKEN	15	-	-	3
SDOC0050-1	<i>Biochemical toxicology</i> - Marianne FILLET	30	-	-	3
SDOC0033-1	<i>Complement of bioenergetics</i> - Pierre CARDOL	15	-	-	3
SDOC0058-1	<i>Secondary metabolites in plants</i> - Jacques DOMMES	15	-	-	3

**Chemistry Department**

SDOC0009-1	<i>Applications of mass spectrometry in biophysics</i>	10	-	-	3
SDOC0010-1	<i>Heterocyclic chemistry</i> - André LUXEN	10	-	-	3
SDOC0011-1	<i>Chemical communications</i> - Jean CLOSSET	15	-	-	3
SDOC0012-1	<i>Recent development in mass spectrometry</i> - Edwin DE PAUW	15	-	-	3
SDOC0013-1	<i>Chemical reaction dynamics : theoretical approaches</i> - Michèle DESOUTER	10	-	-	3
SDOC0014-1	<i>Dynamics of chemical reactions: "ACLE"</i> - Michèle DESOUTER, Bernard LEYH, Françoise REMACLE	20	-	-	3
SDOC0002-1	<i>Information Literacy</i>				3
	- <i>Module 1 - Research and evaluation of information</i> - Caroline COLLETTE	3	5	-	
	- <i>Module 2 - Information management</i> - Caroline COLLETTE	3	4	-	
	- <i>Module 3 - Presentation of results</i> - Caroline COLLETTE	2	3	-	
SDOC0003-1	<i>Technological management and intellectual property</i> - Nicole ANTHEUNIS - [10h Mon.15 WS]			[+]	3
SDOC0016-1	<i>Molecular manipulation</i> - AnneSophie DUWEZ	10	-	-	3
SDOC0017-1	<i>Electronic and optical properties of nano quantum dot networks</i> - Françoise REMACLE	5	-	-	3
SDOC0018-1	<i>Rheology of complex liquids</i> - Guy BROZE	7	-	-	3
SDOC0019-1	<i>Mass spectrometry</i> - Edwin DE PAUW	10	-	-	3
SDOC0020-1	<i>Mass spectrometry applied to biomolecules</i> - N...	15	15	-	3
SDOC0057-1	<i>In depth scientific issues</i> - COLLÉGIALITÉ	15	-	-	3

**Geography Department**

SDOC0021-1	<i>Seminar : rural areas and landscape</i> - Serge SCHMITZ - [16h AUTR]	-	-	[+]	3
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**Geology Department**

SDOC0052-1	<i>Carbonated environments of petrology and basin analysis</i> - Frédéric BOULVAIN - [16h 5 FW]	5	5	[+]	3
SDOC0053-1	<i>Quaternary sedimentary archives and paleoenvironmental reconstructions</i> - Nathalie FAGEL	10	10	-	3
SDOC0054-1	<i>Rock analysis using spectrometry and X-ray fluorescence</i> - Jacqueline VANDER AUWERA	5	15	-	3
SDOC0055-1	<i>Influence of geological risks on the environment</i> - HansBalder HAVENITH	10	5	-	3
SDOC0056-1	<i>Precambrian paleobiogeology</i> - Emmanuelle JAVAUX	10	10	-	3

**Maths Department**

SDOC0029-1	<i>Probability and basic statistics</i> - Pierre MATHONET	20	-	-	3
SDOC0030-1	<i>Multivariate statistics</i> - Gentiane HAESBROECK	20	-	-	3
SDOC0031-1	<i>Linear models</i> - N...	20	-	-	3
SDOC0032-1	<i>Analysis of time series</i> - Samuel NICOLAY	20	-	-	3

**Department of Astrophysics, Geography and Oceanography**

SDOC0001-1	<i>Communicating Science</i> - Yaël NAZÉ	10	10	-	3
SDOC0007-1	<i>Advanced quantum theory (english language)</i> - JeanRené CUDELL, Cédric LORCE	10	20	-	3
SDOC0008-1	<i>Advanced quantum field theory (english language)</i> - JeanRené CUDELL, Cédric LORCE	10	20	-	3