SPECIAL REPORT

of the

ACADEMIC MATTERS COUNCIL

concerning a

REVISION TO ADD BIOLOGY 151
TO THE REQUIREMENTS OF THE CHEMISTRY MAJOR

Presented at the
745th Regular Meeting of the Faculty Senate
February 19, 2015

COUNCIL MEMBERSHIP

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The Academic Matters Council’s Program Subcommittee contacted the Biology Department to verify that there would be adequate space in Biology 151 sections to accommodate Chemistry majors. With the Biology Department’s approval, the Program Subcommittee recommended approval by the AMC.

This proposal was approved unanimously by the Academic Matters Council on November 19, 2014.

MOVED: That the Faculty Senate approve the Revision to add Biology 151 to the Requirements of the Chemistry Major, as presented in Sen. Doc. No. 15-029.
PROGRAM TITLE: Revision to Chemistry Major to require Biology 151

PLEASE CHECK: GRADUATE _____________ UNDERGRADUATE X ________________

DEPARTMENT Chemistry ______________ HEAD/CHAIR: Craig Martin ______________

SCHOOL OR COLLEGE CNS ______________ DEAN: Steve Goodwin ______________

Submission Date: April 15, 2014 ______________ Proposed Starting Date: Sept 1, 2014 ______________

I. PROPOSAL DEVELOPMENT

A. Describe the Proposal.
   I propose that Chemistry majors be required to take Biology 151. This course is a necessary preparation for our majors as it includes significant attention to the molecular basis for biological phenomena. This course would serve as excellent preparation for much of modern chemistry, and, in fact, would prepare our undergraduates to communicate effectively with the 50% of our faculty who perform research in the area of biological chemistry.

B. Provide a brief overview of the process for developing the Proposal.

The department arrived at this proposal by consideration of our student preparation levels for careers in chemistry, as well as by matching desired outcomes with available Biology. Two of the largest career paths for chemistry majors are in the areas of biotechnology and pharmaceutical industries. In these careers, our graduates must be able to converse about cell receptors, genetics, cellular compartments, and biological tissues. In addition to these career paths, one of the largest areas of graduate research for chemists is in the area of health-related research – in fact, research within our department is roughly 50% oriented toward health-related chemistry. Our undergraduates need to take the correct Biology course to prepare them for subsequent courses, as well as for these career paths.

In viewing the Biology course descriptions, and following discussions with advisors in Biology extending back to the year 2010, it is clear that Biology 151 covers the appropriate content for our majors.

II. PURPOSE AND GOALS

Describe the Proposal’s purpose and the particular knowledge and skills to be acquired.

The desired outcome is that our majors would become conversant at an introductory-level in describing the key molecules involved in biological processes. This will facilitate the career options for our majors, and make them able to understand model chemical research.

III. RESOURCES

If this proposal requires no additional resources, say so and briefly explain why. If this proposal requires additional resources, explain how they will be paid for. For proposals involving instruction, indicate how many new enrollments are expected and whether the courses have room to accommodate them.

This proposal will require that approximately 40 students per year from our department be permitted to take Biology 151. This is non-negligible, but is a zero-sum proposition. It will not lead to a net increase in the number of students taking a Biology course, but rather a reallocation of students into Biology 151 and out of another Biology course.