MORENO VALLEY COLLEGE

Business and Information Technology Systems (BITS),
Health & Human Services Department,
and Public Services

Advisory Committee

November 4th, 2020

Minutes for Breakout Session – Business and Information Technology Systems (BITS)

Computer Information Systems (CIS) – Cyber Security / Computer Information Systems (CIS) - Programming

- Call to order: 4:20 PM
- Approval of Meeting Minutes – October 23, 2019
- Agenda/Updates:
  - Update on program offerings
  - Information technology Associate Degree to Transfer (ADT)- CSUSB
  - New programs and suggestions
  - Apprenticeship
  - Student E- portfolio
- News from Industry
- Industry Questions
- Wrap-up
- Adjournment

- Current Certificates:
  - Information Assurance Auditing: 18 units
  - IT Systems Support & Sales: 15 units
    - BUS-10 Introduction to Business
    - BUS-24 Business Communication
    - BUS-47 Applied Business and Management Ethics
    - CIS-1A Introduction to Computer Information Systems
    - CIS-25 Information and Communication Technology Essentials
  - IT Systems Specialist: 15 units
    - CIS-21 Introduction to Operating Systems
    - CIS-27 Information and Network Security
    - CIS-40A Computer Network Fundamentals
    - CIS-40C Installing, Configuring & Administering Microsoft Operating Systems

- CIS-40D Systems and Network Administration
  - Information Technology: 24 units
    - CIS-1A Introduction to Computer Information Systems
    - CIS/CSC-5 Programming Concepts and Methodology I:C++
    - CIS-25 Information and Communication Technology Essentials
    - CIS-40A Computer Network Fundamentals
    - Select 2 courses
      - CIS/CSC-2 Fundamentals of Systems Analysis
      - CIS/CSC-21 Introduction to Operating Systems
      - CIS-40B Routing and Switching Essentials
      - CIS-27 Information and Network Security
      - CIS-27A Computer Forensics Fundamentals
      - CIS 27B Introduction to Cybersecurity: Ethical Hacking
      - CIS-61 Introduction to Database Theory
      - BUS-24 Business Communications
    - Select 1 course
      - MAT-1A Calculus I
      - MAT-5 Calculus for Business and Life Science
      - MAT-12 Statistics
  - Cybersecurity Specialist: 15 units
    - CIS-27 Information and Network Security
    - CIS-30A Introduction to Python Programming
    - CIS-27A Computer Forensics Fundamentals
    - CIS-27B Introduction to Cybersecurity: Ethical Hacking
    - CIS-41A Principles of Cybersecurity Analysis
  - Cybersecurity Analyst: 18 units
    - CIS-27 Information and Network Security
    - CIS-27A Computer Forensics Fundamentals
    - CIS-30A Introduction to Python Programming
    - CIS-40D Systems and Network Administration
    - CIS-41A Principles of Cybersecurity Analysis
    - CIS-41D Advanced Security Concepts and Practices
  - Cybersecurity Healthcare Specialist: 18 units
    - CIS-8 Fundamentals: Information Systems Security Auditing
    - CIS-25 Information and Communication Technology Essentials
    - CIS-27 Information and Network Security
    - CIS-40D Systems and Network Administration
    - CIS-41A Principles of Cybersecurity Analysis
    - CIS-41B HealthCare Information Security & Privacy for Practitioner
  - Python Programming: 15 units
    - CIS-30A Introduction to Python Programming
    - CIS-30B Python Programming in Networking
    - CIS-30C Python Programming in Cybersecurity
    - CIS-30D Python Programming for Internet of Things
    - CIS-30E Advanced Python Programming
- Current Associate Degree to Transfer (ADT)- 60 units
  - Computer Application
  - Computer Programming
- Proposing: Cybersecurity ADT
  - Information Security ADT
    - Courses in Information Technology certificates
    - OR Courses in cybersecurity Analysts

- OR Cybersecurity Health Specialist Certificate AND General education courses
- New Program Recommendation:
  - Cloud Administration: 19 units
    - Existing courses:
      - CIS-25 Information and Communication Technology Essentials
      - CIS-27 Information and Network Security
      - CIS-40A Computer Network Fundamentals
      - BUS-77A Introduction to Project Management
    - New courses:
      - Introduction to Cloud (CompTIA Cloud+)
      - Cloud Administration I (MS Azure Storage and Implementation)
      - Cloud Administration II (Azure Deployment and Management)
      - Cloud Administration III (Virtual networks)
  - IoT Administration:
    - Implement existing courses and include new courses.
  - Data Analytics/Data Science:
    - Math and CIS program.
- Apprenticeship Registered:
  - IT Support
  - Cybersecurity Specialist
- Student E- Portfolio
  - Pilot options in Fall 2020 –Spring 2021
    - Google Sites
    - Office 365 OneNote Notebook
    - Canvas E-portfolio
  - Full implementation:
    - Fall 2021
- Discussion and Feedback: certifications and apprenticeship
- Adjournment: 5:46PM

Break Out Session Name: Computer Information Systems (CIS) – Programming & Computer Information Systems (CIS) Cyber Security	
Date: October 23, 2019	**Industry Contacts**
Name & Position Kasey Nguyen, CIS Professor	Name & Position Jahi Garner, Instructor, Palm Middle School
Name & Position Gail Caros , Integration Partners	Name & Position Susanne Mata, Regional Director, Employer Engagement ICT & Digital Media Inland Empire/Desert Region
Name & Position Donna Woods, Cyber Pathway Instructor	Name & Position
Advisory Questions for Industry	

What is your recommendation for cloud education platform: AWS, Microsoft, Google, combination of the listed products or others?
-Look at programs already implemented at other schools.
-Microsoft is a must
-securing the cloud very important
Donna: Microsoft, Azure, Security/Cloud Based

What is your recommendation for iOS programming curriculum?

-SharePoint

-tool kits available but still need to know Java etc.

-a lot of python based but improving

How do foresee employment in the areas of cloud, iOS development, web app development, IOT administration and cybersecurity? Explain
-There are opportunities developing now in the area (CSU San Bernardino)
-iOS development highly in demand in the next six years like app testing (thinking of creating a certificate for this)
-iOS many in San Diego and Orange County
-There are many jobs in general in larger coastal cities (LA, Orange County, San Diego)
-Logistic area jobs in this area (more in the engineering department)
-Donna: 200% jobs in demand, framework, swift 4 or higher

What type of skills do you need for cloud, iOS development, web app development, IOT administration and cybersecurity programs?
-organization and leadership are important
-logistics for this area
-Swift language
-Python language
- Donna: IOT, Cloud security, app testing, SharePoint, Java knowledge for android development

What type of tools or resources do you recommend for cloud, iOS development, web app development, IOT administration and cybersecurity programs?
-Python application
-Donna: IOT, smart device, managing/configuring/implement

How do you foresee employment in the areas Augmented Reality (AR) development, Mechatronics: automation, AI, robotics? Should MVC implement these programs for employment needs? Explain.
-contacting the engineering department because there are opportunities for data and logistics
-see this becoming more important as the technology gets better
- Donna: logistics, troubleshoot systems

What type of technical subjects, skills or training should be implemented at MVC? Explain.
-IT
-transition for students who are moving from the classroom to the office
-Donna: higher level cybersecurity pathway as written and pending

What type of industry certifications do you recommend to the students in Computer Science, Cybersecurity, Programming, System Administration programs?
-look into programs at Chaffey College
-Donna: Security, A+, Network +

What type of internship, externship or experience-based projects should students pursue in the areas of Computer Science, Cybersecurity, Programming, System Administration?
Many students can take advantage of internship opportunities available at events and competitions they attend.
-Bourne Engineering
-opportunities at the county
-competitions
-Donna: Database security, security planning, network security, action plan (recovery)

What foundational/technical skills are necessary for entry-level positons within your industry?

To have some experience in web development, technology related jobs, or volunteering services