# DEPARTMENT OF PSYCHOLOGICAL SCIENCES: BACHELOR OF SCIENCE GRADUATION PLAN

## APPROVED SCIENCE COURSE TRACKS

Psychology Bachelor of Science students must complete at least 12 credit hours of approved science coursework in one of the following five approved areas: Biological Sciences, Chemistry, Computer Science, Mathematics, or Statistics.

Course grades must be C grade or better, **no C- or below grades will be accepted** in the Psych BS science tracks. For example, while Psychology BS majors that are also majoring or minoring in Biological Sciences are allowed to count grades of C- or better toward their Bio major/minor requirements, C- grades will **not** be accepted in coursework counting toward the Psych BS approved Biological Sciences track. Psych BS students will **not** be required to repeat Biology courses with grades of C- or below as long as they end up with enough Bio coursework to meet the required “12 hour science track” for the Psych BS. If you have questions, please contact Psychology Advising Office.

Course substitutions must be approved by your Academic Advisor. Students can count transfer coursework toward the Psych BS approved science tracks.

### BIOLOGICAL SCIENCES TRACK

**Required Core:** (5 hours)
- Bio 1500: Intro to Biological Systems with Lab (5 hours, pre-req Math 1100) or Bio 1500H (5 hours).

**OR**
- Bio 1010* General Principles and Concepts of Biology (3 hours, pre- or co-req of Math 1100) and Bio 1020* General Biology Lab (2 hours, pre- or co-req of Bio 1010). *Grades must be A- or better in Bio 1010 and 1020.

**Additional Approved Coursework** (at least 7 credit hours from list below – course substitutions must be approved by your Academic Advisor)
- Bio 2200: General Genetics (4 hours, pre-req Bio 1500 and pre- or co-req Chem 1320)
- Bio 2300: Intro to Cell Biology (4 hours, pre-req Bio 2200)
- Bio 3700: Animal Physiology (5 hours, pre-req Bio 2300)
- Bio 3800: Developmental Biology (3 hours, old #4972, pre-req Bio 2200/2300 and Chem 2100)
- Bio 4500: Neurobiology (3 hours, pre-req Bio 2300)
- Bio 4600: Evolution (3 hours, pre-req Bio 2200)
- Bio 4640: Behavioral Biology (3-4 hours, pre-req Bio 1500 and 1 upper-level Bio or Psy)
- Bio 4986: Neurology of Motor Systems (3 hours, pre-req Bio 3700)
- Bio 4988: Nerve Cells and Behavior (3 hours, pre-req Bio 3700)
- Other APPROVED course(s): __________________

### CHEMISTRY TRACK

**Total Hours:** ___________

#### Required Core: (6 to 8 hours):
- Prior to Fall Semester 2013: Chem 1320: General Chem II with Lab (3 hours, pre-req Chem 1310 and Math 1100) and Chem 1330: General Chem III with Lab (3 hours, pre-req Chem 1320) OR Chem 1320H (4 hours) and 1330H (4 hours).
- Beginning in Fall Semester 2013: Chem 1320: College Chemistry I (4 hours, pre-req Math 1100) or Chem 1320H (4 hours), and Chem 1330: College Chemistry II (4 hours) or 1330H (4 hours)

**Additional Approved Coursework** (at least 4 to 6 credit hours from list below – course substitutions must be approved by your Academic Advisor)
- Chem 2100: Organic Chemistry I (3 hours, pre- or co-req Chem 1330)
- Chem 2110: Organic Chemistry II (3 hours, pre-req Chem 2100)
- Chem 2130: Organic Chemistry Lab I (2 hours, co-req Chem 2110)
- Chem 2140: Organic Chemistry Lab II (2 hours, pre-req 2110 and 2130)
- Chem 2160H: Honors Organic Chemistry I (4 hours, pre-req Chem 1320)
- Chem 2170H: Honors Organic Chemistry II (5 hours, pre-req Chem 2160H)
- Chem 2190H: Honors Organic Chemistry Lab (2 hours, pre-req Chem 2170H)
- Chem 2400: Fundamentals of Inorganic Chem with Lab (3 hours, pre-req Chem 1330)
- Chem 3200: Quantitative Methods of Analysis with Lab (4 hours, pre-req Chem 3300)
- Chem 3300: Fundamentals of Physical Chemistry (3 hours, pre-req Math 2700, Chem 2100, Physics 2110/2120) OR Chem 3310: Physical Chemistry I (3 hours, pre-req Chem 2100, Physics 2175/2176, pre- or co-req Math 2300)
- Chem 3330: Physical Chemistry II (3 hours, pre-req Chem 3310)
- Chem 3340: Physical Chemistry II Lab (3 hours, pre-req Chem 3320, pre- or co-req 3330)
- Chem 4170: Medicinal Chemistry (3 hours, pre-req Chem 2110 or 2170H, 3300 or 3330)
- Chem 4400: Inorganic Chemistry (3 hours, pre-req Chem 3300, co-req Chem 3330)
- Other APPROVED course(s): __________________
COMPUTER SCIENCE TRACK:  Total Hours: ____________

Required Core: (6 to 9 hours):
- Info Tech 1040: Intro to Problem-Solving and Programming (3 hours)
- Note: Students with college credit hours for Math 1100 (not an exemption) may begin in CS 1050 and complete at least 6 hours of additional approved coursework below.
- Comp Sci 1050: Algorithm Design & Programming I (3 hours, pre-req Math 1100)
- Comp Sci 2050: Algorithm Design & Programming II (3 hours, pre-req CS 1050)

Additional Approved Coursework (at least 3 to 6 credit hours from list below – course substitutions must be approved by your Academic Advisor):
- Comp Sci 2270: Intro to Digital Logic (3 hours, pre-req CS 2050) Note: Prior to Sp 14 course was numbered CS 3270. (Pre-req CS 1050)
- Comp Sci 3380: Database Applications & Info Systems (3 hours, pre-req CS 2050)
- Other APPROVED course(s): __________________

MATHEMATICAL SCIENCES TRACK:  Total Hours: ____________

Required Courses: (The Math Track requires 13 credit hours):
- Math 1500: Analytic Geometry & Calculus I (5 hours, pre-req Math 1160 or Math 1100 and 1140 or sufficient ALEKS math placement score)
- Math 1700: Calculus II (5 hours, pre-req Math 1500)
- Math 2300: Calculus III (3 hours, pre-req Math 1700)
- Other APPROVED course(s): __________________

STATISTICS TRACK:  Total Hours: ____________

NOTE: Students completing this track must complete additional math courses to meet the prerequisite for Stat 4710. Students will complete Math 1160 (5 hours) (or Math 1100 & 1140), Math 1500 (5 hours), Math 1700 (5 hours), and Math 2300 (3 hours). Math 2300 is the prerequisite to Stat 4710.

Required Core: (6 hours):
- Stat 3500: Intro to Probability & Statistics II (3 hours, pre-req of Stat 2500)
- Stat 4710: Introduction to Mathematical Statistics (3 hours, pre-req Math 2300)

Additional Approved Coursework (at least 6 credit hours from list below – course substitutions must be approved by your Academic Advisor):
- Stat 4110: Statistical Software and Data Analysis (3 hours)
- Stat 4150: Applied Categorical Data Analysis (3 hours)
- Stat 4210: Applied Nonparametric Methods (3 hours)
- Stat 4310: Sampling Techniques (3 hours)
- Stat 4410: Biostatistics (3 hours)
- Stat 4420: Applied Survival Analysis (3 hours)
- Stat 4430: Applied Longitudinal Data Analysis (3 hours)
- Stat 4510: Applied Statistical Models I (3 hours)
- Stat 4560: Applied Multivariate Data Analysis (3 hours)
- Stat 4810: Nonparametric Methods (3 hours)
- Stat 4830: Categorical Data Analysis (3 hours)
- Other APPROVED course(s): __________________