

PROPOSAL TO CHANGE RESEARCH REQUIREMENT FOR BIOCHEMISTRY TRACK OF CHEMISTRY B.S.

SUMMARY

The Department of Chemistry would like to change the research requirement for the Biochemistry track of the Chemistry B.S. degree from two credits to one credit.

RATIONALE

All of our B.S. degree tracks require a research experience. Of all the tracks, the Biochemistry track is the most popular, and also attracts the students who are least motivated to research-related careers (most are pre-med). Supervision of research students places a significant burden on faculty, and faculty members receive no load credit for supervising research. Reducing the research requirement for the biochemistry track will significantly reduce the load on faculty by lowering the expectation for those students who are least likely to go into a scientific career.

SPECIFIC PROPOSAL

We propose the following minor changes to the catalog. Because this is only a small reduction in one requirement, we also propose that it apply retroactively to all current students.

CURRENT CATALOG

C. Biochemistry Track (Program C)

Required Lower-Division Courses: 33-34 units

CHM 005, 006 General Chemistry I, II (4,4)

BIO 005, 006 General Biology I, II (4,4)

MA 009, 010 Elementary Calculus I, II (4,4)

One of the following combinations: (9-10)

PHY 011, 013 Physics for Life Sciences I, II (4,4)

PHY 014 Physics for Life Sciences Laboratory (1)

OR

PHY 021, 023 General Physics I, II (4,4)

PHY 022, 024 General Physics Laboratory I, II (1,1)

Required Upper-Division Courses: 33 units

CHM 101, 102 Organic Chemistry I, II (4,4)

CHM 113 Biochemistry (4)

CHM 121 Introductory Analytical Chemistry (3)

CHM 122 Advanced Analytical Chemistry (2)

CHM 195 Seminar (2)

CHM 198 Research (2)

One of the following combinations: (4)

CHM 130 Physical Chemistry I (3)
CHM 132 Physical Chemistry Laboratory I (1)

OR

CHM 135 Introductory Physical Chemistry (3)
CHM 132 or 133 Physical Chemistry Laboratory I or II (1)

Two of the following three: (8)

CHM 131 Physical Chemistry II (3) **and** CHM 133 Physical Chemistry Laboratory II (1)
BIO 102 Physiology (4)
BIO 114 Genetics (4)

Those interested in graduate school in biochemistry should choose CHM 130 and 131 and take additional courses in advanced biochemistry, molecular biology, inorganic and organic chemistry.

PROPOSED CATALOG

C. Biochemistry Track (Program C)

Required Lower-Division Courses: 33-34 units

CHM 005, 006 General Chemistry I, II (4,4)

BIO 005, 006 General Biology I, II (4,4)

MA 009, 010 Elementary Calculus I, II (4,4)

One of the following combinations: (9-10)

PHY 011, 013 Physics for Life Sciences I, II (4,4)

PHY 014 Physics for Life Sciences Laboratory (1)

OR

PHY 021, 023 General Physics I, II (4,4)

PHY 022, 024 General Physics Laboratory I, II (1,1)

Required Upper-Division Courses: ~~33~~ 32 units

CHM 101, 102 Organic Chemistry I, II (4,4)

CHM 113 Biochemistry (4)

CHM 121 Introductory Analytical Chemistry (3)

CHM 122 Advanced Analytical Chemistry (2)

CHM 195 Seminar (2)

CHM 198 Research (~~2~~ 1)

One of the following combinations: (4)

CHM 130 Physical Chemistry I (3)

CHM 132 Physical Chemistry Laboratory I (1)

OR

CHM 135 Introductory Physical Chemistry (3)

CHM 132 or 133 Physical Chemistry Laboratory I or II (1)

Two of the following three: (8)

CHM 131 Physical Chemistry II (3) **and** CHM 133 Physical Chemistry Laboratory II (1)

BIO 102 Physiology (4)

BIO 114 Genetics (4)

Those interested in graduate school in biochemistry should choose CHM 130 and 131 and take additional courses in advanced biochemistry, molecular biology, inorganic and organic chemistry.