

Bioinformatics Major

www.Biology.Pitt.edu/Undergraduate/Academic-Programs or <http://CS.Pitt.edu/Undergradsdegrees/Bioinformatics>

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Bioinformatics is the theory, application and development of computing tools to solve problems and create hypotheses in all areas of biological sciences. Biology in the post-genome world has and continues to be transformed from a largely laboratory-based science to one integrating experimental and information science. Bioinformatics provides biological tools that handle datasets too large and/or complex for manual analysis. Examples of some of these tools include assembly of DNA sequences of entire genomes, gene finding algorithms, microarray expression analysis, molecular system modeling, and biomarker discovery from mass spectra. Computational tools are central to the organization, analysis, and harvesting of biological data at the level of macromolecules, cells, and systems. Consequently, there is a growing need for trained professionals who understand the languages of both biology and computer science.

The Bioinformatics major is operated jointly by the departments of biological sciences and computer science. This program offers

Writing (W) requirement

Students must complete at least one W-course in the major. CS 1501 and CS 1510 are approved writing-intensive courses.