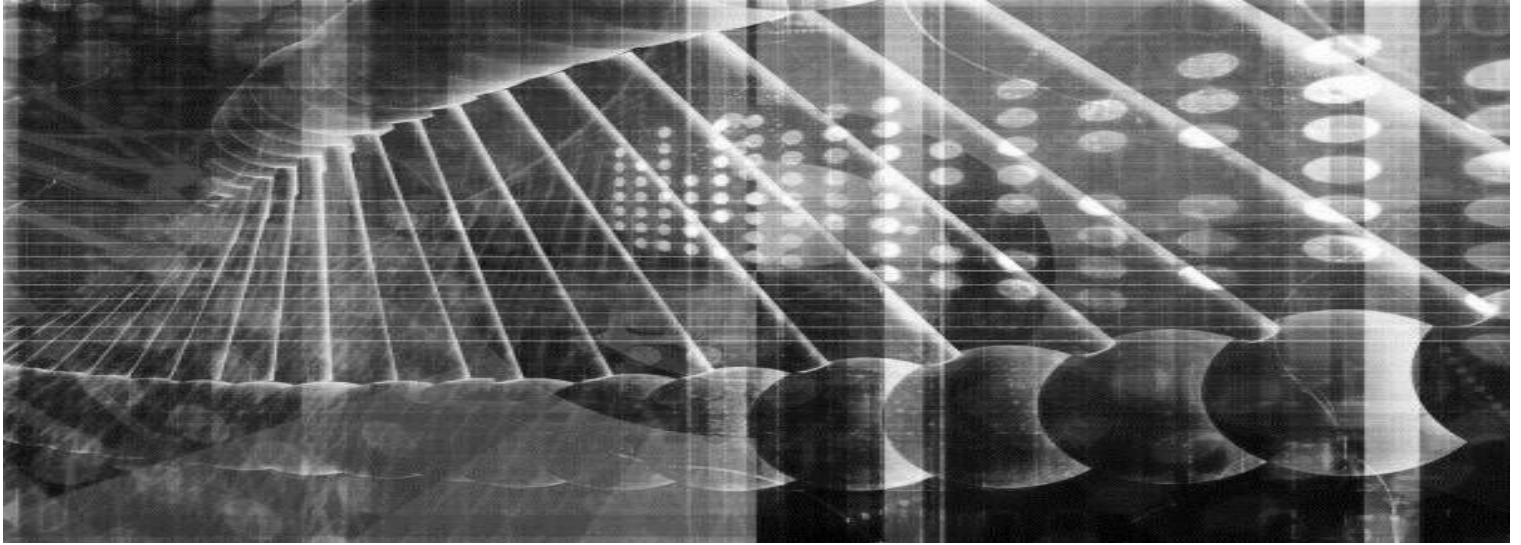


Branch: Computer Science



Code: BIOINF

Option: Bioinformatics

Level: Master

Prerequisites:

Opportunities:

The Master of Science degree opens up many career opportunities. The research path usually leads to a doctorate. Or you can work in a company: you will design bioinformatics applications and implement them. For example, you will develop new drugs in pharmaceutical companies. Management consultancies also offer good career opportunities.

Description:

Bioinformatics is a young and emerging field of study and research that combines modern information sciences (computer science, mathematics and statistics) with the life sciences (biology, chemistry, pharmacy, medicine, biotechnology and food technology). Bioinformatics deals with computational issues arising from the application of new working techniques and a rapidly growing stock of data in the life sciences. It is also becoming increasingly important in medicine and pharmaceutical research.

The exponential growth of biological data generated by national and international research projects offers an exceptional field of application for modern bioinformatics. Only the use of computational methods makes it possible to build mathematical models in the life sciences and to use them for

the analysis of new and large amounts of data. In this context, the potential uses of informatics in the life sciences go far beyond its current applications.

In industry, bioinformatics is seen as a key technology. Biotechnology start-ups, and not least, are dependent on candidates with specific and interdisciplinary skills. As bioinformatics methods are already used in industry, but graduates in this interdisciplinary discipline are still scarce, industry needs well-trained bioinformaticians.

Quality and competences:

As a graduate, you have not only been able to fundamentally expand your skills in the field of information and life sciences, but you have also broadened your own individual skills profile.

Depending on the composition of your study plan, it includes content from the main areas of algorithmic bioinformatics, sequence analysis, systems biology, structural bioinformatics, chemo informatics, genome analysis, databases and data mining, project management, software engineering, statistics, structural biology, genetics/genomics, evolutionary biology, biochemistry and biotechnology.

During your studies, you will also gain experience working in interdisciplinary teams as well as working on current research problems.