**Biological, Health, and Environmental Sciences Division**

(BHES)

Comprehensive Program Review - Spring 2014

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The BHES division is comprised of the **Biological Sciences**, **Environmental Studies, Health Technologies, Medical Laboratory Technology,** and **Nursing Departments.**

**Enrollment**

Enrollment trends in the division continue to be strong. Student enrollment in the division has increased by 8.2 % over the last three academic years and overall enrollment within the BHES division has reached an all time high once again this year. WSCH and FTES have increased by 3.6% each and productivity has also shown a small increase. At the same time the division FTEF has remained constant over the past three years. Strategic analysis and management of enrollment trends has allowed us to continue to sustain strong growth in these areas. Faculty and staff are dedicated to student success and have helped us witness both strong student retention and student success.

The Biology department has seen a sharp increase in enrollment at 6 % over the last academic year with an increased student demand for GE transfer courses, majors courses and pre-requisite courses used for the allied health careers. Biology enrollment has gone from 4177 students in 2008 - 2009 to 6832 students in 2012 - 2013.

The Environmental Studies department has also seen a growth in enrollment of 0.7% over the past academic year. ES enrollment has gone from 3775 in 2008 to 2009 to 5013 students in 2013 to 2014.

Amongst our CTE programs – enrollment numbers are strong. MLT enrollment has gone from 436 students in 2010 – 2011 to 500 students in 2012 – 2013; HTEC student enrollment has gone from 2230 in 2010 – 2011 to 2261 in 2012-2013 and Nursing enrollment has shown a 4% increase in enrollment to 1977 students.

This data supports the reality that we are all persistently doing more with fewer resources.

**Retention and Success rates**

The division has persistently high retention and success rates in both targeted and non-targeted student groups, out-performing the over-all college every year in these numbers. Accompanying the strong growth in enrollment is solid student success rates, which have stayed strong and constant at 73% in targeted student populations within the division over the past three academic years.

In all departments early student intervention, mentoring and thoughtful guidance by faculty as well as peer tutoring have helped to maintain the success rates and the popularity of our programs.

**Equity and Access**

The success rates in under-represented student groups can be credited to dedicated resource centers for the students in Biology, Nursing and Environmental Studies, where students can get more hands on experience, practice and exposure to course materials.

The Health Technologies, Medical Laboratory Technician and Nursing programs have strong connections with industry and clinical sites, enabling them to offer impressive externships, internships and job placement opportunities for our students. In the past year the HTEC department has seen the addition of several new clinical sites for student externship opportunities.

The Science Resource Center is essential in tackling the issues of student retention and success and in closing the equity gap. These resource centers are content-specific regions where students can go, outside of regular class time, to review course materials, look at specimens, microscopes, models etc., to continue their exposure to scientific content as well as create communities of learning.

**CTE labor trends**

Our CTE programs are all supported by labor reports that show increased job demands in their fields: HTEC employment opportunities are projected to grow by 22 to 30%; MLT employment opportunities show a growth rate of 14.3% from 2008 to 2018; and in Nursing employment will see a growth of 25.7%.

**Division Needs**

Since 2008 - 2009 all departments in the BHES-WE division have seen years of budget cuts, this trend will eventually impact our ability to foster student success in our programs.

Areas of immediate concern are the lack of needed budgetary support in the Biology department. With the sharply increased enrolment more lab sections are being offered without any increase in B budget funding. The ability to stock our classrooms and lab rooms with supplies and technology is essential to continue to support the growth in enrollment. As we see more students in the class sections equipment like microscopes face increased wear and tear and refreshing and replacing equipment is crucial to meeting curriculum demands. It also provides our students with the skills and expertise needed to be competitive in their future educational goals. The strong enrollment growth in the department must be supported by an increase in B budget funding.

The ES department has a vacant Full Time faculty position that needs to be filled in response to the significant growth in and demand for the program. There is a real need to attract and recruit accomplished full-time faculty members who represent the complex diversity of the students we serve.

There is also a lack of budgetary support in the Health Technologies and Medical Laboratory Technology program. Elimination of material fees collection is severely impacting already low department B budgets. There is an increased demand for classes in medical communications, transcription and office management and growth here is limited by access to computer labs. The HTEC department is seeking a computer classroom or computers to address this growing demand for courses in a rapidly expanding health care industry. The MLT department is also looking to update classroom instructional and laboratory equipment. The lack of staff in the MLT department has limited the growth of this program, despite an increased student demand.

The Science Resource Center should be available to our students in the evenings and possibly on weekends to foster learning communities and access to course materials.

**SLOs/PLOs**

The BHES-WE division’s progress in establishing and assessing student learning outcomes at the course and program level has been outstanding. Departments have had meaningful discussions on student learning objectives & assessments and have reflected on these outcomes. Technology, laboratory, and equipment needs were consistently identified as limiting factors in achieving desired outcomes. Increasing B budget funds will go a long way in addressing these concerns.

**Vision for the Future**

Based on hiring prospects, unemployment rates, average salaries, and **job satisfaction**, careers in the life sciences and the health care fields continue to be extremely popular and a great vehicle for upward mobility in our socio-economically disadvantaged populations. The BHES division wants to play an active role in this process and anticipates increased demand for our courses and continued strong growth in student enrollment.