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

MOBILE APPLICATIONS

PROPOSED PROGRAM TITLE

PIERCE COLLEGE

COLLEGE

LACCD

DISTRICT          FALL 2014

PROJECTED PROGRAM START DATE

JILL CONNELLY

CONTACT PERSON

CHAIR

TITLE

818-710-4235

PHONE NUMBER

conneljp@piercecollege.edu

E-MAIL ADDRESS

**GOAL(S) OF PROGRAM (CHECK ALL THAT APPLY):**

XX CAREER TECHNICAL EDUCATION (CTE)          TRANSFER          OTHER

**TYPE OF PROGRAM (CHECK ALL THAT APPLY):**

XX A.A. DEGREE          A.S. DEGREE          CERTIFICATE OF ACHIEVEMENT:          XX  18+ semester (or 27+ quarter) units

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

**REASON FOR APPROVAL REQUEST: (CHECK ONE)**

NEW PROGRAM XX

SUBSTANTIAL CHANGE

LOCALLY APPROVED

| Recommended Taxonomy of Program (TOP) Code | |
|---|---|
| Units for Major-Degree | 60 |
| Total Units for Degree | 60 |
| Required Units-Certificate | 24 |

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

Mobile Apps Certificate of Achievement Certificate requirements must be completed with a grade point average of 2.0 (C) or better in each course.

2. Provide a brief rationale for the program.

Mobile Apps courses are taken by those planning careers in the creation, design and development of applications for all mobile devices. Students will learn the history of mobile media, the use of Adobe Illustrator and Photoshop, along with other software used by professionals for design and creation of interactive applications. The use of multimedia, graphics and game design is also explored in this multidisciplinary certificate.  Special emphasis is placed on the latest technology

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and changing trends in the market.

3. List all courses required for program completion, including core requirements, restricted electives and prerequisites.

| COURSES | Course No. | Course Title | Units |
|---|---|---|---|
| Cinema | 113 | History of Animation | 3 |
| Computer Science | 575 | Programming Fundamentals | 3 |
| Multimedia | 340 | Vector Graphics | 3 |
| Multimedia | 804 | Photoshop For Digital Video, Animation, Gaming, And New Media | 3 |
| Journalism | 260 | Media Design and Copy Writing | 3 |
| Multimedia | 807 | Interactive Media Design | 3 |
| Multimedia | 809 | Mobile Game Design | 3 |
| Multimedia | 810 | Mobile Design Studio II | 3 |
| Total Certificate Requirement | | | 24 |
| | | | |
| | | | |
| | | | |

## GENERAL EDUCATION - REQUIRED COURSES

Students must complete a minimum of 60 semester units for the AA Degree. A minimum of 37 degree and certificate major required courses and a minimum of 18 general education units with plan B. Students will have the flexibility to choose eight units from either electives or general studies to complete their degree. The students will also have the option to take additional programming classes if they choose. The college offers the following general education options:

| | |
|---|---|
| Plan A: General Studies General Education Plan | 30 units |
| Plan B: Pierce Career and Technical GE Plan | 18 units |
| Plan C: CSU GE Breadth Certification Plan | 39 units |
| Plan D: IGETC | 34-39 units |

4. Summarize the Labor Market outlook (including citation of the source of data) for students exiting the program. Two sources of reputable labor market information provide a favorable view of job opportunities, which includes Software Developer, Mobile Engineer, Mobile Software Architect, Web Application Developer, Graphic Designer, Software Engineer and Mobile Application Developer within Los Angeles County.

Source #1. (EDD.ca.gov) Data shows an increase of 68,000 new jobs occurring in California in a 10-year span from 2010-2020. Data from EDD indicates employees employed in these new jobs have potential to earn salaries ranging from $40.00-$62.00 hourly. Per the matrix below we can see that EDD projects an annual average of 6,800 jobs per year.

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## EDD Los Angeles County Employment Projections
## 2010-2020

| Positions | CA Employment Projections Range | CA Projected Job Openings(yr) | LA County job(yr est.) | Hourly Mean | |
|---|---|---|---|---|---|
| Software Developers | 88,700-113,300 | 3,380 | 464 | $50.86 | |
| Web Developers | 42,100-52,500 | 1,660 | * | $44.31 | |
| Graphic Designers | 37,300-43,300 | 1,760 | 591 | $27.83 | |
| | | | | | |
| | | | | | |
| Total: | | 6,800 openings/year avg. | >1,055 openings/yr avg. | | |

*Projections for this occupation in Los Angeles County are not available

Source #2. (bls.gov) BLS shows similar reports and employment demands within the fields of Software Developers/Applications, Software, Software Developers/Systems Software, Graphic Designers and Web Developers. The May 2012 Occupational Employment and Wages report shows national salaries range from $48,730-102,550 with annual openings in California of *6,800. The BLS does not break annual projections for the county of LA. However, we can see a congruency in the labor projections by EDD and BLS. With this information we can conclude with a high level of certainty that the labor market in Los Angeles County is favorable.
*Projections Central/EDD is a resource linked to the U.S. Department of Labor, Bureau of Labor Statistics.

Source #3. The Pierce College Labor Market Survey reached 126 employers which revealed favorable employment opportunities in mobile applications. These results of our labor market survey support and substantiate the data found in the California Employment Development Department and in the U.S. Department of Labor, Bureau of Labor Statistics. A summary of our labor market survey is provided on the last page of this application.

5. List similar programs at other colleges in the Los Angeles and Orange County Region, which may be adversely impacted. (complete the chart)

By offering a certificate that no other school in the LACCD offers, Pierce becomes a destination school for those students looking for a career in Mobile Apps in the area.

There are not many colleges and universities nearby that offer courses or certificates in Mobile Apps.

| College | Program | Who you contacted | Outcome of contact |
|---|---|---|---|
| Golden West College | Iphone Programming | Renah Wolzinger | No Conflict |
| NOCCCD Digital Media Center | Web Design & Mobile Media | Christie Campbell | No Conflict |
| Los Angeles Mission College | Web Design | Curtis Stage | No Conflict |

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6. Include other information you would like to share.

Pierce College had taught Mobile Apps as part of its Multimedia offerings in the Media Arts Department. Though still a relatively new field, new courses have been developed to prepare Pierce College students interested in the Mobile Apps field the comprehensive knowledge required for a career in the interactive applications and gaming software being created today. Our students often find work in social media and online/web development areas, along with the growing mobile apps and gaming fields. This certificate would also be of interest and value to students who have worked in other areas of multimedia, in particular web development

The School of Career & Technical Education conducted a labor market survey for employment projections for Mobile Applications and similar professions. The survey collected labor market data on Mobile App job opportunities under a variety of job titles including Software Developer, Web Application Developer, Graphic Designer, Software Engineer and Mobile App Developer. We contacted by email and phone a variety of businesses and organizations using or developing Mobile Applications as recommended by our advisory committee.

Out of the 126 employers contacted, 33 responded. In contacting various industry employers, they were asked questions relating to their employment opportunities and preferred skills, which they seek in potential employees. Survey examined employees hired during the previous six months and projected employment opportunities within the next 12 months. Data shows employers hired 18 over the past six months with annual salaries averaging $79,000-$95,000. Over the next 12 months employers are expecting to hire 67 new employees to include 6 interns, 23 part-time and 38 full-time. Based on survey responses, employers have hired in positions of Software Developer, Web Application Developer, Graphic Designer, Software Engineer and Mobile App Developer.

Cal Jobs (caljobs.ca.gov) listed more than 200 Los Angeles region and local area positions for Entry Level Mobile App Developer, Front End Developer, Graphic Designer, Web Developer, Mobile Applications and Software Developers beginning April 2014. Companies and organizations that are hiring include DIRECTV, Unisys Corp, Fox, Xerox Corp, eharmony, Crowe Horwath LLP, Madiba inc and Disney.

In March of 2012, the Centers of Excellence published an Environmental Scan in Mobile Media Occupations for California and the different regions in the State. The report indicates that Mobile Media is a "rapidly emerging field". It also indicates that this field has experienced a significant growth in the past several years as a result of the expanded usage of "smart phones, tablets, and other mobile devices and wireless internet capabilities". The labor opportunities in LA and in the State of California show compatible job employment opportunities to those of our Labor Market Survey and with the labor market prognostication of the two labor market sources noted above. Furthermore, this report establishes that there are entry level positions available for students holding AA degrees or Certificates. It further establishes that **"Community colleges have an essential role to play in preparing students to enter the workforce or transfer to four-year universities as well as in up-skilling the current workforce in mobile media. However, the number of relevant courses and certificates offer throughout the five regions studied are limited."** The proposed Pierce College degree and certificate is aimed at preparing students with a skill that is in dire need in the San Fernando Valley, in LA County and in our region.

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