Bakersfield College

Comprehensive Program Review

**I. Program Information:**

Program Name: **Biology**

Program Type: [x]  Instructional [ ]  Non-Instructional

Program Mission Statement:

 The mission of the Bakersfield College Biological Sciences Department is to establish high quality science education, instilling discipline competencies for students in the vocational education and transfer pathways supported by BC Biology curriculum. The BC Biology Department pedagogical strategies value active learning, field experience, critical thinking and exposure to professional and research activities. Biology Faculty is dedicated to providing rigorous Biology education that is responsive to our diverse institutional and community needs. The department’s mission supports Bakersfield College’s Core Values, Strategic Goals and the Strategic Initiatives.

Program Description: Describe how the program supports the Bakersfield College Mission.

 The Biology Department uses hands-on laboratory, field trip, discussion and didactic teaching. The department offers course work in the areas of pre-Allied Health (Biol 16, 18, 32, 33 and 34), General Education/Transfer Biology (Biol 7 and 11) and the Biology major (Biol 3A and 3B). All Biology courses emphasize critical thinking and writing. Students can earn an AS degree in Biology, with an emphasis in either General Biology or Human Biology. The department’s teaching styles and curriculum development support BC’s Core Values, Strategic Goals and Strategic Initiatives. The biology department continues to use Benchmark Data Strands of Student Learning Outcomes and Assessment to align the pathways for students.

Program Learning Outcomes (PLOs)/Administrative Unit Outcomes (AUOs)—please list:

***Instructional Programs only:***

1. List the degrees and Certificates of Achievement the program offers.
* AS – Biology; General Biology
* AS – Biology; Human Biology
1. If your program offers both an A.A. and an A.S. degree in the same subject, please explain the rationale for offering both.
* N/A
1. If your program offers a local degree in addition to the ADT degree, please explain the rationale for offering both.
* N/A

**II. Program Assessment:**

* How did your outcomes assessment results during the past three years inform your program planning?
	+ - General Biology faculty have modified their assessment for Microscope proficiency. Faculty will use an individual skills proficiency tool instead of a multiple choice quiz.
		- General Biology faculty have incorporated oral presentations, scientific journal evaluations and group science project presentations for the SLO regarding the scientific method.
		- Human Biology faculty have collaborated to design an assessment tool (multiple choice test) that integrates topics form each course in the Allied Health pathway. The assessment tool now includes a pre-test and post-test component to identify previous knowledge and measure new knowledge.
* How did your outcomes assessment results during the past three years inform your resource requests this year?
	+ - Biology courses rely heavily on anatomical and molecular models, equipment, chemicals and solutions. Although our departmental budget has remained stagnant, the Biology Department has redesigned course curriculum to meet ADT requirements that allow more students the opportunity to enter the Allied Health pathway.
		- Program assessment allows the department to focus on the specific models, equipment, supplies and instructional technology required to provide the essential skills required to meet course descriptors required by C-ID.
* Describe how the program monitors and evaluates its effectiveness.
* Anatomy/Physiology faculty and General Biology faculty collaborate several times during a semester to design a ‘standardized’ assessment tool that will assess student knowledge. Results of the assessment tool is gathered and is narrative is written by an ‘assessment lead’. Current lead faculty are Andrea Garrison (Non-Major’s Biology), Patrick Fulks (Anatomy and Physiology), Joe Saldivar and Kimberly Newton (Biology Majors).
* Describe how the program engages all unit members in the self-evaluation dialogue and process.
* Anatomy/Physiology faculty and General Biology faculty collaborate several times during a semester to design a ‘standardized’ assessment tool that will assess student knowledge. Results of the assessment tool is gathered and is narrative is written by an ‘assessment lead’. Current lead faculty are Andrea Garrison (Non-Major’s Biology), Patrick Fulks (Anatomy and Physiology), Joe Saldivar and Kimberly Newton (Biology Majors).
* Provide recent data on the measurement of the PLOs/AUOs, as well as a brief summary of findings.
	+ - Anatomy/Physiology faculty have implemented 12 multiple choice assessment quiz that is given to all students in BIO-16, 18, 32, 33 and 34. The quiz is given as a pre-test and post-test. The data reveals that students obtain more knowledge as they continue through the series of A/P courses. (See Attachments)
		- Previously, General Biology faculty used a multiple choice quiz to assess microscope competency. Faculty realized that doing well on the written quiz did not coincide with actual microscope competency. Faculty will develop an assessment tool that will identify microscope competency.
* What have the program’s PLOs/ AUOs revealed or confirmed in the last three years?
	+ - Biology faculty are resourceful and always place student success as a priority. Biology faculty offer lecture class packs, written their own lab manuals to provide student’s text material at a very reasonable price and meet the Biology’s Department’s PLOs. Our SLOs and PLOs continue to reveal a deficiency in faculty and departmental financial support. Biology courses rely heavily on anatomical and molecular models, equipment, chemicals and solutions.
* *If applicable*, list other information, data feedback or metrics to assess the program’s effectiveness (e.g., surveys, job placement, transfer rates, output measurements).
	+ - 31.4% Increase in Biology Majors
		- 88% Biology majors have completed their SEP
		- Ave First Day Wait list; 775 students on the wait list per year. This is equivalent to an additional 32.3 sections or 159.4 FTES.
		- Degrees Awarded; 186 AS Biology Degrees awarded ( Ave. = 62 per year)
			* This ranks 2nd Campus wide and 4th Statewide
		- Students/Section; The maximum capacity in each laboratory section is 24 students. We have averaged 23.7 students per section over the past 3 years.
		- Biology students transferring to CSUB ranks 4th among transferring disciplines
		- Biology students transferring to a UC ranks first among BC students transferring to a UC.
* Discuss the strengths of your program.
	+ - The Biology Department continues to be an example of excellence;
			* The Biology department's involvement campus, district and statewide groups
			(i.e. Club advisors, STEM, Week Zero, MESA, C-ID, State Scorecard…).
			* Departmental Mentoring of Adjunct and New FT faculty
			* All course curriculum is up-to-date
			* Considered the departmental “Gold Standard” in class assessment
			* Use of Instructional Technology
			* Student transfer, outreach and articulation
* Discuss areas for improvement in your program.
* The Biology Department is poised to meet President’s Christian’s goals for FTES growth and greater student course access, course completion, degree completion and transfer at BC Main Campus and the Delano Science Center. All we need is;
	+ - * Additional FT faculty
			* Additional Lab Tech support
			* Larger departmental budget to maintain and replace lab models, equipment and supplies
* *If applicable*, describe any unplanned events that impacted your program.
* Late retirement of a FT Biology Instructor (Inez Devlin-Kelly)
* Dr. Janet Fulks has been granted 100% reassignment to serve as the Coordinator of Institutional Effectiveness for 2014-15

**III. Resource Analysis:**

1. Human Resources
2. If you are requesting any additional positions, explain briefly how the additional positions will contribute to increased student success. (Faculty Request form; Classified Request form)
* The Biology Department averages 775 students per year on the wait list. This would be equivalent to 32.3 additional courses and 159.4 FTES.
* The Biology Department is poised to meet President’s Christian’s goals for FTES growth and greater student course access, course completion, degree completion and transfer at BC Main Campus and the Delano Science Center. All we need is;
	+ - * Additional FT faculty
			* Additional Lab Tech support
1. Professional Development (Professional Development form)
2. Describe briefly the effectiveness of the professional development your program has been engaged with (either providing or attending) during the last cycle, focusing on how it contributed to student success.
* The Biology Department’s culture of engagement and professionalism in unmatched. All activities support BC’s Strategic Goals. (See VII Faculty Staff Engagement below.)
1. Provide rationale for future professional development opportunities and contributions that your program can make.
	* Please see Professional Development form (Attached)
2. Facilities (M&O requests can be submitted by completing the [M&O Request form](https://committees.kccd.edu/sites/committees.kccd.edu/files/Copy%20of%2012%20M%26O%20Needs%20Workbook%2012-13%20APR.xlsx).)
	1. Assess the effectiveness of the facilities used by your program in meeting college strategic goals.
	2. Justify your facilities and M & O request.
* Requests meet BCs Strategic Goals of Student Success and Communication. Please see attached M&O Request form.
1. Technology (Technology requests can be made by filling out the [ISIT Request form](http://www.bakersfieldcollege.edu/irp/Annual%20Program%20Reviews/2012-13/13%20ISIT%20Priority%20Workbook%2012-13.xlsx).)
2. Has your program received new or repurposed technology in this 3-year cycle? **NO**
	1. If yes, discuss the assessment of its effectiveness as it relates to student, program, or administrative outcomes.
	2. If no, what technology could play a contributing factor in future student success and outcomes for your program? How would you evaluate the effectiveness of this technology?
3. Discuss the effectiveness of technology used in your area to meet [college strategic goals](http://www.bakersfieldcollege.edu/collegecouncil/BAKERSFIELD%20COLLEGE%20STRATEGIC%20FOCUS%202013-14.pdf).
4. Does your program need new or repurposed technology to support student success? Justify your ISIT Technology Request and your vision for meeting student, program, or administrative unit outcomes for this next 3-year cycle.
5. Budget (Changes to the budget allocation can be requested using the [Budget Change Request Form](http://committees.kccd.edu/bc/committee/programreview)).

If you are requesting any additional funding, explain briefly how it will contribute to increased student success.

* The Biology Department is poised to meet President’s Christian’s goals for FTES growth and greater student course access, course completion, degree completion and transfer at BC Main Campus and the Delano Science Center. All we need is;
	+ - * Additional FT faculty
			* Additional Lab Tech support
			* Larger departmental budget to maintain and replace lab models, equipment and supplies
			(See attached Budget Change Request Form)

**IV. Trend Data Analysis:**

Review the data provided by Institutional Research. Provide an analysis of program data throughout the last three years, including:

* 1. Changes in student demographics (gender, age and ethnicity).
* Gender; 69% of students are female
* Age; Majority (52%) are 20-29 years old
* Ethnicity; 21.2% increase of Hispanic students (856 to 1,086).
* Completed SEP; Increase students with completed SEP (80% to 88%)
* Majors; 31.4% increase in declared Biology Majors (484 to 706)
	+ Gen. Bio; 28.3% increase (309 to 431)
	+ Human Bio; 36.4% increase (175 to 275)
	1. Changes in enrollment (headcount, sections, course enrollment, and productivity).
* Sections; 9.9% increase (82 to 91 sections offered per year)
* Students per section; 23.7 (Lab capacity is 24 students per section).
* FTEF by FT Faculty; Biol faculty = 21.1 (College wide = 17.4)
* Distance Ed;The BC Biology Department does not offer Distance Ed courses.
* Ave First Day Wait list; 775 students on the wait list per year. This is equivalent to an additional 32.3 sections or 159.4 FTES.
	1. Success and retention for face-to-face as well as online/distance courses.
* Success and Retention Rates; Biology success and retention rates meet and/or exceed College wide rates
	+ Success; College wide = 84%, Biology Dept. = 86%
	+ Retention; College wide = 67%, Biology Dept. = 66%
* Online/Distance Ed; N/A
	1. Degrees and certificates awarded (three-year trend data for each degree and/or certificate awarded).
* Degrees Awarded; 186 AS Biology Degrees awarded ( Ave. = 62 per year)
	+ College wide AS Degrees; The Biology Department ranks 2nd in AS degrees awarded College wide (Behind Nursing and Rad Tech)
	+ Statewide AS Degrees; The Biology Department ranks 4th in AS degrees awarded Statewide (Behind Sierra College, Orange Coast College and Sacramento City College)

* 1. Other program-specific data (please specify or attach).
* California Job Projections 2010-2020 (<http://edd.ca.gov>)
	+ Most job openings with minimum AS Biology degree required
		- #1 Registered Nurse ($88,000)
		- #3 Elementary School Teacher ($67,500)
		- #7 High School Teacher ($65,400)
	+ Fastest growing job projections with minimum AS Biology degree required
		- Seven of top sixteen jobs require a minimum AA Biology Degree
			* #2 Medical Scientist ($83,400)
			* #4 Biochemist/Biophysicist ($81,500)
			* #8 Veterinarian Tech ($34,900)
			* #10 Health Educator ($49,900)
			* #14 Pharmacist ($130,000)
			* #15 Respiratory Therapist ($70,300)
			* #16 Scientific Sales ($82,100)
* STEM Focus Group Summary (See Attachment)
	+ Classes, classes, classes. Student frustration about not being able to get into classes was almost toxic. The students’ biggest academic barrier is availability of STEM classes.
* “According to research, careers in science, technology, engineering and math (STEM) are growing 2-3 times faster than any other career field. Bakersfield College’s effort to increase student participation and success in STEM careers is apparent in many of our efforts on campus and in the community
(i.e. HerWorld).” – President Sonya Christian, *Bakersfield College President’s Blog;* <http://bcpresident.wordpress.com/>
* The BC Biology Department plan on meeting with Bakersfield Adult School to discuss AB-86; Collaboration of community college districts and school districts for the purpose of developing regional plans to better serve the educational needs of adults.
	1. List degrees and certificates awarded (three-year trend data for each degree and certificate awarded). Include targets (goal numbers) for the next three years.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Degree or Certificate** | **2011-2012** | **2012-****2013** | **2013-****2014** | **2014-****2015** | **2015-****2016** | **2016-****2017** |
| AS Biology; General Biology | 13 | 16 | 18 | 20 | 25 | 30 |
| AS Biology; Human Biology | 53 | 37 | 49 | 50 | 55 | 60 |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

**V. Progress on Previously Established Program Goals, Future Goals and Action Plans:**

1. List the program’s goals from the previous Program Review. For each goal, please discuss progress and changes. If the program is addressing more than two (2) goals, please duplicate this section.

|  |  |  |  |
| --- | --- | --- | --- |
| **Previously Established Goal** *(state goal)* | **Which institutional goals from the Bakersfield College Strategic Plan will be advanced upon completion of this goal?****(select all that apply)** | **Progress on goal achievement****(Choose one)** | **Comments****(if applicable)** |
| 1. Increased Departmental Budget | [x]  1: Student Success [ ]  2: Communication [x]  3: Facilities & Infrastructure [ ]  4: Oversight & Accountability [ ]  5: Integration [ ]  6: Professional Development | [ ]  Completed: \_\_\_\_\_\_\_\_ (Date) [x]  Revised: \_\_\_\_\_\_\_\_\_\_\_ (Date)*(*state revised goal) | Additional funds are required to support additional course offerings (i.e. BIOL-16 Microbiology) |
| 2. Microscope Replacement and Maintenance Contract | [x]  1: Student Success [ ]  2: Communication [x]  3: Facilities & Infrastructure [ ]  4: Oversight & Accountability [ ]  5: Integration [ ]  6: Professional Development | [ ]  Completed: \_\_\_\_\_\_\_\_ (Date) [ ]  Revised: \_\_\_\_\_\_\_\_\_\_\_ (Date)*(*state revised goal) | The microscopes located in SE-30, MS-14, MS-17 and MS-24 are outdated. The outdated microscopes do not allow faculty to fulfill BC’s Stategic Initiative of Student Learning and Student Progression and Completion. Many microscopes are in such bad shape that many of them are unusable. Some of them require more complete maintenance than our technician has the time and skill to do while others are no longer repairable.  |
| 3. Replace Delano Lab Technician | [x]  1: Student Success [ ]  2: Communication [x]  3: Facilities & Infrastructure [ ]  4: Oversight & Accountability [ ]  5: Integration [ ]  6: Professional Development | [ ]  Completed: \_\_\_\_\_\_\_\_ (Date) [ ]  Revised: \_\_\_\_\_\_\_\_\_\_\_ (Date)*(*state revised goal) | The Biology Department has requested the current Lab Tech go from 10 to 12 months and a replacement of the DST Lab Technician. The positions were not approved in 2013-14.  |

1. List the program’s goals for the next three years. Ensure that stated goals are specific and measurable. State how each program goal supports the College’s strategic goals. Each program goal must include an action plan.

|  |  |  |  |
| --- | --- | --- | --- |
| **Future Goal** | **Action Plan** | **Lead person for this goal** | **Timeline for Completion:** |
| 1. Replacement of a FT Tenure Track Biology Instructor due to retirement (Inez Devlin-Kelly) | Submit Faculty Request form in Comprehensive Annual Program Review | Joe Saldivar, Ph. D. | Fall 2015 |
| **Which institutional goals from the Bakersfield College Strategic Plan will be advanced upon completion of this goal? (select all that apply)** |
| **[x]  1: Student Success [ ]  2: Communication [ ]  3: Facilities & Infrastructure [ ]  4: Oversight & Accountability [ ]  5: Integration [ ]  6: Professional Development** |
| **Future Goal** | **Action Plan** | **Lead person for this goal** | **Timeline for Completion:** |
| 2. New FT Tenure Track Biology Instructor | Submit Faculty Request form in Comprehensive Annual Program Review | Joe Saldivar, Ph. D. | Fall 2015 |
| **Which institutional goals from the Bakersfield College Strategic Plan will be advanced upon completion of this goal? (select all that apply)** |
| **[x]  1: Student Success [ ]  2: Communication [ ]  3: Facilities & Infrastructure [ ]  4: Oversight & Accountability [ ]  5: Integration [ ]  6: Professional Development** |
| **Future Goal** | **Action Plan** | **Lead person for this goal** | **Timeline for Completion:** |
| 3. Increased Departmental Budget | Submit Budget Change Request Form in Comprehensive Annual Program Review. | Jose R. Saldivar, Ph. D. | Spring 2015 |
| **Which institutional goals from the Bakersfield College Strategic Plan will be advanced upon completion of this goal? (select all that apply)** |
| **[x]  1: Student Success [ ]  2: Communication [ ]  3: Facilities & Infrastructure [ ]  4: Oversight & Accountability [ ]  5: Integration [ ]  6: Professional Development** |
| **Future Goal** | **Action Plan** | **Lead person for this goal** | **Timeline for Completion:** |
| 3. Biology Lab Tech increase from 10 to 12 month employee | Submit Staff Request form in Comprehensive Annual Program Review. | Jose R. Saldivar, Ph. D. | Spring 2015 |
| **Which institutional goals from the Bakersfield College Strategic Plan will be advanced upon completion of this goal? (select all that apply)** |
| **[x]  1: Student Success [ ]  2: Communication [x]  3: Facilities & Infrastructure [ ]  4: Oversight & Accountability [ ]  5: Integration [ ]  6: Professional Development** |
| **Future Goal** | **Action Plan** | **Lead person for this goal** | **Timeline for Completion:** |
| 4. Biology 19 Hour Lab Tech in Delano | Submit Staff Request form in Comprehensive Annual Program Review. | Jose R. Saldivar, Ph. D. | Spring 2015 |
| **Which institutional goals from the Bakersfield College Strategic Plan will be advanced upon completion of this goal? (select all that apply)** |
| **[x]  1: Student Success [ ]  2: Communication [x]  3: Facilities & Infrastructure [ ]  4: Oversight & Accountability [ ]  5: Integration [ ]  6: Professional Development** |

**VI. Curricular Revisions *(Instructional Programs only):***

1. Review of Course Information:
* Column A list all of the courses associated with the degree.
* Column B list the Fall term the review process will be started for ongoing compliance.
* Column C list the compliance due date.
* Column D list any changes to courses with regard to distance education.
* Column E list corresponding C-ID descriptors if available. <http://www.c-id.net/>

**\*\*Dates listed should reflect a five year cycle allowing for one year of review**

**to maintain ongoing compliance.\*\***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **A. Course** | **B. Fall Term Review will be Submitted** | **C. Compliance Due Date** | **D. Distance Education Changes** | **E. C-ID Descriptors Available** |
| BIOL-B3A; General Biology I | Fall 2014 | 12/1/16 | N/A | BIOL 140 |
| BIOL-B3B; General Biology II | Fall 2014 | 12/1/16 | N/A | BIOL 190 |
| BIOL-B7; Environmental Biology | Fall 2014 | 12/1/16 | N/A |  |
| BIOL-B11; Concepts of Biology | Fall 2014 | 12/1/16 | N/A |  |
| BIOL-B16; General Microbiology | Fall 2014 | 12/1/16 | N/A |  |
| BIOL-B18; Essentials of Anatomy and Physiology | Fall 2014 | 12/1/16 | N/A |  |
| BIOL-B20; Human Biology | Fall 2014 | 12/1/16 | N/A |  |
| BIOL-B21; Special Projects in Biology | Fall 2014 | 12/1/16 | N/A |  |
| BIOL-B32; Human Anatomy and Physiology I | Fall 2014 | 12/1/16 | N/A | BIOL 115 S B |
| BIOL-B33; Human Anatomy and Physiology II | Fall 2014 | 12/1/16 | N/A | BIOL 115 S B |
| BIOL-B34; Pathophysiology | Fall 2014 | 12/1/16 | N/A |  |
|  |  |  |  |  |

1. Review of Program Information:

Is the program information housed in CurricUNET accurate? (Considerations: changes in course(s) names and/or suffixes as well as additions/deletions of courses). If not, then a program modification needs to be started in CurricUNET to reflect the necessary changes. Explain the requested changes below.

* CurricUNET information is correct.

Is the program and course listing information in the current catalog accurate? If not, list the requested

changes below. Catalog information should reflect what is in CurricUNET.

* Catalog information is correct
1. Student Education Plan (SEP) Pathway(s) uploaded to “Attached Files” in CurricUNET.

If applicable, SEP Pathway with CSU Breadth indicated? Yes

If applicable, SEP Pathway with IGETC indicated? Yes

If applicable, SEP Pathway with BC General Education indicated? Yes

 **\*\*Please ensure that the information housed in CurricUNET and the current catalog match. \*\***

1. If applicable, provide a description of the program’s future adoption of C-ID descriptors and Associate Degree for Transfer (ADT) or Model Curricula.
* Biology descriptors at the state level are complete. The BC Biology Department will hold a department meeting on October 7, 2014 to update course curriculum to meet campus, district, statewide, C-ID and ADT requirements
(Biology Curricu-Fest). It is anticipated that the Biology ADT will be available on October 17, 2014. Dr. Janet Fulks is the C-ID leader for the Biology ADT.

**VII. Faculty and Staff Engagement:**
1. Discuss how program members have engaged in institutional efforts such as committees, presentations, and departmental activities.

*Campus Wide*

* Biology Colloquium
* Habits of the Mind
* Week Zero
* A+ Scholarship Mentor Program
* Accreditation Mid-Term Report Team
* Data Coaches
* Science Technology Engineering and Math Faculty Mentors
* CCSSE – Community College Survey of Student Engagement
* Accreditation
* Placement and Multiple Measures
* Institutional Scorecard
* SSSP – Student Success and Support Program
* Equity Plan
* Achieve the Dream
* First Generation Movie and Symposium
* African American Community Luncheon
* Data Summit Presentations
* Levan Scholarship Presentations
* BC Renegade Talks
* New Faculty Orientation
* UCLA/CSUB/KMC Medical Conference
* Pre-Med Club

*Statewide*

* C-ID – Course Identification Number System
* ATD – Associate Degree for Transfer
* The Common Assessment Initiative
* Student Portal Initiative
* ASCCC Academy STEM Institute
* CCC Scorecard
* ACCJC Accreditation Visiting Team

*National*

* Achieve the Dream
* League of Innovation
* CCSSE – Community College Survey of Student Engagement

*Community Wide*

* Sierra Club
* BCSD Science Symposium
* Noche De Sciencias
* Advancement Via Individual Determination – AVID Program
* Film Making at Montana State University
* Elementary School Science Presentations
* Kern County Officials Association
* Bakersfield Camera Club
* Emergency Medicine Research Assistant Program – Kern Medical Center
* BCSD English Language Literacy Program
1. *Instruction Only*: Discuss how adjunct faculty are included in departmental training, discussions and decision-making.
* Adjunct faculty are paired with a FT faculty mentor. Courses are scheduled adjunct have the opportunity to attend their mentor’s lectures and labs session to ensure adjunct faculty understand the rigors and standards expected of our students.
	+ Adjunct faculty are always invited to all departmental functions (i.e department meetings and flex activities)

**VIII. Program Funding Sources:**

Identify any non-KCCD general fund sources

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Title of Account/Grant/Categorical Funding** | **Start Date** | **End Date** | **Percentage of Program Budget Covered** | **Positions funded wholly or in part** |
| Foundation Accounts |  |  |  |  |  |
| Grants |  |  |  |  |  |
| Categorical Funding |  |  |  |  |  |

**IX. Conclusions and Findings:**

Present any conclusions and findings about the program.

The BC Biology Department approaches the study of biology with cutting edge technology and content. The courses emphasize hands on learning and high quality, effective teaching strategies. Field work and real-life applications of science are highly valued as an important component for all students whether targeting transfer, workforce, or general science education.
 The BC Biology Department is positioned to meet President Christian’s goal of greater student access, course completion, degree completion and transfer. All we need is additional faculty and an increased departmental budget.
 Lastly, I truly believe that the BC Biology Department is the “Best Department” on the BC Main Campus. We respect each other professionally and like each other personally.

**VII. Attachments (place a checkmark beside the forms listed below that are attached):**

[x]  [Faculty Request Form](http://committees.kccd.edu/bc/committee/programreview) [x]  [Classified Request Form](http://committees.kccd.edu/bc/committee/programreview) [x]  [Budget Change Request Form](http://committees.kccd.edu/bc/committee/programreview)

[x]  Professional Development [x]  [ISIT Form](http://committees.kccd.edu/bc/committee/programreview) [x]  [M & O Form](http://committees.kccd.edu/bc/committee/programreview)

[x]  [Best Practices Form](http://committees.kccd.edu/bc/committee/programreview) **(Required)** [x]  Other: STEM Data and A/P Assessment