

**Program Creation Sign-Off**

**Program Title:** Cloud Computing

**Program Units:** 18 units

**Division:** PSME

**Proposing Faculty name(s):** Mike Murphy

**Type of Program:** \_\_\_\_\_ Transfer or xx\_\_\_\_\_ Workforce

**Type of Award:**

- xx\_\_\_\_\_ Transcriptable certificate
- \_\_\_\_\_ Certificate of Achievement
- \_\_\_\_\_ AA/AS Degree

**Documentation checklists:**

Transfer documentation

- \_\_\_\_\_ Catalog Description
- \_\_\_\_\_ List of Courses
- \_\_\_\_\_ Articulation & transfer data
- \_\_\_\_\_ Identification of existing program(s) at CSU/UCs
- \_\_\_\_\_ Completer Projections
- \_\_\_\_\_ Identification of any additional resources needed to establish program (i.e. faculty, equipment, etc.)

Workforce documentation

- xx\_\_\_\_\_ Catalog Description
- xx\_\_\_\_\_ List of Courses
- xx\_\_\_\_\_ Completer Projections
- xx\_\_\_\_\_ Labor Market information
- xx\_\_\_\_\_ Identification of any similar program(s) in the area
- xx\_\_\_\_\_ Identification of any additional resources needed to establish program (i.e. faculty, equipment, etc.)

**Transfer/Workforce Work Group:** Recommended Not Recommended  
**Comments:**

Work Group Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Supervising Vice President:** Recommended Not Recommended  
**Comments:**

Vice President Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Planning & Resource Committee:** Recommended Not Recommended  
**Comments:**

PaRC Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Division Curriculum Committee:** Recommended Not Recommended  
**Comments:**

Division CC Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Foothill College  
Credit Program Narrative  
Certificate of Achievement: Cloud Computing

**Item 1. Program Goals and Objectives**

The goal of the Cloud Computing Certificate is to provide the industry standard skills to understand and develop applications for the cloud. Students learn a range of topics that cover the technical principals of the hardware and software requirements to run systems in the cloud including storage, database management, and software systems, while maintaining secure access.

Program Learning Outcome:

Upon completion of the program, students will be able to host a database and run queries using an interface from a commercial provider and run a file-server service using a provider of their choice.

**Item 2. Catalog Description**

The Cloud Computing Certificate is designed for people who are seeking employment with companies that use cloud computing. The program provides 18 units of instruction on the industry standard skills to understand and develop applications for the cloud. Students learn a range of topics that cover the technical principals of the hardware and software requirements to run systems in the cloud including storage, database management, and software systems, while maintaining secure access.

**Item 3. Program Requirements**

<b>Course Number</b>	<b>Title</b>	<b>Units</b>
CS 55A	Introduction to Cloud Computing in Amazon Web Services	4.5
CS 55B	Database Essentials in Amazon Web Services	4.5
CS 55C	Compute Engines in Amazon Web Services	4.5
CS 55D	Security in Amazon Web Services	4.5

**Proposed Sequence:**

Year 1, Fall = 4.5 units, CS 55A

Year 1, Winter = 4.5 units, CS 55B

Year 1, Spring = 9 units, CS 55C + 55D

**Total Units = 18 units**

**Item 4. Master Planning**

Foothill College offers programs and services that empower students to achieve goals as members of the workforce. There is currently a high demand for qualified individuals who are well-versed in cloud computing, which delivers vast data capacity to organizations of all shapes and sizes without requiring expensive on-site servers. It is considered one of the biggest growth arena in technology today. This certificate program will allow companies to hire individuals who are familiar with cloud storage, database management, security principles with web services applications.

**Item 5. Enrollment and Completer Projections**

Currently, there is a significant undersupply of cloud computing workers compared to the demand in the Bay Area region. The median hourly wage for jobs in cloud computing is slightly under \$60/hr. Due to the high demand and relatively high wages for cloud computing jobs, we foresee that the demand for the certificate will be at least twenty students per year. In addition, we expect to offer the courses as

hybrid/online split format, which will attract a number of students statewide. The other community college offering this certificate is Santa Monica Community College, which has had a huge burst of enrollment in the cloud computing courses.

**Item 6. Place of Program in Curriculum/Similar Programs**

Foothill College offers many different computer science courses, some of which are language-based, while others are in the enterprise networking arena. However, there is no other program similar to the Cloud Computing certificate at Foothill.

**Item 7. Similar Programs at Other Colleges in Service Area**

Currently, there are no other colleges that offer this program. There is discussion of other community colleges such as Canada Community College, creating such a program. The proposed program is based off the highly successful cloud computing certificate program offered at Santa Monica Community College. Other Bay Area colleges are looking to replicate Santa Monica's program.

**Additional Information Required for State Submission:**

**TOP Code:** \*0707.00

**Annual Completers:** 20 plus

**Net Annual Labor Demand:** See attached Labor Market Information report

**Faculty Workload:** 0.121 – 0.242 load/quarter

**New Faculty Positions:** None, courses will be taught from current FT/PT faculty

**New Equipment:** \$0

**New/Remodeled Facilities:** \$0

**Library Acquisitions:** \$0

**Gainful Employment:** Yes

**Program Review Date:** TBD

**Distance Education:** 50 – 99%

**ATTACH THE FOLLOWING:**

- 1. Labor Market Information and Analysis**
- 2. Advisory Committee Recommendation**
- 3. Regional Consortia Approval Meeting Minutes**