



BAKERSFIELD COLLEGE: CAREER TECHNICAL EDUCATION

TWO YEAR PROGRAM REVIEW FORM

PROGRAM INFORMATION

Chair Name	Chris McCraw	Date	9/7/2018
Department	Agriculture	Discipline	Plant Science
Most Recent Program Plan Completed On		Date	9/7/2018
Most Recent Program Review Completed On		Date	9/7/2018
Faculty Name	Greg Cluff		
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1. MEETS A DOCUMENTED LABOR MARKET DEMAND

Source of information (check all that apply)

<input checked="" type="checkbox"/>	Bureau of Labor Statistics (http://www.bls.gov)
<input checked="" type="checkbox"/>	State of California Labor Market Information (www.labormarketinfo.edd.ca.gov/)
<input type="checkbox"/>	Advisory Committee Meeting held on _____ Attach Minutes
<input type="checkbox"/>	Professional Association _____
<input type="checkbox"/>	Other _____

Findings
 According to the BLS, total technical level jobs in the plant sciences (not counting a loss in the number of farm laborers) will increase about 7.7% in the U.S. in the next ten years. This is about the average for jobs needing college level degrees. There are about 13,700 openings for plant science personnel in the United States each year. This includes crop managers, plant scientists and technicians, plant science teachers, and agronomy sales personnel.
 There are about 10,000 annual job openings per year for plant science personnel in California (Cal Labor Market Info). There were about 9,700 plant scientists and farm managers in Kern County in 2017 with 334 openings, but only about 25 completions per year from our region. So, almost all of positions are being filled with students from other regions.

2. DOES NOT REPRESENT UNNECESSARY DUPLICATION OF OTHER MANPOWER TRAINING PROGRAMS IN THE AREA.

List programs from other institutions (private/fee based/public):

Name of Institution	Name of Program	Distance to College	Public/Private	Approx Enrollment
			<input type="checkbox"/>	
			<input type="checkbox"/>	

Findings
 COS is the closest Plant Science program and is 70 miles away in Visalia and Tulare which are not considered in our service area.

3. DEMONSTRATED EFFECTIVENESS AS MEASURED BY EMPLOYMENT AND COMPLETION OF STUDENTS

Core Indicator Data Reviewed X Yes No Date 9/7/2018

Insert Scores Below:

Success: 88% Completion: 100% Employment: **DR**
 Non-Traditional: 40% Non-Traditional Completion: 42%

Findings
 No measure of effectiveness was significantly below the **District Negotiated Level**. However, there was **no data for Employment**, probably because the count was less than six for the CTE Cohort. The District Negotiated Level is 68%.

4. REVIEW/APPROVALS

Date	Signature	Title
		Department Head
		College Dean

Presentation to Curriculum Committee	Click here to enter a date.
Presentation to College Council	Click here to enter a date.
Presentation to Board of Trustee	Click here to enter a date.

Using EMSI / Educational Analyst / Programs / Program Report

Run a historical Program Report for 2012 to 2017 to show the following data:

What TOP code(s) are you using for this report?

- Farmers, Ranchers, and Other Agricultural Managers (11-9013)
- Natural Sciences Managers (11-9121)
- Landscape Architects (17-1012)
- Soil and Plant Scientists (19-1013)
- Conservation Scientists (19-1031)
- Environmental Scientists and Specialists, Including Health (19-2041)
- Agricultural and Food Science Technicians (19-4011)
- Environmental Science and Protection Technicians, Including Health (19-4091)
- Forest and Conservation Technicians (19-4093)
- Career/Technical Education Teachers, Secondary School (25-2032)
- Farm and Home Management Advisors (25-9021)
- Pesticide Handlers, Sprayers, and Applicators, Vegetation (37-3012)
- First-Line Supervisors of Farming, Fishing, and Forestry Workers (45-1011)
- Agricultural Inspectors (45-2011)
- Forest and Conservation Workers (45-4011)

- A) number of jobs within the above occupation(s) for 2017 **4,527**
- B) number of jobs within the above occupations(s) for 2012 **4,170**
- C) number and percent change (2012 to 2017) **+ 357 (+8.6%)**
- D) the average hourly earnings for the above occupation(s) **\$24.67**
- E) number of completions (awards) from our college 2012-2017 **40**
- F) number of completions (awards) from regional colleges 2010-2015 **0**

Then run a projection Program Report for 2018 to 2023 to show the following data:

- A) number of jobs within the above occupation(s) for 2018 **4,645**
- B) number of jobs within the above occupations(s) for 2023 **5,039**
- C) number and percent change (2018 to 2023) **394 (8.5%)**
- D) the average hourly earnings for the above occupation(s) **\$24.67**
- E) number of annual openings and total replacement jobs **~900 annual openings, ~ 70 new each year, ~830 replacements each year (18% annual turnover)**

Does the above program meet a documented labor market demand? Please explain.

Yes, there are about 900 annual opening of which 70 are new positions in the plant sciences in the KCCD service area each year. Most of those positions are in the Bakersfield area (**560**). Also, 45% of those positions are in **crop production** as field managers. BC only produces an average of 8 students with degrees or certificates in plant science each year, so obviously most of those positions are being taken by students from outside our service area. However, many of those positions require at least a bachelor's degree and there is no baccalaureate program in plant science in the KCCD service area.

Using EMSI / Career Pathways / Occupation Analysis / Occupational Program Report

List all related programs of study by other educational institutions in our region: **There are no other Plant Science programs of study in the KCCD service area.**

Does the above program represent unnecessary duplication of training programs in our area? Please explain.

No, see above