data, as well as next-generation sequencing (NGS) data. Molecular evolution, gene expression profiling, heterogeneous genomic large-scale genomic data. Covers topics such as phylogenetic trees, data collected. Focuses on the bioinformatics tools necessary to analyze. Genomes were sequenced several years ago, there has been an explosion of genetic information and further development of new methods and computational algorithms used in contemporary sequence analysis. These include the current bioinformatic tools used to analyze raw data, protein identification, posttranslational modifications, targeted proteomics, and quantitative proteomics. Covers freely available bioinformatics tools, such as NCBI, UniProt, and ExPASy.

**BINF 6420. Omics in Bioinformatics. 4 Hours.**
Focuses on some of the omics, other than genomics and proteomics, in relation to the bioinformatic tools that exist to analyze data. Provides a brief background on each field of study and then focuses on the current bioinformatics tools used. Topics include transcriptomics (transcription and gene expression), metabolomics (metabolism), glycomics (carbohydrates), lipomics (lipids), and phenomics (phenotypic data). Does not cover genomics and proteomics.

**BINF 6500. Professional Development for Co-op. 0 Hours.**
Introduces the cooperative education program. Offers students an opportunity to develop job-search and career-management skills; to assess their workplace skills, interests, and values and to discuss how they impact personal career choices; to prepare a professional resumé, and to learn proper interviewing techniques. Explores career paths, choices, professional behaviors, work culture, and career decision making.

**BINF 6945. Co-op Work Experience - Half-Time. 0 Hours.**
Provides eligible students with an opportunity for work experience. May be repeated without limit.

**BINF 6954. Co-op Work Experience. 0 Hours.**
Provides eligible students with an opportunity for work experience. May be repeated without limit.

**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.