**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**

|  |  |  |
| --- | --- | --- |
| **Course Number** | **Title** | **Units** |
| 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**