**Bakersfield College**

**Program Review – Annual Update 2015**

**I. Program Information:**

Program Name: Animal Science

Program Type: x Instructional  Student Affairs  Administrative Service

***Bakersfield College Mission****:* Bakersfield College provides opportunities for students from diverse economic, cultural, and educational backgrounds to attain Associate and Baccalaureate degrees and certificates, workplace skills, and preparation for transfer. Our rigorous and supportive learning environment fosters students’ abilities to think critically, communicate effectively, and demonstrate competencies and skills in order to engage productively in their communities and the world.

Describe how the program supports the Bakersfield College Mission: **The Agriculture Department is a Career Technical Education (CTE) department. Therefore, our certificate programs align us with one of the core missions of Bakersfield College, and that is to supply trained individuals to work in vocational jobs of regional agricultural businesses. Agricultural supervisory level jobs have increased about 4% in Kern County and in California. This is the highest percentage growth of any major occupational category. These jobs require a minimum of an associate degree and two years of experience.**

Program Mission Statement: **The mission of the Bakersfield College Agriculture Department including The Animal Science program is to provide pertinent state-of-the-art education for vocational and transfer students in order to produce skilled agricultural and natural resource professionals for the industry, both public and private. This is in accordance with the college mission to respond to student and community needs with efficiency and flexibility and with the BC institutional level learning outcomes, i.e. to demonstrate knowledge and abilities in a chosen area of study**.

**II. Progress on Program Goals:**

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

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| **Program 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** |
| 1. **In sure student success in the class room.** | x 1: Student Learning  2: Student Progression and Completion  3: Facilities  4: Oversight and Accountability  5: Leadership and Engagement | Completed: \_\_\_\_\_\_\_\_\_\_ (Date)  Revised: \_\_\_\_\_\_\_\_\_ (Date)  **x** Ongoing: \_1/15\_\_\_\_\_\_\_\_\_ (Date) | The animal science has made progress by focusing on the student success mind set. |
| 1. **In sure student success in the class room.** | 1: Student Learning  x 2: Student Progression and Completion  3: Facilities  4: Oversight and Accountability  5: Leadership and Engagement | x Completed: \_\_5/15\_\_\_\_\_\_\_\_ (Date)  Revised: \_\_\_\_\_\_\_\_\_ (Date)  **x** Ongoing: \_1/15\_\_\_\_\_\_\_ (Date) | **By promoting Habits of Mind.**  **Utilizing the new SARS program. Students that have failed my classes in the past, received a passing grade.** |

1. List new or revised goals (if applicable)

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| **New/Replacement Program Goal** | **Which institutional goals will be advanced upon completion of this goal? (select all that apply)** | **Anticipated Results** |
| To incorporate skills so students can become technically competent in Animal Science. | 1: Student Learning  2: Student Progression and Completion  3: Facilities  4: Oversight and Accountability  5: Leadership and Engagement | The animal science student needs to be taught the basic skills of technology in order to be successful in the industry. |

**III. Trend Data Analysis:**

Highlight ***any significant changes*** in the following metrics and discuss what such changes mean to your program.

1. Changes in student demographics (gender, age and ethnicity). The animal science increased in female students from 214 to 253, and male students from 49 to 68. In the category of age the animal science program showed a steady growth in all age groups except for the 40 and older group. There the program had a decrease of 2%. The category of ethnicity: African American, the program showed a 1% decrease and 2% decrease compared to the college wide stats. The American Indian, the animal science program went from a 0% to a growth of 1%. Hispanic/Latino we had a growth of rate of 1% going from 54% to 55% 143 to a 175 total students. The white students the program had growth from a 103 to a 121. The category of Two or More races, the program had an increase from 6 to 12 students. The Asian group showed no change.
2. Changes in enrollment (headcount, sections, course enrollment and productivity). The Animal Science program had an increase in sections from last year. The sections grew from 18 to 19, although a small show of growth, we must remember that animal science courses that pertain to production all have a lab component and it is hard to find adjuncts for daytime classes. The majors in Animal science have decrease by a headcount of 19 going from 221 to 202. The course enrollment shows good improvement going from 526 to 636. The program needs to work harder to increases majors. The productivity section for animal science only shows traditional data. The program showed a growth in FTES in traditional data from 60% to 77.5%. The FTEF there is an increase from 3.8-4.1. The FTEF by contract type is as follows- Fulltime -53% to 39%, Overload 11% to 25%, adjunct from 35%-36%.
3. Success and retention for face-to-face, as well as online/distance courses. The Animal Science program shows excellent numbers when compared to college wide data. The success a rendition rates in the traditional category shows 91% retention and 73% success. The program data did show a reduction in growth under success by 4%.
4. Changes in the achievement gap and disproportionate impact (Equity). The program does show a change in achievement gap by showing an increase in success and retention in the Hispanic population and a 2-3% change in the groups.
5. Other program-specific data that reflects significant changes *(please specify or attach).* All Student Affairs and Administrative Services should respond.

**IV. Program Assessment (focus on most recent year):**

* 1. How did your outcomes assessment results inform your program planning? Use bullet points to organize your response.

1. **Demonstrate basic principles of animal nutrition for employment and success in the animal science industry.**

***Assessment: Final exam***

1. **Master skills needed for baccalaureate level education or obtain a certificate in animal science at B.C.**

***Assessment:* Track A.A., A.S., Certificate, and transfer rates for animal science from Datamart, IRP, and Perkens IV databases.**

1. **Demonstrate basic principles of animal health & disease.**

***Assessment: Embedded. Pre/post test***

* 1. How did your outcomes assessment results inform your resource requests? The results should support and justify resource requests. 1. **There are now 202 students majoring in animal science at BC. Although the numbers have decreased over the past five years, we feel that there should be many more majors given. One of our continued requests is for funding for outreach activities, including hosting FFA contests and open house days for regional high schools. We know that there is a perception by locals, especially the children of farm laborers. The Animal Science program will continue to try and promote the fact that modern animal scientists are highly educated and well paid.**

**2) The Animal Science program need to find out why our graduation are so low. We should be graduating 20 to 30 students each year, but only graduate less than half of that number on a good year. We feel that the answer to this problem is to develop a program of individual counseling for the animal science students where we scrutinize and alleviate, as much as possible, their individual reasons for failure.**

* 1. How do course level student learning outcomes align with program learning outcomes? Instructional programs can combine questions C and D for one response (SLO/PLO/ILO).
  2. How do the program learning outcomes or Administrative Unit Outcomes align with Institutional Learning Outcomes? All Student Affairs and Administrative Services should respond.

**We are in the process of mapping all animal science course SLOs. We have finished mapping three out of eight courses. An example is given below:**

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| **(ANSC B1)**  **Animal Science** | | | | | | |
| **Student Learning Outcomes or AUO** | **Measure** | **PLO** | | | **ILO** | **GE** |
| 1. Discuss and compare the differences and contributions of different breeds within a livestock species. discuss animal contributions to the development of human civilizations. | Pre/post test | | 3 | | 3 |  |
| 2. Design a plan for establishing and managing a commercial livestock operation. | Post test | 123 | | | 1,3 |  |
| 3. Recognize and evaluate desirable conformation/selection traits in market and breeding livestock. | Pre/post test | 4 | | | 1,2 |  |
| 4. Demonstrate proper administration of vaccines and pharmaceuticals to livestock. | Post test | 3 | | | 3 |  |
| 5. Describe economically significant breeds of animals and their unique adaptations. | Post test | 3 | | | 1,3 |  |
| 6. Analyze genetic change through artificial/natural selection. | Pre/post test  essay | 1 | | | 1,3 |  |
| **PLOs:**  **1.** The animal science student will be able to demonstrate AI procedures, proper record-keeping in the field of animal science and skills in day to day animal production such as proper care, feeding and reproduction.  **2.** Student will be able to practice proper basic principles of animal safety, evaluate performance such as growth and feed conversion.  **3.** Demonstrate specific skills in animal science such as production, genetics and nutrition within the animal science discipline needed for employment. **4.** The Animal Science student will be able to identify conformation qualities in cattle, sheep, and swine.  **ILOs:**   1. **Think critically and evaluate sources and information for validity and usefulness.** 2. **Communicate effectively in both written and oral forms.** 3. **Demonstrate competency in a field of knowledge or with job-related skills.** 4. **Engage productively in all levels of society – interpersonal, community, the state and nation, and the world.** | | | | | | |
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1. Describe *any significant changes* in your program’s strengths since last year. **The number of majors has grown moderately and the number graduating has greatly increased. This has probably resulted from increased outreach activities with the local high schools plus counseling of students in our Agri B1 courses aimed specifically to get our students ready to graduate.**
2. Describe *any significant changes* in your program’s weaknesses since last year. **The number of students has increased greatly in the program courses. The program still lack the resources needed to maintain a quality highly successful program. The main item is the lack of lab facilities. Larger facilities would be an asset to the program.**
3. If applicable, describe any unplanned events that affected your program.

**V. Assess Your Program’s Resource Needs:** To request resources (staff, faculty, technology, equipment, budget, and facilities), please fill out the appropriate form. <https://committees.kccd.edu/bc/committee/programreview>

1. Human Resources and Professional Development:
2. If you are requesting any additional positions, explain briefly how the additional positions will contribute to increased student success. Include upcoming retirements or open positions that need to be filled.
3. Professional Development:

A. Describe briefly the effectiveness of the professional development your program has been engaged in (either providing or attending) during the last year, focusing on how it contributed to student success. **We hosted the 2014 Bakersfield Agricultural Summit with about 300 attendees for a one day session of speakers like Congressman Kevin McCarthy and State Senator Jean Fuller on topics relating to current agricultural issues in Kern County, especially the drought situation. Although tickets were $75 per person for the general public, we hosted many of our students through industry donations. Our students were able to network with many local ag business leaders at the conference, especially those that purchased tickets for the students.**

B. What professional development opportunities and contributions can your program make to the college in the future?

**We attended the state and regional CATA conferences where we planned statewide agricultural curriculum, especially the new AS-T degrees, and worked on standardizing course content so that courses can be easily transferred from the CCs to the universities. We also planned for the CC yearly student leadership conferences and for extensive recruitment activities for the coming year.**

B.Facilities:

1. How have facilities’ maintenance, repair or updating affected your program in the past year as it relates to student success?

**The agriculture building ceiling, walls, and floors repaired and rooms updated with new multimedia equipment. Students, faculty, and staff have a much more positive attitude toward working in a building. The new multimedia equipment and electrical outlets in the lab room has allowed us to present visual material more efficiently to students. The animal science program should see an increase in student success because of a cleaner, safer and modern learning environment.**

1. How will your Facilities Request for next year contribute to student success?

C. Technology and Equipment:

1. Understanding that some programs teach in multiple classrooms, how has new, repurposed or existing technology or equipment affected your program in the past year as it relates to student success? **We received “smart boards” in two of our classrooms last year. We cannot really say yet if the new technology has contributed to student success. . However, we can say that the short throw projector systems has contributed to more room space because the instructor can work closer to the boards allowing for more space for students, which has helped somewhat mitigate the overcrowded lab problems.**
2. How will your new or repurposed classroom, office technology and/or equipment request contribute to student success? **The entire agriculture department is in need of a new 24 passenger bus. The reason is simple; because we lack lab facilities the bus gives the department an opportunity to take students to the labs of the agriculture industry in Kern County.**
3. Discuss the effectiveness of technology used in your area to meet college strategic goals.

**A. Will enhance student learning by developing and empowering learning through curiosity.**

**B. Most of the animal science courses have a lab component and in these labs, students get hands on learning by using technology that we have in**

**the program. The technology is out of date.**

1. Budget: Explain how your budget justifications will contribute to increased student success for your program.
   1. **At this juncture in time the school is not providing any guooy funding to the Animal Science program. There is certainly a need. Enriching, creative lessons that could be implemented on behalf of the instructors are either skipped or funded with personal resources.**
   2. **As we build partnerships with other groups (Kern High School District , Paramount Academy Career Academy…) enhancing collaboration with our constituents will become crucial. Quality Professional development becomes much more likely when a funding source is linked to it.**

**VI. Conclusions and Findings:**

Present any conclusions and findings about the program. This is an opportunity to provide a brief abstract/synopsis of your program’s current circumstances and needs.

**The Animal Science program is a very popular program in the agriculture department. The need for a viable budget is greatly needed to maintain a successful program. The fact that most of the lab material is either purchased out of pocket or is borrowed from the community is only a limited fix.** **VII. Forms Checklist (place a checkmark beside the forms listed below that are submitted as part of the Annual Update):**

X [Best Practices Form](http://committees.kccd.edu/bc/committee/programreview) **(Required)**

x Curricular Review Form **(Instructional Programs Required)**

x [Certificate Form](http://committees.kccd.edu/bc/committee/programreview) **(CTE Programs** **Required)**

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

Professional Development Form  [ISIT Form](http://committees.kccd.edu/bc/committee/programreview)  [Facilities Form](http://committees.kccd.edu/bc/committee/programreview) (Includes Equipment)

Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_