

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

Fill In Form

Cyber Security Master Certificate

Proposed Program Title

FULLERTON COLLEGE
College

FALL 2017

Projected Program Start Date

North Orange County Community College District
District

Contact Information

DR. DOUGLAS BENOIT
Voting Member

714-992-7033
Phone Number

Dean, Business and CIS Division
Title

dbenoit@fullcoll.edu
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

0702.00 Recommended [Taxonomy of Program \(TOP\) Code](#)
Units for Major-Degree
Total Units for Degree
40 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)

The Cyber Security Master Certificate (level three) is designed to prepare students who intend to pursue employment in cyber-security/forensics positions. The program provides a comprehensive knowledge and training in technical and managerial skills to analyze cyber security threats from a variety of perspectives at the enterprise and national levels. This certificate option requires completion of the Cyber Security Analyst Certificate and additionally provides advanced courses in programming and operating systems. This certificate requires 40 units of required courses. A minimum grade of C is required in each course taken.

2. Provide a brief rationale for the program.

This is the third level of three stacked certificates. Enhanced cyber-security programs were recommended by the advisory group, it is one of the fastest growing CTE programs and FC is part of a growing network of colleges working together to offer cyber-security programs. The courses from the level two certificate are required.

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)

		2014 Jobs	2017 Jobs	2014-17 Change	% Change 2014-17	Openings (New + Replacements)	Annual Openings	10% Hourly Earnings	Median Hourly Earnings
15-1122	Information Security Analysts	7,502	8,798	1,296	17.30%	1,694	565	\$29.87	\$49.61

The three-year average supply from regional colleges is 135 per year.

Regional annual openings for the SOC code listed is 117, but when combined with related SOC Codes the demand is 1280 approximately indicating a gap of 1145 hires.

Source: <http://coecc.net/supply-demand/> For Orange County

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	Cyber Security Cert	Jim Lancaster	No response.
Coastline Community College	Network Security Cert	Nancy Jones	No response.
Long Beach City College	Cyber Security Cert	Michelle Grimes-Hillman	No response.
Mt San Antonio College	Cyber Security Cert	Jemma Blake-Judd	No response.
Orange Coast College	Network Security Cert	Lisa Knuppel	No response.
Saddleback College	Information Security Cert	Anthony Teng	No response.
West Los Angeles College	Network and IS Security	Mark Pracher	No response.

- 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)**

Required Courses (18 units) from Level One (Technician)		Units
CIS 107 F	Introduction to Operating Systems	3
CIS 109 F	Personal Computer Security	2
CIS 160 F	Introduction to Cyber Security	3
CIS 180 F	Introduction to Networking Concepts	4
CIS 183 F	Network Security Fundamentals	3
CIS 222 F	Computer Scripting	3
Required Courses (12 units) from Level Two (Analyst)		Units
CIS 165 F	Cyber Security and Networking/Web	3
CIS 168 F	Cyber Security Software Tools	3
CIS 171 F	Ethical Hacking	3
CIS 290 F	Linux / UNIX Operating System	3
Required Courses (10 units)		Units
CIS 166 F	Cyber Security and Operating Systems	3
CIS 223 F	Programming in C++	3
CIS 226 F	Java Programming I	4
Total Units		40

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