

**BS/MS BIOINFORMATICS  
BIOINFORMATICS ELECTIVES**

The following is a list of Bioinformatics Electives:

*Biology*

- Genomics (BIOL 495)\*
- Human Molecular Genetics (BIOL 495)
- Metagenomics (BIOL 495)\*
- Microbiology (BIOL 488)
- Molecular Genetics (BIOL 482)
- Scientific Logic and Critical Thinking (BIOL 495)

*Chemistry*

- Computational Biochemistry (CHEM 435)
- Enzymology (CHEM 465)
- Introduction to Spectroscopy (CHEM 455)
- Medicinal Chemistry (CHEM 425)
- Plant Biochemistry (CHEM 465)
- Protein Crystallography (CHEM 465)

*Computer Science*

- Algorithms and Complexity (COMP 460)
- Computational Neuroscience (COMP 486)
- Data Warehousing and Data Mining
- Database Programming (COMP 453)
- Distributed Systems (COMP 439)
- Intermediate OO Development (COMP 413)
- Theor of Programming Languages (COMP 471)

*Statistics*

- Applied Regression Analysis (STAT 408)
- Categorical Data Analysis (STAT 410)
- Stochastic Processes (STAT 406)
- Topics in Biostatistics (STAT 436)
- Statistical Design and Analysis of Experiments (STAT 407)

\* If Genomics (BIOL 387) was taken as part of the Bioinformatics BS, the 400-elective cannot be selected. If Metagenomics (BIOL 392) was taken as part of the Bioinformatics BS, the 400-elective cannot be selected.

**Selection of Bioinformatics Electives differs between the two tracks.**

*Thesis track (3 electives required):*

- One elective must be from Biology or Chemistry
- One elective must be from Computer Science or Statistics

*Non-thesis track (6 electives required):*

- Electives must be from three of the four departments listed above