

IMPERIAL VALLEY COLLEGE DISTRICT
REVIEW OF CAREER TECHNICAL EDUCATION TRAINING PROGRAMS
2013

AIR-CONDITIONING AND REFRIGERATION TECHNOLOGY

I. Program Description

The Air Conditioning and Refrigeration major and certificate are designed to provide instruction in manipulative skills, technical knowledge, and related trade information, which will prepare the student for employment in the Air Conditioning and Refrigeration industry.

A. Degree

Associate in Science, Air-Conditioning and Refrigeration Technology

B. Certificate

Certificated of Achievement, Air-Conditioning and Refrigeration Technology

II. Career Opportunities

Heating, Air Conditioning and Refrigeration Mechanics and Installers, sheet metal workers, electricians, plumbing and solar technicians.

III. Industry Certification/Accreditation (to be completed by faculty)

We would like to recognize these certification and accreditation organizations. Air conditioning contractors of America (ACCA)

Plumbing and Heating/cooling contractors of America(PHCC)

Refrigeration Service Engineers Society (RSES)

IV. Industry Recognized Credentials (IRC) (to be completed by faculty)

North American Technician Excellence(NATE)

V. Labor Market Demand

The Air-Conditioning and Refrigeration Technology program at Imperial Valley College meets a documented labor market demand. Employment trends for this field are derived from a variety of sources. These are listed below:

A. Employment Trends (Employment Development Department):

Occupation	TOP Code	SOC Code	2008	Average Job Openings per Year
Air-Conditioning and Refrigeration Technology	0946.00	499021	110	4*

*Same data as 2012. No updates from State Employment Development
Occupational Employment Projections 2008-2018
Imperial County

<http://www.labormarketinfo.edd.ca.gov/CommColleges/>

- B. Employment Trends (Faculty Assessment):** The bureau of labor statistics reports that the national unemployment rate is hovering at 7.6% but trade contracting, which includes the HVACR sector is slowly on the rise. Employment in specialty trade contracting has increased by 128,000 since September 2012 on an March report

issued by BLS. The BLS is estimating an approximate 34% increase for demand of mechanics and installers between 2010 and 2020, and while the HVAC industry employs many installers and mechanics, its job reach extends well beyond those two positions. The industry is growing, and demand for qualified people both in the field and in the office is breeding and emergence of diverse HVACR positions.

Source: (www.achrnews.com)

VI. Other Regional Programs

There are no other similar training programs in Imperial Valley.

VII. Employment and Completion

(Based on State Core Measures Report, 2011-2012, 2012-2013 & 2013-2014)

Core 2: Completions. Measures completions for Career Technical Education student concentrators. Receipt of a certificate or degree or enrollment in a California four-year public university with or without a degree is considered a completion.

Fiscal Year Planning	Program	Total Completions	IVC Completion Rate	State Avg Completion Rate
2013-2014	Air-Conditioning and Refrigeration Technology	16/23	69.57%	61.87%
2012-2013	Air-Conditioning and Refrigeration Technology	18/20	90%	54.24%
2011-2012	Air-Conditioning and Refrigeration Technology	10/14	71.43%	57.29%

PERKINS IV Program Performance Trend Report
Core Indicator Two – Total Completions – Certifications, Degrees and Transfer
https://misweb.cccco.edu/perkins/Core_Indicator_Reports/Summ_coreIndi_TOPCode.aspx

Core 3: Persistence and Transfer. The percent of Career Technical Education student concentrators (students who have successfully completed a minimum of 12 units of related Career Technical Education coursework) who persist in education at the community college level or transfer to a two or four-year institution.

Fiscal Year Planning	Program	Persistence	IVC Persistence Rate	State Avg. Persistence Rate
2013-2014	Air-Conditioning and Refrigeration Technology	27/38	71.05%	79.29%
2012-2013	Air-Conditioning and Refrigeration Technology	30/42	71.43%	78.28%
2011-2012	Air-Conditioning and Refrigeration Technology	22/28	78.57%	75.54%

PERKINS IV Program Performance Trend Report
Core Indicator Three – Persistence and Transfer
https://misweb.cccco.edu/perkins/Core_Indicator_Reports/Summ_coreIndi_TOPCode.aspx

Core 4: Student Placement. The percent of Career Technical Education students who have earnings the following year (as found in the unemployment insurance base wage file) or are in an apprenticeship program, or the military.

Fiscal Year Planning	Program	Placements	IVC Placement Rate	State Avg. Placement Rate
2013-2014	Air-Conditioning and Refrigeration Technology	22/22	100%	79.34%
2012-2013	Air-Conditioning and Refrigeration Technology	20/20	100%	74.75%
2011-2012	Air-Conditioning and Refrigeration Technology	13/13	100%	86.6%

Pursuant to the FCMAT report, CTE programs are also being evaluated for student demand, certificate and program completion, local labor demand, and a facility utilization for CTE programs in the new CTE building.

VIII. Enrollment Trends

Course	Year	Sections	Avg. Class	CAP	Fill Rate
ACR 101	2012-2013	3	17	20	85%
ACR 101	2011-2012	2	19	20	95%
ACR 101	2010-2011	4	22.5	20	112.5%

Course	Year	Sections	Avg. Class	CAP	Fill Rate
ACR 102	2012-2013	1	23	20	115%
ACR 102	2011-2012	2	22.5	20	112.5%
ACR 102	2010-2011	1	22	20	110%

Course	Year	Sections	Avg. Class	CAP	Fill Rate
ACR 103	2012-2013	1	16	20	80%
ACR 103	2011-2012	2	22	20	110%
ACR 103	2010-2011	1	17	20	85%

Course	Year	Sections	Avg. Class	CAP	Fill Rate
ACR 104	2012-2013	1	19	20	95%
ACR 104	2011-2012	2	15.5	20	77.5%
ACR 104	2010-2011	1	17	20	85%

Course	Year	Sections	Avg. Class	CAP	Fill Rate
ACR 105	2012-2013	2	14	20	70%
ACR 105	2011-2012	1	13	20	65%
ACR 105	2010-2011	2	14.5	20	72.5%

Course	Year	Sections	Avg. Class	CAP	Fill Rate
ACR 106	2012-2013	3	17	20	70%
ACR 106	2011-2012	1	13	20	65%
ACR 106	2010-2011	2	17.5	20	87.5%

IX. Completions

	2012-2013		2011-2012		2010-2011	
	Degrees	Certificates	Degrees	Certificates	Degrees	Certificates
Air Conditioning & Refrigeration	0	8	0	4	0	15

X. FTES/FTEF Analysis

Year	FTES	FTEF	FTES/FTEF
2012-2013	65.81	7.26	9.06
2011-2012	61.44	6.53	9.41
2010-2011	74.58	8.34	8.94

XI. Facility Utilization Plan (to be completed by faculty)

The new facility will allow for the program to expand its lab capabilities because there will be more opportunity to enhance the sheet metal classes and provide adequate instruction to the students in a well outfitted lab. The plan for the new facility is to offer day and evening courses and use it to provide industry meetings/trainings in the summer.

XII. SWOT Analysis (to be completed by faculty)

<i>Strengths The main strength of the program is the high demand for the courses from the community and from industry professionals that wish to enhance their skills. The completion rates and success rates of students is high and seems to be increasing on a yearly basis.</i>	<i>Weaknesses The main weakness was the current condition of the existing lab space which was inadequate for students both in space and safety.</i>
<i>Opportunities The program has many opportunities to grow and become more popular in the community once the program becomes accredited and certified by the corresponding institutions.</i>	<i>Threats The current threats to the program is the lack of funding to purchase consumables in order to teach the lab component of the classes. Lack of funding makes it extremely difficult for students to learn properly.</i>

XIII. Program Evaluation (to be completed by EWD office)

XIV. Recommendation (to be completed by EWD office)