



# Program Approval Application

**College in Los Angeles and Orange County LAOCRC**

Cerritos College  
Citrus College  
Coastline Community College  
Cypress College  
East Los Angeles College  
El Camino College  
Fullerton College  
Glendale Community College  
Golden West College  
Irvine Valley College  
Long Beach City College  
Los Angeles City College  
Los Angeles Harbor College  
Los Angeles Mission College  
Los Angeles Pierce College  
Los Angeles Southwest College  
Los Angeles Trade-Technical College  
Los Angeles Valley College  
Mt. San Antonio College  
Orange Coast College  
Pasadena College  
Rio Hondo College  
Saddleback College  
Santa Ana College  
Santa Monica College  
Santiago Canyon College  
West Los Angeles College

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 Carl D. Perkins IV grant #13-150-003.  
 Steven Glycer, Chair  
 Dr. Lynn Shaw, Vice Chair

## PROGRAM APPROVAL APPLICATION

### Overview

The program approval process outlined by the California Community College Chancellor's Office requires that all requests to add new programs or certificates and/or to make substantial changes to any existing college's inventory of Career Technical Education (CTE) programs include a recommendation from the Regional Consortia. Instructions and the application form for the regional consortia recommendation are posted on our website at [laocrc.org](http://laocrc.org).

The process for obtaining a recommendation from the Regional Consortia is intended to inform and engage our region in creating programs for the Los Angeles and Orange County colleges, and to foster a spirit of collaboration and coordination that results in viable choices for Career Technical Education (CTE) courses/programs across the region.

The Los Angeles and Orange County Voting Members should submit **Requests for Program Approval** and **Notice of Intent (separate template available for Notice of Intent)** by the deadlines below:

### Deadlines for Program Approval and Notice of Intent Submissions

Voting Cycle	Application Deadline	Online Voting Window	LAOCRC Meeting
September 2014	September 2, 2014	September 9-16, 2014*	September 18, 2014
October 2014	October 7, 2014	October 14-21, 2014*	October 23, 2014 (at CCCAOE)
November 2014	November 4, 2014	November 11-18, 2014*	November 20, 2014
December 2014	December 2, 2014	December 9-16, 2014*	December 18, 2014
January 2015	December 30, 2014	January 6-13, 2015*	January 15, 2015
February 2015	February 3, 2015	February 10-17, 2015*	February 19, 2015
March 2015	March 10, 2015	March 17-24, 2015*	March 26, 2015 (at CCCAOE)
April 2015	March 31, 2015	April 7-14, 2015*	April 16, 2015
May 2015	May 5, 2015	May 12-19, 2015*	May 21, 2015
June 2015	June 2, 2015	June 9-16, 2015*	June 18, 2015

**\*The Online Voting Windows opens at 8:00 a.m. on the first Tuesday of the Online Voting Window cycle and close at 5:00 p.m. on the following Tuesday.**

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

**Fill In Form**

Cyber Security

Proposed Program Title

Cypress

College

North Orange County Community College

District

Fall 2016

Projected Program Start Date

Steven Donley

Voting Member

Dean

Title

714-484-7233

Phone Number

sdonley@cypresscollege.edu

E-mail Address

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

Career Technical Education (CTE)

Transfer

Other

**Type of Program (Check all that apply):**

A.S. Degree

A.A. Degree

Certificate of Achievement:

18+ semester (or 27+ quarter) units

12-18 semester (or 18-27 quarter) units

**Reason for Approval Request: (Check One)**

New Program

Substantial Change

Locally Approved

**Program Information**

Recommended Taxonomy of Program (TOP) Code **0708.10**

Units for Major-Degree **None**

Total Units for Degree **None**

Required Units-Certificate **12**

**Written Form**

1. Insert the description of the program as it will appear in the catalog.

This curriculum prepares students to recognize Cyber Security threats and implement procedures to protect computers, networks, programs and data from unintended or unauthorized access, change or destruction. It will also enhance students' chances to pursue a professional career in Cyber Security by preparing them for industry-recognized certificates such as SSCP, Security + and CCNA Security. To earn a certificate, complete the required courses as listed with a minimum grade of "C". At least 50% of all course work must be completed at Cypress College.

2. Provide a brief rationale for the program.

Cyber security breach can have major financial and legal consequences. The demand for highly skilled cyber security specialists is increasing due to the frequency and sophistication of cyber threats. This certificate prepares students to identify cyber security threats and implement procedures to protect cyber assets. The suggested courses enhance students' opportunities to pursue a professional career in cyber security by preparing students for industry-recognized certifications such as Cisco's CCNA Security (Cisco Certified Networking Associate), CompTIA's Security+ and ISC's SSCP (Systems Security Certified Practitioner). The curriculum utilizes the existing industry-standard networking equipment (Cypress Cisco Local Academy) and the advanced technology (NETLAB) providing 24/7 remote laboratory connectivity.

3. List all courses required for program completion, including core requirements, restricted electives and prerequisites. (Push Enter after each entry to begin a new line) **Take 4 of the following 5 courses:**

Courses	Course No.	Course Title	Units
Network Security	CIS 195 C	Network Security	3.0 3.0
Anti-Hacking Network Security	CIS 196 C	Anti-Hacking Network Security	3.0 3.0
Cisco Networking 1	CIS 230 C	Cisco Networking 1	3.0
CCNA Security	CIS 258 C	CCNA Security	
Computer Forensics Legal Aspects	CIS 279 C	Computer Forensics Legal Aspects	

4. Summarize the Labor Market Information and employment outlook (including citation of the source of the data) for students exiting the program.

A Cyber security professional may be hired under different job titles such as cyber security specialist, network security engineer, systems analyst, information security analyst, security administrator, network administrator and systems administrator.

**Information Security Analysts  
 (SOC Code : 15-1122)**

**in California**

Plan, implement, upgrade, or monitor security measures for the protection of computer networks and information. May ensure appropriate security controls are in place that will safeguard digital files and vital electronic infrastructure. May respond to computer security breaches and viruses. Excludes "Computer Network Architects" (15-1143).

### Information Security Analysts 2015 Wages

Geography	Median Hourly	Median Annually
California	\$51.27	\$106,629
Los Angeles County	\$48.61	\$101,113
Orange County	\$47.59	\$98,984

Information Security Analysts Estimated Employment and Projected Growth					
Geographic Area (Estimated Year-Projected Year)	Estimated Employment	Projected Employment	Numeric Change	Percent Change	Additional Openings Due to Net Replacements
California (2012-2022)	8,200	11,500	3,300	40.2	1,300
Los Angeles County (2012-2022)	2,170	2,170	.0	.0	340
Orange County (2012-2022)	460	660	200	43.5	70

Labor market statistics available in the State of California Employment Development Department (EDD) is based on specific occupational code (SOC) type. According to the job responsibilities defined by the Occupational Outlook Handbook (U.S. Department of labor, Bureau of Labor Statistics) and available SOCs, SOC code 15-1142 (Network and Computer Systems Administrator) is also suited for students completing the Cyber Security certificate.

Estimated employment and projected growth from 2010 to 2020 for Computer Systems Analysts in California and local counties (Los Angeles and Orange) are summarized below. The occupational outlook is promising and the expected local and state growth ranges between 22% and 27% with more than 49,000 jobs available state-wide positions by 2020.

Network and Computer Systems Administrators Estimated Employment and Projected Growth					
Geographic Area (Estimated Year-Projected Year)	Estimated Employment	Projected Employment	Numeric Change	Percent Change	Additional Openings Due to Net Replacements
California (2010-2020)	39,100	49,700	10,600	27.1	6,600
Los Angeles County (2010-2020)	9,490	11,580	2,090	22.0	1,600
Orange County (2010-2020)	4,070	5,020	950	23.3	690

**Network and Computer Systems Administrators -- 2013 Wages**

Geography	Median Hourly	Median Annually
California	\$39.61	\$82,399
Los Angeles County	\$37.45	\$77,895
Orange County	\$39.21	\$81,551

List similar programs at other colleges in the Los Angeles and Orange County Region which may be adversely impacted. (Push Enter after each entry to begin a new line)

College	Program	Who you Contacted	Outcome of Contact
Cerritos	Cyber Security	Nick Real	Contacted
Coastline	Network Security	Nancy Jones	Contacted
Coastline	Computer Networking with Security Concentration	Nancy Jones	Contacted
Long Beach City	Cyber Security	Ken Starkman	Contacted
LA Southwest	Homeland Security &	Rick Hodge	Contacted
	Computer Networking		
Mt. San Antonio	CIS Professional Certificate in Network Security	Jemma Blake-Judd	Contacted
Orange Coast	Network Security	Von Lawson	Contacted
Saddle Back	Information Security	Anthony Teng	Contacted
West LA	Network & Security Management	Mark Pracher	Contacted

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

Our Cyber security certificate is designed based on a strategy that best serves our student population who is mostly older adults taking handful of courses to change career and get a job or get promoted in their current IT position or just to expand their knowledge. Accordingly, we take students through 2 semesters of fundamental and specialized courses, prepare them for three different security related vendor certificates and increase their employment/advancement opportunities.

This certificate is designed in response to the shortage of Cyber Security professionals. As a result, we don't anticipate that approval of this certificate will negatively impact any other program or college within the geographical service area of Cypress College; instead, it merely formalizes a new low-unit certificate and will contribute to the existing degree and certificate program opportunities offered at Cypress College.