

DEPARTMENT	FIELD OF STUDY	DEGREE PROGRAMME NAME	LEVEL	SEMESTER	COURSE NAME	ECTS	REMARKS
Faculty of Sciences and Technology (Campus Cité Scientifique - https://www.univ-lille.fr/plan-contact/)							
Faculty of Science and Technology	Biology	Bachelor in Life Sciences - Common track (BILINGUAL TRACK (FRENCH + ENGLISH))	Bachelor 1	Autumn (S1)	Maths applied to Life Sciences	3	Good level of English <u>and</u> French required
Faculty of Science and Technology	Biology	Bachelor in Life Sciences - Cell Biology and Physiology specialisation (BILINGUAL TRACK (FRENCH + ENGLISH))	Bachelor 2	Autumn (S3)	Fundamentals in experimental biochemistry	3	Good level of English <u>and</u> French required
Faculty of Science and Technology	Biology	Bachelor in Life Sciences - Cell Biology and Physiology specialisation (BILINGUAL TRACK (FRENCH + ENGLISH))	Bachelor 2	Autumn (S3)	Cell Physiology	3	Good level of English <u>and</u> French required
Faculty of Science and Technology	Biology	Bachelor in Life Sciences - Common track (BILINGUAL TRACK (FRENCH + ENGLISH))	Bachelor 2	Autumn (S3)	Edition scientifique en sciences de la vie/Scientific edition in life sciences	3	Good level of English <u>and</u> French required
Faculty of Science and Technology	Biology	Bachelor in Life Sciences - Common track (BILINGUAL TRACK (FRENCH + ENGLISH))	Bachelor 2	Spring (S4)	English for communication en life sciences	3	Good level of English <u>and</u> French required
DEPARTMENT	FIELD OF STUDY	DEGREE PROGRAMME NAME	LEVEL	SEMESTER	UE NAME	ECTS	REMARKS
Faculty of Science and Technology	Chemistry	Advanced spectroscopy in chemistry	Master 1	Autumn (S1)	Mass spectrometry	5	
Faculty of Science and Technology	Chemistry	Advanced spectroscopy in chemistry	Master 1	Autumn (S1)	Optical spectroscopy	5	
Faculty of Science and Technology	Chemistry	Advanced spectroscopy in chemistry	Master 1	Autumn (S1)	Quantum chemistry and chemical bonding	5	
Faculty of Science and Technology	Chemistry	Advanced spectroscopy in chemistry	Master 1	Autumn (S1)	English	5	
Faculty of Science and Technology	Chemistry	Advanced spectroscopy in chemistry	Master 1	Autumn (S1)	X-Ray diffraction	5	
Faculty of Science and Technology	Chemistry	Advanced spectroscopy in chemistry	Master 1	Autumn (S1)	Magnetic resonance	5	
Faculty of Science and Technology	Chemistry	Advanced spectroscopy in chemistry	Master 1	Spring (S2)	Chemometrics	5	
Faculty of Science and Technology	Chemistry	Advanced spectroscopy in chemistry	Master 1	Spring (S2)	Advanced kinetics and reactivity	5	
Faculty of Science and Technology	Chemistry	Advanced spectroscopy in chemistry	Master 1	Spring (S2)	Physical organic chemistry	5	
Faculty of Science and Technology	Chemistry	Advanced spectroscopy in chemistry	Master 1	Spring (S2)	Structural inorganic chemistry	5	
Faculty of Science and Technology	Chemistry	Advanced spectroscopy in chemistry	Master 1	Spring (S2)	Synchrotron radiations and applications	5	
Faculty of Science and Technology	Chemistry	Advanced spectroscopy in chemistry	Master 1	Spring (S2)	Spectroscopy for biology, Applying spectroscopy to interdisciplinary projects	5	
Faculty of Science and Technology	Chemistry	Advanced spectroscopy in chemistry	Master 2	Autumn (S3)	AS -3- Magnetic Properties of Materials	3	

Faculty of Science and Technology	Chemistry	Advanced spectroscopy in chemistry	Master 2	Autumn (S3)	AS -3- Project Management	3	
Faculty of Science and Technology	Chemistry	Advanced spectroscopy in chemistry	Master 2	Autumn (S3)	AS -3- Molecular Modelling	6	
Faculty of Science and Technology	Chemistry	Advanced spectroscopy in chemistry	Master 2	Autumn (S3)	AS -3- Solid State NMR	3	
Faculty of Science and Technology	Chemistry	Advanced spectroscopy in chemistry	Master 2	Autumn (S3)	AS -3- Time Resolved Spectroscopy	6	
Faculty of Science and Technology	Chemistry	Advanced spectroscopy in chemistry	Master 2	Autumn (S3)	AS -3- XAS and related Techniques	3	
Faculty of Science and Technology	Chemistry	Advanced spectroscopy in chemistry	Master 2	Autumn (S3)	High Resolution Mass Spectrometry	3	
Faculty of Science and Technology	Chemistry	Advanced spectroscopy in chemistry	Master 2	Autumn (S3)	LASER in Spectroscopy	3	
Faculty of Science and Technology	Chemistry	Advanced spectroscopy in chemistry	Master 2	Autumn (S3)	Advanced X-Ray Diffraction	3	
DEPARTMENT	FIELD OF STUDY	DEGREE PROGRAMME NAME	LEVEL	SEMESTER	UE NAME	ECTS	REMARKS
Faculty of Science and Technology	Chemistry	Atmospheric Sciences	Master 1	Autumn (S1)	Mass spectrometry	5	
Faculty of Science and Technology	Chemistry	Atmospheric Sciences	Master 1	Autumn (S1)	Optical spectroscopy	5	
Faculty of Science and Technology	Chemistry	Atmospheric Sciences	Master 1	Autumn (S1)	Quantum chemistry and chemical bonding	5	
Faculty of Science and Technology	Chemistry	Atmospheric Sciences	Master 1	Autumn (S1)	English	5	
Faculty of Science and Technology	Chemistry	Atmospheric Sciences	Master 1	Autumn (S1)	Atmospheric chemistry and physics	5	
Faculty of Science and Technology	Chemistry	Atmospheric Sciences	Master 1	Autumn (S1)	Chromatography for environmental sciences	5	
Faculty of Science and Technology	Chemistry	Atmospheric Sciences	Master 1	Spring (S2)	Chemometrics	5	
Faculty of Science and Technology	Chemistry	Atmospheric Sciences	Master 1	Spring (S2)	Advanced kinetics and reactivity	5	
Faculty of Science and Technology	Chemistry	Atmospheric Sciences	Master 1	Spring (S2)	Electronic spectroscopy for reactive species	6	
Faculty of Science and Technology	Chemistry	Atmospheric Sciences	Master 1	Spring (S2)	Experimental methodologies in environmental sciences	5	
Faculty of Science and Technology	Chemistry	Atmospheric Sciences	Master 1	Spring (S2)	Internship	9	
Faculty of Science and Technology	Chemistry	Atmospheric Sciences	Master 2	Autumn (S3)	Advanced spectroscopic methods - Electron microscopy	3	
Faculty of Science and Technology	Chemistry	Atmospheric Sciences	Master 2	Autumn (S3)	Advanced spectroscopic methods - Spectroscopic imaging	3	
Faculty of Science and Technology	Chemistry	Atmospheric Sciences	Master 2	Autumn (S3)	Advanced spectroscopic methods - Surface analysis	3	
Faculty of Science and Technology	Chemistry	Atmospheric Sciences	Master 2	Autumn (S3)	Advanced Photonics for Atmospheric Sciences	6	
Faculty of Science and Technology	Chemistry	Atmospheric Sciences	Master 2	Autumn (S3)	Aerosol 1: Atmospheric aerosol properties and impacts	3	
Faculty of Science and Technology	Chemistry	Atmospheric Sciences	Master 2	Autumn (S3)	Atmospheric modelling	6	

Faculty of Science and Technology	Chemistry	Atmospheric Sciences	Master 2	Autumn (S3)	Aerosol 2: Observing systems: from satellite to in situ	6	
Faculty of Science and Technology	Chemistry	Atmospheric Sciences	Master 2	Spring (S4)	Research project and Master Thesis + Scientific writing and com	30	
DEPARTMENT	FIELD OF STUDY	DEGREE PROGRAMME NAME	LEVEL	SEMESTER	UE NAME	ECTS	REMARKS
Faculty of Science and Technology	Chemistry	Biorefinery	Master 2	Autumn (S3)	Plant Biomass production and valorisation (land plants,, aquatic biomass, type of biorefineries, line products)	5	
Faculty of Science and Technology	Chemistry	Biorefinery	Master 2	Autumn (S3)	Energy from biomass (H2 production, biocarburant production, non conventional carburant)	5	
Faculty of Science and Technology	Chemistry	Biorefinery	Master 2	Autumn (S3)	Biomass pretreatment and thermal treatment (cellulosic biomass treatment, lignin pretreatment radical and chemical pretreatments, algaefractionation, gasification of biomass, biogas from waste, residual biomass, environmental issues)	5	
Faculty of Science and Technology	Chemistry	Biorefinery	Master 2	Autumn (S3)	Chemicals and fuels from biomass (homogeneous catalysis, heterogeneous catalysis, biotechnologies for biomass conversion)	10	
Faculty of Science and Technology	Chemistry	Biorefinery	Master 2	Autumn (S3)	English	5	
Faculty of Science and Technology	Chemistry	Biorefinery	Master 2	Spring (S4)	Bibliography project and english	5	
Faculty of Science and Technology	Chemistry	Biorefinery	Master 2	Spring (S4)	Research - Master thesis	25	
DEPARTMENT	FIELD OF STUDY	DEGREE PROGRAMME NAME	LEVEL	SEMESTER	UE NAME	ECTS	REMARKS
Faculty of Science and Technology	Chemistry	Integrated Research for Advanced Chemistry and Materials (IRACM)	Master 1	Autumn (S1)	Language	3	
Faculty of Science and Technology	Chemistry	Integrated Research for Advanced Chemistry and Materials (IRACM)	Master 1	Autumn (S1)	Inorganic Chemistry	3	
Faculty of Science and Technology	Chemistry	Integrated Research for Advanced Chemistry and Materials (IRACM)	Master 1	Autumn (S1)	Organic chemistry	3	
Faculty of Science and Technology	Chemistry	Integrated Research for Advanced Chemistry and Materials (IRACM)	Master 1	Autumn (S1)	Kinetics of chemical network	3	
Faculty of Science and Technology	Chemistry	Integrated Research for Advanced Chemistry and Materials (IRACM)	Master 1	Autumn (S1)	Initiation to programmation	3	
Faculty of Science and Technology	Chemistry	Integrated Research for Advanced Chemistry and Materials (IRACM)	Master 1	Autumn (S1)	Molecular Spectroscopy & Computatinnal Chemistry	6	
Faculty of Science and Technology	Chemistry	Integrated Research for Advanced Chemistry and Materials (IRACM)	Master 1	Autumn (S1)	Analytical Chemistry	3	
Faculty of Science and Technology	Chemistry	Integrated Research for Advanced Chemistry and Materials (IRACM)	Master 1	Autumn (S1)	Inorganic-organic materials	3	
Faculty of Science and Technology	Chemistry	Integrated Research for Advanced Chemistry and Materials (IRACM)	Master 1	Autumn (S1)	Fundamentals of catalysis	3	
Faculty of Science and Technology	Chemistry	Integrated Research for Advanced Chemistry and Materials (IRACM)	Master 1	Spring (S2)	Project management	3	
Faculty of Science and Technology	Chemistry	Integrated Research for Advanced Chemistry and Materials (IRACM)	Master 1	Spring (S2)	Characterization of solids	3	
Faculty of Science and Technology	Chemistry	Integrated Research for Advanced Chemistry and Materials (IRACM)	Master 1	Spring (S2)	Visualazing chemical reactivity	6	

Faculty of Science and Technology	Chemistry	Integrated Research for Advanced Chemistry and Materials (IRACM)	Master 1	Spring (S2)	Colloïdal dispersions in nanomedecine	6	
Faculty of Science and Technology	Chemistry	Integrated Research for Advanced Chemistry and Materials (IRACM)	Master 1	Spring (S2)	Smart functional materials	6	
Faculty of Science and Technology	Chemistry	Integrated Research for Advanced Chemistry and Materials (IRACM)	Master 1	Spring (S2)	Advanced catalytic processes	6	
Faculty of Science and Technology	Chemistry	Integrated Research for Advanced Chemistry and Materials (IRACM)	Master 2	Autumn (S3)	Dissemination of science	3	
Faculty of Science and Technology	Chemistry	Integrated Research for Advanced Chemistry and Materials (IRACM)	Master 2	Autumn (S3)	Language	3	
Faculty of Science and Technology	Chemistry	Integrated Research for Advanced Chemistry and Materials (IRACM)	Master 2	Autumn (S3)	Hot topics in chemistry (invited professors)	3	
Faculty of Science and Technology	Chemistry	Integrated Research for Advanced Chemistry and Materials (IRACM)	Master 2	Autumn (S3)	Artificial intelligence in chemistry	3	
DEPARTMENT	FIELD OF STUDY	DEGREE PROGRAMME NAME	LEVEL	SEMESTER	UE NAME	ECTS	REMARKS
Faculty of Science and Technology	Computer Science, Mathematics, Electrical engineering	Data Science	Master 1	Autumn (S1)	Refresher in mathematics & computer science	3	
Faculty of Science and Technology	Computer Science, Mathematics, Electrical engineering	Data Science	Master 1	Autumn (S1)	Mathematics for data science	9	
Faculty of Science and Technology	Computer Science, Mathematics, Electrical engineering	Data Science	Master 1	Autumn (S1)	Computer science	6	
Faculty of Science and Technology	Computer Science, Mathematics, Electrical engineering	Data Science	Master 1	Autumn (S1)	Machine Learning 1	3	
Faculty of Science and Technology	Computer Science, Mathematics, Electrical engineering	Data Science	Master 1	Autumn (S1)	Machine Learning 2	3	
Faculty of Science and Technology	Computer Science, Mathematics, Electrical engineering	Data Science	Master 1	Autumn (S1)	Foreign language: english or french	3	
Faculty of Science and Technology	Computer Science, Mathematics, Electrical engineering	Data Science	Master 1	Spring (S2)	Probability and statistics	6	
Faculty of Science and Technology	Computer Science, Mathematics, Electrical engineering	Data Science	Master 1	Spring (S2)	Numerical analysis, algorithms and complexity	6	
Faculty of Science and Technology	Computer Science, Mathematics, Electrical engineering	Data Science	Master 1	Spring (S2)	Statistical learning and signal processing	6	
Faculty of Science and Technology	Computer Science, Mathematics, Electrical engineering	Data Science	Master 1	Spring (S2)	Deep learning and data challenge	6	
Faculty of Science and Technology	Computer Science, Mathematics, Electrical engineering	Data Science	Master 1	Spring (S2)	Internship (6 to 14 weeks)	3	
Faculty of Science and Technology	Computer Science, Mathematics, Electrical engineering	Data Science	Master 2	Autumn (S3)	Refresher in mathematics & computer science	3	
Faculty of Science and Technology	Computer Science, Mathematics, Electrical engineering	Data Science	Master 2	Autumn (S3)	Theoretical machine learning	6	
Faculty of Science and Technology	Computer Science, Mathematics, Electrical engineering	Data Science	Master 2	Autumn (S3)	Algorithmics & Data Bases	6	
Faculty of Science and Technology	Computer Science, Mathematics, Electrical engineering	Data Science	Master 2	Autumn (S3)	Machine learning in practice	12	
Faculty of Science and Technology	Computer Science, Mathematics, Electrical engineering	Data Science	Master 2	Autumn (S3)	Foreign language: english or french	3	

Faculty of Science and Technology	Computer Science, Mathematics, Electrical engineering	Data Science	Master 2	Spring (S4)	Research in practice	3	
Faculty of Science and Technology	Computer Science, Mathematics, Electrical engineering	Data Science	Master 2	Spring (S4)	Carreer preparation	6	
Faculty of Science and Technology	Computer Science, Mathematics, Electrical engineering	Data Science	Master 2	Spring (S4)	Internship and memoir	18	
DEPARTMENT	FIELD OF STUDY	DEGREE PROGRAMME NAME	LEVEL	SEMESTER	UE NAME	ECTS	REMARKS
Faculty of Science and Technology	Computer Science, Mathematics	Scientific Computing	Master 2	Autumn (S3)	Prerequisites - Computer systems, algorithms and computations	9	
Faculty of Science and Technology	Computer Science, Mathematics	Scientific Computing	Master 2	Autumn (S3)	Prerequisites - Introduction to numerical methods		
Faculty of Science and Technology	Computer Science, Mathematics	Scientific Computing	Master 2	Autumn (S3)	Prerequisites - Modeling		
Faculty of Science and Technology	Computer Science, Mathematics	Scientific Computing	Master 2	Autumn (S3)	Prerequisites - English, self training		
Faculty of Science and Technology	Computer Science, Mathematics	Scientific Computing	Master 2	Autumn (S3)	Seminar	3	
Faculty of Science and Technology	Computer Science, Mathematics	Scientific Computing	Master 2	Autumn (S3)	Seminar - Pass'Pro		
Faculty of Science and Technology	Computer Science, Mathematics	Scientific Computing	Master 2	Autumn (S3)	Mathematical tools for simulation - Finite element method	9	
Faculty of Science and Technology	Computer Science, Mathematics	Scientific Computing	Master 2	Autumn (S3)	Mathematical tools for simulation - Finite volume method		
Faculty of Science and Technology	Computer Science, Mathematics	Scientific Computing	Master 2	Autumn (S3)	Mathematical tools for simulation - Project in PDE		
Faculty of Science and Technology	Computer Science, Mathematics	Scientific Computing	Master 2	Autumn (S3)	Supercomputing - Project in supercomputing	9	
Faculty of Science and Technology	Computer Science, Mathematics	Scientific Computing	Master 2	Autumn (S3)	Supercomputing		
Faculty of Science and Technology	Computer Science, Mathematics	Scientific Computing	Master 2	Spring (S4)	Machine learning and optimization for scientific computing	6	
Faculty of Science and Technology	Computer Science, Mathematics	Scientific Computing	Master 2	Spring (S4)	Scientific computing for electrical engineering	6	
Faculty of Science and Technology	Computer Science, Mathematics	Scientific Computing	Master 2	Spring (S4)	Scientific computing for mechanics	6	
Faculty of Science and Technology	Computer Science, Mathematics	Scientific Computing	Master 2	Spring (S4)	Scientific computing for parallel numerical linear algebra	6	
Faculty of Science and Technology	Computer Science, Mathematics	Scientific Computing	Master 2	Spring (S4)	Scientific computing for material sciences	6	
Faculty of Science and Technology	Computer Science, Mathematics	Scientific Computing	Master 2	Spring (S4)	Internship in company or research laboratory (4 or 6 months)	18	
DEPARTMENT	FIELD OF STUDY	DEGREE PROGRAMME NAME	LEVEL	SEMESTER	UE NAME	ECTS	REMARKS
Faculty of Science and Technology	Electronique, Electrotechnique, Atomatique	Electrical engineering for sustainable development	Master 2	Autumn (S3)	DD -3- Electromagnetic energy conversion and eco-design	5	
Faculty of Science and Technology	Electronique, Electrotechnique, Atomatique	Electrical engineering for sustainable development	Master 2	Autumn (S3)	DD -3- Energy Conversion	5	
Faculty of Science and Technology	Electronique, Electrotechnique, Atomatique	Electrical engineering for sustainable development	Master 2	Autumn (S3)	DD -3- Bibliographic Project PBb	5	
Faculty of Science and Technology	Electronique, Electrotechnique, Atomatique	Electrical engineering for sustainable development	Master 2	Autumn (S3)	DD -3- Renewable Energy Production OR Advanced transportation systems	5	
Faculty of Science and Technology	Electronique, Electrotechnique, Atomatique	Electrical engineering for sustainable development	Master 2	Autumn (S3)	DD -3- Sustainable development applications	5	

Faculty of Science and Technology	Electronique, Electrotechnique, Atomatique	Electrical engineering for sustainable development	Master 2	Spring (S4)	DD -4- Industry internship OR Laboratory internship	20	
Faculty of Science and Technology	Electronique, Electrotechnique, Atomatique	Electrical engineering for sustainable development	Master 2	Spring (S4)	DD -4- Scientific project	10	
DEPARTMENT	FIELD OF STUDY	DEGREE PROGRAMME NAME	LEVEL	SEMESTER	UE NAME	ECTS	REMARKS
Faculty of Science and Technology	Nanosciences and Nanotechnologies	Emergent TECHnologies, E-TECH	Master 1	Autumn (S1)	Digital Signal Processing	3	
Faculty of Science and Technology	Nanosciences and Nanotechnologies	Emergent TECHnologies, E-TECH	Master 1	Autumn (S1)	Initiation to Cleanroom Technologies	3	
Faculty of Science and Technology	Nanosciences and Nanotechnologies	Emergent TECHnologies, E-TECH	Master 1	Autumn (S1)	Semiconducting Devices	3	
Faculty of Science and Technology	Nanosciences and Nanotechnologies	Emergent TECHnologies, E-TECH	Master 1	Autumn (S1)	Architecture of Communicating Objects and Communication Networks	6	
Faculty of Science and Technology	Nanosciences and Nanotechnologies	Emergent TECHnologies, E-TECH	Master 1	Autumn (S1)	Guided Propagation Media	9	
Faculty of Science and Technology	Nanosciences and Nanotechnologies	Emergent TECHnologies, E-TECH	Master 1	Autumn (S1)	IOT - 1	3	
Faculty of Science and Technology	Nanosciences and Nanotechnologies	Emergent TECHnologies, E-TECH	Master 1	Spring (S2)	Data Processing and Artificial Intelligence	3	
Faculty of Science and Technology	Nanosciences and Nanotechnologies	Emergent TECHnologies, E-TECH	Master 1	Spring (S2)	Digital Communications	3	
Faculty of Science and Technology	Nanosciences and Nanotechnologies	Emergent TECHnologies, E-TECH	Master 1	Spring (S2)	Tools for Modeling, modeling and data processing - 1	3	
Faculty of Science and Technology	Nanosciences and Nanotechnologies	Emergent TECHnologies, E-TECH	Master 1	Spring (S2)	Emerging Trends in Nanotechnology	6	
Faculty of Science and Technology	Nanosciences and Nanotechnologies	Emergent TECHnologies, E-TECH	Master 1	Spring (S2)	Antennas for Mobile Networks and Connected Objects - 1	3	
Faculty of Science and Technology	Nanosciences and Nanotechnologies	Emergent TECHnologies, E-TECH	Master 1	Spring (S2)	Electronic Systems Engineering	3	
Faculty of Science and Technology	Nanosciences and Nanotechnologies	Emergent TECHnologies, E-TECH	Master 1	Spring (S2)	IOT- 2	6	
Faculty of Science and Technology	Nanosciences and Nanotechnologies	Emergent TECHnologies, E-TECH	Master 1	Spring (S2)	Student Project: Bibliographic Research Project	3	

Faculty of Science and Technology	Nanosciences and Nanotechnologies	Emergent TECHnologies, E-TECH	Master 2	Autumn (S3)	Sensor and Actuator Technologies	6	
Faculty of Science and Technology	Nanosciences and Nanotechnologies	Emergent TECHnologies, E-TECH	Master 2	Autumn (S3)	Advanced Wireless and Wired Technologies for UHD Communications	6	
Faculty of Science and Technology	Nanosciences and Nanotechnologies	Emergent TECHnologies, E-TECH	Master 2	Autumn (S3)	Neuromorphic Technologies for Spiking Neural Networks	3	
Faculty of Science and Technology	Nanosciences and Nanotechnologies	Emergent TECHnologies, E-TECH	Master 2	Autumn (S3)	Energy for the Internet-Of-Things	3	
Faculty of Science and Technology	Nanosciences and Nanotechnologies	Emergent TECHnologies, E-TECH	Master 2	Autumn (S3)	Tools for Modeling, modeling and data processing - 2	3	
Faculty of Science and Technology	Nanosciences and Nanotechnologies	Emergent TECHnologies, E-TECH	Master 2	Autumn (S3)	Micro-nano Fabrication Techniques	6	
Faculty of Science and Technology	Nanosciences and Nanotechnologies	Emergent TECHnologies, E-TECH	Master 2	Spring (S4)	Laboratory Research Project & Seminars	6	
Faculty of Science and Technology	Nanosciences and Nanotechnologies	Emergent TECHnologies, E-TECH	Master 2	Spring (S4)	Professional Communication Skills	3	
Faculty of Science and Technology	Nanosciences and Nanotechnologies	Emergent TECHnologies, E-TECH	Master 2	Spring (S4)	Internship	21	
DEPARTMENT	FIELD OF STUDY	DEGREE PROGRAMME NAME	LEVEL	SEMESTER	UE NAME	ECTS	REMARKS
Faculty of Science and Technology	Biology	Evolutionary Biology	Master 1	Autumn (S1)	From genotype to phenotype	3	
Faculty of Science and Technology	Biology	Evolutionary Biology	Master 1	Autumn (S1)	Evolutionnary biology & Population Dynamics	9	
Faculty of Science and Technology	Biology	Evolutionary Biology	Master 1	Autumn (S1)	Conservation genetics	3	
Faculty of Science and Technology	Biology	Evolutionary Biology	Master 1	Autumn (S1)	Introduction to Omics data	3	
Faculty of Science and Technology	Biology	Evolutionary Biology	Master 1	Autumn (S1)	Statistics initiation with R	3	
Faculty of Science and Technology	Biology	Evolutionary Biology	Master 1	Autumn (S1)	Bioinformatics tools	3	
Faculty of Science and Technology	Biology	Evolutionary Biology	Master 1	Autumn (S1)	Language : English or FLE	3	
Faculty of Science and Technology	Biology	Evolutionary Biology	Master 1	Autumn (S1)	Student project	3	
Faculty of Science and Technology	Biology	Evolutionary Biology	Master 1	Spring (S2)	Theoretical modelling	3	
Faculty of Science and Technology	Biology	Evolutionary Biology	Master 1	Spring (S2)	Ecology : from theory to experiments	3	
Faculty of Science and Technology	Biology	Evolutionary Biology	Master 1	Spring (S2)	Multivariate statistics	3	

Faculty of Science and Technology	Biology	Evolutionary Biology	Master 1	Spring (S2)	Experimental approaches in Ecology	3	
Faculty of Science and Technology	Biology	Evolutionary Biology	Master 1	Spring (S2)	Experimental Evolutionary Genetics	3	
Faculty of Science and Technology	Biology	Evolutionary Biology	Master 1	Spring (S2)	Scientific writing	3	
Faculty of Science and Technology	Biology	Evolutionary Biology	Master 1	Spring (S2)	Research in « global changes and biodiversity »	3	
Faculty of Science and Technology	Biology	Evolutionary Biology	Master 1	Spring (S2)	Professional Internship	9	
Faculty of Science and Technology	Biology	Evolutionary Biology	Master 2	Autumn (S3)	Population genomics	3	
Faculty of Science and Technology	Biology	Evolutionary Biology	Master 2	Autumn (S3)	Evolutionary genomics	3	
Faculty of Science and Technology	Biology	Evolutionary Biology	Master 2	Autumn (S3)	Macroevolution	3	
Faculty of Science and Technology	Biology	Evolutionary Biology	Master 2	Autumn (S3)	Introduction to Bioinformatics	6	
Faculty of Science and Technology	Biology	Evolutionary Biology	Master 2	Autumn (S3)	GLM statistics	3	
Faculty of Science and Technology	Biology	Evolutionary Biology	Master 2	Autumn (S3)	Student project : project management	3	
Faculty of Science and Technology	Biology	Evolutionary Biology	Master 2	Autumn (S3)	Bibliographic project	6	
Faculty of Science and Technology	Biology	Evolutionary Biology	Master 2	Autumn (S3)	Research in « Evolution of mating systems »	3	
DEPARTMENT	FIELD OF STUDY	DEGREE PROGRAMME NAME	LEVEL	SEMESTER	UE NAME	ECTS	REMARKS
Faculty of Science and Technology	Biology	Life Science and Technology	Master 1	Autumn (S1)	Cell Biology (basic)	6	
Faculty of Science and Technology	Biology	Life Science and Technology	Master 1	Autumn (S1)	Life Imaging (basic)	6	
Faculty of Science and Technology	Biology	Life Science and Technology	Master 1	Autumn (S1)	Systems Biology (basic)	6	
Faculty of Science and Technology	Biology	Life Science and Technology	Master 1	Autumn (S1)	Microsystems (basic)	6	
Faculty of Science and Technology	Biology	Life Science and Technology	Master 1	Autumn (S1)	Metabibliography	3	
Faculty of Science and Technology	Biology	Life Science and Technology	Master 1	Autumn (S1)	Language	3	
Faculty of Science and Technology	Biology	Life Science and Technology	Master 1	Spring (S2)	Cell Biology (advanced)	6	
Faculty of Science and Technology	Biology	Life Science and Technology	Master 1	Spring (S2)	Life Imaging (advanced)	6	
Faculty of Science and Technology	Biology	Life Science and Technology	Master 1	Spring (S2)	Systems Biology (advanced)	6	
Faculty of Science and Technology	Biology	Life Science and Technology	Master 1	Spring (S2)	Microsystem (advanced)	6	
Faculty of Science and Technology	Biology	Life Science and Technology	Master 1	Spring (S2)	Lab project	3	
Faculty of Science and Technology	Biology	Life Science and Technology	Master 1	Spring (S2)	Science and Society (basic)	3	
Faculty of Science and Technology	Biology	Life Science and Technology	Master 2	Autumn (S3)	Cell Biology (expert)	6	
Faculty of Science and Technology	Biology	Life Science and Technology	Master 2	Autumn (S3)	Life Imaging (expert)	6	
Faculty of Science and Technology	Biology	Life Science and Technology	Master 2	Autumn (S3)	Systems Biology (expert)	6	

Faculty of Science and Technology	Biology	Life Science and Technology	Master 2	Autumn (S3)	Microsystem (expert)	6	
Faculty of Science and Technology	Biology	Life Science and Technology	Master 2	Autumn (S3)	Lab project	3	
Faculty of Science and Technology	Biology	Life Science and Technology	Master 2	Autumn (S3)	Science and society (advanced)	3	
Faculty of Science and Technology	Biology	Life Science and Technology	Master 2	Spring (S4)	Life Imaging (expert)	3	
Faculty of Science and Technology	Biology	Life Science and Technology	Master 2	Spring (S4)	Lab Project	27	
DEPARTMENT	FIELD OF STUDY	DEGREE PROGRAMME NAME	LEVEL	SEMESTER	UE NAME	ECTS	REMARKS
Faculty of Science and Technology	Biology	Omics and Systems Biology	Master 1	Autumn (S1)	BCC1-UE1-EC1 - Introduction to omics data	3	
Faculty of Science and Technology	Biology	Omics and Systems Biology	Master 1	Autumn (S1)	BCC3 - Ethics, health and Society	1	
Faculty of Science and Technology	Biology	Omics and Systems Biology	Master 1	Spring (S2)	BCC2 - Metabolic Health and Plasticity	4	
Faculty of Science and Technology	Biology	Omics and Systems Biology	Master 1	Spring (S2)	Mémoire bibliographique	2	
Faculty of Science and Technology	Biology	Omics and Systems Biology	Master 1	Spring (S2)	Projet recherche	4	
Faculty of Science and Technology	Biology	Omics and Systems Biology	Master 2	Autumn (S3)	Advanced Mass Spectrometry & Hyphenated methods	6	
Faculty of Science and Technology	Biology	Omics and Systems Biology	Master 2	Autumn (S3)	Clinical proteomic	3	
Faculty of Science and Technology	Biology	Omics and Systems Biology	Master 2	Autumn (S3)	Systems Biology and differential analysis	3	
Faculty of Science and Technology	Biology	Omics and Systems Biology	Master 2	Autumn (S3)	Interactomics	2	
Faculty of Science and Technology	Biology	Omics and Systems Biology	Master 2	Autumn (S3)	Mass Spectrometry Based Large Scale Proteomics	3	
Faculty of Science and Technology	Biology	Omics and Systems Biology	Master 2	Autumn (S3)	Metabolomics	3	
Faculty of Science and Technology	Biology	Omics and Systems Biology	Master 2	Autumn (S3)	Methods in Structural Biology	6	
Faculty of Science and Technology	Biology	Omics and Systems Biology	Master 2	Autumn (S3)	New Topics in Omics	3	
Faculty of Science and Technology	Biology	Omics and Systems Biology	Master 2	Autumn (S3)	Personnel Professionnal Project	3	
Faculty of Science and Technology	Biology	Omics and Systems Biology	Master 2	Autumn (S3)	Proteogenomics	3	
Faculty of Science and Technology	Biology	Omics and Systems Biology	Master 2	Autumn (S3)	Technical bibliographic report	3	
Faculty of Science and Technology	Biology	Omics and Systems Biology	Master 2	Spring (S4)	Industry internship	30	
Faculty of Science and Technology	Biology	Omics and Systems Biology	Master 2	Spring (S4)	Laboratory internship	30	
DEPARTMENT	FIELD OF STUDY	DEGREE PROGRAMME NAME	LEVEL	SEMESTER	UE NAME	ECTS	REMARKS
Faculty of Science and Technology	Physics	Physics of the 21st century	Master 1	Autumn (S1)	TW -1- Advanced Optics I	3	
Faculty of Science and Technology	Physics	Physics of the 21st century	Master 1	Autumn (S1)	TW -1- Electromagnetism in Matter	3	
Faculty of Science and Technology	Physics	Physics of the 21st century	Master 1	Autumn (S1)	TW -1- Mechanical Properties of Matter	3	

Faculty of Science and Technology	Physics	Physics of the 21st century	Master 1	Autumn (S1)	TW -1- Optics	3	
Faculty of Science and Technology	Physics	Physics of the 21st century	Master 1	Autumn (S1)	TW -1- Project management	3	
Faculty of Science and Technology	Physics	Physics of the 21st century	Master 1	Autumn (S1)	TW -1- Quantum and Statistical Physics	6	
Faculty of Science and Technology	Physics	Physics of the 21st century	Master 1	Spring (S2)	TW -2- Advanced Optics II	3	
Faculty of Science and Technology	Physics	Physics of the 21st century	Master 1	Spring (S2)	TW -2- Lab. internship	3	
Faculty of Science and Technology	Physics	Physics of the 21st century	Master 1	Spring (S2)	TW -2- Molecular and Atomic Physics and Quantum information	6	
Faculty of Science and Technology	Physics	Physics of the 21st century	Master 1	Spring (S2)	TW -2- Solid State Physics	6	
Faculty of Science and Technology	Physics	Physics of the 21st century	Master 1	Spring (S2)	TW -2- Thermodynamics and Statistical Physics	6	
Faculty of Science and Technology	Physics	Physics of the 21st century	Master 1	Spring (S2)	PF-2-SCOL (Complex systems, optic, laser)	3	
Faculty of Science and Technology	Physics	Physics of the 21st century	Master 1	Spring (S2)	PF-2-MME 1 (Matter, Molecules and their Environnement)	3	
DEPARTMENT	FIELD OF STUDY	DEGREE PROGRAMME NAME	LEVEL	SEMESTER	UE NAME	ECTS	REMARKS
Faculty of Science and Technology	Physics	PHOCQS, Photonics, Complex and Quantum System	Master 2	Autumn (S3)	Optics, photonics and lasers: basic foundations of lasers, non linear optics and photonics, and applications	9	
Faculty of Science and Technology	Physics	PHOCQS, Photonics, Complex and Quantum System	Master 2	Autumn (S3)	Extreme Regimes of Light : Ultrafast optics, extreme wavelength (THz, VUV-X)	3	
Faculty of Science and Technology	Physics	PHOCQS, Photonics, Complex and Quantum System	Master 2	Autumn (S3)	English/French as foreign langage	3	
Faculty of Science and Technology	Physics	PHOCQS, Photonics, Complex and Quantum System	Master 2	Autumn (S3)	Advanced photonics : Photonic fibers	3	
Faculty of Science and Technology	Physics	PHOCQS, Photonics, Complex and Quantum System	Master 2	Autumn (S3)	Complex Systems	6	
Faculty of Science and Technology	Physics	PHOCQS, Photonics, Complex and Quantum System	Master 2	Autumn (S3)	Quantum Optics / Cold Atoms / Polaritons	6	
Faculty of Science and Technology	Physics	PHOCQS, Photonics, Complex and Quantum System	Master 2	Autumn (S3)	Laser metrology	3	
Faculty of Science and Technology	Physics	PHOCQS, Photonics, Complex and Quantum System	Master 2	Autumn (S3)	High power photonics (3 E S) Adanced optical design	2	
Faculty of Science and Technology	Physics	PHOCQS, Photonics, Complex and Quantum System	Master 2	Autumn (S3)	Lasers in medicine	2	
Faculty of Science and Technology	Physics	PHOCQS, Photonics, Complex and Quantum System	Master 2	Autumn (S3)	Lasers in Physico-chemistry	2	
Faculty of Science and Technology	Physics	PHOCQS, Photonics, Complex and Quantum System	Master 2	Spring (S4)	Experimental labs	3	
Faculty of Science and Technology	Physics	PHOCQS, Photonics, Complex and Quantum System	Master 2	Spring (S4)	Numerical labs	3	
Faculty of Science and Technology	Physics	PHOCQS, Photonics, Complex and Quantum System	Master 2	Spring (S4)	Project in labs (laser engineer), or Bibliograhcy (research)	3	
Faculty of Science and Technology	Physics	PHOCQS, Photonics, Complex and Quantum System	Master 2	Spring (S4)	Industrial or research internship (3 to 6 months)	21	
DEPARTMENT	FIELD OF STUDY	DEGREE PROGRAMME NAME	LEVEL	SEMESTER	UE NAME	ECTS	REMARKS
Faculty of Science and Technology	Physics	Applied and fundamental physics - Matter, molecule and their environment (Condensed Matter)	Master 2	Autumn (S3)	Advanced Characterisation I	3	

Faculty of Science and Technology	Physics	Applied and fundamental physics - Matter, molecule and their environment (Condensed Matter)	Master 2	Autumn (S3)	Thermod. Phase transformation (Thermo I)	18	
Faculty of Science and Technology	Physics	Applied and fundamental physics - Matter, molecule and their environment (Condensed Matter)	Master 2	Autumn (S3)	Molecular mobility in amorphous materials (Dyn. I)		
Faculty of Science and Technology	Physics	Applied and fundamental physics - Matter, molecule and their environment (Condensed Matter)	Master 2	Autumn (S3)	Phonons (Dynamics II)		
Faculty of Science and Technology	Physics	Applied and fundamental physics - Matter, molecule and their environment (Condensed Matter)	Master 2	Autumn (S3)	Precipitation / Interfaces/Growth (Thermo II)		
Faculty of Science and Technology	Physics	Applied and fundamental physics - Matter, molecule and their environment (Condensed Matter)	Master 2	Autumn (S3)	Imperfections in Solids		
Faculty of Science and Technology	Physics	Applied and fundamental physics - Matter, molecule and their environment (Condensed Matter)	Master 2	Spring (S4)	Scientific writing and communication	3	
Faculty of Science and Technology	Physics	Applied and fundamental physics - Matter, molecule and their environment (Condensed Matter)	Master 2	Spring (S4)	MM -4- Adv. Characterisation II	3	
Faculty of Science and Technology	Physics	Applied and fundamental physics - Matter, molecule and their environment (Condensed Matter)	Master 2	Spring (S4)	English	3	
Faculty of Science and Technology	Physics	Applied and fundamental physics - Matter, molecule and their environment (Condensed Matter)	Master 2	Spring (S4)	Research project, internship, master thesis	21	
DEPARTMENT	FIELD OF STUDY	DEGREE PROGRAMME NAME	LEVEL	SEMESTER	UE NAME	ECTS	REMARKS
Faculty of Science and Technology	Physics	Applied and fundamental physics - Matter, molecule and their environment (Dilute Matter and Spectroscopy)	Master 2	Autumn (S3)	Advanced Characterisation I	12	
Faculty of Science and Technology	Physics	Applied and fundamental physics - Matter, molecule and their environment (Dilute Matter and Spectroscopy)	Master 2	Autumn (S3)	Spectroscopy		
Faculty of Science and Technology	Physics	Applied and fundamental physics - Matter, molecule and their environment (Dilute Matter and Spectroscopy)	Master 2	Autumn (S3)	Atomic scale modeling		
Faculty of Science and Technology	Physics	Applied and fundamental physics - Matter, molecule and their environment (Dilute Matter and Spectroscopy)	Master 2	Autumn (S3)	Radiative Transfer		

Faculty of Science and Technology	Physics	Applied and fundamental physics - Matter, molecule and their environment (Dilute Matter and Spectroscopy)	Master 2	Autumn (S3)	Large instruments	18	
Faculty of Science and Technology	Physics	Applied and fundamental physics - Matter, molecule and their environment (Dilute Matter and Spectroscopy)	Master 2	Autumn (S3)	Mass spectroscopy		
Faculty of Science and Technology	Physics	Applied and fundamental physics - Matter, molecule and their environment (Dilute Matter and Spectroscopy)	Master 2	Autumn (S3)	Adv Spectroscopy for Env. Sci.		
Faculty of Science and Technology	Physics	Applied and fundamental physics - Matter, molecule and their environment (Dilute Matter and Spectroscopy)	Master 2	Spring (S4)	Scientific writing and communication	3	
Faculty of Science and Technology	Physics	Applied and fundamental physics - Matter, molecule and their environment (Dilute Matter and Spectroscopy)	Master 2	Spring (S4)	Advanced Characterisation II	3	
Faculty of Science and Technology	Physics	Applied and fundamental physics - Matter, molecule and their environment (Dilute Matter and Spectroscopy)	Master 2	Spring (S4)	English	3	
Faculty of Science and Technology	Physics	Applied and fundamental physics - Matter, molecule and their environment (Dilute Matter and Spectroscopy)	Master 2	Spring (S4)	Research project, internship, master thesis	21	
DEPARTMENT	FIELD OF STUDY	DEGREE PROGRAMME NAME	LEVEL	SEMESTER	UE NAME	ECTS	REMARKS
Faculty of Science and Technology	Physics	Applied and fundamental physics - Matter, molecule and their environment (Atmospheric Sciences)	Master 2	Autumn (S3)	Aerosols 1	12	
Faculty of Science and Technology	Physics	Applied and fundamental physics - Matter, molecule and their environment (Atmospheric Sciences)	Master 2	Autumn (S3)	Space observatories and services for atmospheric composition		
Faculty of Science and Technology	Physics	Applied and fundamental physics - Matter, molecule and their environment (Atmospheric Sciences)	Master 2	Autumn (S3)	Aerosols 2		
Faculty of Science and Technology	Physics	Applied and fundamental physics - Matter, molecule and their environment (Atmospheric Sciences)	Master 2	Autumn (S3)	Radiative Transfer		

Faculty of Science and Technology	Physics	Applied and fundamental physics - Matter, molecule and their environment (Atmospheric Sciences)	Master 2	Autumn (S3)	Atmospheric Modeling	18	
Faculty of Science and Technology	Physics	Applied and fundamental physics - Matter, molecule and their environment (Atmospheric Sciences)	Master 2	Autumn (S3)	Adv Spectroscopy for Env. Sci.		
Faculty of Science and Technology	Physics	Applied and fundamental physics - Matter, molecule and their environment (Atmospheric Sciences)	Master 2	Spring (S4)	Research project, internship, master thesis	30	
DEPARTMENT	FIELD OF STUDY	DEGREE PROGRAMME NAME	LEVEL	SEMESTER	UE NAME	ECTS	
Faculty of Science and Technology	Physics	Applied and fundamental physics - Matter, molecule and their environment (Modelling at the Molecular and Atomic Scales, MoMAS)	Master 2	Autumn (S3)	Advanced Characterisation I	12	
Faculty of Science and Technology	Physics	Applied and fundamental physics - Matter, molecule and their environment (Modelling at the Molecular and Atomic Scales, MoMAS)	Master 2	Autumn (S3)	Spectroscopy		
Faculty of Science and Technology	Physics	Applied and fundamental physics - Matter, molecule and their environment (Modelling at the Molecular and Atomic Scales, MoMAS)	Master 2	Autumn (S3)	Atomic scale modeling		
Faculty of Science and Technology	Physics	Applied and fundamental physics - Matter, molecule and their environment (Modelling at the Molecular and Atomic Scales, MoMAS)	Master 2	Autumn (S3)	Post Hartree Methods	18	
Faculty of Science and Technology	Physics	Applied and fundamental physics - Matter, molecule and their environment (Modelling at the Molecular and Atomic Scales, MoMAS)	Master 2	Autumn (S3)	Quantum Dynamics		
Faculty of Science and Technology	Physics	Applied and fundamental physics - Matter, molecule and their environment (Modelling at the Molecular and Atomic Scales, MoMAS)	Master 2	Autumn (S3)	Advanced Programming		

Faculty of Science and Technology	Physics	Applied and fundamental physics - Matter, molecule and their environment (Modelling at the Molecular and Atomic Scales, MoMAS)	Master 2	Spring (S4)	Research project, internship, master thesis	30	
DEPARTMENT	FIELD OF STUDY	DEGREE PROGRAMME NAME	LEVEL	SEMESTER	UE NAME	ECTS	REMARKS
Faculty of Science and Technology	Physics	Applied and fundamental physics - Matter, molecule and their environment (Biopham)	Master 2	Autumn (S3)	THERMODYNAMICS AND PHASE TRANSFORMATIONS	6	
Faculty of Science and Technology	Physics	Applied and fundamental physics - Matter, molecule and their environment (Biopham)	Master 2	Autumn (S3)	DYNAMICS IN THE AMORPHOUS MATERIALS	3	
Faculty of Science and Technology	Physics	Applied and fundamental physics - Matter, molecule and their environment (Biopham)	Master 2	Autumn (S3)	MATERIALS SCIENCE & PHARMACEUTICAL DEVELOPMENTS	6	
Faculty of Science and Technology	Physics	Applied and fundamental physics - Matter, molecule and their environment (Biopham)	Master 2	Autumn (S3)	ATOMISTIC MODELLING : FROM THE GAS PHASE TO SOLIDS	6	
Faculty of Science and Technology	Physics	Applied and fundamental physics - Matter, molecule and their environment (Biopham)	Master 2	Autumn (S3)	ADVANCED CHARACTERIZATION METHODS	6	
Faculty of Science and Technology	Physics	Applied and fundamental physics - Matter, molecule and their environment (Biopham)	Master 2	Autumn (S3)	SCIENTIFIC WRITING & COMMUNICATION	6	
Faculty of Science and Technology	Physics	Applied and fundamental physics - Matter, molecule and their environment (Biopham)	Master 2	Autumn (S3)	LANGUAGE COURSE To be chosen in a list of courses such as English C1 level or a basic level in Spanish, French, Italian, or other foreign language course.	3	
Faculty of Science and Technology	Physics	Applied and fundamental physics - Matter, molecule and their environment (Biopham)	Master 2	Autumn (S3)	PROJECT DESIGN MANAGEMENT	3	
Faculty of Science and Technology	Physics	Applied and fundamental physics - Matter, molecule and their environment (Biopham)	Master 2	Autumn (S3)	Courses to be chosen in a list of courses offered by the “Health Entrepreneurship Program” degree (intellectual property protection, marketing, economic and strategic intelligence, regulatory affairs, technology transfer, start-up creation,...)	3 each	
DEPARTMENT	FIELD OF STUDY	DEGREE PROGRAMME NAME	LEVEL	SEMESTER	UE NAME	ECTS	REMARKS
Faculty of Science and Technology	Earth Science	Paleontology, Paleoclimatology, Paleoenvironment	Master 1	Autumn (S1)	Facies stratigraphy	3	
Faculty of Science and Technology	Earth Science	Paleontology, Paleoclimatology, Paleoenvironment	Master 1	Autumn (S1)	Biostratigraphy	3	
Faculty of Science and Technology	Earth Science	Paleontology, Paleoclimatology, Paleoenvironment	Master 1	Autumn (S1)	Sequence stratigraphy	3	
Faculty of Science and Technology	Earth Science	Paleontology, Paleoclimatology, Paleoenvironment	Master 1	Autumn (S1)	Methods of geol. material characterization	3	
Faculty of Science and Technology	Earth Science	Paleontology, Paleoclimatology, Paleoenvironment	Master 1	Autumn (S1)	Geoconservation 1 Outreach	3	

Faculty of Science and Technology	Earth Science	Paleontology, Paleoclimatology, Paleoenvironment	Master 1	Autumn (S1)	Introductory micropaleontology	3	
Faculty of Science and Technology	Earth Science	Paleontology, Paleoclimatology, Paleoenvironment	Master 1	Autumn (S1)	Applications of paleontology	3	
Faculty of Science and Technology	Earth Science	Paleontology, Paleoclimatology, Paleoenvironment	Master 1	Autumn (S1)	Language	3	
Faculty of Science and Technology	Earth Science	Paleontology, Paleoclimatology, Paleoenvironment	Master 1	Autumn (S1)	Specialization - Statistics initiation with R	3	
Faculty of Science and Technology	Earth Science	Paleontology, Paleoclimatology, Paleoenvironment	Master 1	Autumn (S1)	Specialization - Diagenesis petrography	3	
Faculty of Science and Technology	Earth Science	Paleontology, Paleoclimatology, Paleoenvironment	Master 1	Autumn (S1)	Personal project - Geomatics & Geostatistics applied to Geosciences	3	
Faculty of Science and Technology	Earth Science	Paleontology, Paleoclimatology, Paleoenvironment	Master 1	Autumn (S1)	Personal project - Geobiosphere interactions in deep time	3	
Faculty of Science and Technology	Earth Science	Paleontology, Paleoclimatology, Paleoenvironment	Master 1	Spring (S2)	Paleoenvironmental reconstructions 1	3	
Faculty of Science and Technology	Earth Science	Paleontology, Paleoclimatology, Paleoenvironment	Master 1	Spring (S2)	Advanced micropaleontology	3	
Faculty of Science and Technology	Earth Science	Paleontology, Paleoclimatology, Paleoenvironment	Master 1	Spring (S2)	Language	3	
Faculty of Science and Technology	Earth Science	Paleontology, Paleoclimatology, Paleoenvironment	Master 1	Spring (S2)	Supervised Project	6	
Faculty of Science and Technology	Earth Science	Paleontology, Paleoclimatology, Paleoenvironment	Master 1	Spring (S2)	Field training	6	
Faculty of Science and Technology	Earth Science	Paleontology, Paleoclimatology, Paleoenvironment	Master 1	Spring (S2)	Internship professional experience	3	
Faculty of Science and Technology	Earth Science	Paleontology, Paleoclimatology, Paleoenvironment	Master 1	Spring (S2)	Literature review	3	
Faculty of Science and Technology	Earth Science	Paleontology, Paleoclimatology, Paleoenvironment	Master 1	Spring (S2)	Specialization - Vertebrate Paleontology, Paleobotany	3	
Faculty of Science and Technology	Earth Science	Paleontology, Paleoclimatology, Paleoenvironment	Master 1	Spring (S2)	Specialization - Multivariate statistics	3	
Faculty of Science and Technology	Earth Science	Paleontology, Paleoclimatology, Paleoenvironment	Master 1	Spring (S2)	Specialization - Organic matter	3	
Faculty of Science and Technology	Earth Science	Paleontology, Paleoclimatology, Paleoenvironment	Master 1	Spring (S2)	Specialization - Vertical movements & Sediment flow	3	
Faculty of Science and Technology	Earth Science	Paleontology, Paleoclimatology, Paleoenvironment	Master 2	Autumn (S3)	Paleoenvironmental reconstructions 2	3	
Faculty of Science and Technology	Earth Science	Paleontology, Paleoclimatology, Paleoenvironment	Master 2	Autumn (S3)	Geobiology	3	
Faculty of Science and Technology	Earth Science	Paleontology, Paleoclimatology, Paleoenvironment	Master 2	Autumn (S3)	Paleoclimatology	3	
Faculty of Science and Technology	Earth Science	Paleontology, Paleoclimatology, Paleoenvironment	Master 2	Autumn (S3)	Carbonate facies analysis	3	
Faculty of Science and Technology	Earth Science	Paleontology, Paleoclimatology, Paleoenvironment	Master 2	Autumn (S3)	Quantitative paleontology	3	

Faculty of Science and Technology	Earth Science	Paleontology, Paleoclimatology, Paleoenvironment	Master 2	Autumn (S3)	Phylogenetics	3	
Faculty of Science and Technology	Earth Science	Paleontology, Paleoclimatology, Paleoenvironment	Master 2	Autumn (S3)	Specialization - Field training Alpes	3	
Faculty of Science and Technology	Earth Science	Paleontology, Paleoclimatology, Paleoenvironment	Master 2	Autumn (S3)	Specialization - Macroevolution	3	
Faculty of Science and Technology	Earth Science	Paleontology, Paleoclimatology, Paleoenvironment	Master 2	Autumn (S3)	Specialization - PE : Project (design) Management	3	
Faculty of Science and Technology	Earth Science	Paleontology, Paleoclimatology, Paleoenvironment	Master 2	Autumn (S3)	Geoconservation 2 : case studies & applications	3	
Faculty of Science and Technology	Earth Science	Paleontology, Paleoclimatology, Paleoenvironment	Master 2	Autumn (S3)	English scientific writting and communication	3	
Faculty of Science and Technology	Earth Science	Paleontology, Paleoclimatology, Paleoenvironment	Master 2	Spring (S4)	Internship professional experience (4 to 6 months) or supervised research project + Internship (2 months), only if the S3 of this master track has been validated	30	
DEPARTMENT	FIELD OF STUDY	DEGREE PROGRAMME NAME	LEVEL	SEMESTER	UE NAME	ECTS	REMARKS
Faculty of Science and Technology	Computer Science	Exact Sciences and Engineering Sciences	Bachelor 1	Autumn (S1)	Computer science	6	
Faculty of Science and Technology	Computer Science	Computer Science / Track : Internet of Things	Master 2	Autumn (S3)	Compiling and Static Analysis	3	
Faculty of Science and Technology	Computer Science	Computer Science / Track : Internet of Things	Master 2	Autumn (S3)	Formal Methods for Embedded Systems	3	
Faculty of Science and Technology	Computer Science	Computer Science / Track : Internet of Things	Master 2	Autumn (S3)	Operating System Architecture – III	3	
Faculty of Science and Technology	Computer Science	Computer Science / Track : Internet of Things	Master 2	Autumn (S3)	Real-Time Systems	3	
Faculty of Science and Technology	Computer Science	Computer Science / Track : Internet of Things	Master 2	Autumn (S3)	Risk Analysis	3	
Faculty of Science and Technology	Computer Science	Computer Science / Track : Internet of Things	Master 2	Autumn (S3)	Wireless Sensor Networks	3	
Faculty of Science and Technology	Computer Science	Computer Science / Track : Internet of Things	Master 2	Autumn (S3)	Signal Processing	3	
Faculty of Science and Technology	Computer Science	Computer Science / Track : Internet of Things	Master 2	Autumn (S3)	Student Project	3	
Faculty of Science and Technology	Computer Science	Computer Science / Track : Internet of Things	Master 2	Autumn (S3)	Neuromorphic Computations	3	
Faculty of Science and Technology	Computer Science	Computer Science / Track : Internet of Things	Master 2	Autumn (S3)	Parallel Embedded Systems Design	3	
Faculty of Science and Technology	Computer Science	Computer Science / Track : Internet of Things	Master 2	Spring (S4)	Final Internship	9	
Faculty of Science and Technology	Computer Science	Computer Science / Track : Internet of Things	Master 2	Spring (S4)	Final Project (Projet de Fin d' études)	6	
Faculty of Science and Technology	Computer Science	Computer Science / Track : Internet of Things	Master 2	Spring (S4)	Final Msc thesis (Mémoire de Fin d'Études)	6	
Faculty of Science and Technology	Computer Science	Computer Science / Track : Internet of Things	Master 2	Spring (S4)	Language	3	

Faculty of Science and Technology	Computer Science	Computer Science / Track : Internet of Things	Master 2	Spring (S4)	Business Communication (Communication and Knowledge of the business)	3	
Faculty of Science and Technology	Computer Science	Computer Science / Track : Internet of Things	Master 2	Spring (S4)	Professional project preparation (Projet de l'étudiant : Préparer son projet professionnel)	3	