

# BIOLOGY DEPARTMENT

## Program Viability Executive Summary

(Revised) November 1, 2012

Data from IRP (2007-08 to 2011-12), Datamart, State of California Employment Development Department and the US Bureau of Labor Statistics

- Bakersfield College Biology Department ranks second in Biology AS degrees awarded in the entire state of California. AS Degree Awarded per year: The BC Biology Department has averaged 74 AS degrees awarded per year.
- Since 2007, 8.05% (306/3804) of ALL AA/AS degrees in the state of California have been awarded through the Bakersfield College Biology Department.
- Overall 4<sup>th</sup> in CSU transfers at BC: Student transfer to CSUB; The number of Biology students transferring to CSUB ranks 4<sup>th</sup> among transferring disciplines. 35 transfer students to CSUB. (Business, Liberal Arts, Psychology and Biology).
- First in UC transfers from BC: Student transfer to UC; Biology students transferring to a UC ranks first among BC students transferring to a UC. (8/62 students, 12.9%)
- Students transferring to other 4-year institutions (Privates and Out-of-State); Although virtually impossible to track students that transfer to private or out-of state universities. BC students report having transferred to Biola, National, Point Loma, University of Alabama Birmingham, Washington University, University of Tennessee, University of Colorado, Ohio State University, Portland State University and Oregon State University.
- Student Headcount - Unduplicated has only decreased by 1.9% (1685 to 1653) in spite of a 13.7% reduction in courses offered (95 sections reduced to 82 per year)
- FTES/FTEF productivity has increased from a low of 4.8% to a high of 9.7%.
- Students/Section; The maximum capacity in each laboratory section is 24 students. We have averaged 24.6 students per section over the past 5 years with diminishing overall supplies with no increase in departmental budget.
- Golden Three; All courses offered meet GE, Transfer or CTE requirements.
- Biology's TCM is in the final "Vetting" period. Vetting ends November 15, 2012.
- Curriculum: All Biology courses have been revised and entered through CurricuNet. Curriculum was submitted and approved by the Board of Trustees on November 24, 2011.

- Curriculum, program review and assessment are all up-to-date on CurrecuNet.
- All of our courses and programs have SLOs, tools to assess SLOs and outcomes that have influenced how we teach specific science content.
- Retention and Success Rates: Continue to exceed or meet the state's average rates

Retention	Success
BC Biology Dept. Retention; 84.4% State, Bio. Dept. Retention; 82.5%	BC Biology Dept. Success; 64.4% State, Bio. Dept. Success; 67.3%

- Number of Students That Require Multiple Biology Courses; 22.8% of student body (Biology, Allied Health, Agriculture, Physical Education and Engineering)
- Waitlists; All Biology courses consistently rank towards the top with regards to fill-rate and number of students on the waitlist
- Scheduling Efficiency; Most courses are taught with multiple lab classes coming from a common lecture.
- Full Time Faculty; Historically, we have had 10.5 FT faculty members(One FT faculty member is shared with Physical Science). In 2012-13, we absorbed 0.5 load from Physical Science and welcomed back a FT faculty member from a leave of absence. Therefore, we currently have 12 FT Biology faculty members.
- Adjuncts; Historically, we would have 1-2 adjunct instructors per semester. It is difficult to find and maintain qualified adjuncts especially since we can not guarantee that they will be able to teach a course the following semester. **We currently do not have any adjuncts** within our department due to the addition of 1.5 FT faculty load, workload reduction and reduction in courses offered.
- Delano Center Faculty Load; 1.0 - 1.7 faculty load/Fall and Spring semester is taught at DST. 0.633 teaching load during the summer semester.
- Biology is an FTES heavyweight; 54% more FTES is generated in science lecture/lab courses vs. lecture-only courses due to the heavy hourly load associated with 1 unit of lab that is equivalent to 3 hours.
- FTES Ripple Effect; Biology students are required to take many pre-requisite courses in Chemistry, Physics, Math and English.

- The “Domino Effect”: The #1 ranked major at Bakersfield College is Undeclared; 17.9%. The #2 ranked major at Bakersfield College is Allied Health (13.7%; 2000/14,548 students). The primary source of the pre-requisite courses required for acceptance into allied health programs are only offered in the Biology Department (BIOL-B16, B18, B32, B33, B34).
- Projected Job Openings in High Growth/High Wage Opportunities (2008-2018): #1 Nursing (\$71,000), #3 Licensed Vocational Nurse (\$48,000), #5 Elementary School Teacher (\$58,700), ) #6 Clinical Lab Technician (\$46,680).
- Fastest Growing Occupations (2008-2018): 7 of top 10 fastest growing occupations in California require a minimum AA/AS in science/biology
- From Sue Vaughn, BC Admissions; When asked...which department’s courses fill the quickest? “Biology would rank very high, probably first as a department, but particularly for the courses that RN applicants need.”