

Perspectives in Bioinformatics

Academic Year:

2018/2019

Course	Bachelor's degree on Bioinformatics								
Scientific Area	Biotechnology								
ECTS Credits	3,5	Curriculum Unit code	CVD001	Year	1	Semester	1	Type	Compulsory
Prerequisites									
Contact Hours									
	Lecture Sessions	30	Lecture-Practical Sessions		Practical and Laboratory Sessions				
	Tutorial	15	Placement		Seminar				
	Fieldwork		Other		Autonomous Study	49,5			
Responsible	Telma Margarida Cotovio Guerra Santos				Position	Adjunct Professor			
Lecturers					Position				
Learning Outcomes	<p>This curricular unit is designed primarily to provide to the student an overview of bioinformatics as an interdisciplinary science that allows the storage and analysis of large volumes of biological information, involving biochemists, biologists, mathematicians and experts in the latest informatic techniques applied to Biological and Chemical sciences. In addition, it is intended with this curricular unit to introduce the student to several fields of action and application of bioinformatics.</p>								
Syllabus	<ol style="list-style-type: none"> 1. "Central Dogma": relationship between life sciences, bioinformatics, computer science and how information technology as it relates to other sciences. 2. Cycles of seminars with professionals in bioinformatics invited to present recent applications of bioinformatics in: disease treatment, including drug design; systems biology; obtaining useful information from microarray analysis and other types of chips. 3. Bioethics Bioinformatics: convergence between bioethics and ethics of computing (applied ethics). 								
Teaching Methodologies	<p>This curricular unit arises to present the various themes underlying the application of Bioinformatics as cycles of seminars.</p>								
Evaluation	<p>The assessment can be continuous, in which the student develops independent and group work on the several seminars that take place during the semester and performs mini-tests in the context of these seminars. On the other hand, the student can still choose to conduct the evaluation solely by final exam (100%).</p>								

Evidence of the syllabus coherence with the curricular unit's intended learning outcomes

This curricular unit aims to provide students with an insight into the applicability of working in bioinformatics, with professionals presenting the result of their work in the form of seminars. The UC program is according to the proposed objectives.

Evidence of the teaching methodologies coherence with the curricular unit's intended learning outcomes

The goal of this introductory curricular unit is to show the vast scope of application of Bioinformatics, inviting experts in the field to present their work in the area.

Bibliography

Bryan Bergeron, *Bioinformatics Computing*, 2002, Prentice Hall PTR
Sylvester L. Lyantagye, *Current Status and Future Perspectives of Bioinformatics in Tanzania*, 2013, Tanz J. Sci, vol 39.
Soraj Hongladarom, *Ethics of Bioinformatics: a convergence of Bioethics and Computer Ethics*.

Observations