Ohlone College
Program Review Report

- **Program Description and Scope:**
  - *Program Review Title:* Computers, Networks, and Emerging Technology
  - *Academic year:* 2014/2015
  - *Review Type:* Instructional Disciplines
  - *Program/Departments:* Computer Networks Emerging Technologies (07081)
  - *Authority Code:* 53-Dean, Business, Technology, and Learning Resources
  - *External Regulations:* Yes X  No
  - *Describe:* Industry Academy contracts with Microsoft, Cisco, Oracle, CompTIA, and VMWare

  - *Provide a brief narrative that describes the instructional program/discipline:*

    Ohlone's Computers, Networks, and Emerging Technology A.S. Degrees and Certificates prepare students for employment in the field of Information and Communication Technologies (ICT) as database administrator, systems administrator, support specialist, network technician, computer engineer, web developer, or related positions. Students may also prepare for a variety of certifications, such as Cisco Certified Network Associate (CCNA), Cisco Certified Network Professional (CCNP), CompTIA A+, Network+, and Linux+, Microsoft Certified IT Professional (MCITP), Oracle Certified Professional (OCP), and VMWare Certified Professional (VCP). Citrix, and Linux Professional Institute (LPI).

- **College Mission:**
  - *Mission Statement:* The mission of Ohlone College is to serve the community by offering instruction for basic skills, career entry, university transfer, economic development, and personal enrichment for all who can benefit from our instruction in an environment where student learning success is highly valued, supported and continually assessed.
  - *Program Relation to College Mission:* 
    - Career Entry (CTE)
    - Economic Development
  - *State Your Program Mission/Purpose:* 

    The Computers, Networks, and Emerging Technology (CNET) program mission is to provide career-entry training, education and economic development.
Briefly Describe Program Accomplishments:

Summer 2014:

- Successfully achieved A-G designation for an Introduction to Network Engineering (CCNA1/2 v.5.0) year-long elective credit high school course.
- Expanded Offering of the Recently Designated A-G Internet Engineering I (CCNA-1) Course.
- Successfully trained deaf studies faculty to expand the program in order to include deaf students (Funded and supported DeafTEC: Technological Education Center, Cisco Network Academy Program, and Internships for Deaf Students)
- Selected by ICT Deputy Sector Navigator group to showcase Netlab collaboration program at Newark Center
- Planning to offer CNET-101 at Robertson High continuation school to enhance career pathways to the students
- CNET is Western Academy Support and Training Center (WASTC) for Cisco Academies in California, Arizona and Nevada
- Completed production of promotional/informational video for the CNET program sponsored by a grant. URL to find video will be forthcoming from Micro Docs company.

Achievement and Resource Data Analysis:

1. Research Questions:

   1. FTES has declined over the past three years, dramatically so in 2014SP. This has also resulted in a significant drop in WSCH/FTEF since faculty load has remained fairly constant. To what would you attribute this? How do we address this to increase WSCH/FTEF?
   2. Success rates are now above the college-set minimum standard, but only this once in three years. Are you doing anything proactively to reduce withdrawals and increase success rates?
   3. Hispanics were disproportionately impacted with a 52% success rate in 2013-2014. Their withdrawal rate was almost 30%. Does something need to be done to address this, or was 2013-2014 an anomaly?
   4. CNET is notably an older, male department. What can be done to attract more younger and female students?

Resource Assessment Summary:

1. Academic Year: 2014-15
2. Activity Center Fund 10 Budget Allocation: $355,800.00
3. **FTES**: Fall: 85 Spring: 64 Summer: 0
4. **WSCH/FTEF**: Fall: 520 Spring: 462 Summer: 0
5. **Course Sections Offered**: Fall: 38 Spring: 37 Summer: 0
6. **Sections Taught FT Faculty**: Fall: 16 Spring: 15 Summer: 0
7. **Sections Taught PT Faculty**: Fall: 22 Spring: 22 Summer: 0

- **Human Resources**:
  1. # of FT Faculty: 2
  2. # of PT Faculty: 12
  3. # of Classified Staff: 0
  4. # of Administrators: 1
  5. % Faculty release/reassigned time: 0%
  6. **Technology**:
      - Specialized Software
      - Simulation
      - Technology Enhanced Instructional Equipment
      - Laptops
      - Desktops
  7. **Physical Resources**:
      - General Classrooms
      - Specialized Labs
      - Tutoring/Learning Center

- **Program Analysis PSLOs - Student Learning**:
  (Key: I-Introduced, P-Practiced with Feedback, M-Demonstrated at the Mastery Level)

  1. **PSLO Matrix**:

<pre><code>  | Course     | PSLO-1 | PSLO-2 | PSLO-3 | PSLO-4 |
  |------------|--------|--------|--------|--------|
  | CNET 105   | M      | M      | P      |        |
  | CNET 107   |        | P      | M      |        |
  | CNET 108   |        | P      |        |        |
  | CNET 114   |        | P      |        |        |
  | CNET 120   | M      | I      | I      |        |
  | CNET 122A  | P      | P      | P      |        |
  | CNET 122B  | P      | P      | P      |        |
  | CNET 132   |        | P      |        |        |
  | CNET 133   |        | P      |        |        |
  | CNET 135   | I      | I      | P      |        |
  | CNET 136   | P      | P      | P      |        |
  | CNET 137   | P      | P      | P      |        |
  | CNET 138   | M      | M      | P      |        |
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2. *Please Indicate the PSLO(s) which you are reporting on:*
   - Demonstrate techniques to troubleshoot situations that impact the operation of a computer (client or server); stand-alone or network application; and/or networking system.
   - Demonstrate confidence to work independently to setup, configure, and maintain: a computer (client or server); stand-alone or network application; and/or networking system.

3. *Analyze and summarize your assessment findings â?? What in the data jumped out?*

   Student success rate (69.1%) is below the Benchmark Target rate of 73%.
see attached file titled Answeres to Research Questions

4. **Give examples of assessments used for your PSLO analysis:**

Comprehensive Final Exams and Final Skills-based Assessment (hands-on practicums) in the capstone courses.

5. **Describe input from Program Advisory Committee (if applicable):**

**Business Industry Leadership Team Dinner**
**Wednesday, October 29, 2014**

**Industry Trends** – information gathering about what skills would be necessary in the future workforce:
- Linux/ Unix
- Programming/Scripting Python Perl, Ruby
- Back end, Virtual desktop
- Python, Shell Scripting
- Troubleshooting skills – understanding how technologies work
- Math – Calculus - 1 semester minimum, physics
- Java, Power Shell, Objective C
- Network/Cyber security
- Cloud/Virtualization
- Networking
- Open source/open stack
- Clustering – scale out – 100-1000 nodes, HA
- Storage
- Software defined networks/data centers
- Large applications (Oracle, SalesForce, SAP...)
- Project Management

6. **Comments:**

The SLO Matrix and accompanying choices of levels (I-Introduced, P-Practiced with Feedback, M-Demonstrated at the Mastery Level) works well for the CNET program's first three SLOs. There are CNET courses that do each of the following: introduce, allow for practice, and provide for mastery. Many of our individual certificates of accomplishment include courses which help to prepare students for all three levels. All of our courses allow for AS degree seeking students to practice their oral and written communication. For program SLO 4 (Students in the CNET program will demonstrate appreciation of the Information and Communication Technology (ICT) career field and the need to be lifelong learners) the matrix levels do not really fit.
Our program adapts and reflects the changes that occur in the industry. Information and Communication Technology (ICT) changes frequently. Industry certifications (of which nearly all CNET courses/programs serve as preparation for these certifications) are most typically good for only three years. Certificate holders must renew their certification by retesting. Many of our CNET courses/programs are updated on this three year cycle in order to stay current with industry certification. Former students who are working in the field must review, learn new technologies, and re-certify to keep up and to remain current. Coming back to school at Ohlone and repeating updated CNET courses is one way to accomplish that. Re-training, re-skilling, and re-certifying are hampered by rigid policies with regard to changes in course repeatability.

- **Program Improvement Objectives**

  1. *Based on the program data analysis and PSLO analysis, identify your Program Improvement Objective(s): What are you going to do? Why are you going to do it?*

     Identify and hire tutors for various CNET technology courses.

     *Program PIO will address the following:*

     - Student Learning
     - Course Retention
     - Course Completion
     - Persistence
     - Success Rates
     - Increase Program Enrollments
     - Increase Degrees/Certifications

     *How will you assess the effectiveness of your PIO:*

     Look at overall CNET student success rates, course retention, and course completion.

  2. *Based on the program data analysis and PSLO analysis, identify your Program Improvement Objective(s): What are you going to do? Why are you going to do it?*

     Develop AS Degree in Information Technology that aligns to the C-ID Model
Curriculum

Program PIO will address the following:

- Increase Program Enrollments
- Increase Degrees/Certifications

How will you assess the effectiveness of your PIO:

Looking at enrollment and completer data.

3. Based on the program data analysis and PSLO analysis, identify your Program Improvement Objective(s): What are you going to do? Why are you going to do it?

Offer additional Certificates of Accomplishment in Cybersecurity, Oracle Database Operations, and Virtualization and Storage Administration

Program PIO will address the following:

- Increase Program Enrollments
- Increase Degrees/Certifications

How will you assess the effectiveness of your PIO:

Looking at enrollment and completer data.

- PIO Action Plan

1. How will you accomplish this?

Identify tutoring candidates and hire them for the Spring 2015 term. Areas of specific tutoring needs: PERL programming, networking, virtualization, Oracle DBA and Developer courses, UNIX/Linux system admin, and Microsoft system admin courses.

What is your timeline?

Have tutors available to work during open lab hours starting in the Spring 2015
term.

Who is going to do this?

Full- and part-time CNET faculty

PIO Resources:

PIO Status:

- New 12/30/1899
- In-Progress 12/30/1899

Closing the loop - Describe the results of your PIO implementation or completion:

Conclusion: Complete if PIO has been completed

2. How will you accomplish this?

Develop the AS Degree and Certificate of Achievement. Guide them through the Curriculum approval process.

What is your timeline?

Approval achieved in time for the Fall 2015 semester.

Who is going to do this?

Full-time faculty

PIO Resources:

PIO Status:

- New 12/30/1899
- In-Progress 12/30/1899

Closing the loop - Describe the results of your PIO implementation or completion:
Conclusion: Complete if PIO has been completed

3. How will you accomplish this?

Develop the certificates and guide them through the Curriculum approval process.

What is your timeline?

Students can take courses towards the certificates starting in the Spring 2015 semester. The certificate will be officially available starting in the Fall 2015 semester.

Who is going to do this?

Full time faculty.

PIO Resources:

PIO Status:

- In-Progress 12/30/1899

Closing the loop - Describe the results of your PIO implementation or completion:

Conclusion: Complete if PIO has been completed

- Fiscal Resources Status:
  - Not Funded as of 10/30/2014
  - No Fiscal Resources were needed
  - Not Funded as of 10/30/2014
  - No Fiscal Resources were needed
  - No Fiscal Resources were needed

Attached Files:

- MASTERCNET2013-14-4LS.docx
- Answers to Research Questions.docx
- CNET_Program_Review_Worksheet.pdf