

Bachirellato Course in Meteorology of Federal University of Santa Maria



UFSM

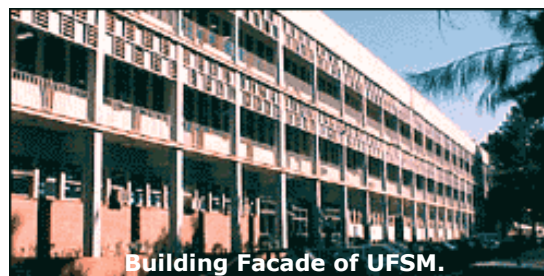
Universidade Federal de Santa Maria



The Natural and Exact Sciences Center - CCNE is integrated into eight Units of the Federal University of Santa Maria (UFSM) having six departments, eight graduation and seven post-graduation courses. CCNE is as mission to prioritize research and knowledge by disseminating knowledge and encouraging to the initiative for then build and transform reality.

With reorganization plane of the Federal University of Santa Maria, in 1970 the Basic Studies Center was created, which included the Natural and Exact Sciences area, with courses in Physics, Chemistry, Mathematics and Natural History.

The current structure of CCNE was regulated at 10 January 1983 and subdivided the Center in six departments: Biology, Statistics, Physics, Geosciences, Chemistry and Mathematics.



The Beginning

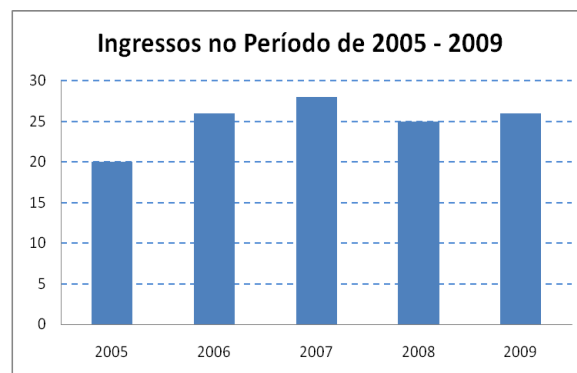
The Meteorology course of UFSM was created in 2004 and the first entrance exam was conducted in 2005, when 20 places for daytime had been offered. Became thus the seventh course of Meteorology in Brazil where nowadays there are eight effective courses.

It can be said that at UFSM occurred reverse of what generally occurs in the universities, because first appeared the master and doctorate courses in the Micrometeorology area linked to the physics course, and only later was created graduation in Meteorology.

The appearance of the course was mainly based by the justification that, still today, there is an increasing demand for meteorologists, which combined with expansion of their actuation fields and low number of graduated professionals each year in Brazil, about 40, clearly showed that demand was not

accompanied by an increased supply of professionals in the market.

Since 2005 is noticed that the number of students entering in the course has remained around 25 per year. Eights professionals were formed in 2008 and two in 2009.





The Student Learning

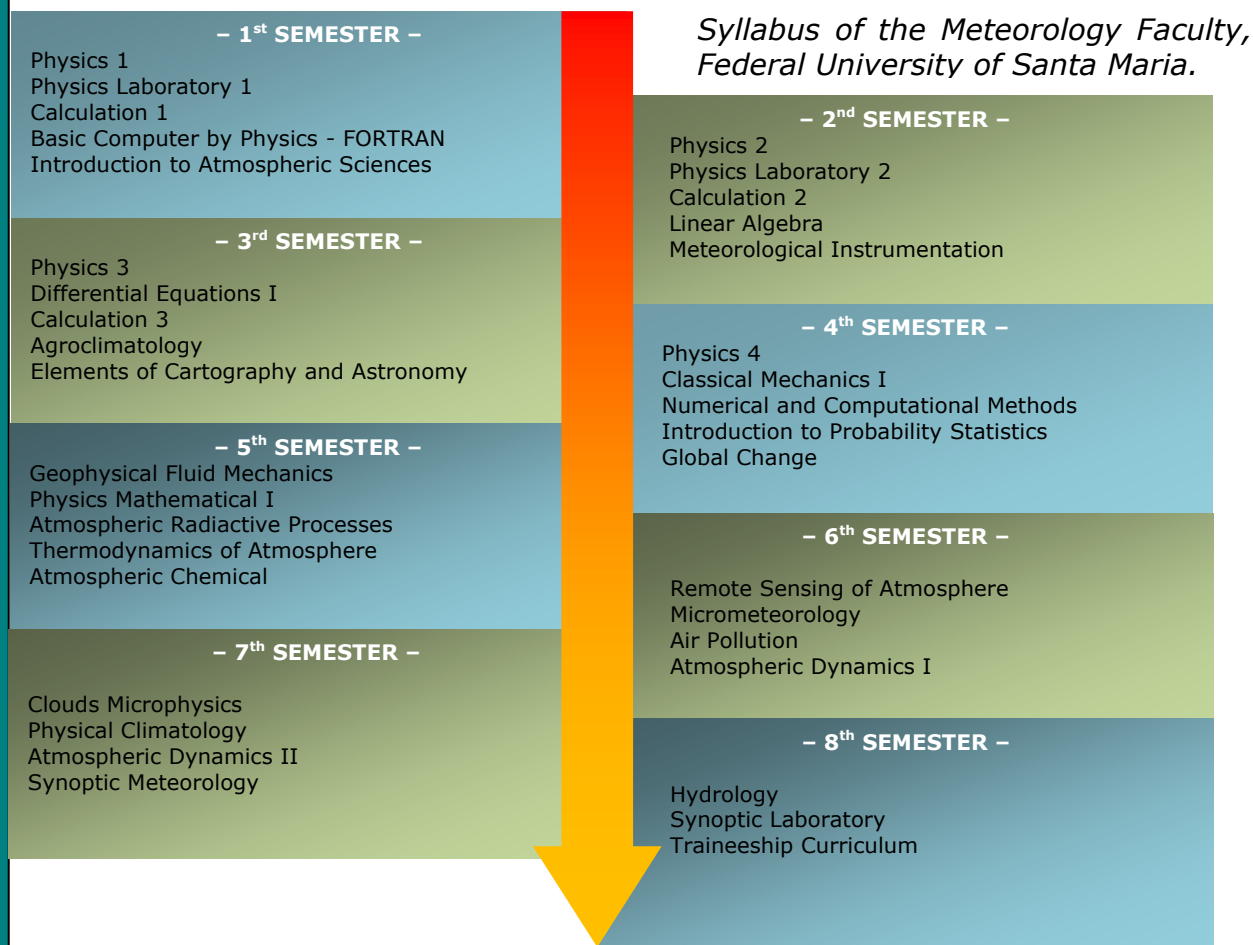
Joined to the academic experience of the Micrometeorology group of the Physics Faculty with one the Agrometeorology of the Fitotecnic Department. Besides the understanding that is increasingly important to overall knowledge of the interactions between humanity and environment, which allows managing natural resources responsibly and promoting sustainable development.

The course structured a study program focused on training professionals critically, able to interpret laws that govern the atmospheric movements and apply them in the description and prediction of weather and climate processes.

It was designed with a total workload of 3,330 hours composed for obli-

gator classrooms that make up the fixed part of the course and elective classrooms that comprise the flexible part. The basic cycle is designed for consistent training of students in mathematics and physics

The fixed part has 2,370 hours and 960 hours flexible. To fulfill the totality of the fixed part, the student will have that to carry at last year's graduation a traineeship lasting 90 hours. The training aims to familiarize students with modern techniques used by meteorologists in different application areas: Weather Forecasting, Mathematical Modeling of Air Pollution, Climate Prediction, Global Climate Change, etc. The internship will be supervised by a professor of the course and will be evaluated by the report and its public defense.



Staff

The professorate of the Meteorology Course is composed by professors of Physics and Mathematics courses beyond of professors of the proper department.

Professors

Dra. Damaris Kirsch Pinheiro
Dra. Debora Regina Roberti
Dr. Osmar Francisco Giuliani
Dr. Gervasio Annes Degrazia
Dr. Luiz Alexandre Schuch
Dr. Marcos Andre Carara
Dr. Mauricio Fronza da Silva
Dr. Nereu Augusto Streck
Dr. Osmar Francisco Giuliani
Dr. Otavio Costa Acevedo
Dra Simone Eroltildes Teleginski

Research Laboratories



The Micrometeorology Laboratory of UFSM acts in the areas of theoretical modeling of turbulent phenomena and its experimental observation. It comprises a team of six teachers and several students of Post-Graduate.

From a theoretical standpoint, the greatest interest is the development of parameterizations for the turbulent transport in different atmospheric dispersion models, taking into account the effects of mechanical and thermal forcing. The group is also dedicated to the study of decay processes of well developed turbulence in the absence of the forcing that originate it.

The group has extensive experience in observing missions that aim to understand the species and energy transfers between the surface and atmosphere in different ecosystems.



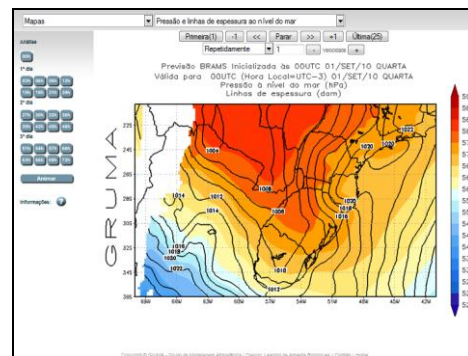
3D Sonic Anemometer.

The studies are developed as a result of consolidated cooperation with national and international groups of research.



Atmospheric Modeling Group of Santa Maria - GruMA is headquartered in the dependences of the South Regional Center for Space Research (CRS - INPE) located at UFSM.

For the development of computational modeling this group also uses a Cluster and has the support of six professors and graduates and Post-Graduate students.



Visualization of pressure at sea level and thickness fields of the BRAMS model available in the GruMA Website.

Thanks:

We appreciate the cooperation of Mr. Frank Leonardo Casado, Institutional Researcher of UFSM.

Sources:

- Santa Maria Daily publish on August 10 2004, www.clicrbs.com.br/dsm/rs.
- <http://pc16.lacesm.ufsm.br/meteorologia/>
- <http://www.gruma.ufsm.br/lumet/>
- <http://www.gruma.ufsm.br/gruma/>
- And institutional documents gotten in Internet.