

## **Licentiate in Atmospheric Sciences**

**Licentiate in Atmospheric Sciences – 6 years**

**High School and University/College Teacher of Atmospheric Sciences – 4 ½ years**

**Bachelor of Atmospheric Sciences – 3 years**

### **Objectives**

To train students to answer the increasing demand of information, advice, analysis and research in the area of atmospheric studies and its diverse fields of application, such as hydro-activities, environmental pollution, energy (means of transport and their regulation), the prevention of catastrophes, non-conventional energies (solar and wind), the agrarian prediction and commercialization, floods and anthropogenic influences at a global level, and the carbon dioxide effect on the ozone layer both at a regional and local level. The Atmospheric Sciences Department is the only centre in Argentina where Atmospheric Sciences can be studied and it is the Centre of Professional Training of the Worldwide Meteorological Organization.

### **Contents**

The course of studies is made up of the Ciclo Básico Común (Common Basic Cycle), 25 subjects and an MA Thesis. In the basic training cycle (10 subjects), students acquire basic theoretical knowledge of mathematics and physics.

The second cycle can be attended partly simultaneously with the CBC. It is of an introductory nature (6 subjects, in which students acquire basic knowledge on Atmospheric Sciences). From then on, students can choose among diverse orientations (9 subjects each). The specializations are very flexible, but the most frequently profiles chosen are Meteorology, Geo-fluids, Climatology, Agro-meteorology, and Atmospheric Pollution.

In order to obtain the Teaching degree, students have to pass the subjects from the CBC, the Basic Training Cycle, the Introductory Training Cycle and 7 pedagogical subjects.

### **Job opportunities**

There are mainly two professional paths to follow: weather forecast and climatology. Meteorologists who work as weather forecasters elaborate maps, apply physics and mathematics knowledge connected to the atmosphere and establish future weather conditions. Climatologists elaborate information in meteorological records; develop analyses which are necessary for agrarian production and for civil engineering jobs.

## **Bachelor of Atmospheric Sciences with Agrarian and Meteorological Orientation – 3 years**

### **Objective**

To train specialists that can provide meteorological support at a technical level in agricultural activities.

### **Contents**

Students have to pass the first cycle of subjects that make up the Basic Training Cycle and the Introductory Cycle, some of which are common the MA in Atmospheric Sciences. Afterwards, they have to take the Oriented Cycle, made up of two term subjects and the training corresponding to the orientation chosen

### **Job opportunities**

Graduates work mainly in:

- The measurement of agro-meteorological parameters through the operation of agro-meteorological stations;
- The installation of agro-meteorological stations, the development of agro-meteorological calculations and analysis.

## **Bachelor of Atmospheric Sciences with Climatologic Orientation – 3 years**

To train students in the preparation of climatologic material and in the elaboration of basic statistics. Graduates are qualified to:

- analyse meteorological data under supervision of a Licentiate in Atmospheric Sciences
- prepare climatologic material that will be published; elaborate basic statistics and carry out tasks connected to dealing with climatologic data
- collaborate with Licentiates in Atmospheric Sciences in climatologic research.

### **Bachelor of Atmospheric Sciences with Hydro-meteorological Orientation – 3 years**

Objectives:

To train students in providing technical assistance in activities concerning hydrologic activities.

Graduates can work in:

- Determining apt places for the installation of hydrologic and rainfall instruments and carrying out the installation under the supervision of a Licentiate in Atmospheric Sciences.
- Making calculations concerning hydrologic activities, such as the hydrologic, rainfall and the basic freaticmetric elaboration, under the supervision of a Licentiate in Atmospheric Sciences.
- Forecasting , under supervision, the sate of rivers and doing rainfall analysis.
- Collaborating with Licentiates in Atmospheric Sciences in hydro-meteorological research.

### **Bachelor of Atmospheric Sciences with Orientation in Synoptic Meteorology – 3 years**

Objectives:

Graduates can apply information of weather conditions to diverse areas to carry out forecasts.

They can analyse the weather, its diagnosis and future prevision. They are qualified to:

- Elaborate basic Meteorological Information
- Analyse weather data under the supervision of Licentiates in Atmospheric Sciences
- Make weather forecasts under the supervision of Licentiates in Atmospheric Sciences (only forecasts which will not be published)
- Collaborate with Licentiates in Atmospheric Sciences in research concerning Synoptic Meteorology and connected areas.