

PROGRAM APPROVAL APPLICATION
NEW or SUBSTANTIAL CHANGE or LOCALLY APPROVED
(This application may not exceed 3 pages)

Fill In Form

Air Conditioning and Refrigeration Project Management

Certificate

Proposed Program Title

Fall 2017

Projected Program Start Date

Cypress College
 College

North Orange County Community College District
 District

Contact Information

Dr. Steve Donley
 Voting Member

Dean, Career Technical Education & Econ. Dev.
 Title

(714) 484-7233
 Phone Number

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 Email

Goal(s) of Program (Check all that apply):

- Career Technical Education (CTE) Transfer Other

Type of Program (Check all that apply):

- Certificate of Achievement 12-17 (or 17-27 quarter) units Certificate of Achievement 18+ semester (or 27+ quarter) units
 Associate of Science Degree Associate of Arts Degree

Reason for Approval Request (Check One):

- New Program Substantial Change Locally Approved

Program Information

0946.00 Recommended [Taxonomy of Program \(TOP\) Code](#)

_____ Units for Major-Degree

_____ Total Units for Degree

21 Required Units-Certificate

Written Form

1. Insert the description of the program as it will appear in the catalog. (See PCAH pp. 142 and 170)

Minor decisions can have a major impact to the success of a HVAC/R project. The Air Conditioning & Refrigeration Project Management Certificate examines industry specific technical management skills for quality project control. To earn this certificate, complete the required courses as listed with a minimum grade of "C". At least 50% of all major course work must be completed at Cypress College.

2. Provide a brief rationale for the program.

The Cypress College **Air Conditioning and Refrigeration Project Management Certificate** provides students with a career path for attaining the foundational skills, practical knowledge and hands-on technical training necessary

to successfully manage projects involving construction, maintenance, diagnosis and repair HVAC systems and installations.

3. Summarize the Labor Market Information (LMI) and employment outlook (including citation for the source of the data) for students exiting the program. (See PCAH pp. 85-88, 136, 147, 148, 165, 168, and 176)

The stated goals and objectives for this Certificate will fulfill the college’s mission and curriculum offerings. The beginning salary of an HVAC technician, Installation, Maintenance & Repair technician, and construction related project management specialists is approximately \$23.88 per hour according to the Bureau of Labor Statistics. Graduates are currently in very high demand, with more openings in the Orange and Los Angeles counties than Cypress can provide graduates. Annual job openings are estimated at 1,722 per year in Los Angeles and Orange counties, with Cypress graduates finding employment within and beyond these two counties. Source: Employment Development Department, Job Outlook for California Community College Educational Programs, <http://www.calmis.ca.gov>

4. List similar programs at other colleges in the Los Angeles and Orange County Region which may be adversely impacted. (There is space for 10 listings, if you need more, please contact laocrc@rscdd.edu)

College	Program	Who You Contacted	Outcome of Contact
Citrus College	AC/R Non-Credit	Dr. Jim Lancaster, jlancaster@citruscollege.edu	Supports
Coastline College	Building Codes Tech.	Dr. Nancy Jones, njones@coastline.edu	
El Camino College	AC/R and Env. Tech.	Virginia Rapp, vrapp@elcamino.edu	
Fullerton College	Construction Engr.	Doug Benoit, dbenoit@fullcoll.edu	Supports
LA Trade Tech	Construction Trades	Marcia Wilson, wilsonmr@lattc.edu Alex Davis, davisaa@lacitycollege.edu	
Long Beach CC	Construction Trades	Michelle Grimes-Hillman, mhillman@lbcc.edu	
Mt. SAC	HVAC	Jemma Blake-Judd, bjjudd@mtsac.edu	Supports
Orange Coast	HVAC	Lisa Knuppel, lknuppel@occ.cccd.edu	
Pasadena City	Construction Engr.	Rocco Cifone, rxcifone@pasadena.edu	Supports
Santa Ana College	HVAC	Bart Hoffman, Hoffman_bart@sac.edu	Supports

5. List all courses required for program completion, including core requirements, restricted electives and prerequisites. (There is space for 20 listings, if you need more, please contact laocrc@rscdd.edu). (See PCAH pp. 143 and 171)

Course Number	Course Title	Units
AC/R 100 C	Principles of Thermodynamics and Heat Transfer	3
AC/R 110 C	Air Conditioning I	3
AC/R 120 C	Piping Practice, Tools and Safety	2
AC/R 215 C	Codes and Estimating for HVACR	3
AC/R 260 C	Crew Leadership-Field Supervisor	2
AC/R 265 C	Project Management	3
AC/R 055 C	Technician Customer Relations	2
CIS 216 C	Microsoft Project	3

6. Include any other information you would like to share.

This program is being revised to include Lexus with Toyota