

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

Fill In Form

Mobile Application Development Certificate
 Proposed Program Title

Fall 2017
 Projected Program Start Date

Cypress College
 College

North Orange Community College District
 District

Contact Information

Steve Donley
 Voting Member

Dean of CTE
 Title

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 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

070710 Recommended [Taxonomy of Program \(TOP\) Code](#)
 12 Units for Major-Degree
 12 Total Units for Degree
 12 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)

This program is designed to develop a working knowledge of what is required to be successful in creating Mobile Applications for business uses. The curriculum consists of Introductory to Programming, beginning Java and various Java related courses. 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.

The mobile app economy was worth \$53 billion in 2012, and the forecast for 2016 is that it will grow to \$143 billion. The figures vary slightly from researcher to researcher but the fact is that mobile is really big. Revenue is generated through in-app purchases, in-app ads, and big data accumulation. The most promising sections are

social networks, utility, advertising, and productivity.

With input from our CIS Advisory Committee and CIS Department’s research, we identify the need to extend our vocational programs to a broader base of knowledge and competency in the area of Mobile Application using Java programming. Java language is widely used in the mobile industry to develop the Android application. In addition, this Mobile Application Development Certificate helps in acquiring specific skills and tools to attain expertise and in-depth knowledge of web/mobile related programming and application. In order to prepare and/or improve students’ employability in the computer industry, knowing how to develop a mobile application clearly identifies the goals and objectivities in this fast growing area.

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)

According to the State of California Employment Development Department, Labor Market Information Division (<http://www.bls.gov>), students who complete the Mobile Application Development Certificate could be placed under the category of “Software Developers”. According to the Bureau of Labor Statistics (<http://www.labormarketinfo.edd.ca.gov/>), employment of Software Developer jobs are expected to increase in California by 29.4% from 2012 to 2022 (much faster than average). With more and more smart phones and tablets available in the market, demands for mobile app skills are increasing. In general, applicants with a college degree and certification will have the best opportunities.

Projections of Employment

In California, the number of Software Developers, Applications is expected to grow much faster than average growth rate for all occupations. Jobs for Software Developers, Applications are expected to increase by 29.4 percent, or 28,000 jobs between 2012 and 2022.

Estimated Employment and Projected Growth Software Developers, Applications					
Geographic Area (Estimated Year-Projected Year)	Estimated Employment	Projected Employment	Numeric Change	Percent Change	Additional Openings Due to Net Replacements
California (2012-2022)	95,100	123,100	28,000	29.4	12,200

An annual labor demand for Los Angeles and Orange Counties (the areas served by Cypress College) was derived by totaling the Net Replacements for these two counties and dividing by 10 (representing the 10-year period covered by the EDD projections for 2012-2022). In Los Angeles and Orange counties, the number is expected to grow during 2012 and 2022.

Mobile Application Developers Estimated Employment and Projected Growth					
Geographic Area (Estimated Year – Projected Year)	Estimated Employment	Projected Employed	Numeric Change	Percent Change	Additional Openings Due to Net Replacement

Los Angeles County (2012-2022)	15,620	18,800	3,180	20.4%	2,000
Orange County (2012-2022)	8,900	10,320	1,420	16%	1,140

These findings correlate well with those set forth in U.S. Department of Labor, Occupational Outlook Handbook. Job outlook are projected to grow by 29% from 2012 to 2022, about as fast as the average for all occupations.

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@sccollege.edu) Currently, no other colleges have offered Mobile Application Development Certificate. Majority of them offer the Web Design/Developer Certificates. As a result, we don't anticipate approval of this certificate will negatively impact any other programs or colleges within commuting distance of Cypress College. Furthermore, our distance education course offerings in this technology field have attracted students from the areas in which similar programs are not available at their local colleges and universities.

College	Program	Who You Contacted	Outcome of Contact
N/A			

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@sccollege.edu). (See PCAH pp. 143 and 171)

Courses	Course Number	Course Title	Units
CIS	211	Introduction to Programming	3
CIS	226	Java Programming	3
CIS	244	Java Game Programing	3
Or one of the following:			
CIS	252	Java Web and Mobil Application	3
CIS	254	Mobile Application Development	3

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