

# 2020-2021 Biochemistry and Biophysics Concentration Worksheet

## Major in Biological Sciences

\*Our Biochemistry & Biophysics Concentration is not available if a student is also doing a Biochemistry concentration within the Chemistry major.

To complete this concentration, Biological Sciences Majors may choose any 3 of the following courses:

- \_\_\_ **BIOL\_SCI 323-0**    **Bioinformatics: Sequence and Structure Analysis** - Use of informational and modeling techniques to explore evolutionary and other problems related to the genome. *Prereqs: BIOL\_SCI 241-0 OR BIOL\_SCI 301-0.*
  
- \_\_\_ **BIOL\_SCI 353-0**    **Molecular Biology Laboratory** - Project-based approach to learning lab skills in eukaryotic molecular biology. *Prereqs: BIOL\_SCI 201-0 OR 215-0; BIOL\_SCI 202-0 OR 219-0; BIOL\_SCI 301-0.*
  
- \_\_\_ **BIOL\_SCI 360-0**    **Principles of Cell Signaling** - Emphasis on principles, components, and logic that are common to different cell signaling systems. Modern experimental strategies for studying cellular signaling as well as the implications of disrupting cell communication pathways in disease will be described. *Prereqs: BIOL\_SCI 203-0 OR 215-0; BIOL\_SCI 202-0 OR 219-0.*
  
- \_\_\_ **BIOL\_SCI 361-0**    **Protein Structure and Function** - Structure and function of proteins; x-ray crystallography and NMR. *Prereq: BIOL\_SCI 301-0.*
  
- \_\_\_ **BIOL\_SCI 363-0**    **Biophysics** - Protein interaction with small molecules; protein tertiary structure determination. *Prereqs: BIOL\_SCI 203-0 OR 215-0, BIOL\_SCI 202-0 OR 219-0; BIOL\_SCI 301-0*