BINF 6200. Bioinformatics Programming. 4 Hours.
Focuses on the fundamental programming skills required in the bioinformatics industry. Perl is the main programming language used. Topics include string operations, file manipulation, regular expressions, object-oriented programming, data structures, testing, program design, and implementation. Includes substantial out-of-classroom assignments.

BINF 6308. Bioinformatics Computational Methods 1. 4 Hours.
Offers the first semester of a two-semester sequence on the use of computers in bioinformatics research. Offers students an opportunity to work with current methods and computational algorithms used in contemporary sequence analysis. Teaches practical skills necessary to manage and mine the vast biological information being generated and housed in public databases. Emphasizes the use of Perl as the primary computer language and requires students to learn and understand basic computer logic and syntax, including an introduction to scalars, arrays, hashes, decision statements, loops, subroutines, references, and regular expressions. A focus on fundamental skills, including the command line interface found in the Linux operating system, is designed to prepare students for second-semester applications.

BINF 6309. Bioinformatics Computational Methods 2. 4 Hours.
Designed to build upon the core topics covered in BINF 6308, i.e., use of the computer as a tool for bioinformatics research. Builds upon the Perl language fundamentals covered during the first semester but requires students to apply these fundamentals to a semester-long project. The project includes protein family analysis, multiple sequence analysis, phylogeny, and protein structure analysis. Additionally, students have an opportunity to learn to build, load, connect, and query custom MySQL databases, parse command line flags, and build Perl objects.

BINF 6964. Co-op Work Experience. 0 Hours.
Provides eligible students with an opportunity for work experience. May be repeated without limit.

BINF 6965. Co-op Work Experience Abroad. 0 Hours.
Offers eligible students an opportunity for work experience abroad. May be repeated without limit.

BINF 7385. Bioinformatics Seminar. 2 Hours.
Discusses current issues and research topics in bioinformatics. Requires student presentations. May be repeated without limit.