Department of Computer Science and Engineering

Concentration in
Bioinformatics and Computational Biology
(concentration code: CBCB)

This program is designed to offer a sequence of elective courses to CS/CPEG[1] students who are interested in the field of Bioinformatics. The set of courses listed below will satisfy five CSE electives and two technical electives that are part of the requirements for a CS degree.

CSE electives:

1.   CSE 40532: *Bioinformatics Computing*

2.   CSE 40884: *Complex Networks*
       OR
     CSE 40531: *Computational Biophysics and Systems Biology*
       OR
     CSE40817: *Healthcare Analytics*

3.   CSE 30246: *Database Concepts*

4.-5. CSE 40xxx: Two CSE electives in advanced data processing/analysis, chosen either from (2) above or the following: *Distributed Computing* (CSE40771), *Parallel Computing* (CSE40755), *Cloud Computing* (CSE40772), *Data Mining* (CSE40647), *Advanced Databases* (CSE40746), *Software Engineering* (CSE40232); *Web Applications* (CSE40613; formerly *Intro to e-Technologies*), *Natural Language Processing* (CSE40657), or *Undergraduate Research*

Technical electives:

1.   BIOS 20201: *Biological Sciences I*

2.   BIOS 20250: *Classical and Molecular Genetics*
       OR
     BIOS 40577/60577: *Topics in Genetics/Molecular Bio* (with permission)

Students who are interested in pursuing this program may contact one of the following:

Scott Emrich   CSE Faculty
Kevin Bowyer   CSE Department Chair
Ramzi Bualuan   CSE Director of Undergraduate Studies

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[1] CPEG students would use one of the CSE requirements above, and one of the technical ones, as their two free electives