FACULTY SENATE – OCTOBER 11, 2012 MEETING
UNIVERSITY CURRICULUM COMMITTEE
REPORT #3

Members of the Curriculum Committee were asked to consider one proposal from the College of Science: Bachelor of Science degree in Microbiology and Immunology.

Bachelor of Science degree in Microbiology and Immunology

This degree is designed to train students in the San Antonio and south Texas area in microbiology and immunology. The training in this degree will provide expertise in bacteriology, virology, parasitology, mycology, immunology, vaccinology, biochemistry, cellular biology, molecular biology, developmental biology, biodefense, and molecular genetics. The degree will have a major impact on medicine and vaccine development, pharmacology, and biotechnology. This degree will be administered in the Department of Biology.

Job Market

According to a report from BioMedSA, the Healthcare and Bioscience industry contributed $16.3 billion to the San Antonio economy in 2007, and the industry paid nearly $4.8 billion in wages and salaries to 116,417 employees in 2007.The industry has added over 23,000 net new jobs over the past decade. The Texas Emerging Technology Fund has established an initiative with a goal to bring the best and brightest researchers to Texas. It is believed that this degree will add a new, exciting dimension to the existing majors, and it will remove any ambiguity as to the training received by the student. The U.S. Department of Labor, Bureau of Labor Statistics projects an approximate 12.18% increase in employment for microbiologists from 2008 to 2018.

Student Demand

The Department surveyed current students to help determine a demand, if any, for a B.S. in Microbiology and Immunology degree. Over 30 percent of the biology majors surveyed indicated a high interest in the degree. A little over 40 percent indicated an above average interest in the degree. Of the non-biology majors surveyed, approximately 75 percent indicated an above average or high interest in the degree.

Degree Requirements and Curriculum

The proposed degree requires 120 semester credit hours (SCH). In addition to the core curriculum, students must complete 40 hours in specified biology courses, 9 hours in prescribed upper-division elective biology or environmental science courses, and 6 hours of free electives. In addition, 32 hours of support work are required.

Faculty and New Course Requirements

No new faculty members are required. Seventeen tenure track faculty members are identified as devoting 40% of their time to the courses required for this degree. However, three new courses are required to meet all degree requirements.

Facility Requirements

Classroom and teaching laboratory space necessary to support this degree is already available on the main and downtown campuses. Implementation of the degree will require modest renovation of a single teach laboratory for BIO 4752, and additional equipment, instrumentation and laboratory supplies will need to be purchased to modernize immunology laboratory course. The expect costs of implementing and operating the degree are expected to be minimal and come from new and reallocated revenues from within the university.

After a review of the proposal, eleven of the twelve members of the committee recommended approval of the program. One abstention.

Be it resolved that the proposal for a B.S. in Microbiology and Immunology be approved.