

## **Master in Agronomic Sciences**

**Speciality:** *Hydro-agricultural infrastructures*

### **Training objectifs**

The objectives of this training are to use irrigation water for wealth creation, to design and install irrigation and drainage systems, to manage the technical aspects of irrigated areas, implementation of rural infrastructures, protection of irrigated areas against degradation and development of new agricultural land.

Field	Branch	Speciality
<i>Natural and life sciences</i>	<b>Agronomic Sciences</b>	<b><i>Hydro-agricultural infrastructures</i></b>

### First Semester

Teaching unit	Matter	Credit	Coeff	C	TD	TP	VH
<b>Fundamental Unit</b>	Hydraulic 1	6	3	1h30	1h30	1h30	67h30
	Irrigation systems and calculation bases	6	3	1h30	1h30	1h30	67h30
	Applied hydrology 1	6	3	1h30	1h30	1h30	67h30
Methodological unit	Soil science and development	5	3	1h30	1h	1h30	60h
	Water quality in Agriculture	4	2	1h30	-	1h30	45h
Discovery unit	water and climate change	2	2	1h30	1h30	-	45h
Transversale Unit	Communication 1	1	1	1h30	-	-	22h30

## Second Semester 2

Teaching unit	Matter	Credit	Coeff	C	TD	TP	VH
<b>Fundamental Unit</b>	Hydraulic 2	6	3	1h30	1h30	1h30	67h30
	Agricultural drainage and dimensioning	6	3	3h	1h30	-	67h30
	Catchments Mapping	6	3	3h	-	1h30	67h30
Methodological unit	Applied statistics 2	3	2	1h30	1h30	-	45h
	Geographic information systems	3	2	1h30	-	1h	37h30
	Agriculture and sustainable development	3	1	1h30	-	-	22h30
Discovery unit	English	2	1	1h30	-	1h30	45h
Transversale Unit	Legislation	1	1	1h30	-	-	22h30

## Third Semester

Teaching unit	Matter	Credit	Coeff	C	TD	TP	HV
<b>Fundamental Unit</b>	pump station	6	3	3h	1h30		67h30
	Irrigation scheduling and automatisation	6	3	1h30	1h30	1h30	67h30
	Anti-erosion installations	6	3	1h30	1h30	1h30	67h30
Methodological unit	Pollution et environnement	5	3	1h30	1h	1h30	60h
	Maintenance and rehabilitation of systems	4	2	3h	-	-	45h
Discovery unit	technical English	2	2	1h30	1h30	-	45h

Teaching unit	Matter	Credit	Coeff	C	TD	TP	HV
Transversale Unit	entrepreneurship	1	1	1h30	-	-	22h30

#### Semester 4

Internship in a company sanctioned by a thesis and a defense.

	VHS	Coeff	Crédits
Personal Work			
Internship in a company	250	5	10
Seminars			
Other (Supervision)	500	10	20
Total Semester 4	750	15	30