**From:** Chris Hill <chris@biochem.utah.edu>

**Subject: Re: New BS/BA degree in the department of chemistry**

**Date:** October 9, 2019 at 11:47:41 AM MDT

**To:** VAHE BANDARIAN <vahe@chem.utah.edu>

**Cc:** Wes Sundquist <wes@biochem.utah.edu>

Hi Vahe,

Thank you for sharing with us the proposal that you have developed for a BS/BA Major in Biochemistry that would be run through the Chemistry Department.  In principle this seems like a good concept that would enhance the educational opportunities at the U.  The Department of Biochemistry has many labs that have the potential to support undergraduate research experiences for these students.

Best,
Chris

﻿On 10/3/19, 6:52 PM, "VAHE BANDARIAN" <vahe@chem.utah.edu> wrote:

   Hi Chris:
    I am writing to that the Department of Chemistry started a process to get approval for a new BS/BA degree at the University of Utah in Biochemistry.  As you may be aware, the U is the only institution of its size in the state and across the country among the Big10 and the Pac12 that does not offer a Biochemistry degree.  In most institutions in these groups, the Biochemistry department, as in Utah, is located in a medical school and does not have an undergraduate teaching mission.  Therefore, the degree is often conferred through either a Chemistry or a standalone Biochemistry department.  The absence of this pathway for students in Utah was quite startling to me.  To give you an idea of the student interest, >60% of our ~400 majors are actually in our biochemistry-like concentration.  The concentration is heavy on chemistry, but includes a year-long biochemistry course based on Lehninger’s Principles of Biochemistry.  I teach the first semester of the course and my enrollment has gone from the low 200’s to 330 this Fall.  In fact, the enrollment has increased by nearly 100 in just the last 2 years.  I joke that we have more undergraduate sin the department who are interested in biochemistry and allied disciplines than any other area of Chemistry!
    It was in the backdrop of these statistics that the faculty initiated a discussion on how best to support our students and provide them with degree paths that meet their career goals.  These meetings led to a degree plan that is very much chemistry focused, but one that recognizes the many paths that biochemistry students often take (med school pharmacy school, graduate school, etc.) and leaves plenty of flexibility in in the plan of study to fashion their path.  The core of the lower division coursework are comprised of General Chemistry, Organic Chemistry, Physics, and Math.  The upper division core includes biochemistry, biochemistry, and choice of courses from the upper division chemistry offerings.  We were mindful of the need to maximize flexibility, so we reduced the physics labs to one instead of two, allowed an option of quantitative analysis of inorganic chemistry, introduced a biophysical chemistry course as an alternative to quantum chemistry, and introduced a chemical biology.  Students can fulfill their upper division units by choosing from a large variety of courses as they see fit.  I am attaching a degree proposal that was approved by the college of science curriculum committee, as well as the undergraduate council.  The proposal has been forwarded to the executive committee of the faculty senate.
    This proposal is for an undergraduate-only degree.  The Department of Biochemistry, of course, is the department that confers the advanced degrees and so we do not anticipate a conflict with your programs.  In fact, we see substantial synergies.  The degree will produce a cohort of students who would be interested in undergraduate research.  We recognized the importance of this and have stipulated that students can replace one of the 3 advanced labs with undergraduate research units.  In addition, these students may be a perfect pool to tap in the BC and BM graduate programs.  As you know, many of our undergraduates do not want to leave the state because of family support and connections, therefore, the degree will provide a pool of students that have so far been untapped.  Additionally, from our perspective, it provides an opportunity to attract students to the U who would have otherwise bypassed us for other institutions in the state and elsewhere that offer the degree.
    Since the biochemistry program does not have any undergraduate teaching, I am hoping that you see our efforts to advance biological chemistry on campus of the University of Utah mutually beneficial and are willing to indicate so in a note to be included for the faculty senate.  The executive committee of the senate will take up this proposal on October 14.
    I am attaching the BS/BA proposal to this e-mail for you reference and look forward to hearing from you.  Please do not hesitate to contact me if you need any more information.
   Best,
   Vahe