

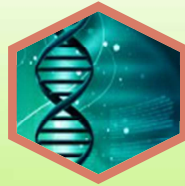


Curricular Units	Semester
Bioinformatics and Advanced Molecular Analysis	1 <sup>st</sup> S.
Advanced Molecular Genetics	1 <sup>st</sup> S.
Multivariate Statistics	1 <sup>st</sup> S.
Levelling I	1 <sup>st</sup> S.
Levelling II	1 <sup>st</sup> S.
Biological Image Analysis	2 <sup>nd</sup> S.
Bioinspired Computing and Data Exploration	2 <sup>nd</sup> S.
Computational Statistics	2 <sup>nd</sup> S.
Environmental Modelling and Multivariate Analysis	2 <sup>nd</sup> S.
Levelling III	3 <sup>rd</sup> S.
Dissertation I	3 <sup>rd</sup> S.
Dissertation II	4 <sup>th</sup> S.

**Levelling Units (I, II, III):** In order to complement the diversified and differentiated initial training of students, this Cycle presents the Leveling Skills divided by areas:

A - Biology and Biochemistry; B - Environmental Sciences; C - Informatics; D - Mathematics, Statistics and Physics. A student with Biology profile must choose Curricular Units within C and D areas. A student with an Informatics or Mathematics profile must choose Curricular Unit within scientific areas A and B. (at least one Curricular Unit from each of the areas)

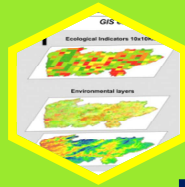
## A Master with 4 branches of specialization



### Omics

To provide knowledge and techniques of Bioinformatics with application in areas associated with Genomics, Proteomics.

**Specific Curricular Units- 3<sup>rd</sup> Semester:** Pathway Analysis of Omic Data; Nucleic Acid Technology and GMO's; Metabolomics Engineering.



### Evaluation and Environmental Management

Provide knowledge and tools in the interface between Environmental Biological Sciences and Ecology, ....

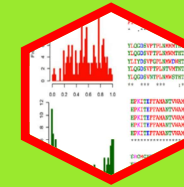
**Specific Curricular Units- 3<sup>rd</sup> Semester:** Environmental Diagnosis; Planning and Management; Waste Management.



### Applied Computation

Provide fundamental knowledge in algorithms and bioinspired computational techniques and bioinstrumentation.

**Specific Curricular Units- 3<sup>rd</sup> Semester:** Digital Signal Process; Artificial Intelligence; Biotelemetry and Bioinstrumentation.



### Biostatistics

Provide bioinformatics knowledge and techniques primarily for the analysis, treatment and modeling of biological data.

**Specific Curricular Units- 3<sup>rd</sup> Semester:** 3 from 4: Applied Biostatistics; Bayesian Statistics; Generalized Linear Models; Advanced Topics in Multivariate Statistics.