

ESTUDIÁ #BIOINFORMATICS

Name of the course: Bachelor's Degree in Bioinformatics.

Title: **Bachelor's Degree in Bioinformatics.**

Duration: 4 and a half years.

Associate Degree: University Technician in Data Analysis

Duration: 2 and a half years.

Be part of this science that transforms the world

Professional field of action

Data science and biology come together to expand the boundaries of human development. New biological challenges, such as the production of more effective drugs and vaccines, seeds for drought-resistant crops, or the design of new foods, incorporate computing and statistics as their most powerful resources. Thus, bioinformatics becomes an indispensable science that demands professionals with the highest scientific and ethical training. This career will take you to the frontiers of knowledge through one of the most innovative professions with the greatest potential in the entire world.

Graduates in Bioinformatics from UNRaf will be able to work in the creation of goods and services for the human, animal and plant health industry, biotechnology or pharmaceutical companies, the agri-food industry and the environmental sector. In addition, they will be trained to integrate multidisciplinary basic and applied research teams and technological development teams for public and private scientific organizations.

University Technicians in Data Analysis will be able to collaborate in the processing of information from various sources. They will be able to identify relationships, patterns and associations in large volumes of data using different computer tools for the creation of goods and services. They will also be able to participate in interdisciplinary research teams in the creation and use of statistical models.

Program

1° SEMESTER	University, Society and Knowledge	Contemporary Issues	Academic Reading and Writing Workshop	Statistics and Calculation Workshop	Computer Basics
2° SEMESTER	Mathematical Analysis	Physical	Biology	Programming	
3° SEMESTER	Algebra and analytical geometry	Organic and biological chemistry	Algorithms and data structures	Probability and statistics	Technical English
4° SEMESTER	Computer Security Fundamentals	Digital image processing	Machine learning and artificial intelligence	Databases	Technical English II
5° SEMESTER	Project management and technological ventures	Big data and visualization methods	Advanced programming workshop	Professional practice	
6° SEMESTER	Cellular and molecular biology	Basic genetics	Biological databases	Investigation methodology	
7° SEMESTER	Genetic and genomic statistics	Genetic engineering and biotechnology	Epistemology and ethics	Algorithms in bioinformatics	
8° SEMESTER	Evolution and phylogeny workshop	Omic technologies	Bioeconomy and biotechnological projects	Molecular structure and modeling	
9° SEMESTER	Elective I	Elective II	Final work		



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