

Pedagogical Program

ACADEMIC MASTER

Branch *Ecology and Environment*
Speciality *Bioclimatology*

Establishment	Faculty	Department
<i>Khemis Miliana University</i>	<i>Faculty of Nature and Life Sciences and Earth Sciences</i>	<i>Ecology and Environment</i>

Field	Branch	Speciality
<i>Nature and Life Sciences</i>	<i>Ecology and Environment</i>	<i>Bioclimatology</i>

Brief

Ecological, hydrological, water sciences and **bioclimatology** combined with statistical analysis tools, GIS, geostatistics and remote sensing are the core of the training in "water and bioclimatology" offered. These various multidisciplinary achievements allow the graduates of this training to participate in a real consultation within the framework of a sustainable development based on the approach of the preservation of the nature of our territories and our landscapes Seine and free of pollution by basing on integrative approaches to objects (territories, landscapes, etc.) and complex issues (climate change, environmental pollution, etc.)

Semester 01

Teaching unit	Matter	Credit	Coefficient	Weekly hourly volume			semester hourly volume
				C	TD	TP	
Fundamental Unit	Environmental climatology	6	3	3h00	3h00		90h00
	Surface hydrology	6	3	1h30	1h30	1h30	67h30
	Hydrobiology	6	3	1h30		3h00	67h30
	Applied Ecotoxicology	4	2	1h30		1h30	45h00
	Geochemistry water and Pollution water	4	2	1h30		1h30	45h00
Methodological unit	Statistical analysis of data	2	2	1h30		1h30	45h00
Transversale Unit	Communication methods	1	1	1h30			22h30
	Scientific English 1	1	1	1h30			22h30
Total Semester		30	17	13h00	5h30	6h00	405h00

Semester 02

Teaching unit	Matter	Credit	Coefficient	Weekly hourly volume			semester hourly volume
				C	TD	TP	
Fundamental Unit	Overall operation of ecosystems	6	3	3h00	1h30		67h30
	General hydrology	6	3	1h30	1h30	1h30	67h30
	Vegetation cover meteorological factors and environmental	6	3	3h00	1h30		67h30
	Water erosion and climate	4	2	1h30	1h30		45h00
Methodological unit	Data processing spatial	2	2	1h30		1h30	45h00

Teaching unit	Matter	Credit	Coefficient	Weekly hourly volume			semester hourly volume
				C	TD	TP	
Discovery unit	Instrumental analysis	2	2	1h30		1h30	45h00
	Agronomic Modeling	2	2	1h30		1h00	45h00
Transversale Unit	Scientific English II	1	1	1h30			22h30
	environmental law	1	1	1h30			22h30
Total Semester		30	19	16h00	6h00	6h00	382h30

Semester 03

Teaching unit	Matter	Credit	Coefficient	Weekly hourly volume			semester hourly volume
				C	TD	TP	
Fundamental Unit	Soil - Plant - Atmosphere	6	3	3h00	1h30		67h30
	Hydrobiogeochemical cycle	6	3	1h30	1h30	1h30	67h30
	Statistical hydrology	6	3	1h30	3h00		67h30
	Sampling and experimentation	4	2	1h30	1h30		45h00
Methodological unit	Applied Geostatistics	2	2	1h30		1h30	45h00
Discovery unit	Environmental policy and sustainable development	2	2	1h30	1h30		45h00
Transversale Unit	Entrepreneurship	1	1	1h30			22h30
	Supervised mini-project	3	3		1h30		22h30
Total Semester		30	19	12h00	10h30	3h00	382h30

Semester 04

Training course in a company and/or in a university laboratory finalized by a dissertation and a defense.

	VHS	Coeff	Credit
Personal Work	250	10	10
Internship in a company	500	20	20

Workshops			
Other (Research Laboratory)			
Total Semester 4	750	30	30