

# Structural Biology and Biophysics Major – Worksheet

Last revised: November 2014

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

## **\*\*USE YOUR ACADEMIC REQUIREMENTS REPORT TO FILL OUT & UPDATE THIS WORKSHEET\*\***

(In Student Admin, go to Student Center, select “Academic Requirements” from the drop-down menu, and click on expand all.)

### **I. University Requirements:**

- Pass/Fail:** No pass/fail courses can be used towards general ed., 45-credit, major, or related requirements.
- 8 Year Rule:** Courses over eight years old are subject to review by the Dean.
- Content Area 1:** Pass two courses taken in two different subject areas. **Write in courses under CLAS Areas A-D on right.**
- Content Area 2:** Pass two courses taken in two different subject areas.  
\_\_\_\_\_
- Content Area 3:** Pass two courses, including one four credit lab. Courses must be from two different depts. **Circle courses under CLAS BS Content Area 3 Requirements on right.**
- Subject Area Restriction:** Students must pass courses taken in six different subject areas from Content Areas One, Two and Three.
- Content Area 4:** Students must pass two courses, one of which must address issues of diversity and/or multiculturalism outside the United States.  
\_\_\_\_\_
- Overlap Restriction:** At least one CA 4 course must not also be used toward CA 1, 2, or 3.
- Second Language Competency:** (circle one)
  - A. 3 years high school level, or
  - B. 2 years high school level plus passing the 2nd year (Intermediate) UConn level, or
  - C. Elementary and Intermediate levels at UConn, or
  - D. Successful completion of language equiv. exam
- Writing Competency:**  
Freshman English Requirement (circle course/s taken): ENGL 1010 or 1011 or 3800 or ENGL 91002 & 91003  
2000+ level W in [each] major: \_\_\_\_\_  
2nd W any level: \_\_\_\_\_
- Quantitative Competency:** Students must pass two Q courses, one of which must be MATH or STAT. **Write in courses under CLAS Q requirement on right.**
- Total units & GPA:** (120 or more total credits/ 2.0 GPA)  
Total credits to date: \_\_\_\_\_ Current GPA: \_\_\_\_\_

### **II. CLAS Requirements:**

- Intermediate Language:** See Second Language Competency on left.
- Quantitative Competency:** Students must pass a total of three Q courses, with one from MATH or STAT.  
\_\_\_\_\_
- Areas A-D (BS degree):**  
Courses must be from at least 4 different academic units with at least one from each category A-D  
A: Arts \_\_\_\_\_  
B: Literature \_\_\_\_\_  
C: History \_\_\_\_\_  
D: Philosophy \_\_\_\_\_

### **BS Content Area 3 Requirements:**

- Biology Requirement (circle below)**  
BIOL 1107 or 1108 or 1110
- Chemistry Requirement (circle below)**  
CHEM 1124Q & 1125Q & 1126Q  
or 1127Q & 1128Q  
or 1147Q & 1148Q  
or 1137Q & 1138Q
- Mathematics Requirement (circle below)**  
MATH 1131Q & 1132Q  
or 1151Q & 1152Q  
or 2141Q & 2142Q
- Physics Requirement (circle below)**  
PHYS 1201Q & 1202Q  
or 1401Q & 1402Q  
or 1501Q & 1502Q  
or 1601Q & 1602Q
- 45 Unit Rule:** Students must earn a minimum of 45 units of 2000 level or higher courses.

Note that you will need to earn at least 36 credits from 2000-level or higher courses for your major in order to fulfill your 24 credit group and 12 credits of Relateds).

2000-level credits to date: \_\_\_\_\_

### **III. Structural Biology and Biophysics Requirements:**

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

- MATH 2110 Multivariable Calculus (4 cr.) **or**  MATH 2130 Honors Multivariable Calculus (4 cr.)  
 MATH 2410 Elem. Differential Equations (3 cr.) **or**  MATH 2420 Honors Differential Equations (3 cr.)

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

- CHEM 2443 Organic Chemistry I (3 cr.)  
 CHEM 2444 Organic Chemistry II (3 cr.)  
 CHEM 2445 Organic Chemistry Lab (3 cr.) **or**  CHEM 3565 Physical Chemistry Lab (2 cr.)  
 CHEM 3563 Physical Chemistry I (4 cr.)  
 CHEM 3564 Physical Chemistry II (4 cr.)

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

- 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.) **or**  MCB 3895 Special Topics approved for major  
 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 Ugrd Chem. Majors (3 cr.)  
 MCB 3841W Research and Literature in MCB (3 cr.)  
 MCB 4026W Advanced Biochem. Lab. (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 recommended courses listed below, with an average GPA of 2.0 or higher.

Recommended Courses:

- Senior Research Thesis: MCB 3996W, MCB 4997W, or CHEM 4196W (3 cr.)
- Intro to Research: MCB 3989 or MCB 4989, may be repeated but only 3 credits may count toward 36 credit group
- 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.) or MCB 3635 (3 cr.)
- MCB 3421: Introduction to Molecular Evolution and Bioinformatics (3 cr.)
- CHEM 3332: Quantitative Analytical Chemistry (4 cr.)
- CHEM 4551: Introduction to Quantum Chemistry (3 cr.)
- MATH 3210: Linear Algebra (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: \_\_\_\_\_