West Hills College Coalinga CTE Program Endorsement Integrated Pest Management

Appropriateness to Mission

Statement of Program Goals and Objectives

The Integrated Pest Management program prepares students for an agriculture production career; learning the skills needed for the production and care of agricultural crops through hands-on, real-world experience. Completion of the certificate qualifies students to enter the professional job market or the units may be applied as university transfer or to fulfill the education requirement for the California Department of Pesticide Regulation's (CDPR) Agricultural Pest Control Adviser (PCA) license and the Society of Agronomy's Certified Crop Adviser (CCA).

Upon completion of the Integrated Pest Management certificate the student will be able to meet the following objectives:

- a. identify common weeds found in Central California and statewide;
- b. explain the methods of safely applying various herbicides;
- c. identify insects and closely related plant and animal pests and pest damage;
- d. explain the economic aspects of beneficial and harmful insects;
- e. select possible methods and timing of control in a given circumstance;
- f. understand the difference between California laws and DPR regulations;
- g. diagram and describe the parts of a pesticide label;
- h. understand the requirements to use a pesticide with a restricted label;
- i. identify and describe the various DPR pest control certifications and licenses;
- j. employ the principles and concepts of IPM in field crop environments;
- k. explain the mode of action of pesticides, pesticide absorption by the human body, and the importance of poisoning measurements;
- I. safely and properly mix, calibrate, apply, and dispose of different pesticide formulations utilizing different techniques and equipment.

Catalog Description

The Integrated Pest Management program prepares students for an agriculture production career; learning the skills needed for the production and care of agricultural crops through hands-on, real-world experience. Completion of the certificate qualifies students to enter the professional job market or the units may be applied as university transfer or to fulfill the education requirement for the California Department of Pesticide Regulation's (CDPR) Agricultural Pest Control Adviser (PCA) license. This certificate program is for students interested in careers as Pest Control Advisers, Certified Crop Consultants, Qualified Applicator's or Agri-chemical sales representatives.

Program student learning outcomes:

- Students will demonstrate an understanding of common agricultural weeds in California and the methods to control them.
- Students will demonstrate an understanding of common agricultural insect pests in California and the methods to control them.
- Students will demonstrate an understanding of current California pest control laws and regulations.
- Students will demonstrate an understanding of integrated pest management and its application to California farming.
- Students will demonstrate an understanding of agronomic fundamentals (soils, crops).

Program Requirements

Course #	Title	Units
CRPSCI 32	. Weeds and Poisonous Plants	3
CRPSCI 44	. Economic Entomology	3
	. California Pest Control Laws and Regulations	
CRPSCI 46	. Integrated Pest Management	<u>3</u>
	Total	11

In addition to the core courses the student must take at least three units from Plant Science and four units from Agriculture Fundamentals:

Plant Science

Course #	Title	Units
CRPSCI 1	Introduction to Plant Science	3
	Plant Science Theory	
	Total	3

Agriculture Fundamentals

Course #	Title	Units
AG 10	Introduction to Agriculture	3
AG 11	Agriculture Sales and Communication	3
AGBUS 15	Computer Application to Agriculture	3
AET 10	Surveying	3
AET 11	Advanced Surveying with GIS Applications	2
AET 15	CAD for Agriculture	2
AET 16	CAD Applications for Land Management in Agriculture	1
AET 21	Ag-Irrigation Management	3
AET 22	Irrigation Evaluation and Design Principles	4
CRPSCI 6	Introduction to Precision Agriculture	3
CRPSCI 7	Advanced Precision Agriculture	3

CRPSCI 19 California Water	3
CRPSCI 36 Fertilizers and Soil Amendments	3
SLSCI 21 Soils	
Total	4
Total Units Required for Certificate	18

Background and Rationale

"The graying of America is on a collision course with the feeding of America. One of the key elements in California's ability to feed millions are the state's 4,100 licensed Pest Control Advisers." There is a severe shortage of qualified employees. Terry Stark, of the California Association of Pest Control Advisers, said a survey revealed that only 17% are 44 or younger while 35% are 45 to 55 and almost 40% of its members are over 55. "The opportunities for crop protection professionals over the next five to 10 years are endless," said Steve Alexander of Helena Chemical Company in Fresno, CA. ¹ Of the approximately 3,000 Pest Control Advisers who are members of CAPCA, about half are expected to retire in the next 10 years, says Terry Stark, CAPCA executive director. Currently the demand for employees possessing a PCA license far exceeds the supply. This creates the perfect gap for training students for a high skill, high wage career in agriculture."

Curriculum Standards

Display of Proposed Sequence

Fall Semester

CRPSCI 1

CRPSCI 32

SLSCI 21

Spring Semester

CRPSCI 44

CRPSCI 45

CRPSCI 46

Transfer Applicability (if applicable)

All units are transferrable, with a maximum of 16 units aligned with C-ID.

 $^{^1\,\}text{http://westernfarmpress.com/management/california-pathway-pca-program-looking-lot-good-men-women-0}$

 $^{^2\} http://www.thegrower.com/news/Recruitment-program-slows-loss-of-pest-control-advisers-132474563.html$

Need for Program

Enrollment and Completer Projections

Courses in the new program will be offered by Agriculture faculty. Students will be recruited from high school and existing precision agriculture, maintenance mechanic, heavy equipment and rodeo programs. Once fully implemented, approximately 15 students are expected to complete the certificate program every two years.

These numbers are based on the estimates of enrollment of similar certificate programs with adjustments made for college size and course offering schedule. It is anticipated that these numbers will remain constant year to year based on the experience of other colleges in the state.

Approximately 20 students will be enrolled in each course.

Place of Program in Curriculum/Similar Programs

This program is a new program at WHCC and will be offered in conjunction with other vocational and agriculture programs offered at the Farm of the Future.

Similar Programs at Other Colleges in Service Area

There are no similar programs within our service area, as West Hills College Lemoore does not have a similar program.

Labor Market Information and Analysis

The following SOC codes were used for employment: Farmers, Ranchers, and Other Agricultural Managers (11-9013); Soil and Plant Scientists (19-1013); Conservation Scientists (19-1031); Agricultural and Food Science Technicians (19-4011); Pest Control Workers (37-2021); Pesticide Handlers, Sprayers, and Applicators, Vegetation (37-3012); Sales Representatives, Services, All Other (41-3099); First-Line Supervisors of Farming, Fishing, and Forestry Workers (45-1011); and Agricultural Inspectors (45-2011).

soc	Description	2013 Jobs	2016 Jobs	Change	% Change	Replacements	Openings	Annual Openings
11- 9013	Farmers, Ranchers, and Other Agricultural Managers	16,312	14,984	(1,328)	-8%	902	902	301
19- 1013	Soil and Plant Scientists	296	310	14	5%	31	45	15
19- 1031	Conservation Scientists	211	217	6	3%	20	26	9
19- 4011	Agricultural and Food Science Technicians	750	755	5	1%	103	108	36
37- 2021	Pest Control Workers	1,176	1,216	40	3%	128	168	56
37- 3012	Pesticide Handlers, Sprayers, and Applicators, Vegetation	885	945	60	7%	76	136	45
41- 3099	Sales Representatives, Services, All Other	4,636	5,051	415	9%	413	828	276
45- 1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers	4,814	4,937	123	3%	354	477	159
45- 2011	Agricultural Inspectors	780	785	5	1%	78	83	28
1			Total	TATE			2,773	925

Data provided by Jenni Abbott, Technical Assistant Provider, Center of Excellence Labor Market Research

Employer Survey

soc	Description	Annual Opening s	Pct 10 Hourly Earnings	10th Percentile Annual	Median Hourly Earning s	Median Annual Wages
11-9013	Farmers, Ranchers, and Other Agricultural Managers	301	\$13.44	\$27,955	\$21.65	\$45,032
19-1013	Soil and Plant Scientists	15	\$18.91	\$39,333	\$27.86	\$57,949
19-1031	Conservation Scientists	9	\$20.16	\$41,933	\$31.35	\$65,208
19-4011	Agricultural and Food Science Technicians	36	\$11.47	\$23,858	\$15.26	\$31,741
37-2021	Pest Control Workers	56	\$10.62	\$22,090	\$14.27	\$29,682
37-3012	Pesticide Handlers, Sprayers, and Applicators, Vegetation	45	\$10.41	\$21,653	\$13.90	\$28,912
41-3099	Sales Representatives, Services, All Other	276	\$11.69	\$24,315	\$19.36	\$40,269
45-1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers	159	\$10.52	\$21,882	\$15.49	\$32,219
45-2011	Agricultural Inspectors	28	\$14.05	\$29,224	\$20.78	\$43,222
7	Total		ACT IN THE			925
	Average		\$12.19	\$25,362.82	\$19.00	\$39,528.52
	Weighted Average		\$13.40	\$27,877.20	\$19.89	\$41,376.40

Data provided by Jenni Abbott, Technical Assistant Provider, Center of Excellence Labor Market Research

Explanation of Employer Relationship

Employer data was created by the Center of Excellence for the CTE Enhancement Fund. Data used is for the Central Valley and Mother Lode Regions.

List of Members of Advisory Committee

- K. Birdwell
- J. Silvera
- E. Pulido
- K. Vargas
- P. Smith
- R.Evans

Recommendation of Advisory Committee

Minutes

Date 8/11/15 Time 5:31 - 7:02

Location FB-03

Davida M. I.	Pres	sent
Person	Yes	No
Kerri Birdwell	Х	
John Silvera	X	
Kurt Quade		Х
Chris Chaney	X	
Eddie Pulido	X	
Katie Vargas	X	
Jamie Anthony		Х
Phil Smith	Х	
Richard Evans	X	
Clint Cowden	Х	
Tim Ellsworth	X	

1.0 Call to order

- 1.1 Call to order
 - 1.1.1 K. Birdwell called the meeting to order at 5:31 pm on August 11, 2015
- 1.2 No Additions to the Agenda
 - 1.2.1 K. Vargas moved to accept the agenda with no additions
 - 1.2.2 P. Smith Seconded the motion
 - 1.2.3 Motion passed unanimously

2.0 Public Comments

2.1 No Public comments

3.0 Approval of Minutes

- 3.1 Previous minutes were tabled
 - 3.1.1 K. Birdwell moved to table previous minutes
 - 3.1.2 J. Silvera seconded the motion
 - 3.1.3 Motion passed unanimously

4.0 Administrative Report

- 4.1 State of the Farm C. Cowden
 - 4.1.1 Preliminary garlic tonnage = 5 tons/acre, almond production appears to be lower than last year even with 4 acre-ft of leach water applied during water dormancy, pistachios appear to be similar to the rest of the region with a good amount of bunches but blanks appear to be an issue, 2016 cropping plan will include 22 acres of pistachios, 25 acres of almonds, 30 acres of fresh market garlic, 30 acres of processing tomatoes, 25 acres of student hay projects, 5 acre sugar beet trial

5.0 Old Business

5.1 Curriculum Process - Tim Ellsworth

- 5.1.1 Faculty communicate with advisory board regarding the future training needs for the Valley → Faculty gathers this information and compares to available C-ID courses if not available, use the DQP process to develop curriculum → this curriculum is brought to Ag area meeting to ensure it is supported by Labor Market data → curriculum, labor market data and C-ID is presented to the advisory committee for input and approval → this curriculum is submitted to the West Hills College Coalinga curriculum committee where content as well as rigor are assessed and approved → The curriculum is then forwarded to the Chief Instructional Officer to ensure it fits with the college mission and goals → Now curriculum is submitted to the West Hills College Board of Trustees for approval → Upon Board approval the curriculum is submitted to the Regional Vocational Curriculum Committee to ensure program does not negatively impact regional programs and to ensure it meets rigor → Upon approval the curriculum is submitted to the California Community College Chancellor's Office for approval
- 5.2.2 Because this process took over 1 year to be completed we are reviewing this curriculum packet

6.0 New Business

- 6.0 K. Vargas moved to treat 6.1 6.4 as one item
 - 6.0.1 J. Silvera seconded the motion
 - 6.0.2 Motion Passed unanimously
- 6.1 Irrigation Engineering Technology
- 6.2 Industrial Maintenance Technology
- 6.3 Integrated Pest Management
- 6.4 Welding Technology
- 6.1-4 Combined Curriculum
 - 6.1-4.1 R. Evans moved to approve the curriculum as submitted
 - 6.1-4.2 P. Smith seconded the motion
 - 6.1-4.3 Motion passed unanimously

7.0 Standing Reports

- **7.1 Precision Ag** The industry is contracting due to the corn prices in the Midwest. There is an increasing need for entry-level technicians who understand more about electronics and hydraulics. There is a push for more precision ag in water and sensor based agriculture.
- 7.2 PCA/CCA There is still a need for more PCAs and CCAs in the Valley and courses need to be taught so that working professionals can take them (i.e. weekends and evenings.) Continue to align curriculum so that it will allow students to path both the CCA and PCA credentialing.
- 7.3 Irrigation As a group, the advisory committee doesn't agree with the content that is being covered in the Irrigation Association's Certified Agricultural Irrigation Specialist exam, but it is still the industry standard and therefore be used as the structure for the curriculum, but California requirements need to be expressed and taught such as scientific irrigation scheduling during off-peak energy cycles.
- **7.4 Welding** There have been a lot of layoffs in the oil fields over the past 6 months, but there is still a need for structural and manufacturing welding. Therefore additional welding opportunities, other than in the oil fields, need to be stressed to students.

- **7.5 Heavy Equipment** Employment is still slow but with high speed rail coming on we will need to have our program up and going to fill this need. We probably should look at contract training, especially with technology.
- **7.6 IMT** Agriculture products manufacturing is still king in our region which means seasonality. We try to offer the sequenced courses for skill upgrade of current workers such that graduation happens during hiring phases.

8.0 Announcements

8.1 No announcements

9.0 Adjournment

9.1 K. Birdwell adjourned the meeting at 7:02

Adequate Resources & Compliance

Library and Learning Resources F	<u>rian</u>		
igtimesThe Learning Resources collection	has been reviewed by the faculty originator and the librarian.		
The following resources are currently	available for course support:		
Books			
Reference Materials			
⊠Media			
⊠Electronic Resources			
The following resources are recomm	ended for purchase to further support the course:		
⊠Books			
Reference Materials			
 Media			
Electronic Resources			
Additional Comments: A copy of the	e course texts for student use would be beneficial.		
Facilities and Fauinment Plan			
Facilities and Equipment Plan	Lecture classroom and science laboratory		
Room Space Requirements:			
Staff Requirements:	One FTE faculty for certificate		
Equipment Requirements: Equipment for startup of proposed certificate - \$40,000			

Financial Support Plan

One full-time faculty is paid through the general fund with additional courses taught by adjunct as grant funding allows.

Faculty Qualifications and Availability

Discipline: Agricultural Production or Agriculture Business and Related Services

Faculty Qualifications: Any Bachelor's degree and two years of professional experience or any Associate's degree and six years professional experience.

Faculty Availability:

Full-Time Faculty: 1 FTE Faculty

Adjunct Faculty: 3, 0.5 FTE Faculty

Based on model curriculum (if applicable)

All units are aligned with C-ID, as applicable, with a maximum of 16 units.

Licensing or Accreditation Standards

This curriculum is designed to align with the education requirements for the California Department of Pesticide Regulation's Certified Agricultural Pest Control Adviser certificate and Qualified Applicator's License.

Selection and Fees

No limitation on enrollment and no materials fee.

PROGRAM PROPOSAL PACKET

FACULTY ORIGINATOR: T. DATE: 4/6/2015	Ellsworth		
⊠New Program	Proposal Progr	am Revision Proposal	
PROGRAM NAME: Integra TYPE OF DEGREE:	nted Pest Management AA or AS Degree	⊠ Certificate	☐AA-T or AS-T
CHECKLIST: (check all tha \AA-T or AS-T A _CTE Addendur	ddendum		

1. Statement of Program Goals and Objectives

The stated goals of the program must include (but are not limited to) the preparation of students for one or more baccalaureate majors. Often the stated goals are the Program Student Learning Outcomes. If the degree is AA-T or AS-T the statement must also include language referencing the intent of the degree which is to provide students with a seamless transfer to the CSU.

The Integrated Pest Management program prepares students for an agriculture production career; learning the skills needed for the production and care of agricultural crops through hands-on, real-world experience. Completion of the certificate qualifies students to enter the professional job market or the units may be applied as university transfer or to fulfill the education requirement for the California Department of Pesticide Regulation's (CDPR) Agricultural Pest Control Adviser (PCA) license and the Society of Agronomy's Certified Crop Adviser (CCA).

Upon completion of the Integrated Pest Management certificate the student will be able to meet the following objectives:

- a. identify common weeds found in Central California and statewide;
- b. explain the methods of safely applying various herbicides;
- c. identify insects and closely related plant and animal pests and pest damage;
- d. explain the economic aspects of beneficial and harmful insects;
- e. select possible methods and timing of control in a given circumstance;
- f. understand the difference between California laws and DPR regulations;
- g. diagram and describe the parts of a pesticide label;
- h. understand the requirements to use a pesticide with a restricted label;
- i. identify and describe the various DPR pest control certifications and licenses;
- j. employ the principles and concepts of IPM in field crop environments;
- k. explain the mode of action of pesticides, pesticide absorption by the human body, and the importance of poisoning measurements;
- safely and properly mix, calibrate, apply, and dispose of different pesticide formulations utilizing different techniques and equipment.

2. Catalog Statement

This must be written exactly as it will appear in the college catalog. The statement must include the program's goals and objectives. The AA-T and AS-T degrees require specific language per Education Code

66746. CTE proposals must state employment options that will be available for the student upon degree completion.

The Integrated Pest Management program prepares students for an agriculture production career; learning the skills needed for the production and care of agricultural crops through hands-on, real-world experience. Completion of the certificate qualifies students to enter the professional job market or the units may be applied as university transfer or to fulfill the education requirement for the California Department of Pesticide Regulation's (CDPR) Agricultural Pest Control Adviser (PCA) license. This certificate program is for students interested in careers as Pest Control Advisers, Certified Crop Consultants, Qualified Applicator's or Agri-chemical sales representatives.

Program student learning outcomes:

- Students will demonstrate an understanding of common agricultural weeds in California and the methods to control them.
- Students will demonstrate an understanding of common agricultural insect pests in California and the methods to control them.
- Students will demonstrate an understanding of current California pest control laws and regulations.
- Students will demonstrate an understanding of integrated pest management and its application to California farming.
- Students will demonstrate an understanding of agronomic fundamentals (soils, crops).

3.	Program Course Requirements	(as it is to appear in the College Catalog)
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Course #	Title	Units
CRPSCI 32	Weeds and Poisonous Plants	3
CRPSCI 44	Economic Entomology	3
CRPSCI 45	California Pest Control Laws and Regulations	2
CRPSCI 46	Integrated Pest Management	
	Total	11

In addition to the core courses the student must take at least three units from Plant Science and four units from Agriculture Fundamentals:

Plant Science

Course #

Course #	Title	Units
CRPSCI 1	Introduction to Plant Science	3
CRPSCI 2	Plant Science Theory	3
	Tatal	3

Units

Agriculture Fundamentals

Title

AG 10Introduction to Agriculture	. 3
AG 11 Agriculture Sales and Communication	
AGBUS 15 Computer Application to Agriculture	
AET 10 Surveying	
AET 11 Advanced Surveying with GIS Applications	. 2
AET 15CAD for Agriculture	. 2
AET 16 CAD Applications for Land Management in Agriculture	, 1
AET 21 Ag-Irrigation Management	. 3
AET 22Irrigation Evaluation and Design Principles	. 4
CRPSCI 6 Introduction to Precision Agriculture	. 3
CRPSCI 7 Advanced Precision Agriculture	, 3

INSTRUCTIONAL AREA: CTE

	CRPSCI 19 California Water	3
	CRPSCI 36 Fertilizers and Soil Amendments	3
	SLSCI 21 Soils	4
	Total	4
	Total Units Required for Certificate1	.8
4.	Program Prerequisite, Corequisite, or Advisory Courses	7
5.	Program Prerequisite Skills and/or Knowledge	7

6. Background and Rationale

"The graying of America is on a collision course with the feeding of America. One of the key elements in California's ability to feed millions are the state's 4,100 licensed Pest Control Advisers." There is a severe shortage of qualified employees. Terry Stark, of the California Association of Pest Control Advisers, said a survey revealed that only 17% are 44 or younger while 35% are 45 to 55 and almost 40% of its members are over 55. "The opportunities for crop protection professionals over the next five to 10 years are endless," said Steve Alexander of Helena Chemical Company in Fresno, CA. ¹ Of the approximately 3,000 Pest Control Advisers who are members of CAPCA, about half are expected to retire in the next 10 years, says Terry Stark, CAPCA executive director. Currently the demand for employees possessing a PCA license far exceeds the supply. This creates the perfect gap for training students for a high skill, high wage career in agriculture."

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² http://www.thegrower.com/news/Recruitment-program-slows-loss-of-pest-control-advisers-132474563.html

PROGRAM PROPOSAL PACKET Career Technical Education Addendum

FACULTY ORIGINATOR: T. Ellsworth

DATE: 4/6/2015

PROGRAM NAME: Integrated Pest Management

TYPE O	F DEGREE:
	Associate of Arts for Transfer
	Associate of Science for Transfer
	Associate of Arts
	Associate of Science
	⊠Certificate

ATTACHMENTS REQUIRED

□ Labor/Job Market Data

Employer Survey

Minutes of Key Meetings

1. Labor Market Information and Analysis (required for new programs)

The following SOC codes were used for employment: Farmers, Ranchers, and Other Agricultural Managers (11-9013); Soil and Plant Scientists (19-1013); Conservation Scientists (19-1031); Agricultural and Food Science Technicians (19-4011); Pest Control Workers (37-2021); Pesticide Handlers, Sprayers, and Applicators, Vegetation (37-3012); Sales Representatives, Services, All Other (41-3099); First-Line Supervisors of Farming, Fishing, and Forestry Workers (45-1011); and Agricultural Inspectors (45-2011).

soc	Description	2013 Jobs	2016 Jobs	Chang e	% Chang e	Replacement s	Opening s	Annual Opening s
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45- 1011	First-Line Supervisors of Farming, Fishing,	4,814	4,937	123	3%	354	477	159

2011	Inspectors	780	785 Total		51.5		2,773	925
45-	Agricultural			5	1%	78	83	28
	and Forestry Workers	n ibmala						

2. Employer Survey (required for new programs)

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	Weighted Average		\$13.40	\$27,877.20	\$19.89	\$41,376.40

Data provided by Jenni Abbott, Technical Assistant Provider, Center of Excellence Labor Market Research

3. Explanation of Employer Relationship (required for new programs)

Employer data was created by the Center of Excellence for the CTE Enhancement Fund. Data used is for the Central Valley and Mother Load Regions.

4. List of Members of Advisory Committee (required for new and revised programs)

- K. Birdwell
- J. Silvera
- E. Pulido
- K. Vargas
- P. Smith
- R. Evans
- 5. Recommendations of Advisory Committee (required for new and revised programs)

Minutes

Date 8/11/15 Time 5:31 – 7:02 Location FB-03

Davison		sent
Person	Yes	No
Kerri Birdwell	х	
John Silvera	X	
Kurt Quade		Х
Chris Chaney	Х	
Eddie Pulido	X	
Katie Vargas	X	
Jamie Anthony		Х
Phil Smith	X	
Richard Evans	Х	
Clint Cowden	×	
Tim Ellsworth	X	
		-

1.0 Call to order

- 1.1 Call to order
 - 1.1.1 K. Birdwell called the meeting to order at 5:31 pm on August 11, 2015
- 1.2 No Additions to the Agenda
 - 1.2.1 K. Vargas moved to accept the agenda with no additions
 - 1.2.2 P. Smith Seconded the motion
 - 1.2.3 Motion passed unanimously

2.0 Public Comments

2.1 No Public comments

3.0 Approval of Minutes

- 3.1 Previous minutes were tabled
 - 3.1.1 K. Birdwell moved to table previous minutes
 - 3.1.2 J. Silvera seconded the motion
 - 3.1.3 Motion passed unanimously

4.0 Administrative Report

- 4.1 State of the Farm C. Cowden
 - 4.1.1 Preliminary garlic tonnage = 5 tons/acre, almond production appears to be lower than last year even with 4 acre-ft of leach water applied during water dormancy, pistachios appear to be similar to the rest of the region with a good amount of bunches but blanks appear to be an issue, 2016 cropping plan will include 22 acres of pistachios, 25 acres of almonds, 30 acres of fresh market garlic, 30 acres of processing tomatoes, 25 acres of student hay projects, 5 acre sugar beet trial

5.0 Old Business

- 5.1 Curriculum Process Tim Ellsworth
 - 5.1.1 Faculty communicate with advisory board regarding the future training needs for the Valley → Faculty gathers this information and compares to available C-ID courses if not available, use the DQP process to develop curriculum → this curriculum is brought to Ag area meeting to ensure it is supported by Labor Market data → curriculum, labor market data and C-ID is presented to the advisory committee for input and approval → this curriculum is submitted to the West Hills College Coalinga curriculum committee where content as well as rigor are assessed and approved → The curriculum is then forwarded to the Chief Instructional Officer to ensure it fits with the college mission and goals →

Now curriculum is submitted to the West Hills College Board of Trustees for approval → Upon Board approval the curriculum is submitted to the Regional Vocational Curriculum Committee to ensure program does not negatively impact regional programs and to ensure it meets rigor → Upon approval the curriculum is submitted to the California Community College Chancellor's Office for approval

5.2.2 Because this process took over 1 year to be completed we are reviewing this curriculum packet

6.0 New Business

- 6.0 K. Vargas moved to treat 6.1 6.4 as one item
 - 6.0.1 J. Silvera seconded the motion
 - 6.0.2 Motion Passed unanimously
- 6.1 Irrigation Engineering Technology
- 6.2 Industrial Maintenance Technology
- 6.3 Integrated Pest Management
- 6.4 Welding Technology
- **6.1-4** Combined Curriculum
 - 6.1-4.1 R. Evans moved to approve the curriculum as submitted
 - 6.1-4.2 P. Smith seconded the motion
 - 6.1-4.3 Motion passed unanimously

7.0 Standing Reports

- 7.1 Precision Ag The industry is contracting due to the corn prices in the Midwest. There is an increasing need for entry-level technicians who understand more about electronics and hydraulics. There is a push for more precision ag in water and sensor based agriculture.
- **7.2 PCA/CCA** There is still a need for more PCAs and CCAs in the Valley and courses need to be taught so that working professionals can take them (i.e. weekends and evenings.) Continue to align curriculum so that it will allow students to path both the CCA and PCA credentialing.
- 7.3 Irrigation As a group, the advisory committee doesn't agree with the content that is being covered in the Irrigation Association's Certified Agricultural Irrigation Specialist exam, but it is still the industry standard and therefore be used as the structure for the curriculum, but California requirements need to be expressed and taught such as scientific irrigation scheduling during off-peak energy cycles.
- **7.4 Welding** There have been a lot of layoffs in the oil fields over the past 6 months, but there is still a need for structural and manufacturing welding. Therefore additional welding opportunities, other than in the oil fields, need to be stressed to students.
- **7.5 Heavy Equipment** Employment is still slow but with high speed rail coming on we will need to have our program up and going to fill this need. We probably should look at contract training, especially with technology.

7.6 IMT – Agriculture products manufacturing is still king in our region which means seasonality. We try to offer the sequenced courses for skill upgrade of current workers such that graduation happens during hiring phases.

8.0 Announcements

8.1 No announcements

9.0 Adjournment

9.1 K. Birdwell adjourned the meeting at 7:02

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