

# Structural Biology and Biophysics Major – Worksheet

Last revised: April 2018

Student Name (print) \_\_\_\_\_ Student ID: \_\_\_\_\_ Date \_\_\_\_\_

**Required Prerequisite Courses:** complete **all** of the following:

- Biology: BIOL 1107 (4 cr.)
- Calculus: MATH 1131Q and MATH 1132Q (8 cr.)
- Chemistry: CHEM 1127Q and 1128Q **or** CHEM 1147Q and CHEM 1148Q (8 cr.)  
**or** CHEM 1124Q, CHEM 1125Q, CHEM 1126Q (10 cr.)
- Physics: PHYS 1401Q and 1402Q **or** PHYS 1601Q and 1602Q (8 cr.)

**Required Courses in the Major:** complete **all** of the following:

- MATH 2110Q Multivariable Calculus (4 cr.) **or**  MATH 2130Q Honors Multivariable Calculus (4 cr.)
- MATH 2410Q Elem. Differential Equations (3 cr.) **or**  MATH 2420Q Honors Differential Equations (3 cr.)
- CHEM 2443 Organic Chemistry I (3 cr.)
- CHEM 2444 Organic Chemistry II (3 cr.)
- CHEM 2445 Organic Chemistry Lab (3 cr.) **or**  CHEM 3565W Physical Chemistry Lab (2 cr.)
- CHEM 3563 Physical Chemistry I (4 cr.)
- CHEM 3564 Physical Chemistry II (4 cr.) **or**  MCB 3007 Introduction to Biophysical Chemistry (3 cr.)
- MCB 3010 Biochem. (5 cr.)  
**or both**  MCB 2000 Intro. to Biochem. (4 cr.) **and**  MCB 4026W Adv. Biochem. Lab (4 cr.)
- MCB 4008 Techniques of Biophysical Chem. (3 cr.)
- MCB 4009 Structure and Function of Biol. Macromolecules (3 cr.)

**Writing in the Major:** complete at least **one** of the following:

- CHEM 3170W Technical Communications (3 cr.)
- CHEM 4196W Thesis for Undergraduate Chemistry Majors (3 cr.)
- MCB 3841W Research and Literature in MCB (3 cr.)
- MCB 4026W Advanced Biochemistry Laboratory (4 cr.)
- MCB 4997W Honors Research Thesis in MCB (3 cr.)

**36-Credit Group:** Complete at least 36 credits of 2000-level or higher courses, including required MATH, CHEM, MCB, and writing in the major courses listed above and at least one recommended course listed below, with an average GPA of  $\geq 2.0$ .

**Recommended Courses:**

- CHEM 3332: Quantitative Analytical Chemistry (4 cr.)
- CHEM 4551: Introduction to Quantum Chemistry (3 cr.)
- MATH 3210: Linear Algebra (3 cr.)
- Intro to Research: MCB 3989 or MCB 4989
- Cell Biology: MCB 2210 or MCB 3201 (3 cr.)
- Genetics: MCB 2410 (3 cr.) or MCB 3413 (4 cr.) or MCB 3412 (3 cr.)
- Microbiology: MCB 2610 (4 cr.) or MCB 3617 (4 cr.)
- MCB 3421: Introduction to Molecular Evolution and Bioinformatics (3 cr.)
- MCB 5025: Structure and Function of Biological Membranes (3 cr.)

\_\_\_\_ credits in \_\_\_\_\_      \_\_\_\_ credits in \_\_\_\_\_      \_\_\_\_ credits in \_\_\_\_\_  
\_\_\_\_ credits in \_\_\_\_\_      \_\_\_\_ credits in \_\_\_\_\_      \_\_\_\_ credits in \_\_\_\_\_  
\_\_\_\_ credits in \_\_\_\_\_      \_\_\_\_ credits in \_\_\_\_\_      \_\_\_\_ credits in \_\_\_\_\_

Credits to date: \_\_\_\_\_

Current GPA: \_\_\_\_\_